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The ICE CREAM REVIEW

Volume Five—Number One MILWAUKEE, WISCONSIN—AUGUST, 1921 Two Dollars a Year

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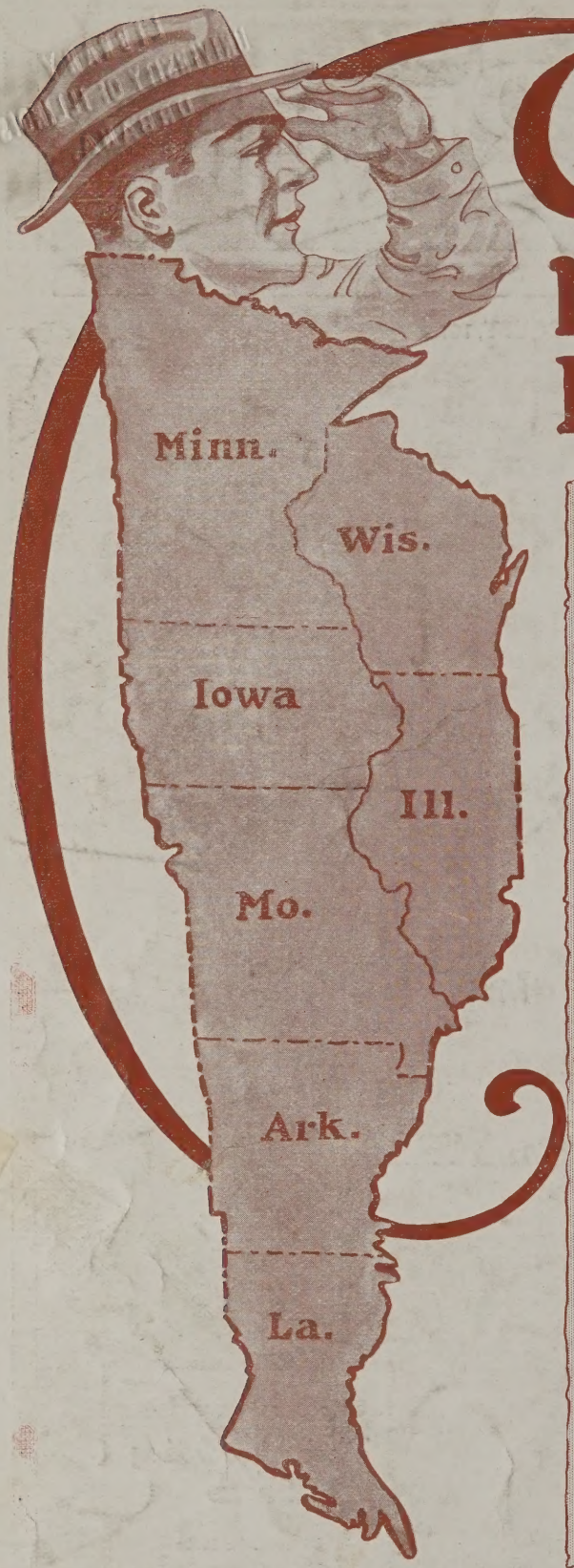
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Minnesota State Fair Grounds

OCT. 8th to 15th

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As "Prairie Citizens" therefore, we extend fraternal greetings to the milk-using industries of States further East, further West and further South, and urge every man who wishes to see the highest development of the mechanics and methods of his business, to come to the National Dairy Show, and bring his customers and friends.

Tell your friends and neighbors **you are going** to the world's greatest Dairy Show, Minnesota State Fair Grounds, St. Paul, October 8 to 15.

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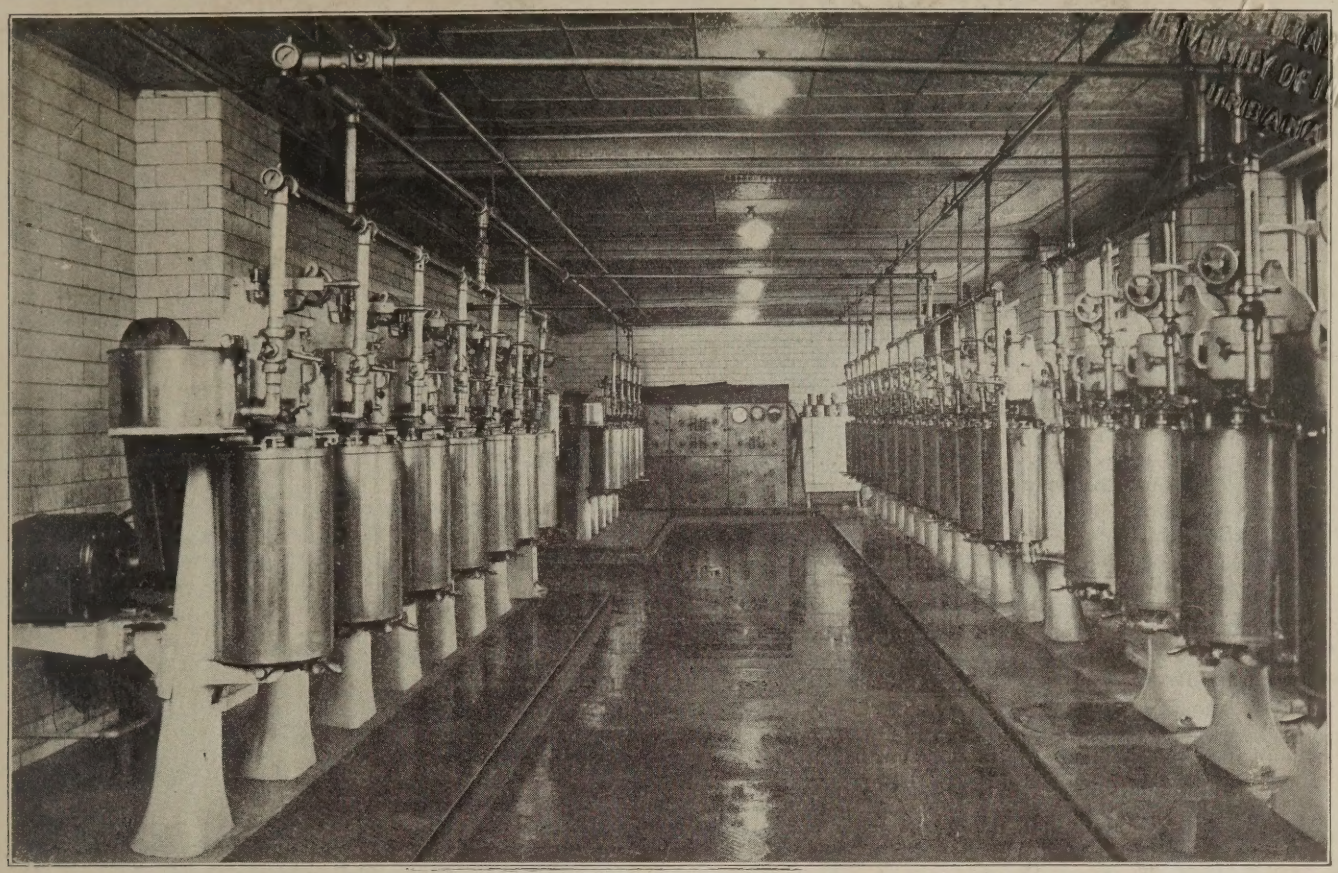
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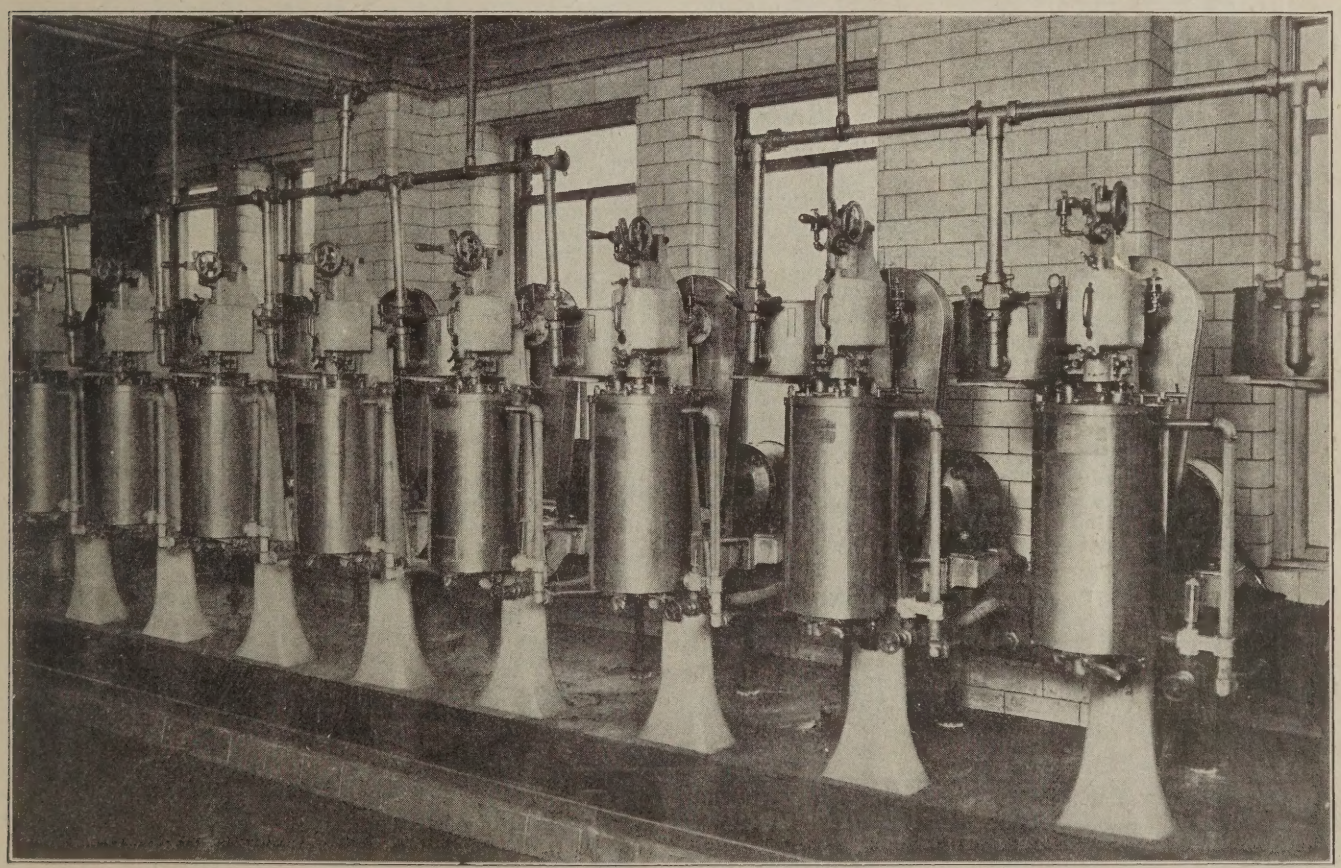
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October 10, 11 and 12, 1921

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The
ICE CREAM REVIEW

PUBLISHED THE FIFTEENTH OF EACH MONTH BY

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H. P. OLSEN, President and Manager
E. K. SLATER, Secretary and Editor

Also Publishers of

"The Milk Dealer", "The Butter, Cheese & Egg Journal" and "The Milk Producer"

210 SYCAMORE STREET - - MILWAUKEE, WISCONSIN

We claim no responsibility for the views or opinions expressed by contributors, nor for news sent us for publication.

Entered as second-class matter September 25th, 1917, at the Post Office at Milwaukee, Wis., under the act of March 3rd, 1879.

Subscription in the United States.....$2.00 per annum in advance
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OFFICIAL ORGAN

Ice Cream Division Indiana Mfgs. of Dairy Products
Oklahoma Association of Ice Cream Manufacturers
Wisconsin Association of Ice Cream Manufacturers
Michigan Association of Ice Cream Manufacturers
Nebraska Association of Ice Cream Manufacturers
Southern Association of Ice Cream Manufacturers
Kansas Association of Ice Cream Manufacturers
Louisiana Ass'n of Ice Cream Manufacturers
Iowa Association of Ice Cream Manufacturers
Texas Ice Cream Manufacturers Association
Arkansas Ice Cream Manufacturers Ass'n
Poodle Dog Association of Iowa
National Order of White Caps
The Nebraska Cornhuskers
Indiana Hoosier Wild Cats
Wisconsin Badger Flyers
Michigan Dairy Boosters
Oklahoma Wolfhounds
Kansas Jack Rabbits
Missouri Mules
Dixie Flyers

AUGUST 1921

SPECIAL attention is called to the several articles in this issue of The Ice Cream Review concerning flavors, extracts and gelatines. We feel that these ingredients of The National Dish are of sufficient imimportance to merit special attention, hence this issue is devoted especially to them. Possibly no phase of ice cream making has been improved upon more during the past few years than that dealing with flavors, extracts, and gelatines.

It is but a comparatively short time since ice cream manufacturers were handicapped by poor materials and lack of knowledge about using them. What was once accomplished by guess is now accomplished by definite rules, and of course uniformity of product is only possible when definite rules are followed. Pure, improved flavors and extracts have made it possible for the ice cream manufacturer to put out a uniform product, and they have also made it possible for him to add the variety necessary for heavy consumption. The improvement in gelatines has been no less marked. Besides improving their product the manufacturers have spent large sums of money educating the public relative to the use of gelatine. They have helped materially to stabilize and popularize the ice cream industry.

WE WISH that every reader might have the opportunity to read and analyze the various business messages that cross the editor's desk, some on the way to the waste basket but never until we know, at least, the burden of their story. The man who is looking for the hole in the doughnut can find plenty to appease his pessimistic appetite, but the man who is looking at the doughnut can get abundant evidence that the present depression in business will be shortened to the extent that business men take hold and shorten it. Thomas Edison is quoted as having said the following one day recently:

> "I have been through five depressions during my business life. They all act alike. This latest one acts exactly like all the rest. The men, who if business fell off 66 per cent increased their selling effort 75 per cent managed to pull through as if there was no depression, and the efforts of such men tend to shorten the periods of depression."

The preponderance of evidence coming to us is in favor of the optimist's view. Business men who, a few weeks ago, felt that they were in for a protracted depression are taking a new grip and are helping to shorten the depression period. It's good business for them to do so. It will probably be a long time before conditions are as favorable for the average business man as they were two years ago, but no sensible person is looking for their return. We are now paying the penalty of enjoying them when we did. It is possible, however, for good, sound business conditions to prevail very soon. The "buyer's strike" can't continue much longer. The business man who sells him when he starts buying will be the man who has kept pounding away, not the man who gave up when conditions were against him.

Don't let anybody tell you that business is poor without assuring him that business is good with you. Business is good and will be better for the man who makes it good. It just takes more hard work and hard pushing now, that's all.

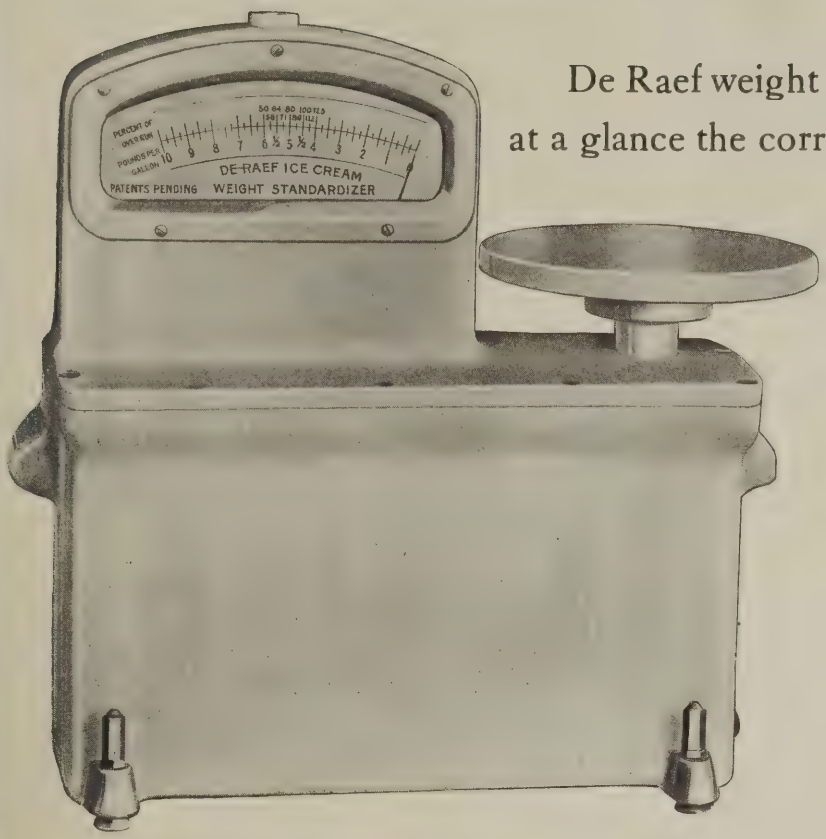


ANNOUNCEMENT is made by the secretary of the Indiana Manufacturers of Dairy Products that his Association has pledged itself to pay $1,000 to the fund being being raised to hold the World's Dairy Congress in this country next year. He also congratulates the members on the fact that their Association is the first in the country to take such action.

We want to add our congratulations. They have taken an advanced step in association activities, and it is to be hoped that their example will lead many others to follow. Dean Van Norman needs the encouragement of the various dairy organizations quite as much as he needs the help of individuals. If the affair is to be truly representative of world dairying the entire strength of the industry in this country must be utilized in putting it over. We believe that "the Dean" can do it.

Standardization of Ice Cream

By Weight Per Unit Volume



De Raef weight standardizer tells you at a glance the correct weight per gallon, and the correct over-run per gallon of ice cream, while the ice cream is still in the freezer, giving the ice cream maker full control of a set weight per gallon as well as a given over-run.

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De Raef Ice Cream Weight Standardizer circular sent on application to the Ice Cream Department



N. A. KENNEDY SUPPLY COMPANY

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ON ANOTHER page in this issue will be found an announcement by the management of the National Dairy Association regarding membership in that organization. Heretofore only life memberships have been available, but now associate memberships are offered, such memberships being good for one year and carrying with them the same "say so" in the affairs of the association as the life memberships.

The National Dairy Show is the biggest event in the dairy world. It undoubtedly is more representative of all the many branches of the industry than any other organization in the country. The man who, because of his membership, is connected with this great enterprise can rightfully feel that he is shoulder to shoulder with the big men in the industry. This should in itself be well worth the cost of an associate membership to any man who earns his livelihood in the dairy business.

Then, too, he has further compensation. He can feel that he is rendering a distinct service to the industry. He can feel that he is loyal to the demand which comes to every man who is profiting from the benefits derived by the entire industry through the development of the National Dairy Show. He can rest content in a duty performed.

You can make no better investment than to join hands in this big work. If you are not a life member of the National Dairy Association become an associate member.



SOME men stay away from conventions because they can read the reports in the dairy press. At least that is the excuse offered by them. We have always considered this a poor excuse, about on a par with the one offered by the small boy for not attending Sunday school. He discovers a rip in his best pair of pants too late to be repaired after fearing for the entire week that his mother would find them and fix them.

Trade conventions are absolutely essential to the proper development of an industry. Conventions are largely what the delegates make them, and a good attendance always means a good convention. The man who stays at home because he "can read about it in the papers" means a poor member of an association. He may pay his membership dues and think he is doing his duty, but he is mistaken. Circumstances may, of course, prevent a man from going to the annual meeting of his trade association but he should have a better excuse than the one above mentioned.

MEET us at the National Dairy Show, Minnesota State Fair Grounds (Twin Cities) October 8 to 15, 1921

IT MAY be news to some of our readers to know that butterfat is a "by-product" in the estimation of some folks. A circular letter mailed out by a manufacturer of "filled" milk to his trade has reached our desk. In explaining the cost of his product he says:

> "With the low butter market the cost of manufacture of the compound is, in a measure, proportionately higher as the by-product butterfat, which we extract to produce our product, necessarily has a lower market value, thus increasing the cost of manufacture."

You fellows who have been brought up to believe that butterfat is the most valuable constituent of milk are all wrong. Butterfat is a "by-product" and the old cow from now on will be wasting her time. She should be ashamed of herself.

A DETERMINED effort has been made in several of our large cities to compel the retailer of ice cream to come down off his high horse and sell the National Dish at a fair profit instead of an exorbitant profit. In Chicago prices were reduced about one-third inside of 48 hours after one of the big city dailies began publishing facts.

From all we can learn the retailers in the large cities are not the worst profiteers by any means. Back in the country towns most of the retailers haven't heard that the war is over. They are still charging war-time prices and no doubt will continue to do so as long as they can get away with it. If every man who is retailing ice cream at an extortionate profit were put where he belongs our jails would be awfully crowded.

A WESTERN dairy paper heads an editorial "The Ice Cream Season is On." How long is it going to take to educate the consumers of this country that the "ice cream season" is all the time? We can't answer the question definitely, but it is going to take too long if dairymen themselves persist in referring to the hot weather as the "ice cream season."

BULLETIN OF EVENTS

National Dairy Show, Minnesota State Fair Grounds (between St. Paul and Minneapolis)—Oct. 8-15, 1921. W. E. Skinner, General Manager, 910 So. Michigan Ave., Chicago, Ill.

National Association of Ice Cream Manufacturers—Twenty-first Annual Convention, Hotel Radisson, Minneapolis, Minn., Oct. 10, 11 and 12, 1921. Secretary, N. Loewenstein, 155 No. Clark St., Chicago.

Eastern Exposition, Association of Ice Cream Supply Men—At Elmwood Music Hall, Buffalo, N. Y., October 31st to November 5th, inclusive. Roberts Everett, Secretary, 1328 Broadway, New York City.

Southern Association of Ice Cream Manufacturers—Ninth annual convention, Atlanta, Georgia, Nov. 29, 30 and Dec. 1, 1921. J. W. Clopton, Decatur, Ala., Secretary.

Southern Exhibition—Association of Ice Cream Supply Men, Auditorium Armory, Atlanta, Georgia, November 28-December 2, inclusive. Roberts Everett, Secretary, 1328 Broadway, New York City.

Oklahoma Association of Ice Cream Manufacturers—Annual convention, Oklahoma City, Dec. 12-13-14, 1921. Secretary, M. T. Cochran, Altus Ice Cream Co., Altus.

Texas Ice Cream Manufacturers' Association—Fourteenth Annual Convention, Ft. Worth, Texas, December 7, 8, 9, 1921. Headquarters, Texas Hotel. H. F. Owsley, Dallas, Secretary.

Louisiana Association of Ice Cream Manufacturers—Second Annual Convention, New Orleans, January, 1922. Newton F. Manning, Monroe, La., Secretary.

Michigan Allied Dairy Association—Annual Convention, in Municipal Auditorium at Saginaw. Tentative dates, Feb. 14, 15, 16, 17, 1922. H. D. Wendt, General Secretary, Lansing.

Wood's Gelatine

IT'S PURE

Guaranteed Food Products

Gelatine
India Gum
Kreamine
Fairy Cream Powder
Yum Yum (Ice Cream Flavor)
A-XXXX Vanilla
Grinders of Cocoa

The Most Complete Line on the Market

Write for Price List

W. B. Wood Mfg. Company

Manufacturing Chemists
ST. LOUIS, MO.

Wisconsin Association of Ice Cream Manufacturers

Proceedings of the Sixth Annual Convention, Milwaukee, Wis.

(Continued from July issue)

Chairman: The next number on the program is "A More Logical Legal Standard," by Prof. H. H. Sommer, of the Department of Dairy Husbandry, University of Wisconsin.

* * *

A MORE LOGICAL LEGAL STANDARD

By Prof. H. H. Sommer, Madison.

Gentlemen of the Convention: In choosing a topic to apprise this convention this afternoon I chose the topic, "A More Logical Legal Standard." I realize I am probably stepping on dangerous ground. I chose it because I think it is a subject to which we ought to give more attention. It is a subject that will probably be forced upon us from other sources. It may come up in the legislature, and you who are interested in the industry should be prepared to make your recommendations.

The present standard is somewhat illegal and inadequate. The purpose of any department is to control its composition so that the consumer is insured a given amount of the valuable constituents in that product. This does not hold in our standard for ice cream, our present standard. Ice cream contains varying amounts of air, as you are all aware, because sold by the gallon. Our present standard does not take these factors into consideration. It simply requires that the mix must have a certain amount of fat. We can readily see our present standard does not guarantee a definite amount of food value to the consumer, and it is because of that I am bringing this topic to your attention. It may seem on first thought that this state of affairs is advantageous to the ice cream manufacturers, but in thinking it over you will see this is a situation which may be deleterious to the industry in general. As long as we have no restriction on the overrun, there will always be the tendency to increase the yield by whipping in more air. Of course a certain amount of air is necessary to produce an acceptable product, but we can go over that, and the tendency has been in a good many cases to increase the yield at the expense of quality.

The ice cream with excessive overrun does not meet with the enthusiastic approval of the public, it does not stimulate enthusiastic use of ice cream in general, and it hinders the growth of the industry. The lack of a standard causes a a lack of confidence in ice cream as a food material, and our advertising of ice cream as a food, our attempt to increase the sale of ice cream lacks effect because of the inadequate standard. It is not convincing. All our standard foods are carefully controlled by government standards, their composition is described in the value of constituents of the food. In our ice cream the percentage of fat is prescribed, but the overrun is left to each manufacturer, what the consumer is getting for the gallon of substance he buys. We cannot expect the public to think of ice cream seriously as a food as long as we don't regulate it as a food. The growth of the ice cream industry depends upon the attitude of the public. If the public thinks of ice cream largely as a luxury and confection, the growth of the food is impeded. If the public thinks of ice cream as a food, then the industry has a food. It can be properly regarded as a food, but in order to make it convincing to the public we will have to safeguard this product better than our present standard does.

Several remedies have been suggested. I don't want to be dogmatic. My object is to stimulate thought on this subject. A suggestion that we limit the overrun has been made. This seems to offer some difficulties because it would place a limit on the variety of mixes we have; by just having one overrun standard we would probably be doing injustice to some who want a high solids mix. So that does not seem promising. The suggestion has been made that ice cream be sold by weight or that it have a certain weight per gallon. These suggestions very evidently have their faults.

The suggestion that seems most logical is that the ice cream would have a given weight of fat and solids per gallon. That would be defining the value of ice cream in a very definite way. The advertising and the emphasizing the food value would be more effective. Do not limit the overrun except as it does so indirectly. The overrun could vary in proportion to the solids.

I have prepared a table here illustrating that. I have placed in the first column the total solids of the five mixes running from 30 per cent to the extreme 50 per cent solids in the mix. In the next column I have placed not figures found in actual experience, but figures as to the weight of the mix. Those will vary with the nature of the solids in the mix. The next four columns I have placed the corresponding overrun that would be permissible by law if we required 1.6 pounds per gallon for ice cream we see the highest permissible overrun would be 76 per cent. If the standard were somewhat higher our permissible overrun would be lower. Similarly with the higher solids in the mix we have in each case the highest permissible overrun that we could get with those standards. You see that the overrun permitted by such standards would be proportioned by the nature of solids in the mix, and still it would be placing a definite standard on ice cream in regard to the substance contained in it, and we would fix the limit so we would be preventing excessive overrun, which would be at the expense of quality.

In inspecting these figures we find a mix with 35 per cent solids would have a permissible overrun of 93.6. If we increase the solids 1.7 pounds per gallon the permissible overrun would be 82.2. It is probably in this neighborhood, 1.6 and 1.7 that the figure would have to be placed. My object is to place this before you. It will probably be forced upon you outside of the industry if you do not adopt it in the industry. It is an idea that has been advanced, and with the agitation of our food products in general undoubtedly a better standard in ice cream will come up. For that reason I have offered the suggestion. The amount of fat, as a suggestion I would say would be 30 per cent of the solids. If we require 1.6 solids per gallon and 30 per cent of that fat, or a figure might be placed at some other value. The actual figures are not the important things, the principle involved here is the principal thing. The figure is a matter that can be decided best by weighing the subject. After leaving with you these figures I leave the question for your consideration.

Chairman: This concludes our program for this afternoon. The banquet will be served in this room at six

Sturges Ice Cream Cans and Tubs
Built to Stand Abuse
Write for Circular No. 163
Sturges & Burn Mfg. Co.
Established 1865
Chicago, Ill.



The Buyer's Page





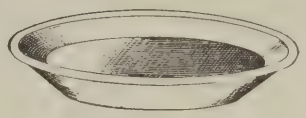
Sealright Paper Containers

The Ideal Ice Cream Container—Exact Measure—Saves Time and Money.

Prices F. O. B. Chicago.

	Regular Stock	Packed Per Case
¼ pint	$18.00 M.	....
½ pint	18.60 M.	300
12 ounces	19.75 M.	250
Pints	20.95 M.	200
Quarts	25.65 M.	100
½ gallon	50.15 M.	50

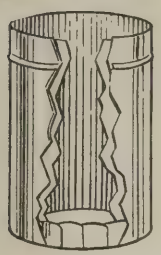
1,000 lots less 3% Discount
5,000 lots less 5% Discount



Ice Cream Plates

Made of waterproof stock, beveled. 500 plates to the bundle.

1,000	lots.....	$2.15 per 1,000
5,000	lots.....	2.05 per 1,000
10,000	lots.....	1.95 per 1,000
25,000	lots.....	1.80 per 1,000



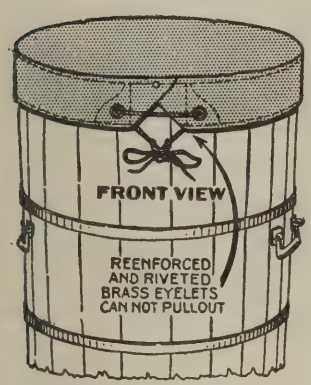
Chicago Perfect Can Liners (Two Piece)

Size	½ M.	1 M.	2½ M.	5 M.	10 M.
1 quart	$ 5.35	$10.60	$10.30	$10.05	$ 9.50
2 quart	6.55	12.60	12.35	12.05	11.50
4 quart	8.48	16.65	16.40	16.10	15.00
8 quart	11.87	22.75	22.30	22.10	21.00
12 quart	13.55	26.30	25.75	25.20	23.00
20 quart	17.00	32.75	32.00	31.10	30.00

Special Discount 20%

Ask for prices on **Allen's One-Piece Sanitary Ice Cream Can Liners** in 1 to 40 quart sizes.





Can-Pro-Co STAY-ON TUB COVERS

A water-proofed, brine proof, mildew proof, guaranteed cover. Attaches to the tub and stays with it. Ties in front with metal tipped strings.

Prices per Hundred.

Size	No. 14 oz.	No. 16 oz.	No. 20 oz.
4 quart	$43.50	$46.00	$51.50
8 quart	47.50	50.50	56.50
12 quart	50.00	54.00	60.50
16 quart	53.50	58.00	66.50
20 quart	55.50	60.00	68.50
40 quart	70.50	76.50	90.00

DISCOUNTS.

Lots of 250	5%
Lots of 500	10%
Lots of 1,000 or more	15%

Parchment Circles

NET PRICES

Circles for	Quart Cans	1 M.	2 M.	5 M.	10 M.	25 M.
5 in.	1	$0.79	$0.70	$0.66	$0.62	$0.57
6 in.	2	1.01	.95	.89	.83	.78
6½ in.	3	1.18	1.11	1.05	.98	.91
7 in.	4	1.31	1.28	1.16	1.09	1.01
7½ in.	8	1.58	1.49	1.40	1.31	1.22
8½ in.	12	1.97	1.86	1.74	1.63	1.52
9 in.	16	2.23	2.10	1.98	1.85	1.72
10 in.	20	2.76	2.60	2.44	2.28	2.13
10½ in.	20	3.02	2.85	2.67	2.50	2.33
11 in.	20	3.37	3.18	2.98	2.79	2.60
12½ in.	40	4.33	4.08	3.84	3.59	3.34

Printing Extra.

Genuine Vegetable Parchment Paper

NET PRICES

Net Prices	5M	10M	20M	30M	50M	100M	200M
6½x13, for pint bricks	$1.53	$1.50	$1.40	$1.38	$1.34	$1.28	$1.25
7x14, for pint bricks	1.72	1.68	1.58	1.57	1.51	1.44	1.41
10x13, for quart bricks	2.25	2.16	2.07	2.03	1.98	1.89	1.85
10x14, for quart bricks	2.43	2.33	2.24	2.19	2.14	2.04	1.99
3½x8, for small slices	.56	.55	.54	.53	.50	.50	.48



Sanispoons

	Demi Tasse	Teaspoon Size	Soda Size
1,000 lots, per M.	$3.25	$5.25	$7.00
10,000 lots, per M.	2.75	5.00	6.75

Packed 1,000 to the package. 10 packages to the case.





Tin Ice Cream Spoons

3½ Inches Long		Picnic Size	
1,000 lots	$1.80 per M.	10,000 lots	$1.65 per M.
5,000 lots	1.70 per M.	25,000 lots	1.55 per M.

Send for Prices on Ice Cream Pails, Boxes, Straws, Etc.

We carry a complete line of ice cream containers. Printing extra. We have Cremo Cake Ice Cream Cones at $4.75 per M. Order NOW. All prices listed here are subject to change. We give you the benefit if lower than quoted.

See our exhibit at the National Dairy Show, Minneapolis—St. Paul, Oct. 8th to 15th, 1921

A. H. BARBER CREAMERY SUPPLY CO. CHICAGO, ILL.

A. H. Barber Creamery Supply Co.
302 W. Austin Ave., Chicago, U.S.A.

Tell Your Friends and Neighbors You Are Going To The WORLD'S GREATEST DAIRY SHOW, MINNESOTA STATE FAIR GROUNDS, October 8-15

o'clock, and there is also an entertainment. We will adjourn until ten o'clock to-morrow morning.

Meeting adjourned.

* * *

THIRD SESSION.

Friday Morning, 10:00 O'clock.

Meeting called to order by President Smith.

Chairman: We have with us this morning Mr. W. H. Sprague, Chief Field Revenue Collector, on the subject of the Ice Cream Tax.

* * *

THE ICE CREAM TAX.

By Mr. W. H. Sprague, Milwaukee.

Mr. Chairman, I can't help but think your progressive Secretary ordered ice cream weather for this time of year. It is certainly exceptional.

I have been sent over here by the Collector, Mr. Bert Williams, to talk to you this morning of the ice cream tax. Of course, this season of the year the Internal Revenue service is largely centered in income tax, and it is a little relief to get away from that side of the work and talk on the phases of the law such as this. My intention is to talk to you briefly on this tax, to tell you as clearly and directly as I can where the tax applies and where it does not apply, because I know you, as manufacturers of ice cream are continually haunted by the dealers to know what shall we do, shall we not collect this, shall we collect this, and I want, if possible, to carry through you to the dealers in Wisconsin information which is authentic and which is based on the latest rulings from Washington on the law and on the regulations. I don't want to be technical, I want to talk to you as clearly and as plainly as I can, and after I finish what I have to say if you have questions I will answer them.

The section of the Revenue Act of 1918, which became effective May 1, 1919, covering the ice cream tax is all in one sentence. That one sentence is Section 630, and reads as follows:

"That on and after May 1, 1919, there shall be levied, assessed, collected, and paid a tax of 1 cent for each 10 cents or fraction thereof of the amount paid to any person conducting a soda fountain, ice cream parlor, or other similar place of business, for drinks commonly known as soft drinks, compounded or mixed at such place of business, or for ice cream, ice cream sodas, sundaes, or other similar articles of food or drink, when any of the above are sold on or after such date for consumption in or in proximity to such place of business."

In the first place I want to say I believe a good deal of difficulty and misunderstanding, as far as this tax is concerned, is due to the fact they have tried to crowd too much in that one sentence. We have a regulation 53, which is available to every dealer by application to the Collector's office, which discusses the application of that one sentence to the trade. I have had charge of the field work here in Wisconsin for the past three years and in that time, of course, we have had the work of enforcing the law as far as this is concerned, and I know from my experience this tax is one of the most unpopular taxes on the books to-day. It is unpopular because of two reasons. One, because it requires records to be kept by the dealer, and the other because it taxes particularly the children of this country. Those are the two things I Ifind causing this tax to be unpopular.

We have dealers to-day, a large majority of them, who are in business of a size they keep records of accounts who are keeping track of this tax as it should be taken care of, but you, as manufacturers, know there are a large number of dealers who keep no records whatsoever, and there is where the difficulty in enforcing this particular law comes in. In spite of that difficulty we have forced a large number of fellows the past year to pay this tax and to collect it, and we are continuing to do that very thing because we have to do so until Congress takes it off the books. Remember, at no time is a man allowed to refrain from collecting this tax until Congress says so. We have no such authority. The Commissioner of Internal Revenue at Washington has no such authority. Congress is the only one that can stop the collection of this tax. Last summer, through the papers, there was an attempt to get Congress to repeal this section. Some of the smaller dealers read those articles and believed this tax had been taken off and stopped collecting it whatsoever. Of course we had to go out and tell them they had to collect it.

I will speak briefly of the application of that tax. The tax, as you see by that section, is one cent on every ten cents or fraction thereof of the amount paid to any person conducting a soda fountain, etc., and on each sale. Those are the two fundamental things to remember. If one party comes in and buys three taxable dishes of ice cream and he, in bona fide payment not to evade taxes, but pays for that tax, then the tax is on the total amount of the sale, but if three people come in and buy separate dishes of ice cream, the price is on the separate sale. The basis of the tax is the price for which the commodity is sold. If a dish of ice cream sells for fifteen cents the tax on that is 2 cents. If somebody goes in and buys three dishes of ice cream at 15 cents, he will be taxed on the basis of 45 cents, or a total tax of 5 cents. On the other hand if three buy separate dishes of ice cream their tax will be 6 cents instead of 5. So much for the study of the tax rate.

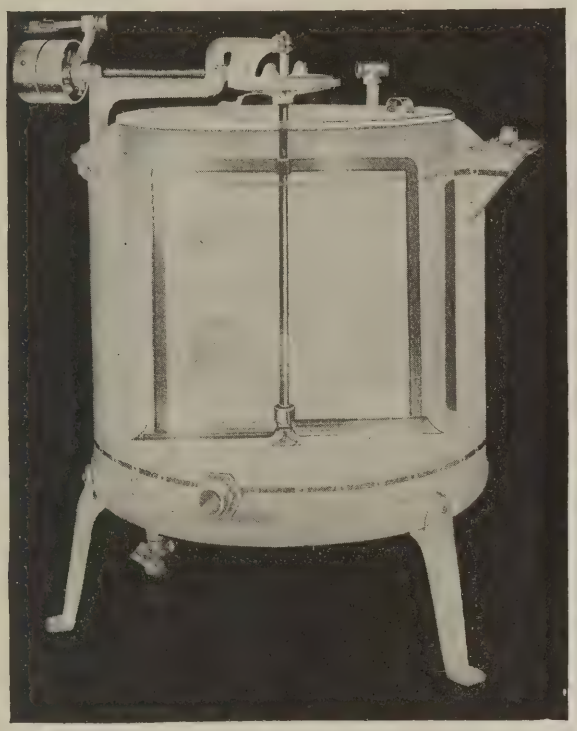
I want to tell you what is the custom under the law. Bulk ice cream sold in containers to be taken away from the place of business and sold bona fide as bulk ice cream is not subject to tax. Any attempt to camouflage and get away from payment of tax and try to make it a bulk sale, the government would not stand for that. The second case of exemption for payment of this tax occurs where religious, educational or charitable societies on special occasions sell ice cream. That is only the occasional instance where they hold church socials or church fairs, things of that kind they do not have to collect tax on those sales, but if a church goes to a county fair and competes with other people they have to collect that tax, because the tax is not on the religious organization, the tax is on the person that buys, so that your second exemption is only in the case of religious, charitable or educational organizations which sell ice cream and kindred drinks at occasional fairs, such as socials and church fairs, and things of that kind. If they compete with somebody else they have to pay the tax just the same as the bona fide exhibitor.

The third instance of the exemption is new. It is a law which came through a month ago, and it affects the sale of ice cream with table d'hote or a la carte meals at a restaurant or at a hotel.. Some of you gentlemen who may have followed this thing know a year ago in March the Treasury Department rendered a decision, 2990, and in that Treasury Decision they interpreted this law further than it had been interpreted before. In order to make it clear, in order to impress the duty of taxing on certain people who were not collecting it, that particular provision they said if any restaurant or hotel or like place of business sold ice cream with a regular meal, if they served it from a soda foun-

(Continued on Page 132)

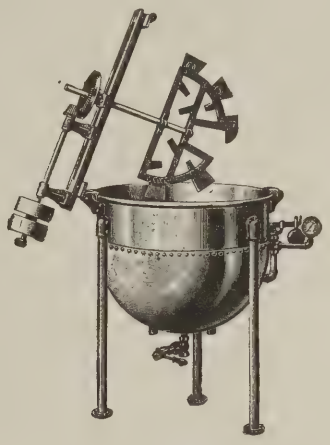
THE C-B CALENDAR

Equipment for Handling Gelatine



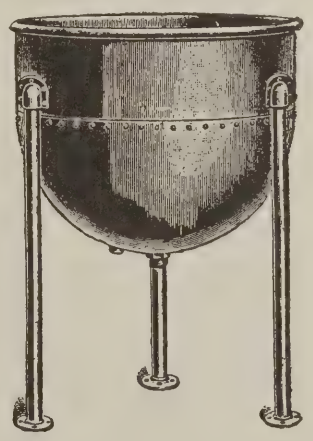
Perfection Gelatine Melter
with wide jacket for hot water

Proper handling of gelatine is extremely important. It is so important that it

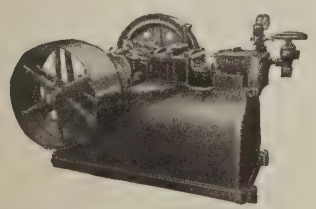


Steam Kettle with Agitator

demands an investment for special equipment with which to handle it. The *kind* of equipment you need depends largely on the amount of gelatine you use, and the kind of mix. Let us aid you in picking out the kind of equipment. Just write for full information. If wanted, one of our experts will call on you to go over the situation and work with you to perfect your gelatine problem. Do it this season!



Standard Jacketed Kettle
made of copper



Eastern Directors of Distribution for the Viscolizer

Note:
Gelatine may be added to your mix before it is run through the Viscolizer. Uniformity and smoothness are produced by a Viscolizer.

Good ice cream may be spoiled by a poor grade of gelatine. Try ours—its price is no higher.

CHERRY-BASSETT COMPANY

PHILADELPHIA BALTIMORE

Some Commercial Facts About Gelatine

By PROF. A. D. BURKE of the Agricultural and Mechanical College, Stillwater, Oklahoma.

I WONDER how many of us really know our product? Ice cream to be made properly must be properly understood but a thorough knowledge of its composition involves an exhaustive study of each of the ingredients which go to make up its context. One of these is gelatine which is perhaps the material concerning which our ice cream makers know the least.

This article is composed of no new facts; it is not setting forth new ideas; it is not an experimental report. It is rather a gathering together of a great many chemical facts concerning gelatine which may be of interest to ice cream makers. The following therefore is the result of a perusal of over one hundred and fifty volumes of chemical works, which contained items, experiments, and general discussions of our best known and least understood ice cream stabilizer; "Gelatine."

In the first place gelatine is a colloid. We know little concerning colloids and yet gelatine is perhaps our most characteristic colloidal substance. Many definitions have been offered for the term colloid yet none has proven entirely satisfactory to all investigators alike. In a general way we may say that a colloid belongs to a class of substances which are non-crystallizable, and are so finely divided that they are capable of floating about in a liquid neither in solution nor in suspension and can not be recovered from a solution by separation with the finest filter. In fact a colloid when mixed with a substance which forms crystals has the power of preventing the substance from forming crystals. Indeed it is this fact which makes gelatine so eminently suited for use in ice cream making for it has the power of preventing milk or cream and likewise ice cream, from forming large curds in the stomach when acted upon by the digestive juices, thus rendering the material more easily digested and assimilated by the body.

Chemically gelatine consists of carbon, hydrogen, nitrogen, oxygen and sulphur all combined in different proportions, and quantities according to the material from which the product is made and besides these, gelatine usually contains foreign materials which enter in during the process of manufacture. Perhaps a good average composition for a characteristic high grade gelatine would be the following; carbon 49.5 percent, hydrogen 6.75 percent, nitrogen 17.9 percent, oxygen 25.00 percent, sulphur 71 percent and a trace of such impurities as copper, lead, zinc, sulphur, dioxide and sometimes arsenic. As a rule, however, arsenic is found only in minute quantities in the higher grades and these alone should be used in ice cream manufacture. Even then it is well for the ice cream maker to demand an analysis of the gelatine from the manufacturer.

Arsenic gets into gelatine chiefly through impure bleaching materials or through impure acids, or preparations of arsenic used in treating the bones or hides. Likewise lead and zinc which may be used as bleaching materials or preservatives are sometimes carried through the manufacturing process and appear as impurities in the gelatine.

Copper, another impurity sometimes found in gelatine gains entrance through chemicals used in its manufacture and may be found in more or less quantities, some gelatins containing an amount sufficient to be dangerous to health. In fact at least one chemist has found that the copper in a few samples has been present in large enough quantites to cause poisoning when the gelatine containing it was used to garnish meat. Hence another reason why only a high grade of gelatine should be used in ice cream making.

By chemical or bacterioligical means gelatine may be broken up into many different substances entirely unlike the original product. Acids, alkalies, enzynes, and bacteria all play their part in its decomposition. The bacterial effect on gelatine becomes especially evident if one allows a tube of a 5 percent solution of gelatine in water to stand undisturbed for two or three days at room temperature. The product will have become changed, in other words, liquified, by the bacteria present and will be found to have entirely lost its power of solidification if placed in a cold room. For this reason and also because of the fact that gelatine may contain an enormous number of bacteria, which are always to be avoided by the ice cream maker, it follows that here likewise is another advantage to be derived from using only a high grade of gelatine in ice cream making.

When gelatine is treated with formaldehyde an insoluble material known as formo-gelatine is formed which fact has been made use of in photographic work. Likewise if potassium dichromate be added to an aqueous solution of gelatine the material upon exposure to light becomes insoluble. Gelatine also insoluble in very cold water, containing a small amount of alcohol. It does not dissolve in ether, chloroform, or tannic acid. However, it is soluble in acetic acid and after a few hours becomes intensely sticky. In fact the writer by this method has made a splendid glue which could readily be used for pasting labels on boxes in any ice cream plant.

It has been found by one worker that gelatine when highly heated breaks up into three portions which he terms A. B. and C. The A portion is a crystalline substance, the B part is an oily product, and the C is composed mostly of watery materials. Furthermore other workers and the writer have found that a gelatine solution such as is used in ice cream making loses its gelatinizing power if heated to too high a temperature. At a temperature of about 140 degrees F. gelatine usually begins to lose some of its solidifying powers yet the loss is so slight as to be negligible. Indeed the writer has heated some solutions of the better grades of gelatine to a temperature of 170 degrees F before adding these to ice cream mixes without any noticeable detrimental effects. However, for ice cream making it is not advisable to heat gelatine to a higher temperature than necessary to insure a good solution with the mix.

The material which gives gelatine the power to solidify in solutions is known as "glutin" and the more glutin a gelatine contains the better the gelatine. Hence it is always advisable to secure a high grade product in order to be sure that only a small amount of impurities are present and that the glutin is in abundance, as it is partly due to the gelatinizing power of gelatine that ice crystals are prevented from forming in ice cream and almost entirely due to the solidification power of gelatine that ice cream containing it has good heat resisting qualities.

Furthermore a good gelatine contains only a small percentage of ash. An analysis of ten samples by one worker has shown that the average ash content of good gelatine does not exceed 1.5 percent and the better grades contain only a little over 1 percent.

A high grade of gelatine should likewise contain practically no fat. In fact if any fat is present it should occur only as a trace. The writer at present is working on a number of practical gelatine tests for the ice cream maker among them being a test for fat and out of an analysis of some 25 or more gelatine samples, only one showed more than a mere trace of fat.

There is yet a great deal more to be said regarding the chemistry of gelatine but time and space will not permit. It is only hoped that this paper has proven of some little benefit to the ice cream maker and the writer will be glad to answer any question which, to the mind of the reader, have been left unanswered in this article.



HE HAS THE SYSTEM.

The following is a portion of a letter received in our office from the General Manager, Mr. J. J. Schmidt, of the Cline Ice Cream Co. of Athens, Ohio.

Ice Cream Review, Milwaukee, Wis.

Dear Sirs:

Please enter our subscription for the Ice Cream Review for our Hinton, W. Va., office. We desire that our people keep posted on what is going on in the ice cream business, and The Ice Cream Review contains much valuable information. No ice cream manufacturer or manager who makes any pretense at being progressive can afford to be without it.

Respectfully yours,

THE CLINE ICE CREAM CO.

(Signed) J. H. Schmidt, Gen. Mgr.

Conserve Your Profits
as the "Rush Season" Wanes

When the mad rush is over and capacity out-put has lost its affect on "that margin of profit per gallon," you will find these

Single Service
Ice Less Containers

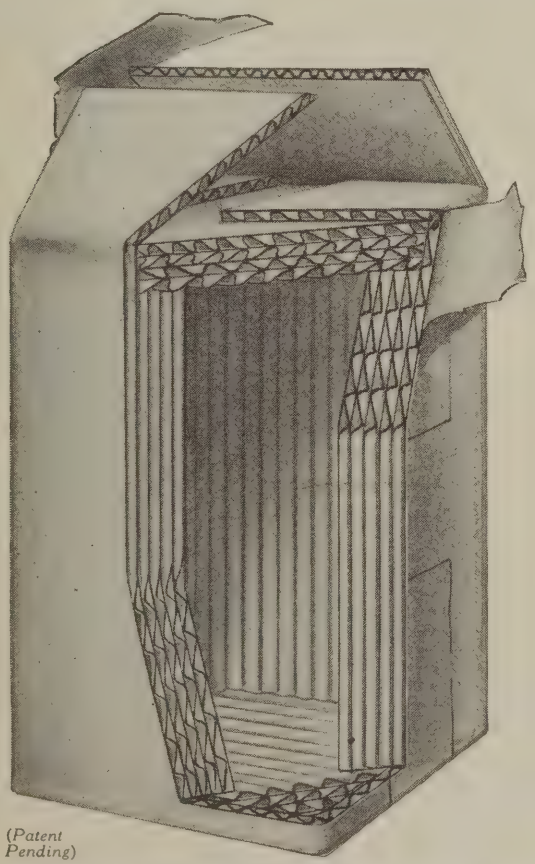
a generous stabilizer of your "per-gallon" profit. Because they necessitate but "one" delivery—no calling for the empties.

Filled direct from freezer you gain the maximum overrun.

No Ice—No Washing—No loss of equipment. All items on which you can save by the use of these containers.



(Patented)



(Patent Pending)

Absolutely Sanitary Package

will keep ice cream in same condition as when placed in container from three to four hours.

Just the thing for Parties, Dances and Family Gatherings

Try a hundred of these containers, their price is reasonable. We will gladly tell you of ways in which you can use them to promote fall and winter trade. Write—

The Hunt-Crawford Company

Manufacturers of

Cellular Fibre Products

Orchard & 14th Sts.

Coshocton, Ohio

Quality Gelatine Pays

By L. O. THAYER, Director of Sales, Delft Gelatine.

FOR 25 years ice cream manufacturers have used gelatine. They will be using it for years to come, but with a better understanding of its necessity and qualifications. Up to recently few manufacturers, comparatively, knew just what gelatine was actually for. They imagined that anything gluey would do just as well and purity, quality and strength were not sought after so long as the price was low.

The last two years have seen more appreciation of real quality gelatine than in all its ice cream history. More top grades of recognized best brands have been sold than ever before. The present season has seen an anomaly in buying. With prices made high by tne war conditions, and with every incentive to seek out cheap goods in order to add a bit to profits, more ice cream manufacturers have resolutely put aside the price question and have bought gelatine on analysis. With a buyer's year low grades, and consequently low price goods, have been a drug on the market, and every gelatine manufacturer has disposed of more top grades than ever before. The reason is that ice cream men are testing gelatine and buying after a thorough analysis.

With gelatine costing as much as it is, and the prices have dropped 25 per cent since last fall, the manufacturers have discovered that money is to be saved by buying top strength grades and using less of it. The gelatine bill of a big manufacturer is something startling, and the wise ones are finding that if 2½ to 3 ounces can be used instead of 4 to 6 ounces they can better afford to buy the best and cut the amount used.

In talking with a manufacturer who is known the country over for astuteness, he admitted that all these years he did not know the true value of gelatine and how to use it to advantage. He of course knew that gelatine was a good binder and stabilizer, but he never realized the dietiary value.

While many dieticians regard gelatine as a food it is not so regarded by the more expert. Gelatine will not build tissue, but its food value is in saving the proteids in other foods and preventing the waste of time in the assimilation by the stomach. Probably there is no other substance that is so easily digested as gelatine. As a source of heat and energy it is equal to any proteid or carbohydrate. It has almost equal value to sugar in this respect. It saves from destruction half its weight of porteid, being twice as effective as any carbohydrate.

While ice cream is called an easily assimilated food it really is not so well qualified in that respect as imagined. The sugar helps to make it assimilate without extra work by the stomach juices, but the gelatine doubles the assimilating qualities. So ice cream made without gelatine loses a good part of this highly desirable quality.

Butterfat and casein, making up a large proportion of an ice cream mix, are rather hard to digest; condensed milk adds to the time of digestion. As said before the sugar helps, but the gelatine should be credited with more than one-half the easily assimilating qualities. So gelatine is necessary to ice cream for this if for no other reason.

While many careful ice cream men have advocated gums on the point of purity because up to recent years most gelatines were not considered over pure, the time has gone by when any such argument can be used. Gelatines made today by most concerns are far purer than ever before. Just because a gelatine is said to "meet" all pure food laws that is no great recommendation of purity. What careful manufacturers want is a gelatine that "beats" any pure food law in the matter of purity.

From the ice cream man's viewpoint heretofore the chief qualification of gelatine was a stabilizer. He knew that whether his ice cream was rich or lean a hot day would play havoc if the cabinet was not kept iced properly. Reports would come in that his ice cream was not standing up or that it was "sandy." If he was using a weak gelatine or none at all, this complaint is bound to happen. For years no remedy was known, and is not today in hundreds of plants. If any one will use the strongest gelatine he can find in sufficient quantity—not over 4 ounces to the batch—he will avoid all, or nearly all, such complaints.

Many have regarded gelatine as furnishing viscosity. While it does to a certain extent, that is not its function. Viscosity is provided by aging the mix, far better and more efficiently than any amount of gelatine that might be introduced. As a binder gelatine binds the sugar, casein and fat with the water to make a creamy mass, from which the water will not separate easily. If the water separates the low temperature will cause icy particles to form; that's "sandy" ice cream. Now gelatine is a peculiar colloid. Drop tiny pieces of ice into a cooling solution of gelatine and when taken out it will be found that tne icy particles have a film evenly covering them. Pass the finger over even where points can be seen and one will find no sharpness, but a smoothness that is surprising. That's just what happens to ice cream in a cabinet; the gelatine has formed a film around the icy bits. We might call it an iced capsule.

In the manufacture of capsules which are designed to cover medicine one of the chief requiremnts is strength. The gelatine must be strong enough to form a very thick film and be strong enough to hold its shape and not dissolve quickly. One of the biggest concerns in the world making capsules has determined that there is one superior brand of gelatine suitable for its purpose, and that is Delft.

From many experiments and much study the writer has proved that ice cream needs the strongest gelatine possible in order to prevent "sandiness." With all the mystery and floundering by some manufacturers about the subject of "sandy" ice cream there is a sure way out. The writer knows that a certain strength gelatine will even form films around milk sugar crystals, the very thing that causes "sandy" ice cream. Why do not these troubled souls make a few gelatine experiments and give over buying low grade gelatines because they are cheap. They might as well throw money away as to expect to have a satisfactory colloid from weak gelatine.

Another thing still little realized by ice cream men is that strong gelatine will make for uniformity of composition of the ice cream, and that it will preserve the creamy texture. An ice cream with no colloid cannot meet these desirable points if kept more than 12 hours. No colloid will preserve these qualities more than 24 hours except a good strong gelatine. Even a large amount of egg whites will not. The thinner the ice cream the more necessity for strength of gelatine, and the more should be used.

Now the strength of gelatine is a closed book to the ordinary man. Many there are who think they can use 8 ounces of gelatine to the batch and get the same results as 3 ounces of a grade that sells for 30 cents more a pound. It is a mistaken idea. Inherent strength counts more in gelatine than anything else. The strongest will form a film around an icy bit several times thicker than the weakest gelatine. The thinner and weaker the film the quicker it will be overcome by the moisture and disintegrate. Then you have "sandy" ice cream.

One of the most important studies facing the ice cream manufacturer today is that of gelatine and a series of authoritative articles should be written upon this subject. It would be thrilling and save fortunes to the industry.



THE ASSOCIATION OF ICE CREAM MANUFACTURERS OF NEW YORK STATE.

Judging from remarks heard throughout New York State there are not going to be any ice cream manufacturers left here during the National Convention of Ice Cream Manufacturers and the National Dairy Show. Everyone is looking forward to the beautiful trip to Minneapolis and plans are well under way for special trains to carry the eastern manufacturers to Chicago there to join the larger groups enroute to Minneapolis.

While we are planning on a very pleasant trip to and from Minneapolis we are not unmindful of the very valuable information which we are able to get at our National Convention, and this coupled with the wonderful exhibits of the National Dairy Show makes the trip highly instructive.

A. M. LEMESSURIER, Sec'y.

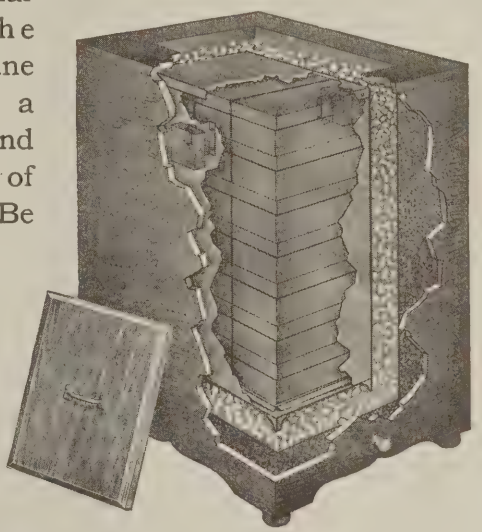


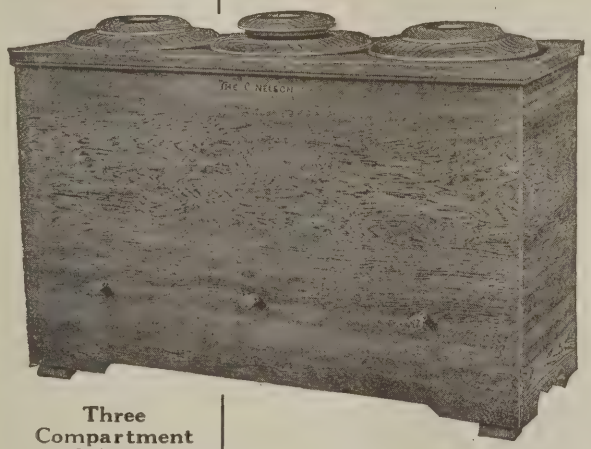
Nelson (Patented Ice Cream Cabinets

"Confessed The Best When Put to Test"

are constructed along scientific and practical lines to conserve ice and salt supplies and keep the ice cream in perfect condition until sold. The manufacturers have devoted thirty years of study and experiment toward the building of the best possible ice cream cabinets for the manufacturing trade. Each particular make of cabinet of the Nelson line is sold with a guarantee and on a plan of "You Must Be Satisfied"

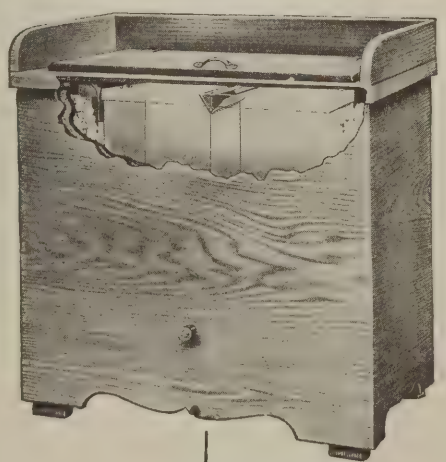
C. Nelson Brick Cabinet
Patented May 8, 1906





Three Compartment Cabinet

42 Qt. Brick Cabinet with Ice Rail



Patented Nov. 11, 1919—1321120

This Proposition Will Interest You

Any responsible ice cream manufacturer—particularly wholesale ice cream manufacturers and dealers—may order from 1 to 100 Nelson patented Ice Cream Cabinets, place them in practical use, and after 30 days, if not entirely satisfactory, return at our expense for freight, both ways.

Can any manufacturer offer a more liberal or fair proposition? You owe it to yourself to thoroughly investigate the price, merits and construction of the Nelson Patented Ice Cream Cabinets before making any further purchase.

Plan on your season's requirements now, and have your supply on hand when needed.

C. Nelson Manufacturing Co.

2308 Division St. **St. Louis, Mo.**

The Preparation of Gelatine

From BULLETIN No. 2003 of J. G. Cherry Company

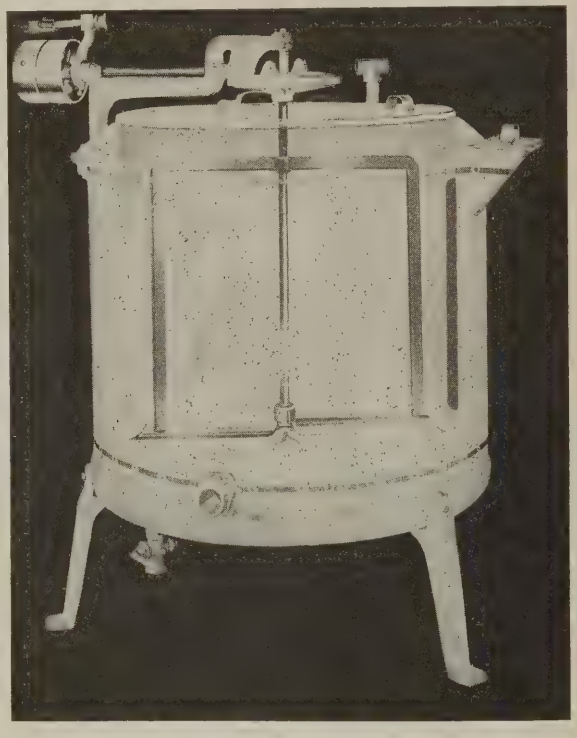
THE use of gelatine by manufacturers of various food articles and products has been increasing steadily in recent years. In addition to its use in the manufacture of ice cream, it has become a commonly used ingredient in the manufacture of icing, icing powder, ice cream powder, marshmallow powder, candies, jellies, jams, fruits, juices, and dozens of other industries.

The rapidly spreading use of gelatine and the increase in its use by manufacturers accustomed to it, has naturally attracted attention to its proper handling in the processes of these manufactures.

There are several essentials in the successful use of gelatine. The first is an absolute dissolution of the gelatine granule. This, the first step in dissolving gelatine, consists in soaking it in clear cold water, preferably distilled. For this purpose water to about double the weight of the gelatine should be used and allowed to stand for fifteen or twenty minutes. This is sufficient ordinarily to permit the gelatine to absorb the water and at the end of this period it will be found that the gelatine is in a semi-jellied form in which it will respond readily to a higher temperature.

It must never be forgotten that gelatine dissolves when heated and congeals when exposed to a low temperature. But, in dissolving gelatine, it should at no time be heated over 150 degrees Fahrenheit and should never come in contact with direct heat. Overheating or boiling gelatine destroys its jelly and adhesive powers.

The second essential in the use of gelatine is a thorough agitation before joining it with the mix of which it is to be a part. Agitation is essential because without it a thorough emulsification of the solution cannot be properly obtained.



Cherry Gelatine Melter.

In the manufacture of ice cream, for instance, it has been discovered that after the gelatine has absorbed the water and has been heated properly to 150 degrees Fahr., it is ready to be assimilated by the mix. But this is most successfully accomplished by taking five or ten per cent of the mix, joining it with the dissolved gelatine, first bringing it to the same temperature as the gelatine and thoroughly mixing both together. This gives the manufacturer of ice cream a gelatine size which will thoroughly blend with the cold cream and eliminates the possibility of congealing the gelatine as it comes in contact with cooler temperature. Incidentally this also prevents the gelatine acting as a filler instead of as a binder.

From all the information heretofore published on the use of gelatine in manufacturing ice cream and other products it is readily perceptible that the primary requisite of the process is a machine or device that will present five important features:

1. Absolute temperature control.
2. Uniform temperature throughout.
3. Thorough agitation to secure emulsification.
4. Perfect sanitation.
5. Convenience in operation.

The necessity for the use of a machine to handle these operations is readily apparent. This has naturally attracted the attention of manufacturers to the needs of ice cream makers and other users of gelatine. Particularly has it attracted the attention of the J. G. Cherry Company to the need for the development of a machine which will handle gelatine perfectly so as to give manufacturers using gelatine an entirely satisfactory machine for their use.

Temperature control, the first essential to the user of gelatine is secured in the Cherry gelatine melter through the use of a water jacket into which steam is introduced under the control of the operator. At no time is it possible for live steam to come in contact with the gelatine or mix within the machine. This is true because it is a three wall machine. The outer jacket is of heavy galvanized iron within which is a lining of copper backed by a layer of asbestos which assists in the control of temperature, within which again is the water jacket space and finally the inner lining which is also of heavy copper. The picture shown on this page illustrates the construction of this machine, clearly demonstrating its capacity for maintaining absolute temperature control throughout its operations.

The same diagram shows how it is possible to obtain uniform temperature throughout the mix in the use of this machine. The steam connection is at the top of the machine. When the water in the jacket reaches the desired temperature the steam is shut off or reduced to a volume which keeps the water, and consequently the contents of the inner jacket, at a uniform temperature.

Given these two essentials to begin with, temperature control and uniformity of temperature, the greatest remaining necessity is thorough agitation. This is secured by means of a dasher and a baffle plate. The dasher is unique in that it is fitted with a lifting plate on the lower arm. This raises the heavy ingredients which ordinarily settle to the bottom and is a decided feature in securing thorough agitation. This desired result is further insured by a baffle plate set vertically at the side of the inner mixing jacket. With the dasher agitating the contents in a circular direction the baffle plate offers a resistance to the mix immediately next the wall of the container for its full height. This gives an additional emulsifying process to the mix and makes perfectly certain the agitation so essential.

Sanitation is assured by the fact that the entire process is conducted within a thoroughly covered device of which every part is removable and cleanable.

The melter is equipped with tight and loose pulleys and a high back gear fitted with gear guards. This permits of driving it from a pulley on a line shaft. There are no stuffing boxes on this machine, there being only one small cone, at the bottom, on which the dasher rests.

More of this

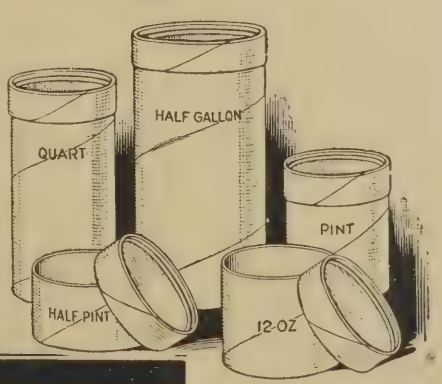
for your product by using the right kind of container



Stimulate the Carry Home Habit With Sealright Paper Containers

Fill Direct from the Freezers

THE result—a neat, attractive, air-tight, sanitary, easy and safe carry-home package for bulk ice cream that people like to carry. There is no dripping. Cream keeps in perfect condition for a considerable period of time. Most people prefer bulk ice cream. Employ the proper packaging method to harmonize with this preference. Fill Sealright Containers direct from the freezers. Save time and labor over the expensive brick method, enable your dealers to give quicker and more efficient service, and, most important of all, use the kind of container the public like to carry and have always wanted.



Order Thru Your Jobber—Write Us for Samples

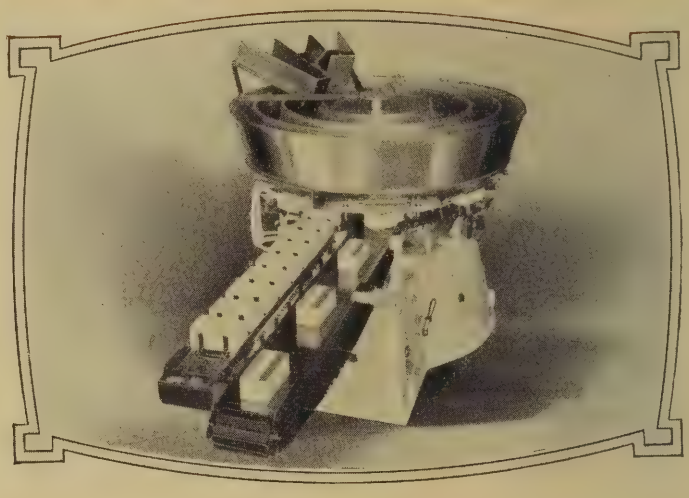
THE ASSOCIATION OF ICE CREAM SUPPLY MEN ★ MEMBER

SEALRIGHT CO., Inc. FULTON New York

Largest Manufacturers in the World of Liquid-Tight Paper Containers

Tell Your Friends and Neighbors You Are Going To The WORLD'S GREATEST DAIRY SHOW, MINNESOTA STATE FAIR GROUNDS, October 8-15





C.E. Rogers DETROIT

Automatic Brick Maker

1200 to 1800 Per Hour

THE Rogers rotary machine will fill from 1200 to 1800 Neapolitan or solid-flavor bricks per hour—ready for the hardening room. The Neapolitan bricks are mechanically and accurately portioned, the dividing line between flavors being sharp and straight. With a special conveyor the filled boxes can be carried directly to the hardening room at the same speed of the machine.

The labor-saving effected by this machine is remarkable. Only two people are required—one to feed the empty boxes into the machine and another to put the covers on as the filled bricks pass by on the way to the hardening rooms. By the use of a paraffined carton extra wrapping is eliminated. The carton covers, or tops, carry the brand name and decorative colors on five sides, making the package unusually attractive. When this package is opened by the consumer the cover is removed, the ends of the container are easily detached and all sides are turned down, leaving a perfect brick, free from muss, ready for the cutting knife.

In making Neapolitan bricks the three flavors pass from the freezers directly into the hoppers of the machine. This can be accomplished by gravity or in any manner best suited to your freezer arrangement.

A Rogers brick maker has been in practical operation in a large Detroit plant during the 1921 rush-season—and under constant and critical observation for the purpose of ascertaining the slightest defects in operation and utility. It is only after the most thorough tests, under rush-season and rush-day pressure, that we are prepared to announce a mechanically perfect machine backed by a Rogers guarantee of performance.

The machine occupies a floor space of 5' 8"x10' 1" and is 5' 5" high. It is mounted on wheels, being portable and easily pushed aside after the run is completed. (The accompanying illustration of the Neapolitan brick is from an actual photograph and shows the straight-line flavor divisions.)



C. E. ROGERS

8731 Witt Street **Detroit, Mich.**

Complete Information Upon Request

SECRETARY WALLACE PRAISES WORK OF FORMER DAIRY CHIEF.

In accepting the resignation of B. H. Rawl, who recently resigned as Assistant Chief of the Bureau of Animal Industry, U. S. Department, to take charge of the educational work of the California Central Creameries, Secretary Wallace wrote Mr. Rawl:

"I have accepted your resignation, effective June 6, with a great deal of regret. I have long known of your work in the department, and, during the past three months, have come to have even a better appreciation of the valuable service you have rendered here. We can ill afford to lose men who are capable of doing the sort of work you have done, but I realize the attractiveness of the opportunity which is open for you and of the obligation you have to your own people.

"Your constructive leadership in dairy work in the South, your vision and guidance in establishing and conducting the experimental factory at Grove City, Pa., your effective direction of the organization of cow testing and bull associations, your special research studies in breeding and feeding and in manufacture, all have contributed very greatly to promoting the dairy industry on sound lines.

"Dr. Mohler, the Chief of the Bureau of Animal Industry, speaks in very high terms of your work as assistant chief of that bureau during the last two and a half years and, as indicated above, I wish you might be continuing with us in this service.

"I am sure I can speak as well for your associates here and for the great host of people outside whom you have served so helpfully.

"I wish for you the greatest measure of success in your new undertaking."



MILK AS A CURE-ALL.

The discovery that certain foods, such as the fat in milk and egg yolk, in green vegetables, contain substances, called vitamines, that have a direct relation to growth in the young, both physically and mentally, is opening one of the greatest fields of scientific and medical research that has confronted the scientific world. Not only in our own country, but in European countries the vital importance of foods carrying these vitamines is being followed up with the deepest interest.

As a result of these investigations we are getting at the bottom of a number of diseases that have before baffled medical science. Scurvy, beri beri and rickets are now conceded to be due to the lack of these vitamines in food. Leprosy is a malady that is still a mystery to medical science, although it has been suggested that it may have a relation to improper nourishment. It is worth noting that it does not afflict races that are liberal milk consumers.

The thought that comes to us in relation to these serious diseases that may be overcome through the consumption of vitamine bearing foods is whether many minor diseases and troubles are not due to the same cause. Headache, rheumatism, liver trouble and a multitude of other ills,—may they not have a relation to the fact that our bodies are not provided with an element in our food that we now know is essential to promote growth in young persons and animals? Indeed, the more you think on the subject the more are you convinced that milk, the richest of all foods in vitamines, is about the nearest cure-all that the Creator has given to man.

We Told You So!

As we predicted, Fancy Cream Work is having a record-breaking run this Summer. And Reyam Brand pure food products are "doing their bit" to contribute toward this phenomenal success. In making the following choice creams, use the items recommended—but be sure they are **Reyam Brand.**

For Fresh Fruit Peach Ice Cream and Ices
use Cold Process Crushed Peaches.

For Fresh Fruit Strawberry Ice Cream and Ices
use Cold Process Strawberries.

For Raspberry Ice
use Cold Process Red Raspberries.

For Orange-Pineapple Ice Cream, Ices, Sherbets
use "Orange-Pineapple" (Crushed).
The season's biggest hit!

For Cherry Cream, Bisque and Ices
use "Whole-and-Broken" Maraschino Cherries or Crushed Maraschino Cherries.

For Tutti Frutti Ice Cream or Mixed Fruit Ices
use Tutti Frutti Mixture, ready for instant use.

For Pineapple Ice or Sherbet
use Crushed Sweetened Pineapple or Unsweetened Crushed Pineapple in No. 10 cans, No. 2½ and No. 2 cans. Or Unsweetened Pineapple Juice in No. 10 cans.

For Lemon or Orange Ice
use Lemon or Orange Emulsion.

For 3 New Fancy Ice Cream Specialties
use Cocoanut Fruit Salad, Raspberry Swissette, Peach Swissette.

Write For Latest Revised Prices

THE CINCINNATI EXTRACT WORKS
422-424 West Fourth St. Cincinnati, Ohio

NOW—While the Crowds are Clamoring

at

Fairs Picnics Dances
Parks Parades Stores

Avoid Lost Sales For Lack of Service

Every stroke on the lever of the Sanisco delivers a uniform slice of ice cream on a wafer. One operator and a Sanisco does the work of three hand dippers.

Let us tell you of some unique ways in which many Sanisco users employ this speedy ice cream server. Prices on request.

SANISCO CO. MILWAUKEE WISCONSIN



Imperial Ice Cream Company, Wheeling, W. Va.

By WILLIAM D. McCORMICK

The Imperial Ice Cream Company, whose headquarters are located at Clarksburg, W. Va., operate more ice cream plants and do a larger business than any other concern in the state of West Virginia.

This particular state does not enjoy the equal climatic condition that many other states have, for West Virginia has the greatest diversity of climates of any state, caused by the numerous mountain ranges and the great variation of altitude. The average altitude of West Virginia is greater than any other state east of the Mississippi river, it being 1,500 feet. In the mountains a Canadian climate prevails both summer and winter, while in some sections of the state the winters are mild and the summers very warm. Operating a chain of plants in this particular state would naturally encounter difficulties with this climatic condition.



WILLIAM D. McCORMICK

Their original plant was located at Parkersburg, W. Va. The business was originally started by W. M. B. Sine in partnership with his uncle, A. G. Sine. From a very small beginning this Parkersburg plant increased its production and its shipping business on the main line along the Baltimore and Ohio east until it was necessary, in 1913, to erect a plant at Clarksburg, which is the present general office and main plant.

Clarksburg is not a large city. It has 13,000 people, and if an ice cream plant was to do a large volume of business at all it became evident that the two branch lines that connect with the Baltimore and Ohio main line must be intensively cultivated. These sales conditions were met and answered and to such an extent that the Imperial Ice Cream Company at this particular plant do 90 per cent of their business in tub shipment.

Under the careful management of Mr. W. M. B. Sine the business in this territory was so developed that it was necessary to erect a plant at Cumberland, Md., in 1916, to relieve the eastward expansion of the business from the Clarksburg plant.

Prompt and efficient service that will insure this company's customers having cream when they want it caused them in 1918 to erect a plant in Fairmont and in 1919 a plant in Grafton, both cities being in the neighborhood of Clarksburg.

Wheeling was next selected as the logical point of expansion that would relieve their Parkersburg shipping along the Ohio River Division of the Baltimore and Ohio railroad.

This particular city has the largest population of any city in West Virginia. It is situated in the Panhandle section of the state. The greatest number of manufacturing establishments, or forty-one per cent of the state's total number of manufacturing establishments, is located in this district.

With the 80 miles of electric railway system to the suburbs of Wheeling and the neighboring city of Bellaire, Ohio, across the river brings the population up to over 80,000 in the immediate vicinity of Wheeling.

The city is a natural location for a modern up-to-date ice cream plant. For many years the business has been divided between the Kloss Ice Cream Company and the Blake Ice Cream Company, both plants were purchased and the two being merged formed a nucleus of a business start in this West Virginia metropolis.

In view of the methods and manner of conducting their business, it was not thought practical to operate the Wheeling branch of their business in a plant which would not bear comparison to the modern methods of handling and manufacturing ice cream that form part of all their other plants. Consequently, the city was canvassed to find a piece of property that would be suitable to erect a new building.

The typography of the city is notoriously hilly and a level piece of property is practically impossible to buy, particularly for manufacturing purposes. The piece of property finally selected has considerable rise from the



The Home of Wheelingites' Favorite Dish.



One of the Battery of Hardening Rooms.



When the Sun burned and the wire sizzled—

WHEN every customer seemed to be 'phoning at the same time, did old fashioned ripening methods force you to fall behind in either the quantity or quality of your product?

During the hot weather rush hundreds of leading manufacturers again demonstrated that full ripening can be accomplished in hours, instead of days. They used Gumpert's Ice Cream Improver to aid and quicken Nature's processes.

Gumpert's Ice Cream Improver not only produces ice cream faster—it makes a richer-tasting, smoother product, and gives an additional over-run.

There's more hot weather in store—more than 2000 manufacturers will be prepared for it with Gumpert's Improver. Will you?

S. GUMPERT & CO.
BUSH TERMINAL BROOKLYN, NEW YORK

GUMPERT'S *Ice Cream Improver*

front towards the rear. The alley in the rear being level with the second floor at the front of the building. The Baltimore and Ohio passenger station is just two squares from the plant, which makes the site selected particularly advantageous for shipping over this railroad. For city business the location is practically in the center of the city.

The McCormick Company, Inc., were selected to prepare the plans and a quick start was made, but the grades of the property soon developed into many difficulties to be overcome, if the operating arrangement was to be economical in every department throughout the plant. W. M. B. Sine, himself, spent day after day in conference with his architects analyzing and eliminating one scheme of arrangement after another until finally the present layout was developed and a modern concrete plant was erected and completed on time to start the 1921 season.

The exterior of the building is severely plain, but substantial; red face brick walls with concrete columns and girders exposed. The building being on a grade that rises gently towards the rear, making the basement floor level with the main street and the first floor level with the street in the rear.

The main street floor contains the refrigeration equipment, which are three 9x9 units York high speed, motor driven machines. The brine tanks and all brine



Waste of Valuable Space Is Eliminated by Careful Arrangement of Machinery.

pumps are located on this floor. A steam boiler plant to provide pasteurizing steam and low pressure steam heating for the building is located here.

A service staircase in the rear of the engine room leads to all floors in the building. At the front of the building one enters the offices and through an office staircase directly from the street.

One characteristic of this plant and all plants of the Imperial Ice Cream Company is the absolute utilization of every square foot of space. You will never find a square foot of space in their buildings that is not put to use. Every building is so designed that future expansion can be built on to it later, and no investment is tied up depending upon future expansions that could not be accurately determined when the plant was originally laid out.

As a result of this building policy, you will find their offices, while not exceptionally large, yet comfortable and efficient. There is the manager's private office, a reception room, general office and order department with the necessary office toilet rooms. The order department leads directly to the shipping platform which insures quick service for shipping.

An ice cream manufacturer once visited the Imperial Ice Cream Co.'s plant and, as Mr. Sine stepped into the manufacturing department with him, he asked him "to judge it as not built for beauty but as a practical work shop to produce ice cream," and this is how you must judge the Imperial Ice Cream Co.'s plants as you go from one manufacturing room to another.

Every piece of building material used was put there for permanence. There is no cheap or make-shift materials that will not stand the wear and tear of an ice cream plant, but at the same time no money was spared to make the plant thoroughly sanitary, well ventilated, and economical to operate.

Every room has a clean, inviting appearance and you will notice the freezing room seems to be just exactly right in size and its white painted walls and ceiling give it an elegant appearance and a very practical one. Six Miller freezers have been installed, a chef's buffet for extract, a paper cover case and mould rack. Their brick cutting is done right in the freezing room. This is something that Mr. Sine believes to be a thoroughly practical idea. He has tested it out in his plants and it does work satisfactorily. They thoroughly investigated the various phases of their business and they make it their business to know their building requirements.

A battery of hardening rooms with direct expansion shelves are immediately in back of this freezing room. There is a passing box and the freezers have their motor ends along the walls of the hardening room.



Plenty of Light Is Essential in Freezer Room.

From the freezing room the sterilized can storage room connects the can washing room where the can washer and dryer are installed.

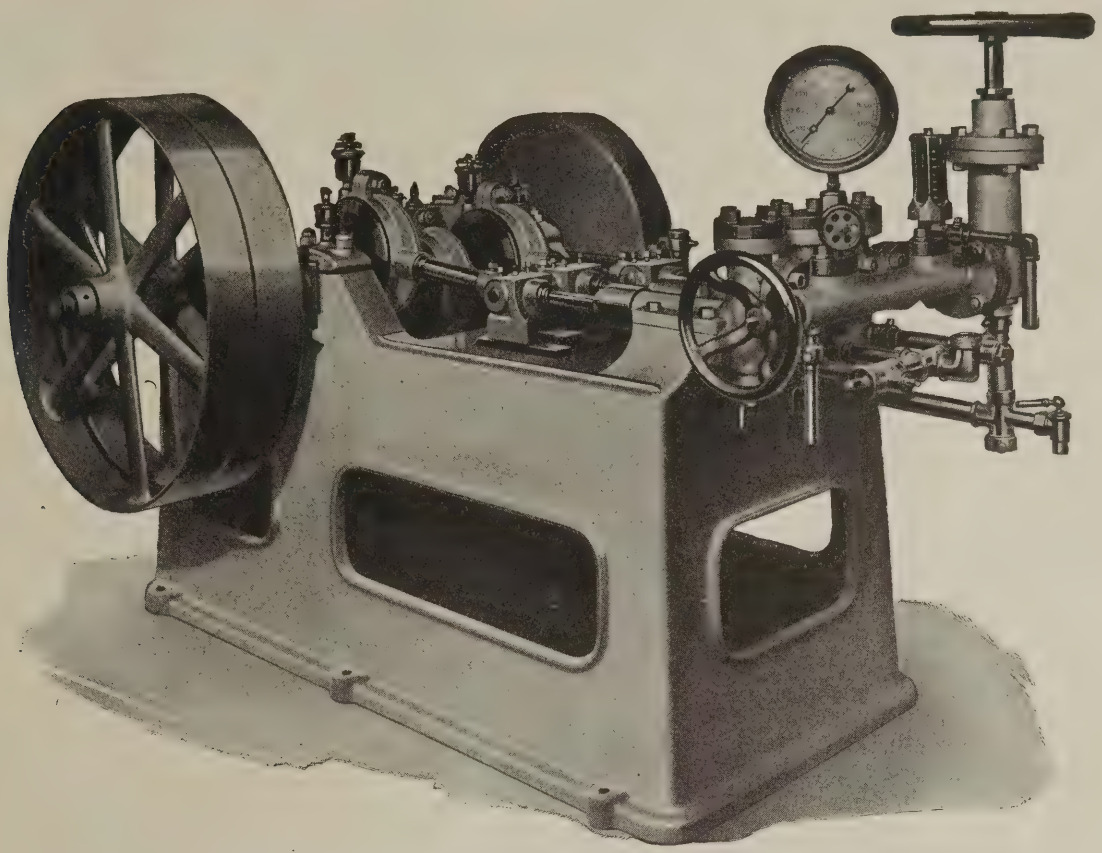
The shipping platform is L shaped. The hardening rooms, order department, can washing room, lead up to the shipping platform. There is an ice and salt pile for country shipping and ample space for tub storage.

The second manufacturing floor contains the mixing or pasteurizing room that is very ample in size and has natural light through windows on three sides. Two Cherry mixers are installed in the pit, a homogenizer, tubular cooler and Elyria glass enameled tanks for storage form the equipment of this room.

This mixing room opens out to the service staircase, the elevator and cream refrigerator room. The doors are so arranged that they can be closed from the service staircase to prevent the annoyance of flies in summer time.

The ice plant is on the second floor, where raw water ice is made, stored in a very large ice storage room that is so arranged that part of the fruit storage room and sweet cream cooler can be used for ice if necessary. The ice, of course, drops by gravity to the tank wagons and ice platform below.

The third manufacturing floor, or the fourth floor, if viewed from the street, forms the storage rooms. A



Progress Homogenizer DH-4B, 400 Gallons

Principal Use Is in Ice Cream Industry

The principal use of the Homogenizer is, without doubt, in the preparation and treatment of ice cream mixtures. The ice cream manufacturer is no longer obliged to pay exorbitant prices for cream during the summer months when ice cream is in great demand and raw cream is scarce. Thanks to the development of the Homogenizer frozen cream can be stored during the plentiful period and converted back to its natural state when needed. Unsalted butter is also stored in large quantities and used by the ice cream maker as a basis for his cream. The Homogenizer, at a pressure of about 2,500 pounds, will restore the frozen cream or emulsify butter and skimmilk to produce a cream equally as good as the fresh product in flavor, body, and food properties.

Perhaps the greatest single use of the Homogenizer is for treating the ice cream mix before freezing. The ice cream batch is regularly heated to a pasteurizing temperature which thoroughly dissolves and mixes the sugar and other ingredients, and is then homogenized at about 3,500 pounds pressure. The great advantage of homogenizing the entire mix is that it makes the butterfat and solids go farther than would otherwise be the case. Since the solid particles are so finely broken up and uniformly distributed, they give the finished product a richer taste and a firmer body. An ice cream made from a homogenized mix will have a much better texture and will taste richer than an ice cream made from the same mix but not homogenized.

The exact treatment of ice cream mix is rather difficult to specify without knowing the individual conditions involved. The composition of the mix and the design of the machinery will greatly influence the temperature and the pressure to give best results. Where vats are used for mixing and pasteurizing, it is usually advisable to homogenize at the pasteurizing temperature of about 142° and directly from the vats. The action of the Homogenizer will increase the temperature slightly and the finished goods should be immediately cooled to 50° or lower and held until ready for freezing. The pasteurizing process will usually bring the mix back to its natural state so far as viscosity is concerned and, therefore, the addition of a starter or aging of the cream at low temperature, is necessary to obtain the desired body.

In large and complete plants where the mechanical equipment is available, it is considered advisable to pasteurize the mix at 142°, then heat to about 160°, and to pre-cool quickly to 120° on the way to the Homogenizer. This treatment gives the best possible bacteriological condition and a distinctive and pleasing flavor and excellent homogenizing results. It should be the object of each manufacturer to study his conditions carefully and to treat his mix in the best manner and in the same manner every day so that his product can always be distinguished by its flavor, texture and richness.

Those who are considering the installation of a Homogenizer may obtain full and complete information by addressing our Sales Branch in their territory.

Tell Your Friends and Neighbors You Are Going To The WORLD'S GREATEST DAIRY SHOW, MINNESOTA STATE FAIR GROUNDS, October 8-15

special bin was built for salt to insure gravity flow to the platform below. There being only one other room and that being what is known as the broken-package storage which is adjacent to the staircase so that no time is lost to get the ingredients to the mixing vats which are directly below the foot of the staircase.

This plant is really a notable ice cream plant. While it is not the largest plant completed this year, yet it is so thoroughly practical and its construction and arrangement so simplified and all lost motion overcome by very careful planning, that it is certain to be a highly successful plant.

In the matter of new plants, which is in charge of Mr. W. M. B. Sine, the matter of buildings and equipment cost is very carefully determined before the plant is started. Once the financial program is laid out, the building cost must not exceed the appropriation and in the case of this plant, it did not.

The arrangement that the visitor sees when he visits this plant, and he is always welcome at the Imperial plants, is the final plan adopted after not less than 15 different ideas for the development of this parcel of property were laid out on paper.

When the plant was opened to the public in the middle of May, the Wheeling people responded to the opening to the extent that even the company's directors were surprised themselves. Crowds thronged to the plant on the opening day. The Barker, Duff & Morris Company conducted an advertising campaign, inviting the public to the plant that produced such astonishing results. A visitor is always welcome here. The city can be reached by direct sleeping cars from Washington, New York, Philadelphia, Chicago and St. Louis.



RESEARCH WORK ON INSULATING MATERIALS.

From Report of The Ontario Agricultural College.

About two years ago we started experiments in the laboratory to ascertain the relative insulating value of the several materials named below. The reasons for undertaking these tests were:

1. To get first-hand information, as we found that there was very little available data in regard to the relative value of these substances as insulators.

2. The information acquired and experience gained in carrying on the work would be invaluable in our lectures, and discussions on Cold Storage with the students.

3. The number of requests from farmers chiefly for such information was annually increasing. About this time we found that the beekeepers, for instance, were adopting the outdoor system of wintering their hives of bees in insulated cases, and they wanted to know what was the best material to pack between the cases and the hives in order to maintain the temperature in the hive at a suitable point.

Materials Tested.—The various materials tested were: Very fine black re-granulated cork, coarse black re-granulated cork, granulated cork (natural color) such as is used in packing material for imported grapes for instance, another grade of cork (natural in color) and similar to the preceding one but a little coarser in grain and lighter in weight, sawdust, planer shavings, chopped straw, forest leaves, and ordinary excelsior used in packing cases.

Results.—Briefly, we found that the very fine black re-granulated cork had the highest value as an insulator, i. e., it resisted the flow of heat through it better than any of the others. If we take it as the standard and assign to it a value of 100, the other materials arrange themselves as follows:

Chopped straw	86
Coarse black re-granulated cork	85
Forest leaves	84
Granulated cork similar to that used as packing for grapes	84
Granulated cork similar in color to preceding one but a little finer and lighter	80
Sawdust	68
Excelsior	60
Planer shavings	60

Properties of a Good Insulating Material.

1. First of all the material must be a poor conductor of heat, but there are other properties that must not be overlooked by any means.

2. It should be easy and agreeable to handle. The fine re-granulated cork is certainly a poor conductor, but no one would care to handle it very much, as it is extremely dusty and unpleasant. Any of the others would be better in this respect.

3. It should stand up well in the wall. Sawdust is a better insulator than planer shavings, but in actual practice the latter is superior since it is elastic and therefore does not settle in the wall and leave an open space at the top to let heat pass through.

4. It should be a poor absorber of moisture. Planer shavings are better in this respect than sawdust. If an insulation becomes damp it loses a lot of its value as an insulator, and, furthermore, will soon deteriorate and rot.

5. It should be reasonably cheap and easily obtainable. Such is the case with sawdust and shavings.

6. It should be durable and easily put into the wall. The various grades of cork are the best in this respect.

7. It should not be attractive for rats and mice, as they would soon destroy it. For example, chopped straw.

From most of these standpoints, the granulated corks are the best, but they are the most costly. Next to them we would recommend a good quality of planer shavings; next a good quality of sawdust, dry and from well-seasoned woods as basswood, and pine. Chopped straw and forest leaves would give very good results for a time, or while they would stand up. It will be seen that many factors besides insulating value must be considered before deciding upon material to be used in any particular case.

Some of the uses of these materials to-day are the following:

1. Insulating cold storage buildings.
2. Insulating milk or cream tanks.
3. Packing for beehive cases—useful both summer and winter.
4. Insulating ice storages and refrigerators, and for packing around ice in the storages.
5. Insulating fireless cookers.
6. Insulating water and steam pipes.

Anyone interested in insulating materials for any of these various uses should first write us giving the circumstances. We will freely give advice, not only as to the best material to use, but also the amount, i. e., in this case the thickness to be put into the wall.

Audel's
"Answers on Refrigeration"
A practical treatise for engineers. This book is the most complete work on the subject of refrigeration and ice making on the market today. 690 pages. Half leather binding.
Sent Prepaid on Receipt of $2.00.
OLSEN PUBLISHING CO.
210 Sycamore St. Milwaukee, Wis.

More Money In Every Sale

There's more *profit for you* when you sell ice cream out of an ECONOMY CABINET—because it costs you less for icing. Then it costs less in the first place and wears longer than most other cabinets, so it saves you money all the time.

"THE ECONOMY"
Ice Cream Cabinet

is fast taking the place of more expensive styles because it appeals to careful dealers. Made in mahogany and other finishes and coated with waterproof varnish. Insulation is finely graded granulated cork, protected by waterproof felt. Picture shows an Economy Metal Lined Cabinet. Made in from one to four compartments, 12 to 20 quarts. Ask about "Economy" Packing Tubs.



Write or wire for catalog and prices. Prompt shipment if you order at once.

HOMER MFG. CO.

HOMER CITY
P E N N A .

Has Your Ice Cream Character?

By H. W. BLACK, with The Widlar Company, Cleveland, Ohio

What can I do to make people demand my ice cream in preference to the other fellow's? This is the question that is occupying the attention of every progressive manufacturer in the country to-day. With the millions of dollars of capital lying idle in brewery properties in every populated community, it is quite natural that the established manufacturer of ice cream should be concerned about the new competition that is rapidly cropping up. Unless you are making the best ice cream that is humanly possible, you are only inviting outside capital to open the doors of a brewery with refrigeration machinery already installed.



H. W. BLACK

Unless your ice cream is so good that it cannot be improved, you are only inviting new competition to go out and take the business you have been years in developing, by giving the consumer an ice cream of better quality.

What then constitutes Quality? In other words, what are the most important component parts of good ice cream? They are the texture or body, the butterfat, solid content, and most important, the Taste. People will go past one store to buy ice cream at another, if the other man's ice cream tastes better.

The consumer is not particularly interested in whether one man's cream has a point or two more butterfat or if his solid content is 33 or 40 per cent, if the texture is good and the flavor is pleasing.

Therefore, inasmuch as "flavor" plays such an important part in the successful sale of ice cream and as 90 per cent of the ice cream consumed is vanilla, it behooves the ice cream manufacturer to be eternally on the lookout for a better vanilla flavor for his ice cream. The really progressive manufacturer to-day makes a practice of collecting samples of all his competitors' ice cream periodically and comparing them in an unbiased way with his own.

Try this sometimes. Get samples of the different ice creams that are sold in your community and a sample of your own. Have the dishes marked so you will not know which is which and then taste all the ice creams. Pick out the best flavored ice cream. If it happens to be your own, you can go to bed and get a good night's rest (if you are not too busy) but if it is the other fellow's, my best advice to you is to get hold of a good extract man who knows his business, and one in whom you can put absolute confidence. Lay all your cards on the table; tell him you want a flavor that will give your ice cream "individuality". Tell him that you want your ice cream to have "character" and that you want it so good that there won't be any possible chance of the consumer not being able to distinguish it from your competitors' when they taste it.

The phenomenal growth of the ice cream business is responsible for the fact that so many manufacturers do not give sufficient attention to the flavor of their ice cream. Too many men buy a barrel of vanilla with no more concern than they purchase a keg of tenpenny nails.

Some use vanilla as sort of a "necessary evil" and feel that they have to put it in their ice cream, so for that reason the cheaper they can buy it, the more money they will have at the end of the year. Then, again, there are some who buy a rank, harsh flavor "to cover up the off flavor of their mix," instead of determining the reason for "off flavor" and correcting it.

The most prevalent cause for "off flavor" in ice cream is in the handling of the condensed in such a way as to produce a cooked or scorched flavor in your mix. Another cause is the use of low grade, unstandardized gelatines. Another is the careless use of so-called "improvers".

Most "improvers" simply do, artificially, what nature will do automatically if you have the time. They ripen your mix. There is nothing finer than a sweet ripe apple, but when it is over-ripe, it is rotten. This also applies to your mix.

A short time ago the writer was in receipt of the following telegram:

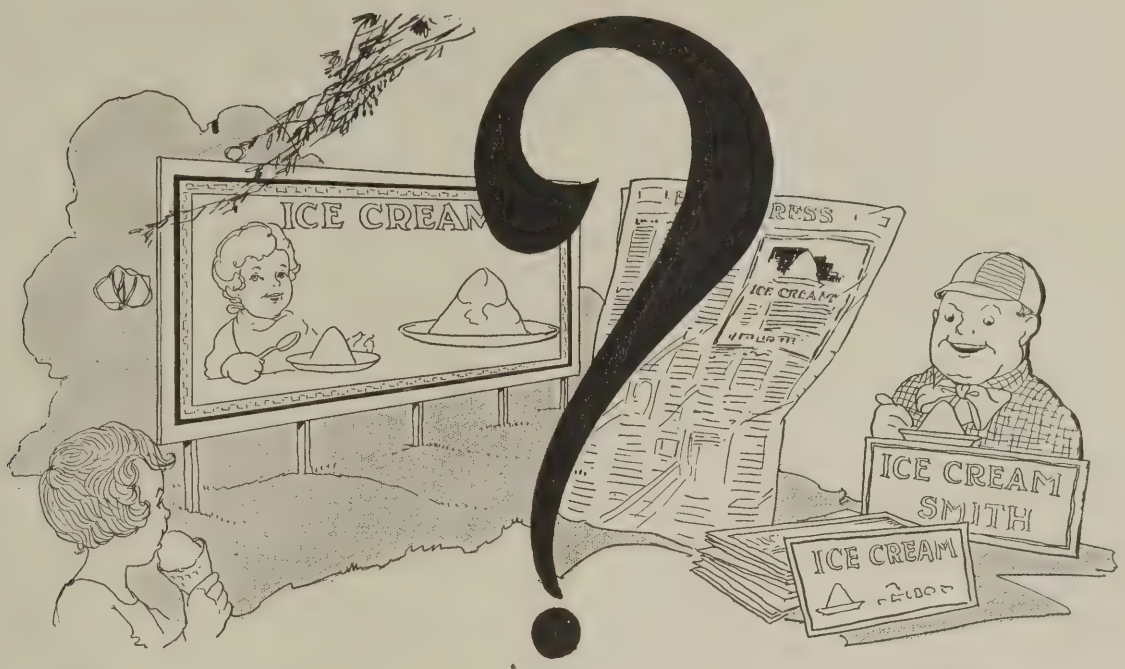
"Something wrong with last barrel vanilla. Customers kicking. Please replace."

The next morning found me, after a hot night on a sleeper, at the plant "where customers were kicking." After a thorough investigation we found that they had run out of the high grade standardized gelatine that they had been using and had been forced to "pick up" a parcel from a local jobber. The gelatine proved high in acidity, their mix was just ready to turn, the result: sour ice cream, and, of course, the vanilla was blamed until we were able to put our finger on the cause of this man's trouble. It is needless to say that we made a satisfied customer of this concern and his appreciation to us has been shown by his continued patronage.

I could cite a hundred incidents but they would all point to the same conclusion,—namely, your vanilla salesman isn't such a horse thief after all. In fact, the chances are that he can help you sell more ice cream just as effectively as your advertising counsel, if you will give him the opportunity. The best flavor you can buy is just as good an "ad" as a hundred bill boards if you will have your solicitors continuously talk and drive home to your customers the superiority of your flavor. If your flavor is better, your ice cream must be better, **because it tastes better.** That is the logic of the ice cream consumer. When you find a vanilla that will give you the best flavored ice cream in your community, don't keep a secret. Let your bill boards, your window trims, your newspaper ads,—in fact, every advertising medium you use, tell the public how much better your ice cream tastes.

Try advertising the flavor of your ice cream instead of just ice cream and you will soon find that the consumer will go by several of your competitor's stops to buy your ice cream because your advertising has told them that your ice cream tastes better and the vanilla in your product has proven your statement.

The last taste in the consumer's mouth is what leaves a desire for another dish, or else causes him to mentally resolve to buy the other fellow's ice cream the next time. There is no reason why the extract



Posters, Store Signs or Newspapers
—*which shall it be?*

The Service We Provide

¶ Furnish Posters, Store Displays, Newspaper Advertising.

¶ Write all copy for newspapers, programs, sales letters, dealer advertising, etc.

¶ Suggest new Sales and Distribution Methods.

¶ Relieve you of all the detail connected with your advertising.

¶ Act as confidential advertising counsel.

¶ Confer with you on any Advertising and Selling Problem.

THERE are hundreds of ways of advertising—but only one method or combination which directly suits your business.

When the *correct* method is decided upon; when it is planned and carried out by specialists in Ice Cream Advertising and Selling, the effect is promptly noticed in increased gallonage and better dealer co-operation.

To decide—*with you*—upon the correct form this advertising should take—to provide the posters, dealer helps, newspaper advertising and other material required is the object of this organization.

Whether you invest $300.00 a year (as does one of our clients) or whether you use $100,000.00 (as does another) you are assured of the same intelligent service and enthusiastic co-operation.

If you are located in a territory we do not already serve our advertising service can be used with valuable results. Write for complete information and plan.

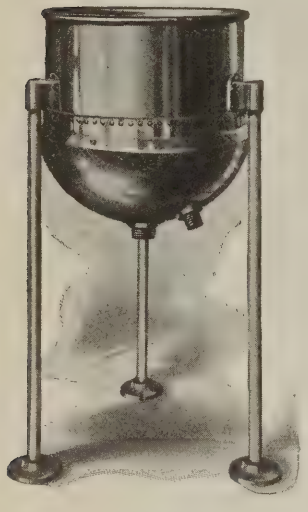
BARKER, DUFF & MORRIS
Ice Cream Advertising Headquarters
323 FOURTH AVENUE, PITTSBURGH, PENNA

manufacturer who will develop a real vanilla flavor with "individuality" and "character" should not be able to pick their customers in non-competing territories, the same as Barker-Duff & Morris Advertising Company pick their clients, because a flavor of this nature surely would be working night and day advertising the quality of their customer's ice cream.

In closing let me again urge that you stop buying extract from every Tom, Dick and Harry, make the man who sells you your vanilla give you the best flavored ice cream in your territory. Then standardize on that flavor and don't change, no matter how good a fellow the other salesman is, unless he has something still better. Don't spoil a perfect ice cream mix with an inferior vanilla. Get a flavor with "individuality". Will your ice cream then have CHARACTER? Try it, that's all.

⚜

CREPACO COPPER GELATINE KETTLES.



These kettles are made of copper with copper steam jackets surrounding the lower portion of the kettle. These are upheld by pipe standards screwed into flanges for fastening to floor. They vary in diameter from 16 to 26 inches and in sizes to hold 10 to 75 gallons. All sizes are equipped with quick opening draw-off valves. In addition to their use for cooking gelatine, they are ideal utensils for preparing fancy ice cream mixes and for modifying milk.

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NATIONAL DAIRY UNION NOTES.

Washington, D. C., July 11, 1921—Dairy interests, dairy cattle associations and farm organizations have united in an effort to secure the enactment of "filled" milk prohibitive legislation, co-operative marketing laws and a proper and consistent tariff schedule. The agreement was reached at a meeting in Buffalo, July 8 and 9 attended by President Frank O. Lowden of the Holstein-Friesian Association, S. J. Lowell of the National Grange, Milo D. Campbell of the National Milk Producers, N. P. Hull, President of the National Dairy Union, H. E. Babcock, representing the Guernsey Breeders' Association and other representatives of the dairy and farm organizations.

The resolutions adopted were as follows:

By Chairman Campbell of the Committee on Filled Milk Legislation:

"Whereas, There is an alarming increase in the manufacture, sale and consumption of bogus milk products, consisting of compounds of skimmed milk with cocoanut oil or other vegetable fats, and

"Whereas, such products, regardless of the labels on the containers, are being sold in large quantities as Condensed Milk and other milk products, thereby at once becoming a fraud on the consuming public as well as a menace to the public health and to the dairy interests:

"Therefore, Be It Resolved, That we favor the abolition of such traffic by Congress by direct prohibitory or restraining laws.

If, however, it shall be found impracticable or impossible to effect such prohibition by direct legislation, we recommend and urge Congress to levy a tax upon such products high enough to measure the difference in cost between such bogus or adulterated products and the products of like character made of whole sweet milk. We also believe that a tax should be placed upon the manufacture and upon the sale both at wholesale and at retail of such bogus products. To become effective for the protection of the consuming public and of dairymen whose product is thus being deceptively and dangerously imitated, a tax should be levied of not less than three and one-half cents per pound on such bogus products."

Moved by Professor Erf, seconded by Richard Pattee that the resolution be adopted as read. Carried unanimously.

By Mr. Miller: "Resolved, That we re-affirm our approval of the Capper-Volstead Co-operative Marketing Bill, H. R. 373, and urge its early enactment into law in the form that it passed the House of Representatives."

Moved by Richard Pattee, seconded by A. J. Glover, that the resolution be adopted as read.

By Chairman Balderston of the Committee on Tariff Schedules: "Whereas, it has been distinctly and conclusively shown by data carefully compiled by competent authorities that a tariff of 10 cents per pound on butter was absolutely necessary in order that the dairy industry may prosper in the United States.

"Therefore, Be It Resolved by this Conference of the representatives of dairy associations assembled in Buffalo, N. Y., July 8, 1921—

1. That we respectfully urge upon Congress that the above mentioned rate of duty on butter be agreed upon in the final passage of the pending tariff law.

2. That we insist and urge all our constituent and allied interests to insist that the entire dairy product schedule must be on a parity with the rate of duty on butter. We approve the entire schedule suggested by the United States Milk Producers Dairy Tariff Committee, which was based on the comparative market value of the various constituents of whole milk and is as follows:

Milk, 3½ cents per gallon, cream 35 cents per gallon, butter 10 cents per pound, cheese 5 cents per pound, condensed milk 2 cents per pound, casein 5 cents per pound.

We would call attention to the fact that Casein has been overlooked by the Ways and Means Committee. The American Manufacturers of this by-product cannot exist without proper protection.

3. That any protection of the Dairy Industry may receive by a tariff on dairy products themselves, will be very largely negatived if there is not a duty on edible vegetable oils at least equal to the tariff on butter fat. We would urge that there be placed a tariff on Copra not less than 50 per cent of the rate of duty placed on vegetable oils. We also recognize the importance of these oils in the industries and arts and would suggest that importers and refiners be allowed a suitable rebate on all such oils that are denatured and used for any purposes other than human food."

Moved by Mr. Pattee; seconded by Mr. Holman, that the resolution be adopted as read. Carried.

A. M. LOOMIS,
Secretary.

⚜

One of the best ways to have sunshine in your life is to open the windows of your heart to the beautiful things about you.

Doubling Output without Hiring More Help

Prominent Philadelphia Ice Cream Manufacturer Orders 6—160-qt. Capacity

U. S. Heavy Duty Giant Freezers

IN A test made in the plant of a prominent Philadelphia ice cream manufacturer, a recently installed 160-qt. U. S. Heavy Duty Giant Freezer finished 9 batches in the course of a 2-hour period, and the tenth was in the making when the time was up.

Thereupon two more Giants were immediately ordered. After these were also installed, it was discovered that one man could just as easily keep the three Giants going at full capacity without interruption, as he could keep three freezers of another make, but of only about half of the capacity, going.

This was partly due to the automatic batch control and the remarkable ease and convenience in general with which these Giants can be handled.

It was also due to the large valves and passages for quickly admitting the mix, efficient cooling system, improved whipping device, and the rapid vertical discharge, which enabled the Giants to turn out just as many, and even more batches per hour than the smaller machines.

The owners therefore arranged to trade in the three small machines towards the purchase of still another three U. S. Giants, making six altogether, thus doubling their production capacity without hiring more help, since a man will produce just twice as much ice cream with U. S. Giants as he was able to produce in the past.

Efficiency—No Retrenchment—Offers the Only Hope of Doing a Profitable Business in Times Like These



Hinged Cover Now Standard Equipment on All Sizes

The hinged cover is now standard equipment on all sizes. It adds greatly to the convenience of operation. No danger of injury to its ground surfaces or other parts through rough handling when removed from the cylinder. Heavy lowering and lifting are done away with. Danger from contamination from dirt on account of laying it on the floor is entirely eliminated, and it is always conveniently in place to wash at the same time that the cylinder is being flushed out.

MANY who seek to "cut down" expense, merely cut down production and increase the cost. The right way to cut costs and to increase production is to improve the economy and efficiency of production by installing up-to-date equipment that saves labor, time, power, space, and will also improve the quality and uniformity of your product.

U. S. Heavy Duty Freezers are made in all sizes. Many old manufacturers, and some beginners, are now ordering U. S. Heavy Duty Freezers to keep up with the hot weather rush. They recognize the folly of waiting for prices to come down further. We can still make prompt deliveries. Write us at once.

Our circular on "How to Tell a Good Freezer" is yours on request.

U. S. FREEZER & MACHINE CORPORATION

Union Avenue and Frost Street **BROOKLYN, N. Y.**

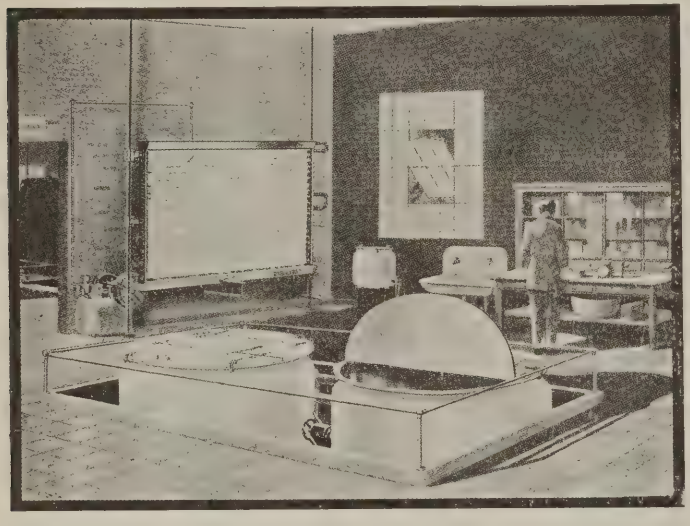
Representatives and Distributors in All Parts of the United States and Canada.
May we not arrange to have one call on you?
See our Exhibit at the National Dairy Show.

16

THE UTILIZATION OF THE PFAUDLER GLASS LINED KETTLE IN THE HANDLING OF GELATINES AND FLAVORING EXTRACTS IN THE MANUFACTURE OF ICE CREAM.

The use of gelatines in the making of ice cream to give it "body" has become a standard practice. The proper handling of this gelatine has been a problem to many of the larger plants where considerable quantities of it would be used. Holding it at uniform temperatures, and at the same time guaranteeing that there would be no solidification or caking to the sides of the kettle has been accomplished by the use of the Glass Lined Jacketed Kettle.

This kettle uses hot water as a heating medium and will melt the powdered gelatine in a very short time.



The temperature can be controlled after the gelatine has reached the liquid state, in this way avoiding overheating. The kettle is equipped with removable cover and a horizontal propeller agitator, which is used in the melting of chocolate when the kettle is not holding gelatine. The best results in the mixing of gelatine have been obtained by hand stirring. There is an outlet at the bottom through which the gelatine can be drawn off. A view of this kettle, as used in conjunction with Pfaudler batch mixers, is shown in the accompanying illustration.

For the mixing and holding of flavoring extracts, Pfaudler equipment has been used for a long time. In developing a uniform mixture, the side agitator has been used most extensively, assuring as it does, in the case of blending an even distribution of ingredients.

Especially for the handling of vanilla and fruit extracts, where evaporation and leakage have such a wasting influence,(the one-piece welded tank with tightly fitting cover works out best. As the result of practical experience it has been found, also, that the glass lined container is ideal in this field, eliminating, as it does, all metallic action.



MICHIGAN ALLIED DAIRY ASSOCIATION CONVENTION.

The Michigan Allied Dairy Association, which numbers among its affiliations all branches of the dairy industry in Michigan, will hold its 1922 annual convention and dairy show in the city of Saginaw, in February. The tentative dates are February 14-17 both inclusive, according to an announcement made by Mr. H. D. Wendt, general secretary of the Association, which has headquarters at Lansing.

The Municipal Auditorium, which is almost ideally suited for the purpose in question, has been made available by the Saginaw Board of Commerce. This building has available for exhibit purposes approximately twenty thousand square feet of floor space; a convention hall for meeting purposes seating 600 people and several smaller rooms sutiable for sectional meetings of the Association. The main balcony has a seating capacity of more than a thousand. The total seating capacity of this building, where no space is used for exhibit purposes, is 4,000.

Tentative plans now being developed by the several committees who are co-operating with Mr. Wendt, who will be the show manager, are designed to fully mirror the importance and diversification of the dairy industry in Michigan. The Dairy Department of the State Farm Bureau is actively and enthusiastically co-operating with the State Dairy Association designed to assist in making the Michigan Dairy Show second only to that of the National which this year is to be held in the Twin Cities, October 8-15. The border states of Ohio and Indiana will undoubtedly be prevailed upon to take an interest in the Michigan Dairy Exposition which will be built along the lines of the progress which has been made in the production, manufacturing and marketing of milk and milk products in recent years.



WHY ATTEND THE NATIONAL DAIRY SHOW?

By J. R. Dice, North Dakota.

The dairy farmer is apt to ask why he should attend the National Dairy Show that is to be held at St. Paul next October; he may inquire why he should attend the show after he has attended the State Fair. A hardware merchant may, with profit, attend a Retail Merchants' Convention, but he will usually derive more benefit from a hardware dealers' meeting. The dairy farmer should attend the Dairy Show because it has been planned for his instruction, inspiration and recreation.

Instruction. A study of the cost of producing dairy products during the year past shows that good cows properly fed have returned a better net profit for the feed fed than they did during the inflated price period. Good cows properly cared for are A-1 investments and the National Dairy Show exemplifies dairy type and demonstrates methods for increasing the profit of the herd.

Inspiration.—There is inspiration at the ringside, after a review of the exhibits it is inspiring to realize how immense the dairy industry is and to know of the progress it has made during the last decade.

Recreation.—There are many forms of amusement but let us go to dinner. We find that it happens that a man from Texas and another from Wisconsin are swapping experiences. A little later a down East farmer joins the group and we realize that it really is a national show. After an hour of genial conversation each dairyman is surprised to find that everything considered his community has as many advantages as any and that after all he would rather put up with his lot than chance the troubles of the other fellow—in other words he is a recreated dairyman ready to go back home to his job satisfied that it is worth while.

It has often been noted that men who attend such shows are more successful than those who stay at home. The man who attends this show should be more efficient. The cost of the trip is immaterial if it is profitable. The dairy farmer should attend the National Dairy Show because it is his show.

FRESH MILK AND CREAM
That Won't Sour In The Hottest Weather



SNOW DRIFT SKIM MILK POWDER

NO DELAYED DELIVERIES — NO REFRIGERATING COST

A DEPENDABLE supply of fresh milk and cream that won't sour in the hottest weather—is what Snow Drift Skim Milk Powder insures you. Made from the finest milk, containing all the sweet natural flavor, Snow Drift Skim Milk Powder makes smoother, richer ice cream at less cost. It requires no refrigeration. Be ready to meet the hot weather demand for ice cream by ordering now enough Snow Drift Skim Milk Powder to meet your requirements. Packed in 180 to 225 lb. bbls. Write or wire us for prices on carlots or less.

The Right Products — Priced Right For Better Ice Cream



Golden Key Brand Evaporated Milk

GOLDEN Key Brand Evaporated Milk is right in taste, appearance, and color for blending. Sterilized and of highest quality, Golden Key Brand is evaporated under Federal Standards, insuring no deviation in fats and solids. Packed in No. 10 tins (gallon).



8% Superheated Milk

IN 8% Superheated Milk, there are no grains or lumps. The body is like a thick syrup with low acidity. Fats and solids are not guessed at but checked in an up-to-date laboratory, by trained chemists. Packed for shipment in 10-gallon cans.



Gould's Own Brand Sweet Butter

SIXTY-two pounds of Gould's Own Brand Sweet Butter and thirty-eight pounds of Snowdrift Skim Milk Powder equals 60 gallons of 10% sweet cream. Gould's Own Brand Sweet Butter is perfectly pasteurized. Packed in tubs.

GUARANTEED FRESH

GOULD Products are guaranteed fresh. Made from the best grade materials, Gould products are laboratory tested and conform to all Federal standards. Write or wire for prices. Shipment made immediately.

C. A. GOULD

720 TEMPLE COURT MINNEAPOLIS, MINN.

The New Galloway-West Creamery and Condensary

CONSTRUCTED along lines to provide the highest efficiency in production, and equipped with modern appliances guaranteeing cleanliness, safety and speed. Such is the new plant of the Galloway-West Company, Fond du Lac, Wis. The accompanying photo gives the reader an idea of the exterior view of this most modern plant of its kind in the country.

The front of the building has more the appearance of a public library than a big creamery and condensary. A main stairway divides at the top of a short flight and one branch leads to the main lobby of the building, the other to the private offices. Entering the lobby, an information bureau is found with a telephone operator in charge. Here, also, is a refrigerator where a stock of butter is kept for sale to the farmer patrons of the factory. Passing through this office a small but complete laboratory is reached and then the test room where every requirement of the pure food laws is met with special apparatus for bacteria tests, bacteria cultures, and the very latest equipment for testing milk, cream and other dairy products. From the test room one passes into the receiving room, the heart of the plant, and one of the most interesting places during the rush hour that can be imagined. But visitors can not expect to be there during the rush hour, because they will be in the way.



Galloway-West Plant at Fond du Lac, Wis.

At this new plant the milk cans are received on a conveyor that delivers them at the receiving tank. After the milk is poured into the tank, the can is set upside down on a hydraulic steam washer and dryer, moved to the further end, automatically set upright on another conveyor and delivered to an outside platform. The procession is as regular as the workmen can empty the milk and set the cans down. Twenty-five ten gallon cans are delivered, emptied, cleaned, steamed and dried ready to return to the driver in just four minutes. All waits are eliminated. The milk is delivered at one door. The driver moves to the next door, gets his empty cans and drives off. He unloads, reloads and is gone in less time than it took to unload at the old plant . There is no congestion. While the activity is intense from 10 a. m. until noon there is no delay nor confusion.

From the receiving vats, the milk is fed into four De Laval separators having a combined capacity of 28,000 pounds per hour. From the separators the cream and skim milk flows into separate vats and thence into the pasteurizers. After pasteurization it is cooled down to 40 degrees and is then ready to be put in ten gallon cans, sealed and shipped. The filled cans are delivered to the unloading platform by conveyors and loaded directly into refrigerator cars on track or on trucks for hauling to the depots.

A separate can cleaning department takes care of the returned empties and several men have "some hot" job during the work. The cans are cleaned with boiling water, automatically brushed, and set on a hot air blast to dry.

The company supplies its own power but has connections with the Eastern Wisconsin Electric Company for protection and to carry small loads when its own generators are not working. A Ridgway engine, direct-connected to a 330 K. W. generator furnishes power and light. There is a 34-ton Vilter ice machine, and in another part of the power room a Sullivan air-life engine for the water works system.

A concrete storage tank with a capacity of 135,000 gallons of water supplies this essential. The well can maintain a flow of 1,395 gallons per minute and the centrifugal water pump in the engine room can handle 1,500 gallons per minute. An emergency storage tank of 25,000 gallons capacity is to be erected later to take care of the supply in case of accident to the regular system. Another safety feature is a city connection that can be turned on at a moment's notice.

Next to the power room is the boiler room, where three 250 H. P. Sterling water tube boilers produce the steam to run the plant. Each is equipped with an automatic stoker and a force fan supplies extra draft when needed. The water that passes into the boilers is heated first by exhause steam. Coal when delivered is carried over the storage bin in the railroad car and dropped where it belongs.

Going back up stairs the visitor enters a part of the plant devoted to condensing operations. Here is a large seven foot diameter condensing pan with necessary vacuum pump and other equipment. In an adjoining room are two large glass lined tanks, 9x10 feet, with a capacity of 4,500 gallons each. These glass-lined tanks have a vacuum jacket and brine connection so that milk can be held at any desired temperature. The plant has all equipment for condensing purposes but at the present time this department is not in operation.

The entire Galloway-West plant is 210x85 feet. The general contract was let to the Immel Construction Company, the plans were made by Martin Tullgren & Sons Co., architects, Milwaukee. Much of the equipment was purchased from the Creamery Package Manufacturing Co., of Chicago.

Wescoco a Delectable Drink.

Besides manufacturing regular dairy products, the Galloway-West Co. are also manufacturing a product known as "Wescoco". This product does not consain cocoanut oil or any other foreign fat, but is a new milk

IDEAS THAT BUILD BUSINESS—
THAT'S SERVICE



IVAN · B · NORDHEM COMPANY

Advertising and Selling Service for Ice Cream Manufacturers

8 West 40th Street · · · New York City

MEMBER

Ivan B. Nordhem Co.,
8 W. 40th St., New York, N. Y.

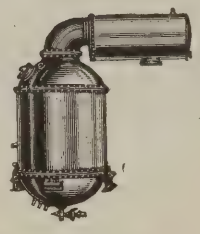
Send, without obligation to us, your Sales Ideas for 1922. A service to increase our ice cream sales interests us.

Name .....

Address .....

Condensary and Dairy Equipment Manufacturers Since 1878

Vacuum Pans any Size to meet your requirements.



Jacketed and Plain Hot Wells

Jacketed and Plain Kettles.

Rusted Milk and Ice Cream Cans retinned and repaired. Can life renewed with a heavy plating of Straits Tin.

All Types of Ice Cream Freezers Repaired.

Our Steel Department fabricates specially designed or standard Tanks, Truck Bodies and Tanks and Smoke Stacks any size.

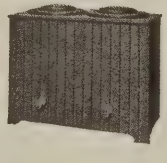
Inquiries invited

ALOIS, AUFRICHTIG COPPER & SHEET IRON MFG. CO.

Service—Efficiency—Economy

Third & Lombard Sts. St. Louis, Mo.

Cabinets Put to Test



Torrid Summer Brings Out True Quality

Schroeder Perfection Cabinets

—prove their worth when the thermometer registers highest

"Insulation is the thing"

JOHN SCHROEDER LUMBER CO.

"A Dozen Cabinets or a Dozen Carloads"

WALNUT ST. MILWAUKEE, WIS.

product made of cocoa, milk, sugar and flavored with vanilla, mixed together in perfect proportions, sterilized under pressure, which brings out the fine flavor and aroma; sealed tight in lacquered cans.

Wescoco dissolves perfectly in cold or hot water. It is always the same standard and therefore assures the consumer of a delicious cup of hot or cold chocolate at any time and with practically no labor.

Wescoco can also be used for many other dishes in the kitchen, as well as at the soda fountain. With the proper advertising Wescoco should find a good demand as well as help to increase the consumption of milk.

⚜

STARTLING FACTS.

Some very significant facts for the dairy industry have been presented by Mr. S. H. Greene, Secretary-Manager of the California Dairy Council.

A survey was made of 55,000 children in Los Angeles, Calif., by Dr. Everett C. Beach, and the startling fact was revealed that children who are users of milk complete the eight grades of school work two years earlier than non-users of milk. The survey also showed that the milk users were superior in athletic contests to the non-milk-users.

This survey is of inestimable value and can be studied from many angles.

Looking at it from the financial viewpoint, and recognizing that there are approximately 100,000 children in the elementary schools of Los Angeles alone, and that 20 per cent of these are retained two years longer in their school work than necessary. Mr. Greene figures that the total loss to the city each year runs into the millions of dollars.

It costs about $75 of the public money to keep a child in elementary school each year, or $150 for two years. Twenty thousand retarded children, therefore, cost the taxpayers of Los Angeles $3,000,000.

If the city were to buy a pint of milk for every one of these retarded children for the entire eight years of the elementary course, and if the children made normal progress as a result there would be a considerable sum left out of the present cost of keeping them in school two years longer than the normal children.

There is another angle: 20,000 children occupy 20,000 seats in the school buildings for a little over two years longer than necessary. This means additional expense.

Furthermore, the two extra years which the 20,000 retarded children now spend in grade school could be spent to a decided advantage, financially and otherwise, in high school or in commercial activities, at home, on the farm, or in the city **producing.**

All of this, says Mr. Greene, is aside from, and in addition to, the detrimental effect of these retarded children upon their classmates.

All told, the loss is appalling.

As a result of these findings, the California Dairy Council, with the able assistance of Dr. Everett C. Beach, is now working under the slogan, "Free Milk is as Necessary in the Schools as Free Text Books." They are also working on getting a scale in every school so that the children can be weighed and measured carefully; and also they are following the slogan of all Dairy Councils, namely, "The Milk Way is the Health Way," and "Every Child Should Have at least a Quart of Milk Every Day."

The dairy industry should recognize the opportunities afforded by such investigations as these. It is

It's In the Flavor



"The best flavor is none too good"

In the manufacture of our Vanilla and minor flavors, we keep this fact constantly in mind . . . .

when you use several or any one of our products, you are placing confidence in us, a belief that "B-F Flavors" will enable you to make and sell good ice cream. That we have not betrayed this confidence is evidenced by the substantial business we enjoy from ice cream manufacturers who seek dependable flavors which are reasonably priced.

Dairy Show

Tell your friends and neighbors you are going to the World's Greatest Dairy Show, Minnesota Fair Grounds, October 8th to 15th. A cordial welcome will await you at our exhibit, Booth No. 317

The Boerner-Fry Company, Iowa City, Iowa

MANUFACTURERS OF HIGH GRADE EXTRACTS

Tell Your Friends and Neighbors You Are Going To The WORLD'S GREATEST DAIRY SHOW, MINNESOTA STATE FAIR GROUNDS, October 8-15

THE NEXT ISSUE

OF

The ICE CREAM REVIEW

WILL BE THE

WORLD'S GREATEST DAIRY SHOW NUMBER

HAVE YOU RESERVED ADVERTISING SPACE FOR THAT ISSUE?

Tell your friends and neighbors you are going to the World's Greatest Dairy Show—Minnesota Fair Grounds, October 8th to 15th

very important that this information be spread throughout the country, and it is only through co-operation and through effective publicity on the part of everybody engaged in this great industry that these facts can be made known.

Every man engaged in this dairy industry should see to it that he is spending some of his money in **marketing** his dairy products rather than spending his entire amount of money in **producing**. Every person engaged in this industry should recognize that it is to his advantage to assist in conducting publicity of this nature such as will cause the public to recognize the true value of milk and its products. Then this important industry will begin to assume the place it deserves. Dairying is a big business, and a most fundamental one to human life and human progress.

It is only by getting behind the Dairy Council work that this educational propaganda can be conducted most effectively—in the shortest time and at the least possible expense.

Resolve to-day to set aside a portion of your budget for co-operative publicity. You know what splendid results have been secured by the rice growers and dealers, the paint people, the raisin growers, and others. The dairy industry can be equally successful, if not more so, because of the superior value of our product.

Let's get together and tell the best story on earth to the millions of people who are seeking for facts such as we have to tell

NATIONAL DAIRY COUNCIL,
(Publicity Department.)

⚜

HOOSIERS GOING TO THE NATIONAL DAIRY SHOW.

The Fifteenth Annual National Dairy Show, to be held at the Minnesota State Fair Ground (St. Paul) October 8th to 15th, under the auspices of the National Dairy Association, promises to be a grand success.

Indiana will be well represented. With the idea of consolidating all Indiana members in a body from Chicago to St. Paul-Minneapolis, we have arranged with the Chicago, Milwaukee & St. Paul Railway for special sleeping cars on the "Pioneer Limited" leaving Chicago 6:30 p. m. (Standard time) Sunday, October 9th from Union Station, Canal and Adams Sts., arriving at St. Paul at 7:20 a. m., Monday.

Reduced rate of one and one-half for the round trip on the certificate plan will be authorized from all points in Indiana, dates of sale and limits to be announced later. Sleeping car rates from Chicago to St. Paul-Minneapolis, including tax, are as follows: Lower, $4.05; upper, $3.24; compartment, $11.34; drawing room, $14.58.

The famous "Pioneer Limited" Table d'hote evening dinner in courses will be served at $1.50 per plate. No extra charge for additional portions.

Please make your reservations through this office as early as possible in order that we may know just how many to provide for from Chicago in our special cars.

Yours truly,
A. P. HOLLY, General Sec'y,
Indiana Manufacturers of Dairy Products.

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Tell us what you want, or what you have that you don't want, and we'll fix up a little Ad. for you and insert it in the next issue of The Ice Cream Review. You just stay at home and wait for results. You'll soon have your hands full.

Speed Up
Your Brick Cutting Dept. with a "New Era"

Cuts standard ice cream slabs from moulds into quarts, pints or any size desired, as fast as the operator can release the ice cream from the moulds.

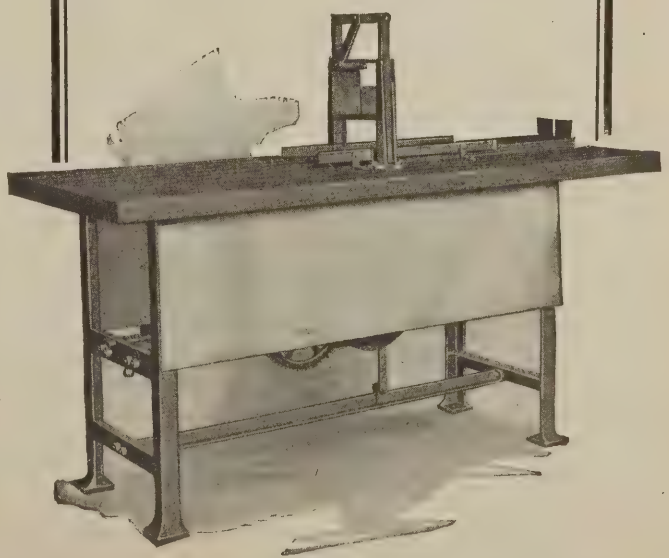
Absolutely Uniform

and unfailingly accurate is the "New Era" Ice Cream Brick Cutter. It's simplicity, speed and accuracy.

Reduces Costs

Our circulars tell all about this simple, practical machine. Get one.

The New Era Company
146 Merritt St. Oshkosh, Wis.



Carbonation, Stabilizer and Flavor Intensifier

By PROF. W. PAUL HEATH, of American Conservation Sales Company

The fact that carbonation is beneficial to ice cream in flavor and stability does not mean that it will replace either flavor or stabilizer. It is a valuable aid to both. The carbonation of beverages has always enhanced the flavor—thus one ounce of Coco-Cola syrup mixed with six ounces of carbonated water has always more flavor than an ounce mixed with six ounces of plain water. Replacing the air in ice cream with carbonic atmosphere not only brings out the delicate aroma of the ice cream but the flavor is a livelier, cleaner one.



W. PAUL HEATH

Why carbonation adds to the stability of ice cream is not so well understood. The carbonic gas in which "Heathmade" ice cream is frozen dissolves in the cold semi-frozen mix as it comes from the freezer. This viscous mass of ice cream consists of millions of tiny bubbles of carbonic gas beaten into the mass, each bubble surrounded with the cold viscous mix. This mix has carbonic gas **in solution.** But when the mix is chilled to a solid in the hardening room the dissolved carbonic gas goes out of solution forming microscopic bubbles within the mix wells surrounding the beaten bubbles. These solution bubbles crowd the beaten bubbles bringing about compression through the entire hardening mass of ice cream. Each bubble in "Heathmade" ice cream is full of compressed atmosphere. The resulting ice cream resists a tendency to fall for the same reason that a hard automobile tire full of compressed atmosphere supports a greater load than one of equal size but full of uncompressed atmosphere. Because carbonation results in compressed ice cream it stands up better.

Air in ice cream has served its crude purpose in the past to fill the bubbles in ice cream in order to make it eatable. Without bubbles ice cream would be a solid frozen block of sweetened cream ice.

Bubbles of atmosphere in ice cream serve another useful purpose. They constitute the vehicle to carry aroma. Unfrozen mix carries flavor but very little aroma. The ice cream bubbles give up their fragrant aroma when the ice cream melts in the mouth. By compressing the imprisoned bubble atmosphere in ice cream through carbonation there is more aroma. Air is a light vehicle only two-thirds as heavy as carbonic atmosphere before the latter is compressed.

From the foregoing it will be seen that:

1. Carbonation of ice cream intensifies the flavor functioning the same as it does in beverages.

2. Carbonation by compressing a heavier atmosphere within ice cream bubbles adds to the stability of ice cream and to its banquet attractiveness.

These effects when desireable in ice cream are minor benefits. Greater purity and sanitation in ice cream manufacture constitute the greatest reasons for carbonation.

A pure food product is one in which **all** the elements are pure. Air, the biggest ingredient in ice cream, has never been clean and pure. Carbonic atmosphere in which "Heathmade" ice cream is made is clean and pure, resulting in a cleaner, purer finished product. The lesser real benefits of this new sanitary method of making ice cream have been discussed in more detail in order to conform to the plan of this issue of The Ice Cream Review.

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CONSTITUTION DAY, SEPTEMBER 17.

The signing of the Constitution of the United States on September 17th, 1787, marked a very important event in the history of the world. Each community and each individual daily enjoys advantages which would not be his but for the wisdom of the pioneers who gave a Constitution to a united country, North and South, East and West—all are glad that we are one country under one flag.

New times bring new responsibilities and new duties. We would be untrue to those who have gone before if we stood for the Constitution as originally drafted with no changes to keep pace with the world's advance.

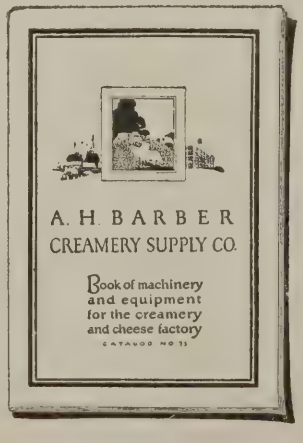
Community Service is among the large national organizations who are emphasizing the desirability of each locality having a special celebration to commemorate "constitution day," on September 17, 1921.

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NOW SOLAR-STURGES MFG. CO.

Announcement has been made of the change in the corporate name of a well known concern. A card was received in the Journal office from the Solar-Sturges Mfg. Co., which proved to be a merger of the Sturges & Burn Mfg. Co., of Chicago, and the Solar Metal Products Co., inc., of Columbus, Ohio. The main offices of the new organization are at Congress and Green Sts., Chicago, but divisions of each of the former companies will be maintained in the respective cities where they have been operating.

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A NEW BARBER BOOK.

A new catalog—No. 73—for creamery and cheese factories has just been completed by the A. H. Barber Creamery Supply Company. It is devoted exclusively to machinery and equipment and is unusually complete, not only listing machinery but showing various tables and diagrams that will be helpful in selecting and installing equipment.

A Real Sales and Merchandising Plan with Carbonated Ice Cream

Something New to Tell the People About Ice Cream

Ice Cream manufacturers who are licensed to manufacture under the Heathmade Carbonated patents get something else besides the rights to make the best and purest ice cream.

They get a concrete sales and merchandising plan, worked out to the most minute details, showing how to create new and larger markets for ice cream.

Write to us and let us lay this plan before you. You will be amazed how completely it meets your every requirement for increasing sales.

Why Carbonated Ice Cream

Heathmade Carbonated Ice Cream is purest because it removes the last possible vestige of doubt about the purity of the product caused by freezing ice cream in common air.

Heathmade ice cream is frozen in an atmosphere of sterile, germ-free, 100% pure Carbon dioxide. It removes the danger of infection from contact of your pure ingredients with impure, germ-laden air.

It safeguards YOU, as much as it protects users of your ice cream.

Makes Better Ice Cream

Carbonated ice cream made by the Heath method, is not only infinitely purer but it is a better ice cream. It tastes better because the carbonic gas intensifies the flavors and brings out the creamy richness of your good ingredients; just as carbonated water increases the palatability of your ice cream soda.

It stands up better because the heating point of carbonic gas is higher than that of air so that carbonated ice cream will last longer, at higher temperatures, than the ordinary ice cream.

Write for Our Big Plan

Write us TODAY for our big sales and merchandising plan. You want to make more money. You want profits to increase in your plant. We will show you how to do it. One of the greatest advertising and merchandising concerns in the country has prepared this plan for us. It is working like magic everywhere. Dealers tell us it makes selling one hundred times easier. It is increasing ice cream consumption. It is planned to create an all year round ice cream business, instead of just a Summer business. We will gladly lay our complete plan before you on request.

AMERICAN CONSERVATION SALES CO.

Sole Licensors Heath Patent Process for Making Carbonated Ice Cream

Suite 1203 Rector Building 79 West Monroe Street

CHICAGO, ILLINOIS

The Special Flavor as a Sales Promoter

By Keystone Fruit Products Company

THE manufacture of ice cream has made such rapid strides, and has become so universal in its scope, influence and distribution that its various branches require close observation. Ice cream may be divided into two general classes, plain and fancy. Plain ice cream is a frozen product made from cream and sugar, usually containing a filler and with or without a natural flavoring.

Fancy ice cream often contains eggs, fruit flavors, nuts and colors and is often molded into fancy shapes and figures. A great deal of ingenuity may be displayed and is used in the composition of fancy ice creams and the remarkable growth of its popularity may be traced to this variety which appeals to the eye as well as to the palate.

Years ago, when ice cream was introduced to the general public—for the manufacture of ice cream is not so old— but one or two flavors were used. Vanilla was the most popular and with the exceptions of frozen creams for banquets or parties ice cream to the great mass of people was a rare delicacy. To-day, the great American palate is delighted by millions and millions of ice cream cones or by ice cream served in many ways.

With such an enormous distribution and such universal use, it was inevitable that various combinations of flavors, kinds and styles of ice cream should come into vogue. The men who manufacture ice creams have recognized the advantage of employing ingenuity to produce creams to appeal in various ways. The street urchin may be pleased with a mass of shaved ice flavored with vanilla, strawberry or pineapple. The child may be delighted with a cone containing a dab of flavored ice cream. But the majority of people who patronize the ice cream parlor demand novelty—and here is where the special flavor has been most successful.

Undoubtedly the standard flavors—vanilla, strawberry and chocolate have the widest distribution—just as there are general classifications in pastries or breads. But the ice cream manufacturer with an eye to the future realizes that no one is ever satisfied to stick to the good old "standbys." The concern which produces the greatest number of varieties in flavors may be choking up its volume and overcrowding its capacity as well as increasing the amount of stock which must be carried for sale daily and also held over. But the logical thing to do is to feature one or even as high as three special flavors which are of assured popularity. The cycle of a special flavor usually runs for two or three years at the most. The greatest number of these novelties, however, run for a year—and then something new must be brought out for the public.

This year orange flavor is in the public mind—or shall we say, on its palate. A host of combinations of orange flavors has sprung up on every hand. Out of the entire number, there are perhaps a half dozen which deserve nation-wide popularity. The most appealing flavor this season has been orange pineapple. What will be in 1922 cannot be forecast at this time.

The advantage of the special flavor is that it brings in a lot of new trade which would not be gained otherwise. The public is athirst for novelties. It tires of the "I'll take vanilla, I guess." Your average American wants something different and the ice cream maker who supplies that "something different" so that it will hold a sure appeal is the one who is bound to make the profit. On account of the greatly improved processes of production and the new methods on the manufacture of ice creams, the use of a special flavor is no longer prohibitive in price but runs along with the general economics in daily use. On the other hand, you can get more for a special flavored cream than for the old standards. The novelty is worth a little more money to the retailer and he will not hesitate to pay the manufacturer more. The ultimate consumer will pay the extra price without a murmur because he is getting something new and so there is a better profit all along the line.

Another cause for the very wide appeal of the special flavor which may not have been considered, is that of the increased patronage of the ice cream parlor by men. With the advent of prohibition hundreds of thousands of men turned to soft drinks and ice creams. The palate which had been stimulated for years by hot beverages would not be satisfied by insipid flavors. It needed something with a "kick"—and the special flavor did the trick.

Young America, too, demands special flavors. The ices which used to satisfy our grandparents no longer hold the same thrill for us—and certainly not for our children. These youngsters, ever on the search for novelty want the same "jazz" in their drinks and ice creams as they do in their music and dancing. The "tame" old-fashioned flavors hold no charm. You must serve them ice creams which will tempt their palates with an unusual appeal. This is the mission of the special flavor.

The result of this appeal is increased sales. Every time you bring something new on the market, you are sure to awaken a new avenue of trade. Some man or woman who never cared for ice cream may be touched by that orange flavor—and you have created a new customer. This is typical of every special flavor brought before the public. Of course, a special flavor should not be discarded in a day or a week because it does not "pull like a house afire." It may take a little longer, but the increased business brought by the special flavor is sure to bring added profit and added publicity to the ice cream manufacturer who produces the ice cream and to the man who sells it.

Feature the special flavor. It is the greatest stimulant the ice cream industry has ever known.

MEET us at the National Dairy Show, Minnesota State Fair Grounds (Twin Cities) October 8 to 15, 1921

WE UNDERSTAND

We wrote the Helena Dairy Products Co., East Helena, Montana, relative to their subscription and the farmer president of the concern replied as follows: "The Helena Dairy Products Co. ceased to operate, went out of business, closed its doors, passed into retirement, is ancient history and locally is entirely forgotten." In other words, they quit.

Boost Your Show.

The world's greatest exhibition building, where the Big National Dairy Show will be held.



The *Big Show* — *With* BIG *National Leaders* BIG *Educational Exhibits* BIG *Vacation Opportunity*

Be there! Mingle with the leaders from coast to coast who have made a success of dairying.

With the leading breeders of this country and Canada who have bred the World's Champion producers and show-ring winners.

With the makers of equipment that has placed dairying on a better-paying basis.

With the practical farmers, scientists and Government experts who are working out *your* problems and helping you to produce and market your products with greater profit.

Don't stay hemmed in by the boundaries of a township, county or state. See what this entire country has to offer.

The more you see, the more you learn—the more money you make

Reduced Rates on All Railroads

Tell your Friends and Neighbors You're Going to the

Worlds Greatest DAIRY SHOW

Minneapolis - St. Paul - October 8 to 15

Tell your customers and friends about the Show. Here is one of a series of farm and dairy paper advertisements — Cash in on it! Print the Slogan on your letterheads and in your advertisements until the Show. "Tell your Friends and Neighbors You are going."

California Ice Cream Manufacturers' Association

Proceedings of the Annual Convention, Held at Oakland, California

(Concluded from July issue)

I might say here that there are two firms in the south who are unintentional exponents of this idea of repetition of impressions. In terms of numbers of impressions made, each firm is benefited by the advertising campaigns of the other, but there is a confusion of impressions which may be detrimental from a purely advertising point of view. The product of one plant is sold under the proprietor's name while that of the other is sold under a coined trade name, nevertheless, the public mind is confused, so that we often hear the two spoken of as applying to the same brand of ice cream. This is no doubt due to the fact that both firms use a good deal of red color in advertising their trade names, and that the names are of about the same length and are similarly spelled.

We have obtained very gratifying results during the past year from the use of painted wall displays. We maintain our own sign painting crew in the field and our sales force secure the locations for us. Often locations can be secured free of charge merely for the protection afforded the surfaces by the painting. Some are secured for the painting or privilege signs, and others are secured through the payment of a regular yearly rental, which in most cases is very nominal. During the past year we have maintained 316 signs in and about Los Angeles at a total cost of a little less than $10,000, including rentals, labor, materials and up-keep of the machine used by the crew. If this same campaign had been placed with the outdoor advertising or bill board companies, it would have cost us at least twice this amount.

Another policy which we have held to very religiously is the development of our own designs for indoor display signs. By using the oil-paint process of stencil work, a very wide range of effects can be produced at a cost about equal to that of the so-called lithograph signs sold by the eastern lithographers, and we can have the decided advantage of giving our own personal touch and ideas to the signs, at the same time getting our trade mark or trade name into the signs in a way so that it predominates, thereby strengthening again the idea of "repetition." Much of the syndicated work is designed and prepared so as to captivate the advertising manager's fancy at first sight, without so much thought being given to their true advertising value. I have found that such signs often prove quite disappointing after the novelty of the first impression has worn off. The picture of a stunning girl is fine in its place; a pretty picture may be pleasing to the eye and have appetite appeal, but it usually will sell the sign rather than sell one's own particular brand of ice cream.

In general I do not approve of large scale newspaper advertising. At present its cost is tremendously high and there are so many large department store spreads appearing that moderate sized displays are almost lost in the shuffle. If newspapers are used at all, they should be used with the same "repetition" idea in mind, cutting out most of the copy which so often looks good and sounds good to our own egotism, but which few will actually read. Use a comparatively small space displaying your brand or trade mark as the main feature; use it consistently month in and month out, and as persons glance over their morning or evening papers your trade mark or trade name will soon become subconsciously imprinted upon their gray matter.

A type of advertising that I do believe has a real place in the ice cream, as well as every other industry is that of the institutional or good-will type, intended to fix in the minds of both dealers and the public the size of the concern, the character of its organization, the service it renders, and the high standard of quality it embodies in its product. Pamphlets, booklets, circular letters, newspapers and trade journals or publications, are, of course, the mediums for circulating this type of impression.

Economic appeals such as "More servings per gallon," "larger profits," or "quicker turn-over" can be used very effectively in so-called dealer advertising, if the manufacturer is mindful of the principle of "Truth in advertising" and sees to it that his product actually conforms to all he claims for it.

I wish to say a word or two here about "destructive" advertising as against "constructive" advertising. A few days ago I listened to an illustrated lecture on milk. For comparative purposes several slides were thrown on the screen, showing a dilapidated and extremely filthy stable in which cows were being milked; a musty dark basement room used for washing bottles and cans; a man testing milk by drinking it from the inverted lids of the cans, and a rare collection of dirty milk bottles. Each of these views were immediately contrasted with the ideal conditions and operations in a model creamery plant. The idea was, of course, to portray vividly the superiority of carefully and properly handled milk, thus hoping to increase the output of the up-to-date plant. However, I am sure that the illustrations of the unsanitary conditions not only clouded the favorable impressions gained from the ideal conditions, but tended to create a marked prejudice against the use of milk. I know that I did not sip my glass of milk that evening for dinner with my usual full measure of appreciation. If something cannot be said about a product that is "constructive" to the industry as a whole, then it is better to say nothing at all. Illusions in advertising to adulterations, substitutions, or the possible use of inferior materials are distinctly "destructive" in effect and are dangerous to use. Even the use of the word "pure" is questionable. I will always remember John Knobbe's discussion of this point at the National Ice Cream Convention in Los Angeles in 1915, when he brought out most forceably the idea that the term "pure" ice cream always implied that some ice cream must be "impure."

After all is said and done, it is mighty hard to trace the direct results or benefits of ice cream advertising. If a department store advertises a sale of a particular article in the newspaper, people flock to the store in response and at once there is a concrete basis for determining results, and such advertising becomes merely a proposition of what is best to say in the various advertisements. With us in the ice cream business, the results of advertising are so intangible that at best our policies must be founded largely on theory and no doubt we all spend considerable money foolishly, in the endeavor to obtain the results that we all know do actually accrue from judicious and properly directed advertising.

The President: Gentlemen, the subject is before you. It's importance demands that it should be discussed. Are there any questions that anyone wishes to ask? Don't be timid. If anyone will start the ball rolling, that is what helps the interest in these meetings.

PLEASE MENTION THE ICE CREAM REVIEW WHEN WRITING TO ADVERTISERS

Service—Not Just Equipment





Elyria Works Economies for Chapin-Sacks

THE Chapin-Sacks Corporation of Washington, D.C., stands among the world's largest producers of high quality milk, Ice Cream and dairy products.

Chapin-Sacks have standardized on Elyria Equipment. In their Main Plant they use nineteen Elyria Glass Enameled Tanks for Storage and Refrigerating purposes. The temperature in the Elyria Tanks never rises over two degrees in 24 hours. Nineteen thousand gallons of Milk, Ice Cream mix, etc., are refrigerated by a 30-ton brine cooler which operates four hours a day. This quantity of milk formerly required 48 tons of refrigeration and the use of hundreds of cans. Milk is handled in one quarter of the time previously required and the cans are ready to be shipped back 20 minutes after they are received.

And—their Elyria Equipment embodies all those other refinements of design and construction which mean economy, efficiency and reliable operation.

Proof

THERE is no part in the manufacture of dairy products where your Elyria Enameled Equipment cannot be used to great advantage from the first step when the milk is weighed.

Your vats take up less floor space, which cheapens the cost of building construction; and you have a big advantage as far as ease of cleaning and making it less expensive to keep in a sanitary condition. The life of the average coil tank is nine years; the life of the glass-enameled tank is almost unlimited. You have less mechanical wear, so that your upkeep cost is practically nothing.

We have adopted as our standard equipment the Elyria Enameled Glass-Lined equipment

G. HALL WHITE
General Supervising Engineer
Chapin-Sacks Corporation

Proof of Elyria superiority in milk and Ice Cream plants—large and small—will convince you that Elyria Equipment will fit into your working operations and save you time, money and labor. Write for this interesting data.

ELYRIA ENAMELED PRODUCTS COMPANY, ELYRIA, OHIO
Pittsburgh New York Chicago San Francisco Los Angeles Canadian Milk Products Company, Toronto

ELYRIA GLASS ENAMELED STEEL EQUIPMENT

See Elyria Exhibit at the 1921 Dairy Show

I judge from his countenance that there is something on Mr. MacFarland's mind.

Mr. Vahlberg: He can lead a song, but I am afraid he can't lead a discussion.

Mr. Hage: Mr. President, we had an experience in San Diego like the one mentioned by Mr. Carver. A man went into detail as to the way in which he made his ice cream, giving everything imaginable. One of our drivers came in with a comment, "You don't need to advertise now. Just let that other concern keep on in the way they are going." And he said, "If I doped my cream up that way, I wouldn't tell everybody about it, anyway."

The President: That was a pretty good hunch from a driver. Who is next?

Mr. Hightower: Mr. President, it is my belief that Mr. Carver is right in saying that co-operative advertising will tend to build up an increased consumption of ice cream, and I believe particularly along the line of a winter campaign. It seems we have neglected the winter campaign advertising quite a bit, and I believe if the subject were properly investigated, co-operative advertising along that line in particular would help a great deal.

Mr. K. L. Carver: I think you have missed the point a little bit, Mr. Hightower. The winter campaign, or any other campaign plan of advertising, would be all right if we would advertise a single brand of ice cream, and, furthermore, keep the quality the same. But in every neighborhood there is somebody that makes a very, very rich ice cream, with a large butterfat content, and there may be some little dealer that makes his ice cream in the back of a store and makes a very poor quality of cream, and then there is the rank and file of the manufacturers who make a good, average cream. But the variations of quality tend to form prejudices in the public mind, or differences of opinion, and I don't think any campaign, whether a seasonable campaign or any other type of campaign, will get very far unless they follow the examples of some of these others I have mentioned, who put out a single quality of ice cream and have an inspection, so that we would know the quality of the ice cream was up to the standard and fair, and then all put out our advertising under the same trade name. If you put out half a dozen different brands, there is confusion in the public mind. They will get their various preferences, and hurt the effect of the campaign. To merely advertise ice cream by saying "Eat more ice cream," I don't think any one of us would want to put the amount of money into a campaign that would be necessary to change people's habits and get them to eat more ice cream than they have been in the habit of doing. It would take a tremendous campaign to really change their habits. But if you standardize and advertise a single brand, I think we can get at that.

Mr. Hightower: Mr. Carver, I don't doubt but that you are right along certain lines, but in my opinion it will take a great many years to make all the manufacturers see that point. The point I was trying to bring out was that it was necessary for the manufacturer to immediately commence advertising, to increase consumption during the winter months, and we have here the statistics that the average decrease from the consumption of the summer months to that of the winter months is about 70 per cent, and if we could get the different manufacturers to co-operate along the line of increase in the winter consumption, it would be a step in the right direction.

Mr. K. L. Carver: I question whether you could get an increase sufficient to pay for the outlay, though, and whether you would really profit by it in the long run.

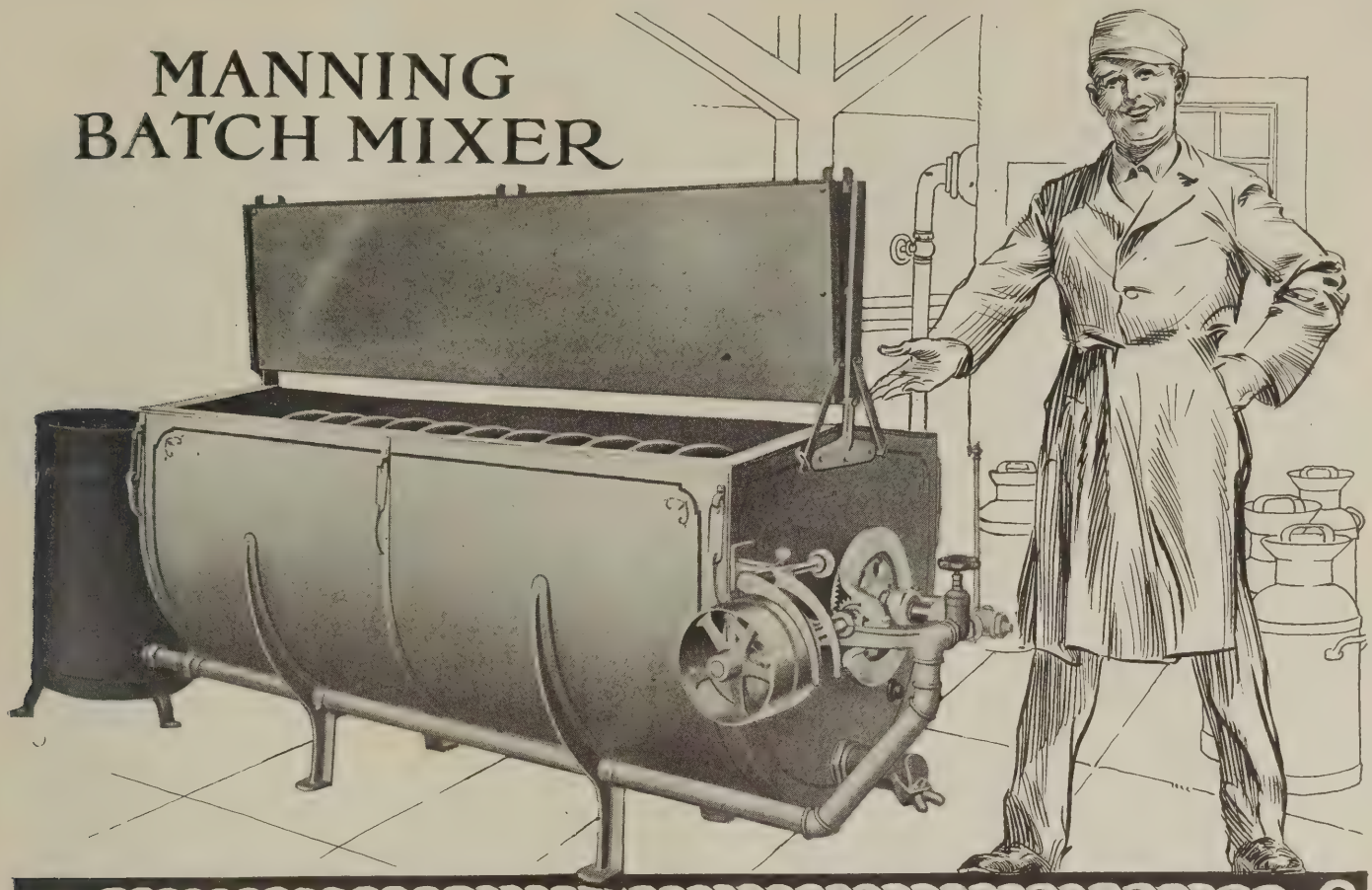
Mr. Hightower: I think that any money that is spent in promoting the sale of ice cream will be well spent, and the harvest will be reaped in the future. There is no question but what we have to make a start on this winter campaign. It is a very serious matter, in my mind, because the average manufacturer makes money in the summer and loses money in the winter, and unless we can make it profitable in the winter, our business is not going to reach the plane it should.

Mr. Platt: If there are advantages of advertising ice cream in its season of greatest consumption, would it not be just as desirable if you keep the one thought in mind of educating the public to the nutritive qualities of ice cream, rather than to put any particular brand of ice cream upon it, or pushing anyone's ice cream—that you devote your energy to holding it up to the public as a nutritious food? It strikes me that that would compromise the views of both Mr. Hightower and Mr. Carver on the advisability of one brand. If you were going to take up Mr. Carver's idealistic ideas along the line of one brand, you had better carry it a little further and have one plant, and have the interest of that plant divided between the different interests in the several plants, thereby eliminating all of the duplication of plants and other competitive difficulties that we encounter now, certain parties selling different qualities or at different prices, or a better quality at a lower price, while their sack lasts? I think if we would have the idea in our minds that ice cream is one of the essential foods, instead of a luxury, it would help out and push it along that line in time.

The President: It occurs to me that perhaps Mr. Platt's opinion there is well taken, and may be was not given as much recognition or attention in the development of the subject we have just listened to, as might be. To understand the illustration Mr. Platt gave, and to extend it just a little further, we know that, during the last year or two, there have been some things discovered regarding the value of milk. Dr. McCollum's work, for instance, and some of the remarkable results that have followed some later experimentation, have shown the public the absolute necessity of milk as a permanent part of our diet. That afforded the milk industry some very effective advertising, but did not quite come under the outlying explanation that the paper contained—not inconsistent with it at all, only there arose an opportunity for doing some effective educational advertising work to bring the public to understand a feature of milk that they did not know before, without any reference to whose milk it was or any particular brand or trademark or locality, and to a certain extent it is possible that the same might be said of ice cream, bringing the public to appreciate the fact that ice cream is a wholesome food and should have a permanent place on the menu in the home.

Is there any further discussion of this subject? If not, we will pass to another subject that is somewhat closely related to it. We have with us this morning Mr. Green, of the State Dairy Council. Mr. Green has been doing some notable work throughout the state along just the lines that I mentioned, of assisting in bringing the public to a larger appreciation of the value of milk, the necessity of milk in every home diet, and particularly with children. Mr. Greene has been conducting some meetings and some conferences and some illustrations, in a number of places throughout the state, during the last year, that are showing very gratifying results. And, his being in the city and being here was an opportunity that we, I am sure, will all appreciate very much, since it affords us an opportunity to hear

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"As soon as I saw that double inlet coil—fed by a pipe of the same diameter I saw a sure saving of half the time ordinarily taken for heating and cooling.

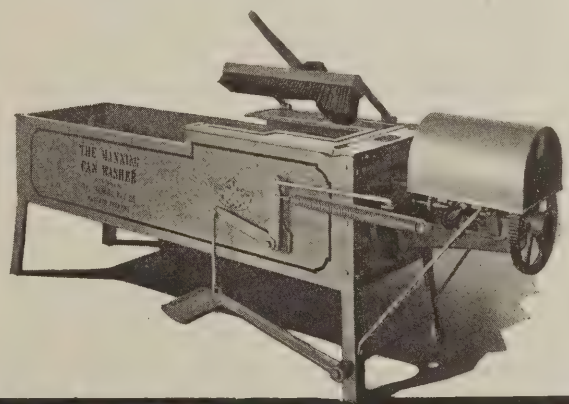
"Of course the general Manning construction and convenience were considered too, and my Batch Mixing is done at minimum overhead expense—and there is a saving too of fuel and ice."

Manning methods will save you money.
Ask us for Batch Mixer catalog
and name of dealer near you

Manning Manufacturing Company
Rutland, Vermont

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The Manning Can Washer reaches every corner inside and outside of both Ice Cream and Milk cans, does it with a minimum of labor, and pays for itself in a short time. Let us send you our Can Washer catalog.



MANNING EQUIPMENT

Mr. Green a few minutes on the subject of the work of the State Dairy Council.

* * *

The Work of the State Dairy Council.

Address by Mr. S. M. Green, of the State Dairy Council

Mr. Green: Mr. President, and members of the Association. The boy stood on the burning deck, when all but him had fled. His pants were twisted round his neck, his shoes were painted red. The lady tore her yellow hair—

Mr. President, I don't think I am getting away with this very well. I think you had better let me go. I have been told sir, that the ice cream industry does not feel that they are part of the dairy industry. I have been told that they consider that they are manufacturing and pushing the sale of a confection, a luxury. And I have become so imbued with the seriousness of this work of acquainting people with the value of all dairy products, that I have lost my sense of humor and can't tell any more funny stories nor repeat poems, and therefore I am afraid I don't fit in here very well. I hope it is not true; I hope it is not so; but I have been told that that is the case.

Now, we of the dairy industry consider that the ice cream manufacturer is a part of the industry. We consider that every man who makes anything out of any part of milk whatsoever, or makes any kind of machinery or implement or truck or placard or anything that has to do with the industry, is a member of that industry, and his fortunes are inevitably and irretrievably wrapped up in the fortunes of the industry.

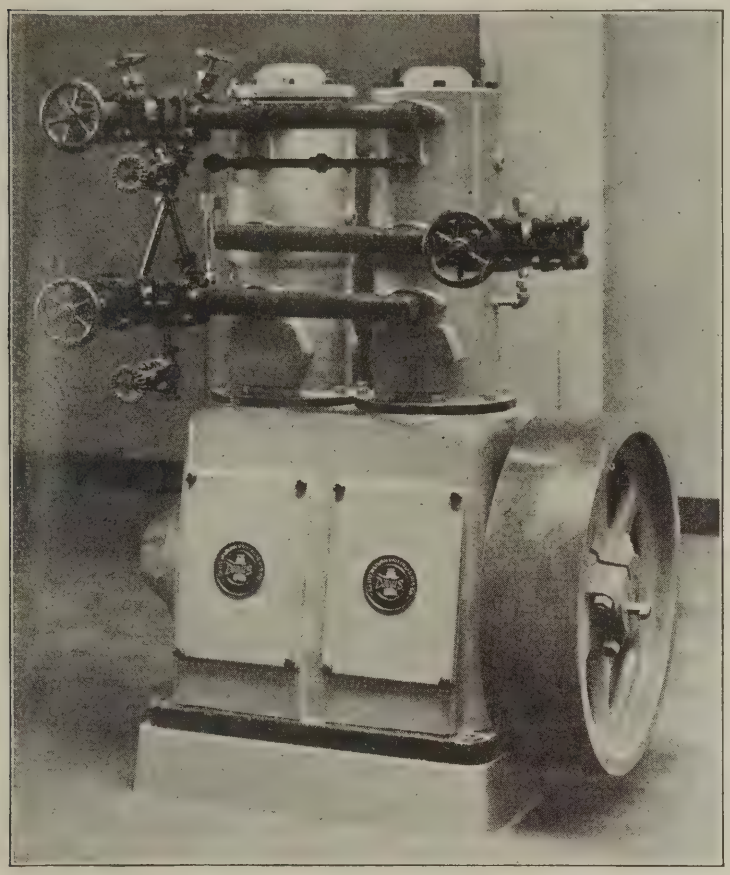
There is a situation existing in the country today that is one recognized by a few, and it has a most vital effect upon the business of every man or concern that handles any part or portion of any product that is made from milk, and that is the reducing, rapidly reducing, per capita consumption of all dairy products. Now, you probably do not see that, you do not notice it, because most men have their minds concentrated upon their personal affairs, and they do not get out and get the broad vision. I oftentimes think of them as of one of these window-washers that you see on a fifteen-story building, slung out there in a little chair, washing a window, and he is so close to that window that he can't see the next story above him or the one below him, he can't see the height of the building nor the beauty of it or the breadth of it. To do that, he must come down and go across the street and stand on the other corner and look up at it, and then he sees the whole building. So it is with men engaged in individual efforts, they are so close to their jobs that many times they do not see the broad aspect, the results of which have a most vital effect upon their personal affairs.

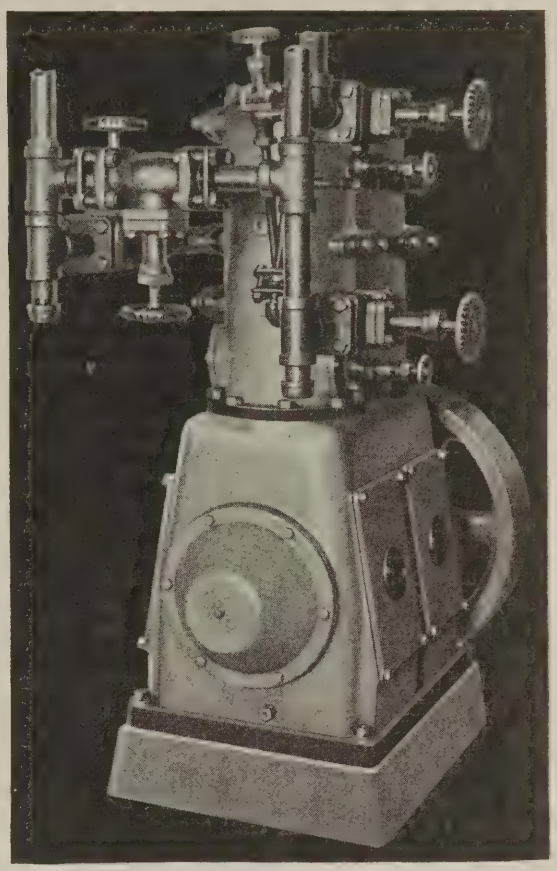
Now, the rapidly reducing consumption of dairy products is the most serious problem that confronts you. You do not realize it in the ice cream industry, because the sale of ice cream is steadily increasing. Other men, along with you, do not notice it, because they happen to be in communities where the number of inhabitants in increasing. But the facts are that the United States today only drinks 42 gallons of milk per capita every year, while Sweden drinks 70 gallons. We eat only 14 pounds of butter per capita per year, while Canada eats 28; we consume only 3.8 lbs. of cheese a year, while the Swiss eat 26. You do not keep any records of your ice cream business, so I cannot continue the comparison into your product.

But the facts are that you are eating each other up. I think a whole lot of Mr. Carver's paper. Mr. Carver may have some idealistic views, as some gentleman over here said. All right. If you don't have some idealism in business, pretty soon you won't have any business. You have got to have someone who looks further and looks ahead of his time and prepares for the future. And business men largely, not in the ice cream industry alone, but in all industry are like scorpions in a can. You know, you put a bunch of scorpions in an old tomato can, and they will fight and fight and fight until there is only one left alive. And this individual advertising of the merits of your own particular brand of product is that scorpion-like way of getting business. You are not creating a new customer where one did not exist before. You are not inducing a person to use twice as much of the product that you produce as that person used before. You are trying to tell Mrs. Jones that James Smith's product is not as good as yours, and if you are a better advertiser, you will take Mrs. Jones away from Jim Smith, and that is all you have done. And if Jim Smith is a better advertiser than you, he will do the same with your customer.

The California Dairy Council is an organization that has been in existence about two years. It grew out of the experience of some of us who worked in the Food Administration. It was through the Food Administration that we discovered what was going on. We have attempted to build an organization that will care for the entire industry. Not alone are we trying to go to the consumers of the cities of California and tell them to use more and more of all products, as milk, butter, and the other products, but we are going to the dairyman and the farmer and trying to get him to produce more economically that there shall be a plenitude of the raw material, and that you gentlemen shall not have to compete with each other too hard in buying it to use in your produet.

It is a comprehensive plan. It is one that is fundamental. We do not talk about anybody's brand of anything. But we are trying to spread among the people the scientific facts about milk and dairy products that one-half of you gentlemen here do not know, and that are locked up in the treatises and writings of the scientists who discovered them. There are men in this room who are familiar with the work that has been done, and some of them are good enough to say that it is good work, just as Mr. Carver was kind enough to say, in introducing me. And they have backed up those sayings by their good money. They want to see the work spread. So far the ice cream fraternity, as a fraternity, has taken very little interest in the Council's work. When I appeared before you two years ago, the council was just in the process of organization. I asked for your aid and support, and was promised it. I have received it in some instances, but not in many. We began raising the funds for carrying on the work of going to individual dairymen throughout the State and to individuals in the manufacturing and distribution of the product, and interesting them in the work and obtaining their financial support. That has now reached the point where it is impossible to continue in that way. To begin with, the council idea is now fairly well understood from the Mexican line to Del Norte County, and therefore it is not necessary to carry the message in that way. In the second place, it costs too much to make these individual visits. We don't want to spend money in building up a big organization. We are not trying to build up an organization. We want this money to spend in educating the people, and if we have got to pay a man $10 a day to go out and collect $8, it is pretty poor business judgment. Now, that was justifiable in the beginning. The way we are now seeking to protect the work is by going to various associations of manufacturers and distributors, and





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Built for speed, and built to last. Machines of exceptional merit and strength. Made in our North Chicago factory by men long skilled in the manufacture of high-grade equipment used in the best dairy plants everywhere. Excellent materials, carefully machined and assembled. Parts are interchangeable, thoroughly tested, and spare parts and tools are furnished with each machine.

Capacities are from 6 to 48 tons of refrigeration, dependent on the speeds and pressures used.

No clearance. Safety-heads. Force-feed lubrication. Metallic packing. Interchangeable for either right or left-hand operation. Ammonia cannot get down into the base, nor can the oil work over into the condenser and coils. Quiet running, and requires only a minimum of power.

The picture on the left shows the Single Suction Compressor, where only one suction pressure is required.

The one on the right shows the main and auxilliary suction connections. This is of special advantage where two suction pressures are advantageous. The main suction carries the low back pressure, and the auxilliary suction the higher back pressure. The higher the back pressure permissible in any case, the greater the capacity and the lesser the horse-power per ton of refrigeration required. The horse-power per ton is based on the higher back pressure. The suction lines are entirely separate, except the cross-connection with valve between.

This gives *two machines in one.* The pressures are equal on all the bearings, and equally balanced.

asking them to take upon themselves the responsibility of obtaining the money from the dairymen and paying also their own.

Now, we are doing a great deal of this work, considering the very small amount of money that has been at our command. We have trained men who are working in the schools and before men's clubs and before doctors and all others whom they can reach, telling them the story of the value of dairy products in human food. I myself, wherever I can, am doing the same thing.

And the work is constructive. We know that we have promoted the sale of dairy products, one of which is ice cream, even though you have not recognized it before. Ice cream is a dairy product. It is not a luxury; it is not a confection; it is a genuine, real food. And whether you have paid anything in to the California Dairy Council, or whether you have not, we have been talking for you just the same as we have been talking for all other branches of the industry. Every piece of literature that we send out has in it its ice cream section, in which we tell the people of the food value of ice cream. Yesterday I stood before 350 members of the San Francisco Advertising Club in the Palace Hotel in San Francisco, and in a part of my talk to them I said that a plate of ice cream contained more food value than a plate of any other single food or a plate of any compound food of the same volume. (Applause). Thank you—now, if you will all put your right hands into your pockets, and lay the money on the table.

Further yet, this is the twenty-second time I have made that same statement in eleven days.

Mr. Vahlberg: And the first time you have gotten any applause for it.

Mr. Green: Yes. We have had 22 meetings in the last eleven days, at which that statement has been made. And I shall leave it with you as to the value of the work. There are enough here who are interested in ice cream and who are familiar with this work, to give you any information you may require. I appreciate that I have been interpolated on your program here, and I will probably delay matters if I attempt to tell you the whole story. I have brought with me this morning Mrs. Kewing, who is doing the educational work here, but I think we shall retire and leave the matter with you. Definitely, this is what I want. I want you to discuss, after we leave the room, the California Dairy Council and its aims and purposes for a few moments, and if, in the opinion of this Association, this is a laudable work and a work that should be carried on, I then would like to have this Association endorse the work and agree that the ice cream manufacturers will pay to the California Dairy Council, through your secretary or through your treasurer, fifty cents on every thousand gallons of ice cream that you manufacture annually. If you will accept some of the recommendations of Mr. Carver, which are absolutely sound, as I know, having spent a great deal of my time in that way, and cut off some of your advertising appropriations in the lines he has shown to be unprofitable, you will have the fifty cents for the council and another fifty cents for something else. In other words, you will be saving a dollar on a thousand gallons of ice cream, fifty cents of which you can well apply through the Dairy Council. The milk people, as Mr. Carver mentioned, tried an advertising campaign. They spent good money, hundreds of dollars, and up into the thousands. They didn't get anywhere. I was told in one section where they spent quite a little money they could not see that they had sold an additional pint of milk. Ladies and gentlemen, it has got to be first reached through personal contact. Personally we have got to get up before small groups of people and tell them what it is and tell them what it means. We have got to tell them that every growing child should drink a quart of milk a day, and every adult should have a pint of milk a day, and everyone should eat at least a half pound of butter a week and that they should eat a plate of ice cream, at least, every day, and make it a part of their meal, not a confection, and eat it at home more than they eat it in the soft drink parlor. If that is of any assistance to you, it is worth the money. I cannot personally visit your places of business individually and bring this question to you one by one. If I am going to carry on the work, I have no time for that. If I am to hire people to do it, I am, as I have said, building up an organization, which is useless for your purpose. We don't want any more personnel in the Dairy Council than is needed to carry the message to the people and increase the per capita consumption, making two customers where one customer now is, in order that all of your businesses may grow. And if you will see the matter in that way and agree that you will pay, through your Secretary, an assessment of that kind, I personally feel that your money will be returned many times over. But I prefer to leave the final decision in the hands of the association itself.

I thank you. (Applause).

The President: I think we are to be congratulated, gentlemen, upon having had the opportunity to hear Mr. Green upon this subject. It is a very important one, and I should be glad to hear from any of you upon any branch of it or to any suggestion you may have.

Mr. MacFarland: Adding to the remarks of the speaker, I think we have the full right at the present time to commend California for her position, which has brought ice cream all over the country as recognized from a certain standpoint. In regard to the dairy industry, California was the one that first brought out the slogan, "Ice Cream: the rose of the dairy industry." And that has been carried across the country, and that was put forward right here in California for the first time.

Mr. G. Minor Smith: Mr. Chairman, I believe that Mr. Green's work is worthy of the support of all men interested in the ice cream business, as well as in any other line of the dairy industry. My own particular firm supports the California Dairy Council, as a milk dealer, as a butter dealer, and as an ice cream dealer, and we feel that the California Dairy Council is doing a work which no other organization can do as successfully. They are in a position to advertise in the method which Mr. Carver proposed in his paper as the best and most effective method, the method of joint advertising to increase the consumption of the product, without regard to any particular brand or any particular firm's output. And it occurs to me that we can get behind a movement of the California Dairy Council in their efforts to advertise our product, and we can spend our money in that line of advertising to better advantage than we could by individually spending it in trying to advertise our own particular products. As I say, we support the California Dairy Council in three different capacities, and we feel that the money we spend is well spent. The advertising feature of the California Dairy Council has of course not been carried to a very great extent, because they have been limited to a great degree in the matter of funds. They have not had the support of a good many of the industries that are connected with the dairy industry, such as the ice cream manufacturers, but I do feel that they are entitled to the support of the ice cream manufacturers.

I am a new man in the ice cream game, I have only recently joined the Association, but I haven't any hesitancy in raising my voice and stating that I feel that



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Essex Gelatine for nearly twenty years has played a vitally important part in achieving these results for the ice cream industry.

ESSEX GELATINE COMPANY

Manufacturers

BOSTON, MASSACHUSETTS

Branch Offices and Warehouses

PHILADELPHIA NEW YORK CHICAGO SAN FRANCISCO

MEMBER

Mr. Green and his Council are entitled to our support. They have supported and are supporting us now, and we would like to see the Association support them.

The President: It occurs to me that it will be entirely appropriate for the Assoiation here in its meeting to take any action it may see fit upon the suggestion of Mr. Green. Or, if they prefer to leave it to the Board of directors, it would be entirely within the province of the Board of Directors of this Association to take that matter up and act for the Association, and do what it may deem best. I think either course would be entirely appropriate. I think the subject should be given consideration, and action should be taken. It certainly seems to me that it is incumbent upon this Association, either itself or through its Board of Directors, to do something.

Mr. Smith: Mr. Chairman, in order to bring the matter before the convention, I move that the matter of the support of the California Dairy Council by this Association be left to the judgment of the Board of Directors to be acted upon in the very near future.

Mr. Vahlberg: I second the motion.

The President: It has been moved and seconded that the matter of the support of the State Dairy Council be left to the Board of Directors of this Association, with authority to act on their judgment as to what would be appropriate. Are you ready for the question?

Mr. Platt: Mr. Chairman, before you put the motion, I, as one of the parties who have had a good deal to do with the early work of the California Dairy Council, would like to state to the members here that we of the south, Los Angeles and vicinity, think that we already see an increased interest in milk and an increased sale in dairy products, more particularly, possibly, of milk alone, because we have followed it up in our end of the state along that line. But we believe that the ice cream manufacturers will get a great amount of benefit by subscribing their quota, as asked for by the Secretary-Manager of the Council, and I want to repeat that we believe down our way that we are already getting a decided benefit from what has so far been done by the Council.

The President: Is there any further discussion of the motion? If not, all in favor of the motion as made and seconded, make it known by saying aye. Opposed, no. The motion prevails unanimously.

The next subject on our forenoon's program is the topic, "How Should Price Adjustments Be Handled?" by our Secretary, Mr. Beaudry.

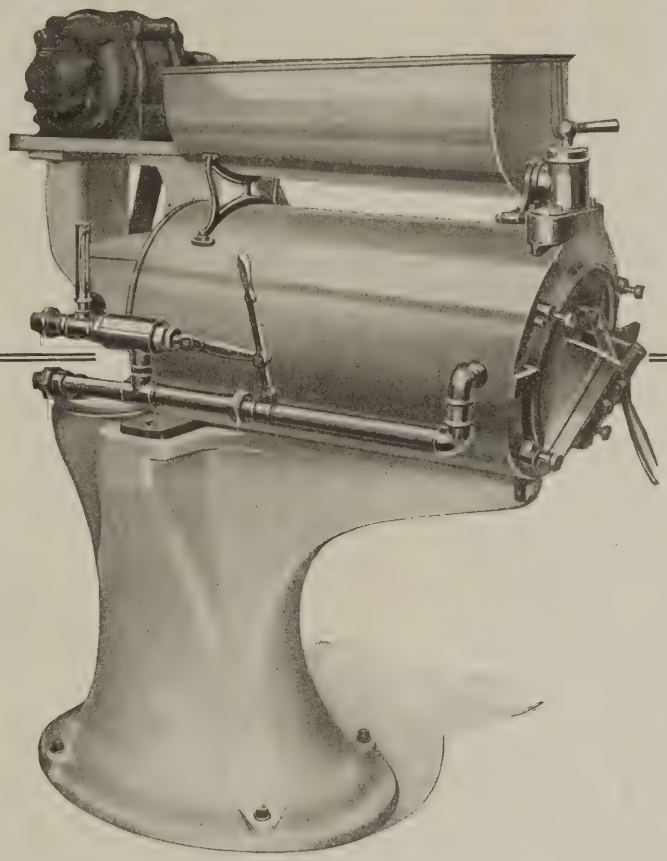
(Mr. Beaudry read an excellent paper, a copy of which we have so far been unable to obtain.)

The President: The subject of price readjustment, gentlemen, is one that is inevitably before us. We have all been thinking on the subject, and now is our time to express some of those thoughts.

Mrs. Babcock: I think the readjustment stands just as much with the retailer as it does with the manufacturer. We know to-day that a lot of retailers are dishing twenty to thirty scoops to the quart. We talk to them on the subject and they want to know when ice cream is coming down, and we say, "Well, if we come down, are you willing to come down?" and the answer comes, "Why, no. We are not making any money now. It is the manufacturer that is getting it all." I repeat that I think it stands as much, if not more, with the retailer for the price of ice cream to-day, as it does with us manufacturers. Every retailer in every district has a different price. We have some places in our city where they are getting sixty cents a quart, and perhaps within two blocks they are getting eighty-five cents or seventy-five cents. And yet the retailer is not making any mooney, he says, paying us $1.60 a gallon for his ice cream. It seems to me that the retailer is not taking a right attitude when he does not see fit to come down and give the public the amount of ice cream he should give for the price that he is paying us.

Mr. Beaudry: There is quite a difference of opinion as to how much the retailer should make on ice cream, or anything he sells. You know, the retailer is in an entirely different position from that of the manufacturer. The reason is that the retailer has a very much larger amount of unproductive labor than the wholesaler. In the wholesale business, pretty nearly everybody does the amount of work he is supposed to, and produces something. In a retail business, you really get only about half the labor you pay for. The balance of the time they are waiting for the customer to come in. So they require more profit than the wholesaler, as a matter of course. However, to give you a little instance upon the subject, I was discussing this subject coming up on the train a couple of nights ago, and I said to one party, "You know, in a wholesale candy business, we take our cost and add fifteen per cent to our factory cost. We presume that is our cost at our door, without any selling expense or delivering or office expense." And the average candy manufacturer to-day will tell you that he adds forty per cent to this cost to getting his selling cost to the wholesale consumer. That is fifteen and forty, or fifty-five. No retailer can live unless he makes forty per cent gross. May be a few can do it, but the average man cannot do it. The average made by the retailer is fifty per cent. One of the big stores down town in Los Angeles called me up one day and said, "I want to see you." I went to see him. He said, "I am not making any money on my business." I said to him, "Why?" He said, "I don't make fifty-five per cent gross," and in order to keep that man, I had to give him fifty-five per cent gross on the business. That is one of the biggest stores in the city. It does about $300,000 worth a year, and that man really ought to be able to sell cheaper than the others, because his output is so large. However, to give you an idea, if you sell ice cream at seventy cents in brick, and you want to make forty per cent gross on that, your gallon price would be $2.80, and forty per cent gross on that would be $1.12. This man ought to get his ice cream at $1.68. At the present time I believe it is selling somewhere around sixty-five or seventy cents a quart retail in Los Angeles. So you see these people are not getting any more for their ice cream by the quart. If you want to reduce the price from sixty cents to fifty-five cents, you can easily tell what it would be—at sixty cents, it would be $2.40 a gallon, and you have got to let him have it at $1.46 for brick as against $1.75 now. So you can figure what you are up against when you try to tell the retailer how much he should charge. It is very easy to tell him he is making too much profit, but when you start to figure it down and tell him he is, he can show you where he is not.

Mr. Platt: At this time, may I not, as an old man in the industry, but a young man in the ice cream part of the game, make a suggestion to the members here? There do not any of you seem to have anything to say. Here is one of the most important topics that can possibly be brought before you. Why don't you all get in and discuss it? We have found in our live milk organization down there that everybody talks, and I believe everybody should take hold here and not let a few do it all. I believe this question should be thoroughly talked over. You should wake up. It is im-



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National Carton Company
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portant to you. It is your profits, maybe, for the next year. Because the other fellow thinks you, keeping quiet, are going to lower the price. The price has got to come down a little bit. We all have to recognize that—lowering the butterfats, lowering the sugar part of it, and lowering, possibly, of the labor part of it, by an increased supply. We ought all to look at the consumer side, and we also ought to have a discussion as to the possible means of making the retailer do what he ought to by way of a public advertising campaign, not carried on for any one individual, but carried on by your individual association, or, if necessary, by the Satte Association, establishing a uniform price or a price for different sections, and making the retailer do what he ought to do for the good of the industry—sell more ice cream. Now, ladies and gentlemen, I believe this is the time that you should get in and all talk.

The President: Mr. Platt is right. As I said a moment ago, there isn't one of you sitting here that has not been studying this question and who has not got pretty definite ideas in his mind of what he thinks he should do. The man who sits beside you, or your competitor, is doing the same thing—his head is full of things that have resulted from several months of studying this question as to what he probably will do. We are gathered together here. Just put your cards on the table and discuss these things, so we can all get the benefit of each other's view. Then, when you are ready to put something into operation, you are immensely more likely to carry it out harmoniously and without trouble. That is what we are here for, to compare views and each get the benefit of the other man's experience and views. You have the ideas in your heads, there is not question about it, and, as Mr. Platt says, why not talk about it? This is the place to talk about it, not wait until you get home and then slip around the corner and try to put something over on your competitor, because he is just as shrewd as you are and probably just as wide awake, and probably thinking of this thing as long as you have been.

Mr. Hage: Mr. President, here are some points about the price of ice cream. I think we should go pretty slow in declining the price. I have heard it said that ice cream should go down twenty cents, because butterfat has dropped that much. Do you realize that butterfat has got to drop thirty cents a pound to make ten cents a gallon difference in the price of ice cream? What other things have you got that go into it? As I see it, sugar is off now about as low as it will go. There are so many things that come up under the head of power that enter into the manufacture of the product that I don't think we will be able to manufacture ice cream as cheaply as we did in 1915 again for a long time, at any rate. The power proposition comes back to the oil, and oil is bringing $2 or $2.25 a barrel in place of seventy-five cents as it did then, and as I see it, oil for power regulates the price of ice, it does not matter who is making it or where; it regulates the price of condensed milk—when it comes to condensing milk, the power is a big factor, and it takes an immense amount of steam to make condensed milk, and they don't look for any big decline in condensed milk. Gasoline is used on the trucks, and we used to buy it for fifteen cents a gallon, and there is a fifty per cent increase, and it is not getting any lower. Wages of trained help, it is very questionable whether we will be able to lower them to speak of. We will be glad to get the labor, I am thinking. And there are repairs of all kinds, metals of all kinds, cones, and things like that—they will be a long while going down.

So my idea is that we should hold the quality and go very slow with reference to any big decline of ice cream prices, for the first thing we know, the books are going to show a red balance, if we do not, and a pretty heavy one, at that.

The President: Who else has something to say on the subject?

Mr. Hightower: There is no question, Mr. President, but what Mr. Hage is right in a great many respects. But in the face of all other commodities decreasing, it seems to me as if, in some parts of the country, the ice cream price has got to decrease, but in some particular parts of the country it hasn't a chance to decrease, for instance, in the part of the country where I live we cannot decrease it, because we didn't raise it. But in other communities, where they raised the price with the propaganda that they were doing so because the price of other commodities was going up, now when those commodities are going down, it looks as if they would have to reduce the price to some extent in order to keep the public satisfied. For if we don't keep the public satisfied to a certain extent, it is going to hold down the consumption of our product.

I have worked out a few little features in our own territory, where we haven't a chance to decrease the price, because we are only getting $1.10 and $1.20 for the product now. But, in a case of that kind, the manufacturer can make money, I believe, by co-operating with his competitors along the lines of fair dealing, etc., and I think that is the best solution, particularly to some of the traders throughout the state. In other particulars, I am sure that unless there is a small decrease, at least, it is going to create some public sentiment that won't do any of us any good, in the face of all other commodities being on the decline.

Mr. Hage: I did not mean that we should not have to decrease, but the point I wanted to make was that we did not want to jump at conclusions on a big decrease, because you will never get it back again.

The President: The point that ought not to be overlooked in my study of this question is that whatever is done, it should be done in such a way as to make sure that it is passed on by the dealer to the public, and not done in such a way as will permit the dealers to absorb the difference in price that you make to them. That must not be overlooked. It may be a difficult thing to handle sometimes, but, nevertheless, it should be handled, and the plan of movement in the matter of adjustment should be studied out and guarded so as to make sure that whatever is done is done clear down the line, and not absorbed at any point along down the line.

Mr. Hightower: In some parts of the country, the manufacturer has recognized that very fact, and they have gotten together and have been big enough to advertise the product and the price of their product in the newspapers. We find throughout the country, not only in California, but all over, where one dealer on one corner is selling our ice cream for fifty cents, and on the next corner there is a man selling it for sixty cents. I believe if the manufacturers would get together and have nerve enough to advertise the retail selling price in the newspapers, the retailer then could not have the nerve to make the consumr pay more than that advertised price. That would be one way to keep the retailer from taking advantage of the entire reduction.

Mr. Beaudry: I don't want to take the floor all the time, but we have been urged here to get up and say something and tell some of our experiences, and if we don't do that, we don't gain anything. Let me give you a little experience we had in Los Angeles, and I really believe that the ice cream business should be protected.

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The idea of Mr. Hage, I think, is way off on that when he says that when prices come down you won't be able to bring them up, or at least that was an inference from what he said. That is not so, I think. Everything goes up and down, and we pay the fluctuating price. There is only way to conduct the ice cream business, and it is when things are down to have the price down, and I don't mean to reduce the price because somebody is asking for it or because the public thinks it should be reduced, but if, when you figure your cost, you then find you can reduce twenty-five cents, reduce it, and if you can reduce only five cents, reduce to that extent. And then when the price of things goes up, raise the price. I have seen the ice cream business and I have been in it fourteen years—we never raised when the price was up, the price was 75 cents, and if some ingredient went up, the price was 75 cents a gallon still, and so if it went down to 35 cents, the price was 75 cents a gallon still—there was no change. The only thing was that just as soon as we tried to figure a raise in price, there was a perfect riot, and every time that butter and milk went up, the business was supposed to absorb it, without change of price. But that isn't logical and it isn't proper. Take the candy business. There is a new list every three or four weeks, and the public pays it. When the price of butter goes up, what do you do? You pay the increased price. When the price of eggs goes up, you do the same thing, and when the price of bacon goes up, you pay the added price. Why shouldn't the ice cream price follow the market? There is no reason why we should have a price of ice cream for a year or six months, unchanged. If the manufacturer's cost price is such that he can afford to lower it, it should be done and done now, and two months from now, if sugar goes up to twenty cents a pound,we can raise it again, and should raise it—and there should be no objection to it. That is what everybody else is doing in business, and I am sure no one can suggest a logical reason why we should not do the same.

Mr. Platt: Mr. Chairman, I want to emphasize the remarks that Mr. Beaudry has just made, and I don't doubt but there are some of you could tell instances where it may have been your way. We are talking a good deal over here, we people from the southern part of the state—we believe in talking down our way, you know. Our organizations get in and talk. You know I remarked that to you before. Prior to the milkmen getting together, way before the Sherman Act was passed, we had a little organization down there, and up to that time the price of milk never varied to amount to anything. The aggressiveness of different dairies and creameries in getting after business varied according to supply and demand. Five 3-gal. cans of milk sometimes broke the market 10c. But after we had gotten together there, we formulated a plan and tried it once of raising the price. When we raised the price, we each agreed to keep off from the other fellow's customers. We could not take him and would not take him. That was before the Sherman law was in effect. We found that we could raise the price of milk. We didn't take the other fellow's customer—we just simply stabilized the market. And we found in doing that that we could raise the price and lower the price, if we did it and made a practice of doing it, so the market expected the price to change. The first time it was very, very hard. We had a lot of weak-kneed people, and people with weak spines, too—they absolutely didn't have any backbones in them at all, and they would not stand up, and so a good many of the more staunch suffered from it. But eventually we got the public to expect that we would control the price, and that iswhat you want. It didn't make any difference whether it was the retail price or the wholesale price, we wanted the public to understand that the price is

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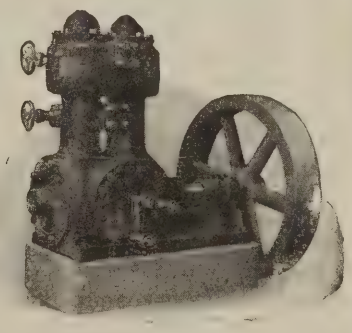
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governed by something, and generally you want to have that something on a fair basis. If that price governing is based on a proper profit being taken from the business, you are all right. If you are thinking that you can put it over on the public and get by, you are an injury to the industry, and you should get that idea out of your system. The price should go up and should go down according to the actual cost of its manufacture. We believed at this time that we might help the industry, and we thought also the price of ice cream in our section a reasonable amount. Now, we are sure that the public will feel we are taking care of them, extracting only what we have a right to, a reasonable profit on our business.

Mr. Goode: Mr. President: In line with the meetings that we had last year, in considering prices, I think it will be well to discuss this question. We decided that certain districts in the state, it would be possible to manufacture and sell ice cream at less price than in others. For instance, it might be possible to sell ice cream at a less price in Los Angeles than at San Francisco, and possibly to sell ice cream in the San Joaquin Valley at a less price than in either of the other two places. I would just like to pause here to say that if there is any question of reduction of prices, it should be unanimous, that we should have small meetings in those sections, to consider the prices at the same time and with the same interest at heart. That sometimes has not been done, and I feel that that would be a great thing to put before the convention, so that we would understand that and act upon the plan and upon the foundation that we tried to lay last season in that work. I think that at this time that with the lessening of the prices of butterfat and sugar and other commodities, that there might be a feeling among some that they could reduce the price more than what really would be good business at this time to do, considering the high costs of everything else. So I feel we should at this time take that into consideration, seriously.

Mr. Dorman: Mr. Chairman, the southern part of the state seems to have been heard from pretty largely, and we are up here in the midst of the big cities of San Francisco and Oakland, where they do a big business, for big people, and it seems to me we ought to hear from them. There is our good friend, Mr. Ames—we have heard recently that he is an ex-Los Angeles man, and I think we ought to hear from him and how his arrangements work out, and whether he is coming down to let us have the benefit of his experience. I think we ought to hear from him this morning.

Mr. Vahlberg: Perhaps I might speak for the National Ice Cream Co. You see, the trouble is that we do very little business here in the winter season—we have a very cold climate, that you remember. Down south you have a very warm climate, and you do a very large business, while here our business drops down to one-third or one-fourth, and there is our overhead in business, that is the same, and the volume governs your price. In the summer season, in a climate like this, you may be able to get by with a reduction, but during the winter season you are losing. You operate at a loss three or four months every year. In Los Angeles and the south, you can get by all the time and can always make money. That's why you talk so much, because you are feverish about making money. But you don't feel that way when you come north—you come up here to visit, you don't come here to stay—you want us to go down south instead. Of course now is not an opportune time to lower the price. Of course, there is the change in the sugar price, and the San Diego man has told you about the variation in butterfat, what little amount of change in your price would be made if your butterfat dropped twenty cents, and the same thing is true of sugar, it varies the cost but very little, and all the time the overhead is going up. Our expense is much heavier now all the time. We have got to pay more labor, you don't have to pay as much down there as we do here. Everybody has to be paid up north, but in the south they live on climate. You know, if we only had that climate of yours, we would be bigger than you are. We have got more water than you have—we have a lake here bigger than your whole town—look at Lake Merritt, with all these ducks in it. We will give you a look at the ducks living there. But you can't do that in Los Angeles—the ducks will fly right past you. They have learned to like the San Francisco Bay region.

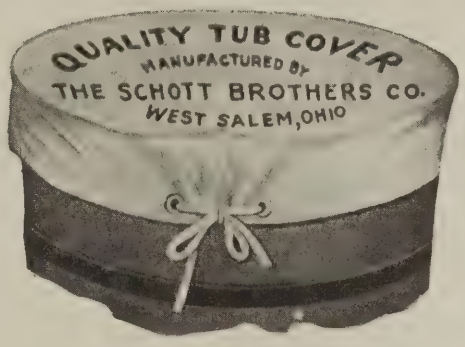
But laying all joking aside, I think your price should be governed by actual cost. When your books don't show profit, you can't lower the price. When you show a profit, as you do in Los Angeles, lower the price. But I think you are giving too much trust to your retailer. Your retailer has always made big profits, when he figures forty and fifty-five per cent, and you figure profits at ten or fifteen per cent, and you have got the same expense all the time while he can cut down and let one or two clerks go if he chooses. That you can't do in the wholesale business. In the wholesale business, you have got to carry the same overhead right along, and your retailer comes along, and of course he pays a little more rent than some of us do, but he gets by. But he is always figuring on a large profit. Every retailer, if you raise him ten cents, raises the price twenty per cent and gets it. But I think if you establish a retail price, as Mr. Hightower suggests, for your product, for your ice cream, for your cones, and have the nerve to do that, I believe you will get by and that you will then observe that while the retailer will sell more, you will make more. The only thing the retailer wants is volume. If he makes but two or three sales, he can't make anything. If he doubles and quadruples that, he makes more money. That helps the manufacturer and everybody. Then, why do they stop buying ice cream, from what point of view? Because there is a raise in the price. Why stop buying cones when the price you pay is six, seven, and eight and ten cents per cones? That is too high. Put the price down to five cents, and they will buy them. The thing we all work on and the thing we all need is volume. Don't worry so much on getting the price all the time—worry on the volume, and let's all work together. Co-operation is the secret of the whole thing. Let there be co-operation between your retailer and your wholesaler, and the public will co-operate with you, if you establish the price right, the retail price especially, and the business will be helped.

Mr. Dorman: That speech is very good applying to us from the south. We have wondered many times why we have fifteen to twenty overland trains coming into our city each day, with five or six sections to each train, and we can understand now the attitude of San Francisco—and Oakland, too—they seem to understand our problems so well down there, and if they understand them so well and know of our attractiveness and reasons why we should satisfy. I can understand how the eastern people are of the same opinion.

Mr. Vahlberg: That is just the way you mooched. You always did that. You lay off for a while and then you work.

Mr. F. E. Miller: Mr. Chairman, I have been sitting back, like the rest of them, enjoying everything that has been said, because I knew when we first approached this subject that everybody was just full of it, but we were just waiting for the other fellow from San Diego and Los Angeles, and we are glad to have them get up here one by one and speak out, and they do set us a good example by speaking out in meeting, while we seem to be a little shy, considering the fact that we are everyone

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of us full of the subject. We are really every one of us here full of the subject of price and where you can slice off, which really comes the closest home of anything that we have before us at this convention—it touches our pocketbook.

I think the point has been pretty fully brought out. It is the fact, as has been stated, that only a few of the items have really gone down. But, as Mr. Hightower says, the reason why the price was raised was because butterfat and sugar were so high, and when the prices of those commodities go down, people naturally say, "The price ought now to be lower." But it all comes back to taking your dealer into your confidence, and letting him understand that, fuel oil being so much much higher, and wages, and almost everything else so much higher, that we can really only reduce proportionately to the reduction that there has been in the items of sugar and butterfat. The public do expect a reduction, and we must make that reduction to the extent that they are entitled to it, and no more. I don't personally know how much that would be, but I would estimate it would perhaps be not over fifteen cents, or at the extreme not over twenty cents a gallon from the high point of the year. But as Mr. Vahlberg says, every ice cream manufacturer at this season of the year is running behind—we are giving something for nothing each day. I figured last year the cost for every month, and every gallon that we put out in the month of January cost us $1.50, and our average selling price was lower than that at that time, and so I just took our list and I went on until the most favorable month in 1920 when our average cost price, including material, factory, and everything, was $1.04. And in that month our average selling price was $1.42½. And we made up the difference that we lost in the winter season. But it is too bad, when you have three or four months with so much less, and then you have to make up in the summer-time—it is really hard to figure at just how to get the right price. Personally, I believe, as Mr. Platt says, that the public are used to buying other articles at varying prices, and to have the price change, and there is no reason why the public should not pay a varying price in ice cream. And in this connection, some of us lost in volume of sales, because the price of ice cream to the ultimate consumer, that is, the public, was too high. And certainly, if we are united here, and organized, we can in very large measure fix this retail price of ice cream, and in our own community I believe it ought not to be,in brick or bulk, over sixty cents, and we ought to insist upon it and perhaps give publicity to it, and then none of our dealers would dare to charge more. We should not lower our price now more than fifteen, or at the most, twenty cents from the peak of the wartime prices last year.

The President: Is there any part of the state now that has not been heard from? We would be glad to hear from it. I think we have had no word from Sacramento.

Mr. Hosking: I think the Sacramento people take the same view as do Mr. Miller and Mr. Vahlberg. There is a different condition existing than there is in Los Angeles, and I think Sacramento has it even more pronouncedly than Oakland. We have a short season up there, and we have an awfully long winter season for our business, and we do feel up there that the retail stores are charging too much for our product. Three years ago they were getting fifty cents, and they have been now getting seventy-five cents. As was stated by one of the gentlemen here a little while ago, I think if we could get together in our town, set our prices, and advertise through some medium, possibly the Chamber of Commerce would be the best one, we would get a proper result.

The President: I think perhaps from the remarks of two or three of the speakers that a wrong impression prevails, that is, I take it they were not entirely in jest in what they said regarding Los Angeles and its winter output. As a matter of fact, there is no essential difference. Compare Los Angeles with San Francisco or Sacramento or even the Eastern states, and it is a little hard for us to understand why there is no difference between Los Angeles and the Eastern states, for instance, in the ratio between the winter and summer business. As a matter of fact, there is very little difference. Our winter output falls to as low a ratio as compared to the summer as does yours, and about as low as do theirs of the Eastern states. I used to think that was impossible, until I looked into it.

Mr. Wilson: Mr. Chairman, you talk about our grocery stores, and our small confectioners, selling brick ice cream. I would like to ask if there is anyone here can inform us as to what margin of profit they expect on a quart brick of ice cream, what percentage of profit to the retailer? What will be fair to make, what percentage?

Mr. K. L. Carver: I can't say what the dealer might expect. They expect all they can get usually. It works out this way: A man can sell brick ice cream and sell it at the same price he sells bulk ice cream for, and still make an equal or slightly better profit, and I have seen that worked out a number of times where persons would go ahead and sell bulk ice cream and dish it as carefully as they could and come out at the end of the week and find they had made very little profit when they stopped to consider their trouble and carton and shrinkage. Switching over to the bricks would tend to build up their business, and show them a better profit. I don't think that is often appreciated, the matter of profit.

Mr. MacFarland: In Chicago, one of the largest stores put out a very, very large gallonage of brick ice cream, and every carton has the retail price on it. So the price is established in the public mind, and they know just what they have to pay for it.

Mrs. Babcock: In the New England states, they are trying out this system of advertising what brick ice cream ought to be sold for. They are going to run ads in the newspapers, telling the people what brick ice cream should be sold for at the stores, and they are very much disgusted with the amount of cream that they are putting into the cones. Some of the manufacturers got together, and they pulled out seventeen cabinets from the parks, where they were holding up the public on the cone question—they were charging too much for it. I say that is the way they are handling it—perhaps I should say this was the situation in the New England states during the year just closed.

Mr. K. L. Carver: It seems to me that this discussion of price regulation is timely, and I recommend that the Chairman appoint a committee of five, representing all sections of the state, and let them get together at the noon hour and talk over these things. In that way they can discuss the matter as they cannot very well do on the floor of the convention, and make a report to us this afternoon. I make that as a motion.

Mr. Miller: I second the motion.

The President: You have heard the motion, which is that a committee of five, representing all sections of the state, be appointed to consider the matter of price regulation, to report to the Convention at the session this afternoon. All those favoring the motion will say aye. Those opposed no. The motion prevails. I will appoint as that committee Mr. Platt, as chairman, and Messrs. Hage, Vahlberg, Hosking, and K. L. Carver.

The hour for noon adjournment has come, gentlemen, and we have run over a little bit. There are some

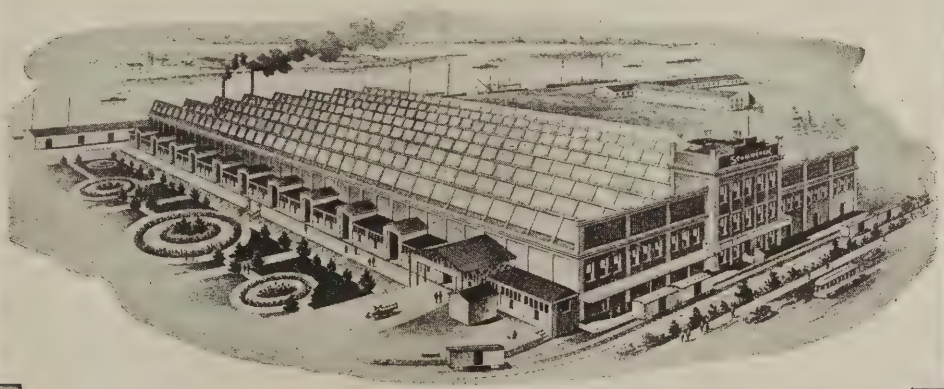
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gentlemen here who have obligations in regard to luncheon, and I feel that we should not continue this session longer. The afternoon is pretty long, and if we just determine to do so, we can cover practically everything that we have left. I wish, however, that you would try to be here pretty promptly at two o'clock, as the afternoon will be a full one in any event. If there is no objection, the convention will be in recess until two o'clock.

* * *

FOURTH SESSION.

Thursday, January 13, 1921, 2 P. M.

The Convention was called to order by the President.

The first subject of the afternoon's program, coming over from this forenoon, is a talk by Mr. George E. Platt, on "Uniform Cost Accounting." Is Mr. Platt in the room?

"UNIFORM COST ACCOUNTING,"

By Mr. George E. Platt, of Los Angeles.

Mr. Platt: Mr. President, and fellow members of the Association: When the question of cost accounting was brought up in our little organization down South, it came about under a request by me that we ought to standardize, and the thought was that we would be more intelligently able to make comparisons, when we talked of the various elements that enter into our product and its cost, if we adopted a uniform cost accounting system. I little thought then that Mr. Carver would be putting me down for a paper upon the subject, because it was really more of an inquiry on my part than from any knowledge that I possessed of the proper method of cost accounting. In fact, I have recently taken over more of the active management of our ice cream business, and we are looking for openings.

The idea has grown on me that we ought to have everything standardized, whatever we do; that the growth of the industry will come about by each one knowing approximately in what manner the other man conducts his business, and if he has shortcomings in that direction, he will be able to straighten them out, so that the godos will be of better quality, going to the consuming public, and that we will get further.

Really, Mr. Chairman, I haven't anything to offer on it. I just wish to start a discussion, or to put a thought in the minds of the members, as to the importance of having co-operative action in every line. If there is any advantage in an organization, it is from getting the other fellow's ideas. That is most certainly a very important point. I should be very glad if the members will take up the question of cost accounting, and submit an ideal plan, or, further than that, to be brief about it, I move that we have a committee appointed along that line, if it needs the approval of the members here, to ascertain the best method possible of keeping a uniform cost accounting. And, as there is a great deal more of importance to come up than anything that I could say to you, I will stop with that motion.

The President: This subject, gentlemen, lies very close to the basis on which you must depend for results in your business. If you expect to keep your finger on the pulse of the business and know what you are doing there is probably no other way of doing it except through the medium of a cost accounting system of some kind.

Mr. Wilson: I have not heard the motion seconded, Mr. Chairman, but I think it will be all right to discuss it nevertheless. I cannot see any need of a committee on cost accounting. The National Association has adopted what I think is an ideal system of cost accounting. They have gone so far as to have all the forms printed, and will furnish them to any member of the National Association. My company is using the form now, and I know two or three other companies in the state that are using the forms with great success. I think if all the members would adopt uniform forms, when they do come to these conventions they could compare their costs and see where they are perhaps extravagant in some department, and could cut down.

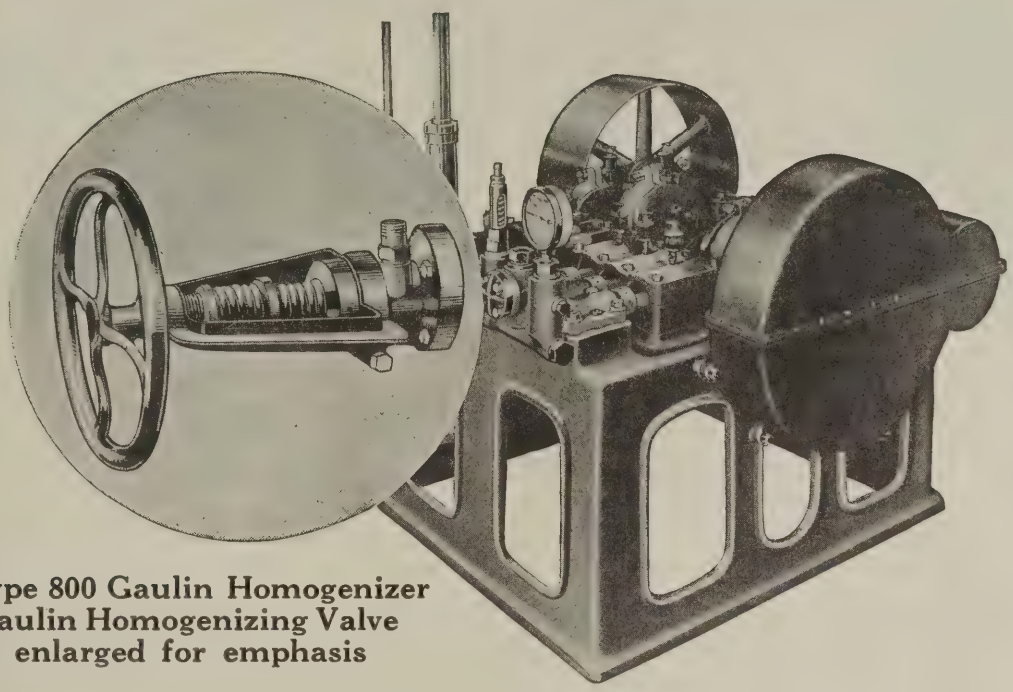
Along the lines of co-operation, I think this is one of the means of getting co-operation with your fellow manufacturer—by seeing that your competitor has a good system of cost accounting, so that he knows how much it costs to make a gallon of ice cream. When he does, he is not going to be so anxious to cut prices. And if there is a new firm starts up, that may cut into your business, go out and see them, and see that they have a proper cost accounting system. We might go a step further, and before he bought his machinery, show him some of the costs of making ice cream.

I would like to see all of the members of this Association join the National Ice Cream Manufacturers' Association, and I would like to see them adopt that set of forms that the National Association has gotten out.

Mr. Platt: Mr. Chairman, I think it would be in order for me to withdraw that motion, if there is a method already worked out by the National Association, whereby they have a uniform blank system. I was not aware of that, and I had it in mind that it would be very good for this organization.

The President: I will say that the National Association has not adopted any particular form, if I understand it aright. I think perhaps what Mr. Wilson refers to is this: The 1919 National Conventino had presented to it a cost accounting paper, and set forth in that paper where six or eight different cost sheets, entering into the total makeup of a system of cost accounting, on which the author had devoted a good deal of time and study, and I think was perhaps the result of the work in his own plant. Those sheets were published in the 1919 convention report, that is, in pamphlet form, and they were set out in full, and if I recollect correctly, Mr. Wilson will correct me if I am in error, the National Convention authorized, or at least the board of directors did, the printing and carrying in stock of that set of forms. Perhaps it has been amended some since then, but they do carry in stock a printed set of forms for the assistance or use or study of any member of the Association who wishes them, either to use in his own business or to use in studying and developing and adopting a form that is suitable for his business. And those are obtainable at any time by writing to the Secretary of the National Ice Cream Manufacturers' Association. Then at the last annual convention in October of 1920, the subject of cost accounting was brought up again and given considerable attention, and there was a talk there on the line of whether the National Association should employ a firm of expert accountants, of wide reputation and high standing, to undertake the work of bringing the business of the different members under a uniform cost accounting system. The idea was that the representative of this firm would go from state to state, call on all the members of the National Association, and undertake to inaugurate a system of bookkeeping and cost accounting for those different members that would enable them to come under it. There were not very many advocates of that system. It received considerable discussion, and the buck was passed up to the directors and the officials to study and take such course as they might see fit,

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and it has been discussed some by way of correspondence among the directors and the different officials since that convention, but there is not by any means a united sentiment on the subject. I doubt if that plan will ever be carried out. To many of us, it looks impracticable. It would afford a fine, fat job for some firm of professional accountants, and the expense of it would be very large to smaller concerns, and the value not very certain. The larger firms all have their own accounting systems thoroughly developed. Nearly all the larger concerns are already using a cost accounting system, very thoroughly developed, and the majority of those larger firms have more confidence in their own system of accounting as they have developed it through a series of years in their own business, and adapted it to the peculiar conditions of their business, and have more confidence in their own accountants, holding the position of secretary or bookkeeper or accountant in their own firm, or the firm of professional accountants they may employ as advisers, than they would have in any itinerant accountant that might travel the country over representing the National Association. For that reason the larger concerns have not fallen for the plan very much, and the smaller ones have not and could not, because it is too expensive for them, as a rule.

Those seem to be the reasons why the plan has not met with any very great favor. But there is a good deal of sentiment of accomplishing, as far as they can, among the members of the National Association, some results by an interchange of ideas and forms and systems, each fellow showing a disposition to give the others the benefit of his own experience and what he has ascertained and developed in his own business. And it is certainly an excellent idea to do that—exchange the forms that you are using. If I could have the forms that are being used of cost accounting in a dozen very successful firms, I know I could get a good many pointers from them to fit in with my own system. The same would be true of others. And it is question among a good many whether, by co-operative teamwork among the members of the Association itself, we might not accomplish more in developing a system better adapted to our peculiar situation and the peculiar conditions of our business, and perhaps more practicable and much less expensive, than to pursue the other course. So I have talked around the subject in that way, to illustrate, as I understand it, about the status of that question as it now stands among the members of the National Association.

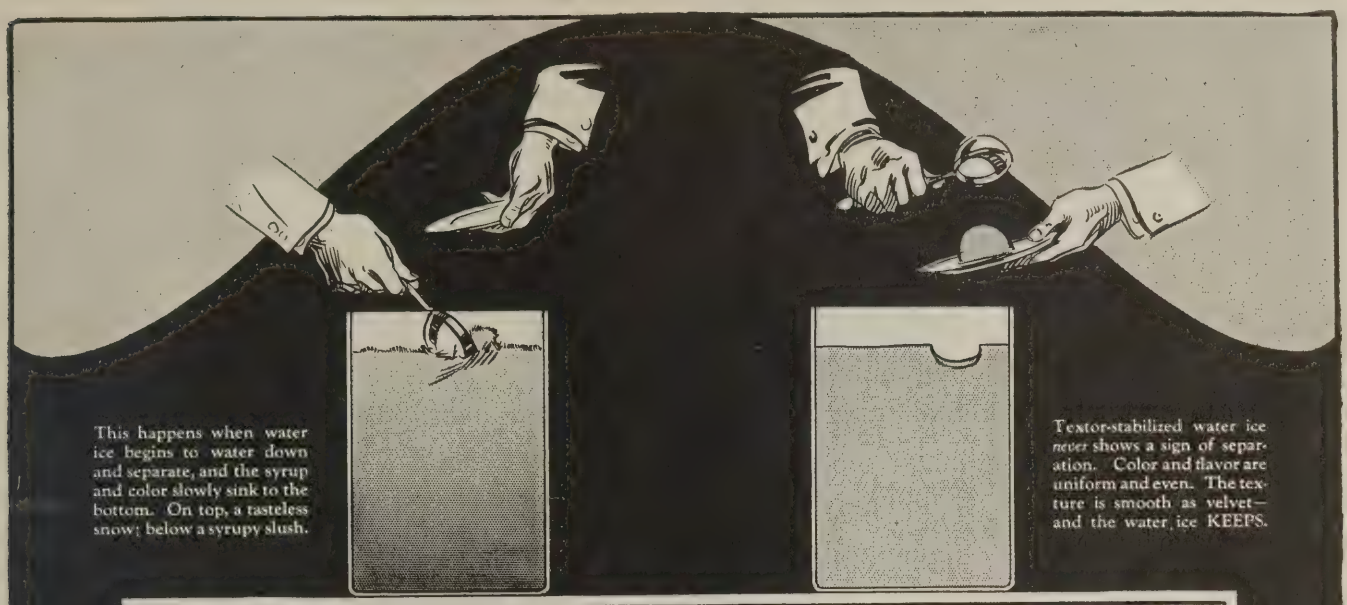
I am a thorough believer in cost accounting in every sense almost, and I don't see how a firm can do business and not have a cost accounting system sufficiently developed to give that firm the condition under which it operates in the line of goods in which it is handling, promptly and in full detail, segregated, and with the cost of every step in the process, from raw material down to deliveries and the collection of the proceeds of the business, so that they will know what every step in the whole operation cost them, not as a whole, necessarily, though that is all right, too, but to know what the costs are per unit of every step in the process. Otherwise you are more or less in the dark. You may know what your total results are for a month, but do you know the things that you need to know? If your results are not satisfactory, where is the fault, where is the defect, where are they lacking, where is it possible to improve? If you had that all segregated into an analysis of costs, under a system that would show the unit cost of every step, and those matters were shown in parallel columns both ways, in each period, so that those things would be accurately shown and in detail, you would very soon know where the strong point was or where the weak point was—where you are excelling in average results and where you are falling way below, in efficiency, of what you ought to be accomplishing. Any cost accounting system that does not give you the details in just that fashion, but gives you just the sum total of the result on the month's business, say, is worth very little, according to my estimate. Let us hear some further discussion, gentlemen, of the subject. Would it be interesting to us to know how many of our members, what proportion of our members or how many of them, are maintaining a cost accounting system, more or less complete? If you are not interested in this subject, gentlemen, we will pass it. But certainly we ought to be interested in it.

Mr. Miller: Mr. Chairman, I think we are really all interested, if we would just cut out that bashful feeling about getting up. And, in fact, I rather encouraged the Los Angeles crowd this morning in trying to draw us out.

We are interested in this question of cost accounting. But the idea of my suggesting anything on that is impossible, because my mind does not run along lines of bookkeeping, so that I could not offer very much on it, except that I see the necessity of it. To my mind, there are only three operations that we do—we make ice cream, that is, we buy the material, and we have got our material cost and the selling cost, and under those three heads every expenditure we have can be grouped, and we certainly ought to do it, and I believe that our bookkeeper has a system showing accurately the material cost, and our Mr. Fulmer has kept a record now for several years showing absolutely everything that goes into our mix, and we can look back to the corresponding month last year, or any time, and get accurately the material costs. Then the next thing is to know the yield out of that. I never liked the word "swell" that they talk about, and I never like to use it, or the word "air", even among ourselves. Someone discovered that the reason why it increased was the air we put in, and that has been very much abused, because we really do not gain anything in the nature of freezing ice cream, but it is the yield we get, and I would use the word "yield"—we ought to have a cost accounting system that would show that and base our manufacturing cost on that, and that should be so kept that we would know the total cost, the number of gallons we make, and divide one by the other and we would get the unit cost. Then we have the much discussed selling cost, that includs the delivery of the product, it includes advertising, it includes depreciation and overhead, and all those things, and if you want to subdivide it more finally do so, and separate the elements of those—suppose you keep accurate cost of your depreciation, which we know is a very large item. And so I might go on.

I wish I might be able to suggest something that would be helpful upon the cost accounting matter, because, as has been said, we really cannot work together unless we do have something similar in cost accounting, and Mr. Wilson has said that we would always rather have competitors who have accurate cost accounting, because that keeps us from doing some things in the last analysis.

I feel that there are those here who have lots of information to give us, and I am an earnest seeker after knowledge, because it is one of the most necessary things we have. It is our opportunity to keep our finger upon the business pulse. If you are going to run a successful business, you have got to know it, and to run the decimal out to the third or fourth figure, if



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need be. It is very stimulating to make comparisons. It shows us where we can increase efficiency on first one line and then another.

I repeat, Mr. Chairman, that I am sure there are many here who can give us accurate information, and if they get started talking about this subject, they will be just as active as they were on some of the others.

Mr. Wilson: Mr. Niebling, who got up those forms, is one of the best business men in his business in the United States. He was formerly a banker, and went into the ice cream business in Rochester county; in 1916, at Atlantic City, the National Association appointed a committee on cost accounting, but could not get any report from it, and President Gardiner, of Baltimore, delegated Mr. Niebling to get out a set of forms and prepare a paper. The system isas simple as A. B. C. It would cost the manufacturer a lot of money to go to a printer and get those forms, those sheets printed, while the National Association gets them printed in a big bunch and supplies them to you at a nominal cost, and I should think that would be the easiest way to adopt the system and after that get the forms and see what improvements they can make—and they can easily change them. I am sure we would all profit by having the members of our association here write to Mr. Lowenstein, the secretary of the National Association, in regard to that cost accounting system.

Mr. Smith: Mr. President, it occurs to me that some of us might be in a position where a cost accounting system such as Mr. Wilson has suggested might not be applicable to our business. My business, for instance, is not solely the manufacture of ice cream, but is milk and cream as well. I am very strong, however, for a cost accounting system. I took over from my experience as office manager in the automobile business, a cost accounting system which fitted over to my present business, and I am able to accurately determine my costs on not only the ice cream manufactured, but also all the other departments. I have all my business segregated departmentally, and I am able to tell the manufacturing and selling cost for each different department in my office, and I find it a great help in every way, in determining whether or not I am realizing a sufficient amount of gross profit, and whether or not my expense is eating up too much of my gross profit. I think a cost accounting system, in whatever line we are engaged, whether strictly the wholesale line or any other line, such as mine, is a very important element.

The President: In response to what the gentleman says, I take it that he, as well as several other members of our association, are engaged in several different lines—you may sell, milk, cream, and butter, as well as ice cream—and it is an easy matter, where there is an overlapping between known departments or lines of business, to put out and apportion certain costs that may be joint, like your overhead, your depreciation, and any other line of costs that may overlap and be applicable to, say, both ice cream and creamery products, or ice cream and butter, or ice cream and milk and cream, by just a little observation or study. In that way you can make a pretty close approximation at a fair division of these overlapping expenses, like overhead and so on, so as to judge the approximately correct or fair portion of those things that could be noted against the ice cream or against the other different elements of your business. The item of depreciation occurs to me as a very important item, that I know some firms do not adequately understand nor appreciate the importance of, or the bearing it has or the figure it cuts in your business. The man who deceives himself and thinks that all he gets in money collected back from the sales of his goods, after he has paid his help and for his raw material, is not profit, lacks a whole lot of being a business man, and he will lack a whole lot, at the end of five or ten years, of being where a business man ought to be that is doing the business that he is doing, and I take it that hardly any modern business man needs to be reminded of that. But there are some features of depreciation that I don't think some business men adequately understand. In some lines of business, the same class of equipment in a plant doing one line of business would not call for a depreciation rate half as large as the same equipment might in another line of business. That is a thing we do not always recognize. The ice cream business and the milk business, and such lines of business that are wet in their nature, where there is exposure—the conditions that prevail in those lines do not prevail in all industry, and they operate to deteriorate equipment many times faster than the same equipment would suffer under other conditions. That means that the depreciation in an ice cream plant and in some of the forms of dairy products plants, necessarily has to be very much larger to get you out of the hole, to take care of your replacement if you expect to do business year after year. If you are only in business for two or three years, and expect to make your clean-up and get out, that is not so serious. But there is a different situation with us—it presents a very serious and a very burdensome thing.

Another point of difference is often overlooked. These are points you will find are recognized, if you ever have occasion to confer with the Federal authorities, when it comes to your income tax returns, etc. They are onto the job, and they are looking at the matter of accounting from their viewpoint in the matter. It is up to you to look after yours and from your viewpoint. They will take all they can get. They are collectors of revenue for Uncle Sam. You are entitled, the man who operates a business that runs twenty-four hours in the day, or eighteen hours in the day, is entitled to a depreciation at a rate exactly proportionate to the number of hours and days he operates, as compared with the man who operates his equipment only eight hours a day. Did you ever think of that? The man who operates twenty-four hours a day is entitled to depreciation, and he must take it if he expects to have a fund sufficient for replacement, three times as large as the man who operates his plant only eight hours a day. There are lots of little things like that that business men, when they get down to a detailed investigation of things, will not look into. Perhaps they will say, "My book keeper gives me the results at the end of the month, and it looks pretty good, and as long as I can see it in cash, why, it is drawn out, and maybe it is spent in a good many of the things that go to make up the high cost of living, and that is enough." Why, in that way, we are deceiving ourselves, if that is the only conception we have of what we are getting out of the business.

Is there any further discussion of the subject before we pass to the next subject? If not, the next on the afternoon's program is a talk by Mr. W. B. Hage of "The good of the industry."

The Good of the Industry.

By W. B. Hage, of San Diego.

Mr. Hage: Mr. President, and ladies and gentlemen: I think that my discussion in regard to "The Good of the Industry" has been so largely discussed here since we have been in attendance at this convention, that I am in a rather bad fix. But I have three topics noted here, three points.

(Continued on Page 106)



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What Is A Special Flavor?

By W. B. WOOD, St. Louis, Mo.

The special ice cream flavors are the best bet the ice cream manufacturer has to-day. This is a field that is virtually untouched, and when you speak of special flavors we take it for granted you mean a "special flavor". In other words, one could not call vanilla, orange, lemon, strawberry, etc., special flavors, and there is no way by which you could make a specialty out of a true flavor.



W. B. WOOD

I can better explain my point of view by referring to our own specialty, which we call "Yum Yum." This is a flavor unlike anything else on the market, but a special flavor is like everything else on the market, inasmuch, as it takes something to sell it.

There are certain classes of ice cream people, just the same as there are certain classes in every line of trade that work along the lines of least resistance. Sometimes these people make a good living,—sometimes they make money, but many of them could make it easier and quicker if they would get out and push a specialty. They would be building up a business that would belong to them, and on which they would have no competition.

You can take, for instance, the bottlers of Coco-Cola. Every soda water bottler has seen these people sell one case of Coco-Cola and give the man a case of strawberry to get him to take it. At the time this looked like a piece of foolishness, but it develops in after years that it was money and time well spent. This would apply to a specialty in ice cream.

You are building up something for yourself on which you have no competition. We have gone to a whole lot of trouble and spent a whole lot of money on research work to get out this special "Yum Yum" flavor. We believe it would pay every reliable ice cream manufacturer in the United States to investigate the merits of this particular flavor.

If he don't like it, then look for one somewhere else on which he could make a specialty. Then confine himself to this specialty and vanilla. At present every ice cream manufacturer is selling vanilla cream, and then he has about a half dozen flavors, such as strawberry, orange, cherry, lemon, etc., which he sells a little of. He calls these other flavors, aside from vanilla, "special flavors," but this is not the special flavor I am talking about, and these are not the special flavors it is going to pay him to push.

Let an ice cream manufacturer get after this specialty business once and learn it. Let him paint his trucks "Yum Yum." Let him paint his house "Yum Yum." Let him distribute his advertising matter, etc., in the way he should. He will be surprised at the results.

I realize the fact, it is hard to induce ice cream manufacturers to do this, simply because they have never seen the other fellow do it, and the ice cream trade, like every other trade, are prone to follow in the paths already established.

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The recent decision of the directors of the National Dairy Association to accept associate members to the organization, offers an opportunity to every one engaged in any branch of the dairy industry to take an active share in the great work this mutual organization is carrying on.

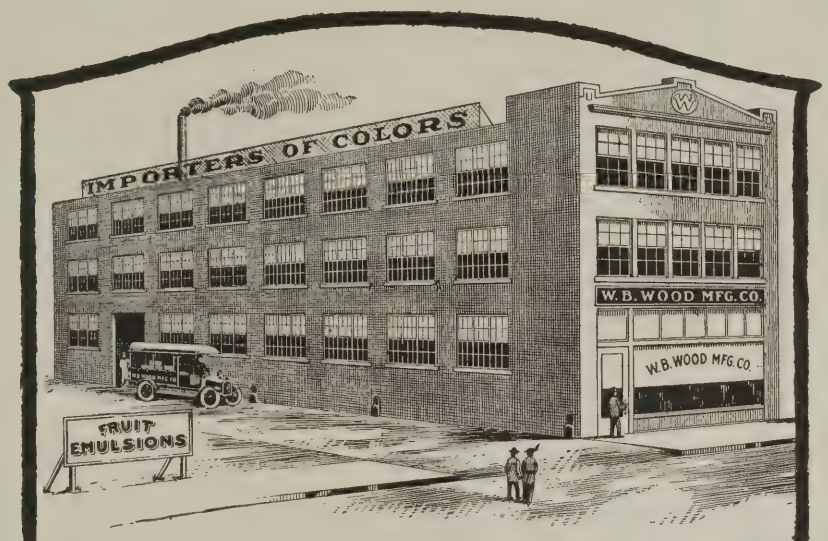
While the National Dairy Association was organized primarily to stage the great annual National Dairy Show, it offers a medium under which all the diversified associations can unite for the good of the industry, and it provides a ready means for promoting any practical activity which will benefit the great dairy industry.

The fee for an Associate Membership has been placed at the nominal figure of $5 a year, and entitles the associate member to an active voice in any of the meetings of the National Dairy Associations. With the membership five tickets of admission are given to the National Dairy Show. A certificate of membership is issued to each associate member and it is hoped a framed certificate of membership to the National Dairy Association will soon hang on the wall of every creamery, ice cream plant, milk plant, cheese factory, etc., in the country, not now a life member.

The dairy industry gives you your livelihood. If you will help support it by joining the National Dairy Association, you will be helping yourself and at the same time help your brother members of the industry.

If you want the dairy industry to secure the recognition to which it is entitled, if you want to help dispel the ignorance about this great industry that now exists in the minds of the public, if you want the persecutions on the part of city officials and newspapers to cease, if you want to improve the producing end of the business, get busy and do your bit—apply for an associate membership in the National Dairy Associatioon. Address your applications to this paper or to W. E. Skinner, Secretary National Dairy Association, temporary office 4th and Robert Sts., St. Paul, Minn.

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ST. LOUIS, MO.

THE NATIONAL DAIRY SHOW.

By W. A. McKerrow, St. Anthony Park, Minn.

One of the greatest educational institutions known to the dairy world is the National Dairy Show, to be held the second week of October. We are indeed fortunate in procuring this great institution to assist in developing the new dairy regions which lie within close proximity to the Twin Cities. Minnesota is the greatest butter state in the American Union, both from the point of production and quality, with more cooperative creameries than any other three states. The growth of dairying will depend largely on the opportunities afforded in the way of more economical production and manufacture of its most important article of food. The National Dairy Show should play a very imporant part in this development.

More economical production lies at the foundation of successful dairying and the increased number of bred-for-production dairy cattle is a necessary part of this development. The National Dairy Show will assemble the various breeds of dairy cattle which are the most perfect specimens from the standpoint of showring type as well as ancestry, which stand for production because the breeding of each animal has been carried on with the greatest care and judgment.

It is estimated that not more than three per cent of the dairy cattle in the northwest are of pure breeding, therefore, there is great opportunity for the introduction of a better class of dairy cattle, which means greater profits for the labor and investment on the average farm. The average cow in the northwest is estimated to produce about 190 pounds of butter per year, while the cattle which will be assembled at the National Dairy Show will have an average butter production—either the individual or a compiled list of the ancestry—of over 600 pounds. This is an example that every farmer in the northwest should seen and study carefully at the coming National Dairy Show October 8 to 15.

A complete exhibit of cow testing association cows may be seen, showing the importance of better feeding, care, and management, which is brought about by keeping records of the dairy herd. With a very carefully prepared exhibit, the use of the purebred sire is demonstrated by fifteen years' work, starting with a common cow and building up by the use of purebred sires, tripling the profits by greater production per cow. The message of better feeding and more economical production will be demonstrated throughout the entire dairy cattle exhibit so the average farmer can grasp the idea of modern dairying in its various details.

Dairy farm equipment exhibits will be well worth earnest study. These will show the economical use of these modern methods in the most intensive forms in the various types of dairy barns and dairy houses.

Local creameries, cheese factories, condensaries and other types of dairy product manufacturing will have every opportunity to inspect the most modern machinery for their use, and will be able to learn the details by contact with experts engaged with these displays. If the northwest is to continue to boast as leaders in the production of dairy products, it is necessary to keep abreast of the times in our manufacturing ideas. Large and interesting exhibits of dairy products demonstrations on the value of these as food may be seen.

The why of the National Dairy Show and its importance to the northwest cannot be summed up in a few words. Its first importance is its educational value to the men now engaged in the industry and those who expect to become dairymen sooner or later. In fact, there is no section of the country in America which holds greater possibilities for the dairy cow and her products. We wish to show the men engaged in the dairy industry over the various sections of the United States upon their visit to the northwest that we have a country which is interested in and is doing a great deal to develop this business. By the interest and enthusiasm of our people, we can prove that we are leaders in our vocation, so let every man take a great interest in this greatest of all educational institutions for the development of dairying. Boost and advertise the National Dairy Show by being in attendance the week of October 8th-15th.



CHANGE IN CONVENTION DATES.

In order to avoid a conflict in dates, announcement is made by M. T. Cochran, Secretary of the Oklahoma Association of Ice Cream Manufacturers that the annual convention of this organization will be held on Dec. 12th, 13th, and 14th. Following are the officers and committee members of the association:

President: J. B. Porter, Tulsa; Vice-President: R. G. Colvert, Ardmore; Secretary-Treasurer: M. T. Cochran, Altus; Executive Committee: S. P. Lay, Tulsa; D. J. Carithers, Wichita Falls, Tex.; F. G. Christen, Muskogee; W. L. Colvert, McAlester; O. C. A. Rathbun, Fairview; Legislative Committee: C. W. Radway, Stillwater; Carl Glitsch, Oklahoma City; J. W. Parker, Enid; Express Committee: J. A. Oxley, Poteau; C. A. Burns, Ponca City; L. K. Jones, Lawton; Advertising Committee: D. F. Solliday, Oklahoma City; E. N. Ward, Ft. Smith, Ark.; F. J. Bouvy, Tulsa; Delegates National Association: D. F. Solliday, Oklahoma City; Delegates Farm Congress: J. W. Parker, Enid; M. D. Newton, Cushing; Entertainment Committee: W. E. Walthers, Oklahoma City; W. M. Hawk, Tulsa; Arthur Marshall, Chickasha; Scoring Ice Cream Committee: Prof. A. C. Baer, Stillwater, R. W. Brice, Muskogee; R. F. Pantier, Shawnee.



ICE CREAM SALES DOUBLE.

Merril, Wis.—Twice as much ice cream was sold this year as a year ago in this vicinity, owing to the extremely hot summer.

According to local manufacturers, this fact together with the short pastures has resulted in a boost in the prices of all dairy products.

The price of ice cream a year ago was $1.25 and before the war, 75 cents. The present price ranges from 90 cents to $1 a gallon. Local manufacturers do not look for a further drop in price.

Cheese dealers are, however, not so confident about the present price scale, believing that a sudden drop may come at any time.

The price of butter fat paid farmers is 39 cents a pound and creamery men say that the price will remain from 39 to 45 cents during the fall and winter.

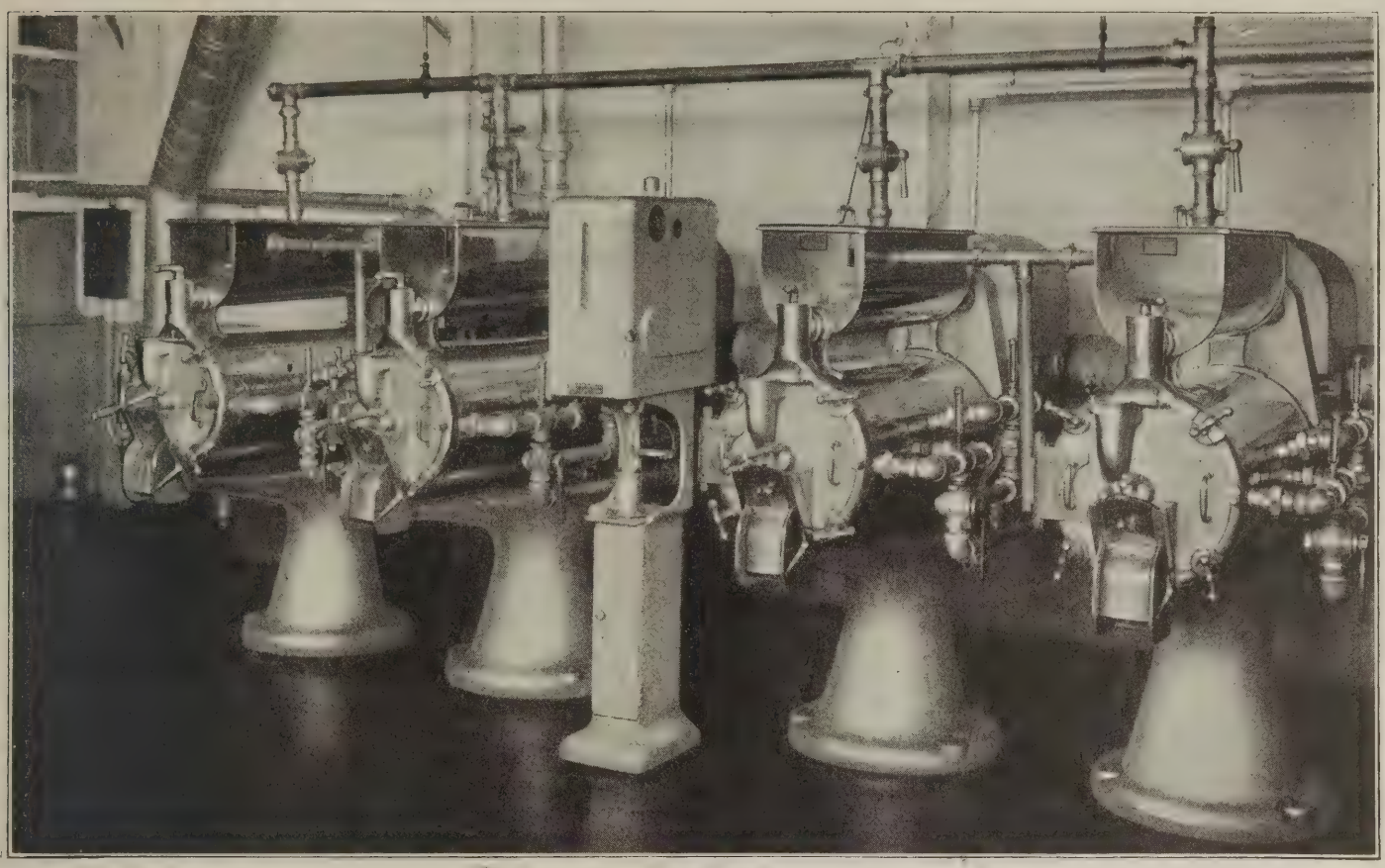
The price paid for butterfat last spring was 26 cents but the increase since is claimed largely due to the ice cream sales.



YOUNG PARADERS DEMAND 5-CENT CONES.

Des Moines, Ia.—More than 500 children between the ages of 6 and 15 years marched through the downtown section of Des Moines today protesting against the high price of ice cream cones. Most of the children carried placards inscribed: "We want nickel ice cream cones."

A local newspaper furnished the kiddies with free ice cream after they had finished parading.



Anheuser-Busch Sales Corporation, New Orleans Branch, New Orleans, La.

Anheuser-Busch Use Progress Freezers In Big New Orleans Ice Cream Plant

And, look at the size of the Freezers. Four of them. Each a one-hundred-quart capacity. They are individual motor drive horizontal brine machines. Notice the double brine connections on the side of the cylinders. Pay particular attention to the beautiful appearance of these wonderful modern Freezers. Anyone would surely be proud of a freezing department like this one.

Progress Horizontal Ice Cream Freezers, like their brothers, the Vertical Freezers, have gained a sterling reputation for their honest work and value. You will find them in large and small ice cream plants in all parts of the country. They are designed and built by men having long experience in the proper construction of ice cream freezers. All you need to do is to give a little time to the study of this efficient construction to convince yourself of the reasons why large concerns are equipping with these Progress Freezers.

The one-hundred-quart size has the special advantage of large capacity. This means a saving in labor, power and floor space. It gives twice the capacity of a fifty-quart machine—*with no loss of time.* The large size of the intake for the mix, and the outlet for the frozen cream, doubles the speed of the flow. And it freezes at the same efficient rate of speed. If you have the business to keep large capacity freezers busy, you ought not overlook the saving this machine will give you.

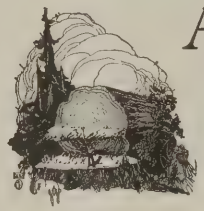
The squirrel cage dasher in each one of these machines gets you all the overrun your business can profitably stand. In fact you have to watch it carefully or you will get too much. Good ice cream, the kind which advertises itself, ought not have more than one hundred percent; and you are better off to hold it down below this.

Our "D" shaped coil, wrapped around the freezing cylinder, equipped with double brine connections, speeds up the work of freezing. The scraper blade is made in sections, instead of one long blade on each side of the dasher. You don't drag any oil through the cylinder when you take the dasher out for cleaning. In fact, Progress Freezers have every possible advantage that a modern Ice Cream Freezer should have. Study it over.

7-21

Why Redwood *should be used for* Ice Cream Cabinets and Refrigerators

Properties which make Redwood unrivalled for these purposes



ABILITY to keep heat out and cold in, is the test of refrigerator worth. This is directly dependent on the insulating quality of the materials, from which it is made. After experimenting with many kinds of wood, leading manufacturers of ice cream cabinets, refrigerators and cold storage plants have adopted Redwood for the following reasons:

Redwood is a remarkable insulator

The structure of Redwood is distinguished for the regularity in size and shape of its sap cells, and for the uniformity of texture they give. When the sap is dried out, these cells become air pockets—layer on layer of them—which act as almost perfect insulators to heat. With a freezing temperature on one side of a Redwood board, the other side remains at room temperature—does not sweat.

Redwood properly dried is "still" wood

No soft wood warps, swells or shrinks as little as properly dried Redwood. Wet or dry, Redwood "stays put"—joints tight—no bulging or leaking.

Redwood does not rot

Every fibre of Redwood is impregnated during growth with a **natural** preservative which prevents decay from moisture. Acid and alkali solutions, salts and oils do not destroy Redwood. Insects and worms do not attack Redwood.

Redwood is easy to work and can be given any finish desired

Soft, light in weight and free from knots, splits and other blemishes, Redwood can be manufactured to any dimensions desired with a minimum of labor and a minimum of waste. Its uniform cellular structure provides excellent surfaces for holding paint or varnish—enables Redwood to be given any finish desired.

Send for this Redwood Information Sheet

The Pacific Lumber Company has compiled special data on Redwood for insulating purposes. Send for Redwood Information Sheet on "Refrigerators and Ice Cream Cabinets." Please address inquiries to our Chicago office.

The Pacific Lumber Co. OF ILLINOIS REDWOOD

REG. U.S. PAT. OFF.

2082 McCormick Building, Chicago
New York City, N. Y. Kansas City, Mo.

THE PACIFIC LUMBER CO.

San Francisco, Calif. Los Angeles, Calif.

The largest manufacturers and distributors of California Redwood
Members of the California Redwood Association

A NEW PUBLICATION.

Volume 1, Number 1 of a spicy little house organ called "Sx," and edited by Miss Puritan Brand, has reached our desk. It is full of interesting material and we judge that the editor is a good judge of human nature. He evidently knows what people like to read and he tells it in an interesting way. The publication is issued by the Essex Gelatine Co., Boston, Mass. Here is a sample of one of the editor's stories:

Keeping In Tune.

This is a wonderful day! A wonderful day of soft winds and warm sunshine! And this morning I made up my mind that I would drive into the City in my roadster, so that I might enjoy the freshness of the morning rather than suffer the close air that is usually found in a Boston and Maine coach.

So I hurried through breakfast and with full anticipation of the leisurely drive to town, I hurried to the garage. Usually the motor in my roadster responds at the first touch of the starter button, but this morning something went wrong; for the starter-motor churned and churned, but never a kick did the engine give until, when I thought that my battery surely would give out, off she went. But it was not a good healthy sound. There was no rhythm to it; rather, it kicked and backfired and hit on a couple of cylinders only—and it has six.

Visions of my morning ride into the City were rapidly vanishing when one of the garage mechanics asked me if he could be of assistance. He took the car out on the road for a test run and when he returned, after half an hour, the motor was purring with that pleasing staccato that is indicative of a motor in perfect condition. I asked him what he had done to it.

"Oh, nothing much," he replied, "the carburetor was out of adjustment, the timer points were soiled, and one spark plug was short circuited. I just put the machine in tune. You'll have no more trouble with it."

It is a great thing, that, to be in tune; to be in tune with one's self, with one's work, with the organization of which one is a part. And how easy it is to get out of tune!

There are times when things are bound to go wrong; times when it seems that everything that we do goes just opposite from the way we would have it. And then we get out of tune. And like the engine in my roadster, we kick and back-fire and buck and sputter. We lose patience, we become irritable. We call down the stenographer for omitting a comma, or the office boy for something that is not really his fault, or a salesman for not getting a certain order when he did everything that any one could do, or our associates because our work is behind, and the folks at home because dinner is not served right on the minute.

And then it is up to us to drop everything and to get in tune! To take a long walk in the early hours of the morning when we can walk slowly and alone. When we can listen to the songs of the birds, when we can see the sun come up out of the Eastern horizon in all its splendor and grandeur. For there is something in the early morning hours that is lacking in the remainder of the day; the stillness and the freshness of those hours invites us to get in tune, to get in tune with nature and with ourselves.

And then we go back to our work, to the duties of the day, with renewed faith and restored vision. Our work is easier, and the petty trials and annoyances do not bother us. We hit along on all six.

And just because we have placed ourselves in tune.





Three Glass Lined Milk Pasteurizers at the Snow & Palmer Co., Bloomington, Ill.—Milk is dumped upstairs, runs into tank suspended from ceiling, gravitates from there to clarifier, and thence into pasteurizers.—This dairy has one of the lowest bacterial counts in the country.

STEPPING OUT!!

This will serve to interrupt the series which we are running—to direct your attention to the greatest dairy event of the year.

IT'S the chap, stepping out today, who leaves the other fellow behind tomorrow—The Dairy Show at Minnesota represents the logical get-together of the year, when new ideas will be swapped for old—when you will be able to learn some new method of milk handling,—some new device which through economies gained in the course of the year, will pay the expense of your trip ten-fold.—You positively owe it to yourself this Fall as at no other time, to attend the National Dairy Show.

STEP OUT,—for Minnesota.

Tell your friends and neighbors you are going to the World's Greatest Dairy Show, Minnesota State Fair Grounds—October 8-15. Our booths Nos. 96-97-98.

The PFAUDLER CO.

The World's Largest Makers of Glass Lined Steel Equipment

ROCHESTER, NEW YORK

Pfaudler

Tell Your Friends and Neighbors You Are Going To The WORLD'S GREATEST DAIRY SHOW, MINNESOTA STATE FAIR GROUNDS, October 8-15





WARNER-JENKINSON CO.

ST. LOUIS

Manufacturers of Ice Cream Makers' Supplies and Certified Food Colors

They come and they go, but PURITY ICE CREAM POWDER holds fast. You can't get away from it; when you want a good reliable cream stabilizer you have to use Purity Powder. Should any difficulty be experienced when homogenizing by the mix becoming too thick, simply replace Purity by Red Seal Special Homo-Powder.

Ice Cream makers looking for quick and certain action in the Ripening tank use RED SEAL RIPENER. One ounce of Ripener to every fifty pounds of mix does the work. Just throw the "Ripener" in the holding tank and then stir it in.

RED SEAL GIANT VANILLA makes new friends every day. No one who uses Giant wants to try anything else.

RED SEAL COLORS. All shades.

LIQUID, PASTE, POWDER. Satisfaction guaranteed.

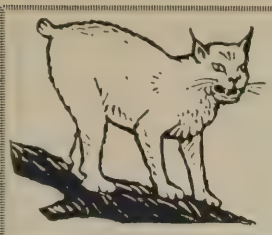
RED SEAL TRUE FRUIT FLAVORS. Ideal for ice cream.

ST. LOUIS

WARNER-JENKINSON CO.







HOOSIER WILD CATS

President, EDWIN J. SMALL, Indianapolis, Indiana

Send all communications to
H. A. STEVENS, Sec'y and Treas.
717 Railway Exchange, Chicago, Ill.

On Wednesday, July 13th, the writer, in company with our President, Mr. E. J. Small, attended a chicken dinner at Marion, Ind., which was held under the auspices of the Indiana Manufacturers of Dairy Products. Pleased to state that we were accorded every courtesy possible by both Mr. Moore and Mr. Holley, which gave us the first opportunity we have had to speak as an organization before a body of members of the Dairy Products Manufacturers. The writer was informed toward the close of the meeting by Mr. Moore that 20 per cent of the Hoosier Wild Cat membership was present. The enthusiasm shown by everyone connected with both organizations was such as will insure all of us a wonderful time at the annual meeting in Indianapolis.

Three new men applied for affiliation with our organization and their applications have been accepted. They are as follows:

Mr. E. C. Bishop, representing The E. C. Bishop Company, Industrial Accountants, Indianapolis, Ind.

Mr. C. M. Lewis, representing Westerlin & Campbell Company, Fort Wayne, Ind.

Mr. Geo. C. Anderson, Creamery Package Manufacturing Company, Chicago.

Prior to the dinner at Marion every one had access to the Marion Club's facilities, and a great many had a little game of golf, the writer being included.

There was no official announcement forthcoming regarding this meeting, as it was not fully understood that supplymen were to attend. Future events of this nature will obtain the necessary publicity in order to give our members an opportunity to attend them if they so desire.

Any of our members who have in mind supplymen who should belong to our organization will please submit their names at the earliest possible date.

Yours very truly,

HOOSIER WILD CATS,
H. A. Stevens, Sec'y-Treas.

RIECK BREAKS RECORD FOR INDIVIDUAL ICE CREAM ORDER.

Pittsburg, long famous for its steel tonnage, is now going after records for ice cream tonnage. When the Rieck-McJunkin Dairy Company filled a single order for 3412 gallons of Rieck's Ice Cream Saturday, July 30th, it broke all records of the territory and set a new mark which will probably stand for awhile.

Every year the National Tube Company holds a one-day picnic for all its employees and their families at Kennywood Park, a pleasure resort within the limits of Greater Pittsburgh. Their original order to the Rieck Company called for 2800 gallons of ice cream, cut and wrapped, ten slices to the brick. Then when the crowd gathered and the picnic management saw what confronted them the Rieck Company was asked if it were possible to cut, wrap and deliver an additional 600 gallons. It was possible; the resources of the organization were equal to the emergency and 612 gallons were delivered the same afternoon making a total order of 3412 gallons. Two hundred and fifty gallons of milk were also furnished.

True Fruit Extracts

FAMOUS BRAND QUALITY

POSSESSING the true, fine and delicate aroma fresh fruit Practicable for all flavoring purposes —especially fine for chocolate creams, jelly work, fountain syrups, ice creams, frappes, ices, soft drinks. carbonated and uncarbonated beverages, etc.

FINISHED PRODUCTS CAN BE LABELLED AND CALLED TRUE FRUIT

STRAWBERRY
RASPBERRY
BLACKBERRY
PINEAPPLE
PEACH
CURRANT
APRICOT
CHERRY
GRAPE
LOGANBERRY

$8.00 per gallon

$1.25 per pint

DISCOUNT ON 6 GAL. CASES
ONE KIND OR ASSORTED

Manufactured by

Downey-Turnquist & Co.

Manufacturing Chemists and Importers

537 No. Dearborn St. CHICAGO, ILL.

IT ALWAYS PAYS To Retin Milk and Ice Cream Cans

There is no need of repeating about the excellence of our work and service.

Twelve years of experience and the best equipped tin-plating plant, assures quality and service.

Write for new price list

Alois Aufrichtig Copper & Sheet Iron Mfg. Co.

Third & Lombard Sts. St. Louis, Mo.

Purpose of the Viscolizing Process

By K. D. SMITH, Sales Manager, Union Steam Pump Company

(Reprinted on Account of Typographical Errors Made in July Issue.)

THE manufacture of ice cream has long since ceased to be recognized as a mere business and has passed into the realm of industry, representing an unparalleled growth and investment of capital in promotion and installation of high class manufacturing equipment.

In the processing of unfrozen ice cream mix we but follow the almost inevitable rule that scarcely a single food provided by nature is fit for our present needs without a series of mechanical or chemical manipulations and it so happens that in the processing of milk constituents which enter into the manufacture of ice cream, that the modifications made in the natural product are confined almost exclusively to mechanical or physical changes and that the results brought about by chemical changes are for the most part to be avoided.



The Home of the Viscolizer.

The prime requisite in the preparation of an ice cream mix is to in some way effect as permanent and thorough emulsion as possible without disturbing the natural qualities of the milk, and above all else to have the butter content as finely divided as is possible and to insure its remaining in as perfect emulsion as can be brought about without resorting to any chemical change in any part of the mixture.

For industrial products, fats of any nature can be cut chemically so as to remain suspended or emulsified in the so-called solution but in the manufacture of ice cream of the most perfect quality, the butterfat must not in any way be disturbed other than to have the natural size of the cream globule reduced to at least one-third of its natural volume. There are two processes and two machines which will successfully effect this necessary change, the viscolizer and homogenizer.

Quite naturally the process carried out by these machines is known as viscolizing and homogenizing, and it is the purpose of this discussion to explain the simplicity of operation and ordinary detail of the viscolizer in its relation to the very intricate study of solution and emulsion. Milk or ice cream mix is a combined solution and emulsion, in which sugar is dissolved into a mixture of milk products in which there is, in true emulsion, the important constituent of milk —casein.

The ice cream maker is concerned principally with the treatment of the butterfat in the mix, and it was discovered long ago that if whole milk was subjected to high pressure and forced through any kind of a fine orifice that the butterfat or cream was more or less thoroughly emulsified and would not thereafter separate as is its natural tendency in the untreated state.

The discovery of this possibility was at that time in no way related to the manufacture of ice cream, and had to do only with the enriching of milk with butterfat content of any desired percent.

The ice cream maker is to-day so well informed upon the possibilities and advantages of homogenized or viscolized mix that it is unnecessary to dwell upon this and we believe that with this concession the details of the machine and its operation are of vital interest.

On account of the construction of earlier machines and lack of real knowledge as to how the change was brought about or how a machine could be constructed so finely as to subdivide a cream globule having a diameter visible only through a high powered microscope, it was thought necessary for a long time to operate at excessively high pressure and that this high pressure really did exert some tearing or rendering effect upon the individual globule.

It was considered also that the orifice through which the milk was forced at this high pressure was so narrow that the cream globule did come in actual contact with the walls of the orifice and that the cutting and scattering effect was accomplished here. For a long time the theory was advanced that each individual cream globule, small as it might be, was enveloped in a kind of membrane or sack which was bursted by this high pressure and the liquid butterfat allowed to escape.

Theories and explanations in untold numbers have been advanced as to just how the subdividing of these minute cream globules is accomplished, how this caused the change in the apparent viscosity of the liquid and how this reduction in size, no matter how accomplished, prevented the natural separation of cream from the balance of the milk serum.

It has been conceded that there is no possibility of the narrowness of the orifice causing by any friction, rubbing or cutting effect, the subdivision of the globule. It is positively known that there is no enveloping membrane about the cream globule and it is further and equally positively known that the pressure, considered in itself, has nothing to do with the change brought about in butterfat structure by either the viscolizer or homogenizer.

In the viscolizer the structural details of the viscolizing device are radically different from any type of homogenizing device, but the results, as far as the subdivision of the fat is concerned, are the same and the ice cream maker has learned that the real essential object sought for in the treating of the mix is the subdivision of the fat. It is primarily necessary that the fat be divided fine enough to prevent its responding to influence of gravity and if the process is carried beyond this necessary point it will slightly improve the results but it has also been found with some machines used for this purpose that if the subdivision process is carried to an extreme, that the other more delicate and real essential constituents of the milk are



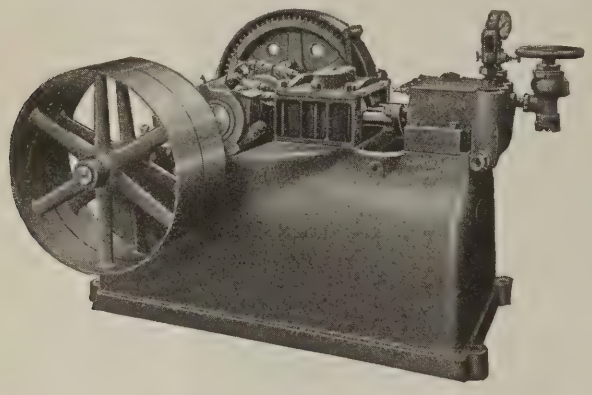
OUR 26 BEST ANSWERS TO ANY PUMP QUESTION

John W. Ladd Company.....Detroit
Bessire & Co.....Atlanta, Indianapolis, Louisville
Gowing-Dietrich Company...Syracuse, New York
Wright-Ziegler Company....Boston, Massachusetts
Dairymens Sup. & Con. Co.....Pittsburgh, Pa.
Oakes & Burger.....Cattaraugus, New York
R. G. Wright & Company.....Buffalo, New York
Alberta Dairy Sup. Ltd.....Edmonton, Canada
DeLaval Company, Ltd.....Peterboro, Ontario
W. A. Drummond & Co.....Toronto, Canada
Baker, Hamilton & Pacific Co.....San Francisco
A. H. Barber Cmy. Sup. Co.....Chicago
Beatrice Creamery Company.....Denver, Colorado
Cherry-Bassett Company.....Baltimore
Blanke Mfg. & Supply Co.....St. Louis
J. G. Cherry Company...Cedar Rapids and St. Paul
Dairy Machinery Co., Inc.....Seattle, Washington
Enterprise Dairy & Cmy. Sup. Co.....
.....Cincinnati and Columbus
Huey & Philp Hdwe. Co.....Dallas, Texas
Kennedy & Parsons.....Omaha and Sioux City
N. A. Kennedy Supply Co.....Kansas City, Mo.
Meyer Dairy Equipment Co.....St. Louis
Mojonnier Brothers Co.....Chicago
Monroe & Crisell .....Portland, Oregon
C. E. Rogers .....Detroit
O. J. Weber Co.....Los Angeles, California

VISCOLIZERS TOO!

unfavorably affected and that instead of remaining in their natural perfect emulsion they have tendency to precipitate and to this extent unfavorably affect the mix.

The viscolizer was constructed and developed for the express purpose of subdividing the cream globules without disturbing the natural and perfect solution of the remaining ingredients and with this accomplishment, this process has been found to be a very desirable one as it brings about the desired effect upon ice cream mix and leaves open the possibility of treating cream to be used for other purposes, which markets are directly related to and followed by the ice cream industry.



The logical explanation of the reason for viscolized cream globules failing to respond to gravity in either the cream separator or in "setting" is that after a reduction to at least one-third of the natural size—no matter by what mechanical process—each individual particle of cream with its surrounding film of milk serum, considered as an individual unit, assumes so closely the specific gravity of the volume of milk that there is no tendency for it either to float or respond to the influence of centrifugal force. These are the simple facts of the case and have been proved by exhaustive study, endless experiment and minute observation.

The next thing of interest is how this is accomplished, and this is simply told, and we are sure understood, when we submit that the mix is forced through a very fine orifice at a speed equal to that of a rifle bullet—700 to 1000 feet of travel per second—and that this speed of travel has an ultra agitating effect upon the heated, and therefore liquified butterfat.

It is impossible to viscolize or homogenize cold mix. In the chilled state the globule structure has a great strength and will not respond to the agitating effect of this high speed. In the heated state, and we always viscolize or homogenize at 90 to 145 degrees, depending on composition of the mix, the butter structure is weakened and readily responds to the agitating or atomizing effect produced by passing this milk at this terrific rate of speed through a suitably constructed orifice.

It then develops that the pressure as far as the actual process is concerned, is really incidental and is simply the result of attempting to force large quantities of liquid through a small orifice.

If we do not have the pressure we cannot get the speed, and the pressure is, therefore, necessary but only in an incidental way and has nothing to do with the actual process of globule subdivision.

It must be conceded then that the old theories regarding the principles and causes of these machines must be disregarded and that any mysterious devices or theories regarding the operation must give way to common place explanation of a very simple process.

Following these principles, the viscolizer has been constructed along the most simple possible lines, and its construction is such that it will handle perfectly any product which will flow and special attention has been given by the manufacturers to the pump end of this machine, following established practice in pump building, resulting in a special pumping machine which will, with ease, handle not only a thick and viscous liquid, such as the heaviest cream or salad mixture, but will at the same time allow its use in the handling of a mixture containing great volumes of semi-solid matter of the same nature as cottage cheese or the congealed portions of frozen cream or condensed milk. The illustration and sectional view of this machine will at once appeal to the mechanically inclined operator and, as its distribution is universal, its pumping possibilities unlimited, its product controllable to any desired degree, it is especially interesting to manipulators of milk products who do not confine their efforts to ice cream exclusively.

It is this flexibility of operation and ease of control that recommends this process and this machine very highly to the ice cream manufacturer.

One of the wonderful features of the viscolizer is that it imparts to the mix the same desired and necessary effects that is given by aging, and this aging effect is produced absolutely mechanically with no trace of the chemical change which always accompanies natural aging or ripening. A viscolized mix retains all the natural characteristics of natural cream, except that the butterfat is transformed into a perfect and inseparable emulsion of increased viscosity, leaving the frozen product of uniform texture, improved flavor and devoid of the objectional sandy or icy characteristics in ice cream frozen from an untreated mix.



PERSONALS.

Mr. Roscoe C. Chase, manager Advertising Department, Davis-Watkins Dairymen's Mfg. Co., dropped in for a visit one day recently while returning from a vacation trip to various points of interest in Wisconsin. Accompanied by his family he toured "The Dells" country and reports a very pleasant time. Mr. Chase is chock full of enthusiasm for the coming National Dairy Show.

One of our good friends, Mr. Frank Hensley, with the Western Dairy Co., St. Joseph, Mo., reports a splendid business this year. Says he has been with that company for four years and that business is steadily increasing. They operate two Federal trucks and eleven Fords.

Mr. J. T. DeCoster, with The Consumers' Milk and Ice Cream Co., Beloit, Wisconsin, accompanied by Mrs. DeCoster and the children, stopped in for a chat one day recently. They were enjoying a motor trip, taking a few day's respite from work. Mr. DeCoster reports a splendid business by his concern.



MOUNTAINEERS HAVE ICE CREAM ORGY.

Uniontown—Tasting ice cream for the first time in their lives, Joe Jable and his three sons, residing in the mountains near Uniontown, disposed of sixty-one dishes of the delicacy at the first setting.

The quartet entered a local confectionery store and ordered "some of that stuff," indicating ice cream a man beside them was devouring. They continued until they had devoured fifteen dishes each; the father took one extra. Then they departed for home apparently in a happy mood.

THE ice cream manufacturers of thirty-five populous states will be within a thirty-six hour journey of 1921's two great *Exhibitions in the Service of the Ice Cream Industry.*

The Third Annual

EASTERN EXHIBITION

Elmwood Music Hall

BUFFALO, N. Y.

October 31—November 5, Inclusive

and the

SOUTHERN EXHIBITION

IN CONJUNCTION WITH THE ANNUAL CONVENTION OF THE SOUTHERN ASSOCIATION OF ICE CREAM MANUFACTURERS

Auditorium-Armory

ATLANTA, GA.

November 28—December 2, Inclusive

NOT merely selling shows are these. They are Exhibitions—literally, in their scope, their educational array, their geographical convenience—*in the service of the Ice Cream Industry!*

THE ASSOCIATION OF ICE CREAM SUPPLY MEN
1328 BROADWAY NEW YORK

Tell Your Friends and Neighbors You Are Going To The WORLD'S GREATEST DAIRY SHOW, MINNESOTA STATE FAIR GROUNDS, October 8-15



PROF. BAER'S INQUIRY DEPARTMENT

Dear Sir:—Wish to ask your advice regarding certain problems which have come to our notice lately regarding our ice cream. We are producing a 10 per cent fat, 13 per cent milk solids, 14 per cent sugar solids and total solids 37 per cent. We are using nothing but pure cream and skim condensed in our product and feel that we should produce a much better product than any of our competitors who are using butter and powder. We are aging this mix 24 hours or more and getting a 90 per cent overrun. We are using 20 pounds of the best gelatine we can buy to 2768 pounds of mix, using no improvers, homogenizing at 3000 pounds pressure. We are freezing at 0 to 5 degrees temperature, and then putting into hardening room which is held at 0 degrees. The product coming out of the freezer is very smooth but after hardening it has a tendency to become slightly grainy. We are more than willing to go to any expense to keep the product smooth. Have been trying to regulate the brine to 10 degrees but we cannot keep the overrun down and the time to freeze a batch is trebled. We are using a Gaulin homo and Ft. Atkinson freezers. Last week I had occasion to visit a plant 100 miles from here and as they did not have a homo I shipped up a can of our homo. Using this same homo that we freeze here the resulting product was fine and just what we are trying to produce. The difference was that they had an Emery Thompson vertical freezer and the temperature on freezer was 10 and hardening room 10 above. Would this be the reason for the difference in product? Our formula is as follows:

1448 lbs. 18 per cent cream; 880 lbs. skim condensed; 420 lbs. sugar; 20 lbs. gelatine. W. C. CO.

Reply: This grainy condition of your mix is undoubtedly caused by using too high a percentage of milk serum solids. I suggest that you reduce the milk serum solids from 13 per cent to 11.5 per cent. A high percentage of serum solids causes a crystallization of the lactose or milk sugar in the ice cream when it is subjected to a low temperature for some time in the hardening room. You will not notice this grainy condition when the ice cream is first made or a day old but you will begin to notice it if held longer. The reason you did not get this when the plant was visited was that the hardening room was not carried at so low a temperature and not stored for so long a time as in your factory. There could be no harm in trying to hold your hardening room at about 10 degrees to see if the difficulty can be eliminated in that way, but my suggestion would be that you reduce the serum solids and be absolutely safe.

The type of freezer has nothing to do with this grainy condition of ice cream. If you are not able to overcome the difficulty with the suggestions above I suggest that you write to me more in detail, stating just exactly what is happening to your frozen product.

* * *

Dear Sir:—I am assistant ice cream maker at one of the largest plants in this city and attend to all the testing and proportioning of the mix. I have several questions I want to ask you and would appreciate it very much if you could give me the answers to them.

We receive 20 per cent cream (homogenized) and has condensed skim milk added to increase the solids, its specific gravity is 1.040 by my lactometer. Does Babcock's formula (¼ L. + 1.2 fat) give a correct reading for solids in 20 per cent cream? In all the books I can get they say it is for milk from 0 to 6 per cent, and I was wondering if it would hold good for any per cent greater than 6 per cent.

Is there any way to test the total solids in the mix or frozen product?

Is it true that you cannot get a correct test for fat from homogenized cream?

In condensed skim milk (4 to 1) by adding 3 parts water to 1 part milk will it be normal and can you get a correct lactometer reading for solids?

Yours truly, A. E. Jr.

Reply: The lactometer cannot be used for determining the specific gravity of your 20 per cent homogenized cream nor can it be used for testing the solids in condensed milk.

The solids of these ingredients is the dry matter in percent so that if you have 100 pounds of your 20 per cent cream, you would have 20 pounds of butterfat providing it tested 20 per cent having a certain number of pounds of total solids or dry matter which you can determine by making a solids or dry determination.

This is either made with a drying oven and a chemical analytical balance, the drying being done at about 100 degrees or it can be made with an ordinary butter moisture apparatus, weighing exactly ten grams in the aluminum dish and then drying it slowly in the pressure oven or in a smaller butter moisture oven. When all the water is driven off the dish can be re-weighed on the butter moisture scale. Replace the ten gram weight with a five gram which will account for 50 per cent of the moisture then the balance of the moisture can be weighed on the moisture pans of the scale.

Subtracting the total moisture from 100 would give the total solids. In a similar manner you could determine the solids in the condensed skim milk. Whether or not the three parts of water and one part of condensed milk will give you a product equal in composition to regular skim milk will depend upon the solids in the condensed.

We have a number of times checked up the tests of a homogeneous cream or a homogeneous mix and we have found that we can make an accurate Babcock test of this product by centrifuging test bottles at a little higher speed and for a longer time. It is possible to check the per cent of fat within two-tenths per cent against a chemical analysis when the testing by the Babcock method is carefully done.

I am sure that with this information you will have no trouble in making the analysis of the two ingredients referred to and you will be able to standardize your mixes accurately.

* * *

Dear Sir:—I am writing for any information which you may have treating upon binders—fillers—fats or solids not fat relative to their effect upon the overrun in ice cream. Information to be used in the continuation of experimental work at this station.

Very truly yours, J. B. D.

Reply: I am sorry that I am not able to send you a printed bulletin from this station as the bulletin which we have in preparation is not printed. I suggest, however, that you go through the files of The Ice Cream Review, where you will find considerable information on this subject coming from me out here at the Oklahoma station.

* * *

Dear Sir:—We are having ice cream trouble and I

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am not able to solve it completely. Our man is making a 1900 pound mix, which is as follows:

264 pounds butter; 1300 pounds of 3.2 per cent milk; 39 pounds of skim milk powder; 39.8 pounds of water; 237 pounds of sugar; 6 pounds of vanilla; 14.2 pounds of gelatine.

I find, on figuring this up, that this gives approximately 14 per cent fat, 8 per cent serum solids, and 34½ per cent total solids. From these figures you will see that this is a well balanced mix. The mix is all put in a vat and heated to 145 degrees, and homogenized. The pressure has been varied from 2000 to 3000 pounds. From the homogenizer the mix is run over a water conical cooler and coolled down to about 75 to 80 degrees. From this it is put in a vat and cooled down to 42 to 43 degrees with brine. The speed of the revolutions of the vat are normal, and the mix is aged from 24 to 48 hours.

Now this is the trouble. We can obtain 95 to 100 per cent over-run on a new horizontal 50-quart individual motor freezer, but when it comes to two upright freezers, one about six years old and one about three years old, we cannot get over 50 per cent over-run. The speed of the drive shaft of the freezer has been varied from 218 to 234 revolutions. The temperature of the brine we have varied from 8 to 12 degrees. We have varied the rate of inflow. And still we have not solved the trouble. We can get as much over-run on a mix six hours old as we can on one 36 to 48 hours old. We have tried using both Melloine and Gumper's and will say that we are just at a loss on what to do next. We sharpened the blades of the dasher and we tried putting in four gallons to six gallons of mix in ten agllon freezers. We have varied the temperature of the mix as it entered the freezer all the way from 40 to 55 degrees. The appearance of the mix would give us an indication that we had a dandy mix.

We can obtain our over-run on the horizontal, as I said before, but on these other two we cannot get the over-run. Some times on a 10 per cent mix we can get a good over-run on the upright machine. The butter which we use is a good grade of butter scoring about 89. Yours very truly, G. A. M.

Reply: I have your letter of recent date, and you undoubtedly also received my note which I attached to your other letter. I am sorry that I was not able to reply any sooner.

In reading over your letter and studying your ice cream mix as indicated I see no other reason why you are not getting the over-run expected except that the vertical freezers which you state are being used will not produce it. You stated in your letter that the factory had no difficulty in securing the over-run with the vertical freezers last year. It is possible that this factory did not pasteurize the entire mix like you are doing this year.

My suggestion would be that the factory get rid of the vertical freezers and install horizontal machines. I believe that the general experience of the ice cream trade has been that the over-run is more easily obtained with a horizontal than a vertical machine. Many factories, however, still retain the vertical machines for the purpose of making sherbet and water ices.

I shall be glad to offer any further suggestion at any time if you run across a problem which seems to give you trouble.

* * *

Dear Sir:—While with the —— Co., Oklahoma, I wrote you several times for advice, so I still feel that I may do so.

It seems that we cannot get a nice fresh taste to our ice cream, when eating, it seems to leave a taste in the mouth that a nice fresh piece of goods should not do, and with the following information, I hope you may suggest something that will remedy this.

We are using mostly sweet cream and whole milk, on a 1000 pound mix put up yesterday we only used 25 pounds of sweet butter and 44 pounds of powder. We are figuring 9 per cent butterfat, 11 per cent milk solids and 12 per cent sugar. Our ice cream maker does not cook his gelatine, and would like to have your advice on whether it should be cooked or not, and how long it should be cooked.

I am enclosing herewith a blank mix sheet, and would be glad if you would fill it out, using the 155 pounds of 28 per cent cream and 586 pounds of 4½ per cent milk, using the above mentioned percentages of butterfat, solids and sugar, mix to be 100 pounds. We are using Gumpert's Improver, and some purity powder. Yours respectfully, N. B. R.

Reply: I have carefully analyzed your ice cream mix, according to your suggestions. I have indicated on your report sheet the ingredients for exactly 1,000 pounds of mix testing 9 per cent butterfat, 11 per cent serum solids and which has a total solids content of 32 per cent. I am also giving you some figures below in Table No. 1 which was calculated in a little more concise form:

Table 1.

Ingredients	Fat	Serum Solids	Total Solids
155 lbs. 28% cream	43.4	24.13	67.53
586 lbs. 4.5% milk	26.4	50.40	76.80
24 lbs. 84% butter	20.2	.....	20.20
38 lbs. skim powder	...	35.50	35.50
120 lbs. sugar	...	.....	114.00
7.5 lbs. gelatine	...	.....	7.12
5.0 lbs. vanilla	...	.....	.75
64.5 lbs. water	...	.....	.....
1,000 lbs.	90.0	110.30	321.90
Per cent	9.0	11.03	32.19

There does not seem to be anything wrong with the composition of your mix as far as butterfat and solids is concerned. If you are using a good fresh flavored butter, as well as a fresh soluble skim milk powder without a taste or odor, these products should not impart anything but a good flavor to your ice cream.

You stated that you were using an ice cream improver and some ice cream powder but you do not state what amounts were used. It is possible that you are using too much of this material for your mix and this is giving you the abnormal flavor. I suggest that you use possibly a little more gelatine and leave out one or both of these materials and see if you still get the "off" flavor. It is not necessary to cook the gelatine before adding it to the ice cream mix. We have for several years mixed the dry granulated gelatine with some sugar and introduced it into the mixture just before it has reached the pasteurizing temperature and we have obtained better results this way than by heating or cooking the gelatine. If handled in this pasteurizing vat it is sure not to be over-heated or overcooked.

I trust that you will soon be able to overcome this difficulty in your flavor with the suggestions given above but if you still have trouble kindly write again and give me absolutely all the materials used, stating the quality and flavor of the butter, powder, etc., and I am sure that I can locate the trouble for you.

* * *

Dear Sir:—Will you please analyze the following mix? 1270 lbs. water; 100 lbs. skim milk powder; 128

A 14 CARAT FIND FOR YOU

If you are a conservative, as well as a progressive ice cream manufacturer the following will interest you:—

Something entirely new—(never has been offered anyone) will be submitted to those who write for information.

Complete facts in the case will be mailed you (upon request) about September 15th.

An absolutely new way to put punch in your present advertising and selling plans—requiring no radical change on your part—no additional expenditures.

By placing your request **now** you may be the one to secure exclusive rights in your city. A decided advantage over competition will accrue to you.

Gamble with a 2c stamp today then be glad September 15th.

Ours is an entirely new organization consisting of some well known ice cream supply men.

Address Box "L" Ice Cream Review, Milwaukee, **at once.**

lbs. sweet butter; 540 lbs. 8 per cent plain condensed milk; 215 lbs. sugar; 11 lbs. gelatine; 5 lbs. flavor.

With above quantity of water includes the water used for dissolving gelatine. Batch makes 400 to 420 gallons ice cream.

Yours very truly, W. C. V.

Reply: I have analyzed your ice cream mix and you will find the calculations below in Table No. 1. I am quite sure that you must have made a mistake in writing down the number of pounds of water for your entire mix as you will note that the percent of fat is only a little better than 6 per cent and the total solids 25 per cent. The percentage of sugar is only about 9.5 per cent. You should use at least 12 per cent sugar for a good ice cream. The butterfat contents for your state should be at least 8 per cent and the total solids of the mix ought not to be less than 32 per cent.

Table No. 1 (Your Mix)

Ingredients	Fat	Serum Solids	Total Solids
1270 lbs. water	....	.....	.....
100 lbs. skimmilk powder.	....	95.00	95.00
128 lbs. sweet butter	107.5	.....	107.50
540 lbs. 8% plain cond.	43.2	97.20	140.40
215 lbs. sugar	....	.....	204.30
11 lbs. gelatine	....	.....	10.45
5 lbs. flavor	....	.....	.75
2269 lbs.	150.7	192.20	508.40
Per cents	6.64	8.44	24.6

Per cent sugar, 9.47.

I notice from what you say regarding the ice cream you are not getting enough over-run when compared with that obtained by other factories, however, if you are using the mix as analyzed above you are probably getting too much over-run for the amount of solids in the mix.

* * *

Dear Sir:—I have been making ice cream for several years and at present am employed in a small creamery in this city and I wish to give you their formula for mix, and wish you to criticise this mix as to balance and theoretical over-run. Mix is as follows: 53 gallons 4 per cent milk; 32 lbs. powdered milk (Gold Seal brand); 4½ gallons sweetened condensed milk; 83 lbs. sweet butter; 5 lbs. gelatine, dissolved in 2 gallons hot water; 70 lbs. sugar; 7 ounces salt.

We put the 53 gallons of milk in the mixing tank, cold, and then add the powdered milk and run 10 minutes then heat up to 120 degrees and then put in the sugar and when it gets up to 130 degrees we add the butter, and when melted we add the condensed milk and gelatine and salt, then run 10 minutes before we commence to cool down to 120 degrees then we run this mix through an injector and cool down to about 50 degrees on a cooler and run in to ten gallon cans and set in the cool room. Some times I have to use this mix the next day but try and age it two days before I make it up in the ice cream. This mix weighs nine pounds to the gallon. I use a creamery package horizontal brine freezer 40 quarts and my over-run runs from 80 to 85 per cent. Now what I wish to do is, be able to get 100 per cent over-run. This mix makes a very nice cream. Would you suggest increasing the speed of my freezer? It runs now 180 r. p. m., and if you think advisable to increase the speed please state at what speed per minute you would suggest. My temperature of brine on freezer runs between 8 and 10 degrees above zero.

The next assistance I wish is to learn how to figure a mix out. I can figure the butterfat in cream and milk but do not know just how to get the solids, cream, skim milk, sugar and condensed milk and gelatine. Any information on this you can give me by figuring it out will be thankfully received. G. P. B.

Reply: You will find below in Table No. 1 a complete calculation showing the number of pounds and per cent of the butterfat serum solids and the total solids of your mix.

You should have no trouble in securing a very fine ice cream from this mix and you should also have no difficulty in getting an over-run of 100 per cent or better, providing your freezer is running satisfactorily. Every freezer has a certain rated speed at which it should run and I am hardly able to tell you whether you could secure better results by increasing the speed of this particular freezer.

Table No. 1 (Your Mix)

Ingredients	Fat	Serum Solids	Total Solids
53 gal. or			
455.8 lbs. 4% milk	18.23	38.95	57.18
32.0 lbs. skimmilk powder	....	30.40	30.40
4½ gal. or			
49.5 lbs. sweet condensed.	....	13.36	33.16
83.0 lbs. sweet butter	69.72	.....	69.72
5.0 lbs. gelatine	....	.....	4.75
17.5 lbs. water	....	.....	....
70.0 lbs. sugar	....	.....	66.50
.8 lbs. salt	....	.....	.70
713.6 lbs.	87.95	82.71	262.41
Per cent	12.3	11.5	36.7

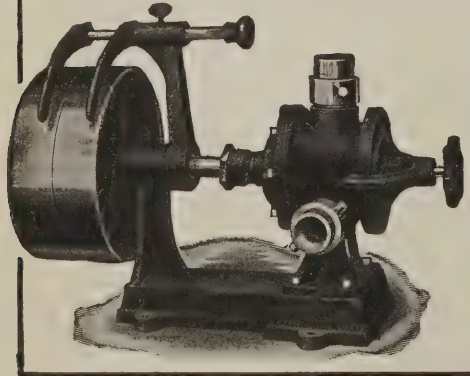
Per cent sugar, 12.58.

In making the calculations given in Table No. 1 you have 53 gallons of milk which weighs 8.6 pounds a gallon, making a total of 455.8 pounds. This multiplied by 4 per cent gives 18.23 butterfat, then subtracting 18.23 from 455.8 makes 437.6 pounds of milk serium or skim milk. Multiplying this 437.6 pounds of milk serums by 8.9 per cent we get 38.95 pounds of serum solids. Adding the butterfats and serum solids gives 57.18 pounds of total solids. To get the solids in the skim milk powder the 32 pounds of powder is multiplied by 95 per cent which amounts to 30.4 pounds.

You will also have 4½ gallons of sweet condensed milk. This weighs 11 pounds to a gallon or a total of 49.5 pounds. Multiplying 49.5 pounds by 27, which is the per cent of milk solids in average sweet condensed milk, gives 13.36 pounds of serum solids; 49.5 times 40 per cent, which is the per cent of sugar in the contents, gives 19 8 poounds sugar. Adding the two gives you 33.16 pounds total solids.

Sweet butter usually tests 84 per cent butterfat. 83 times 84 per cent gives 69.72 pounds butterfat, in

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are the most sanitary because they are entirely dissectable. Demand a Taber Pump from your jobber. If he cannot supply you we will sell you direct. Address:

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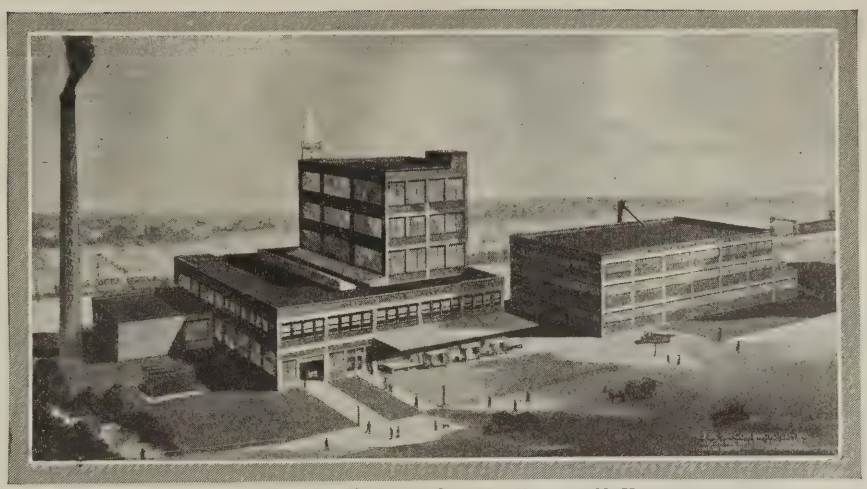
BUFFALO, N. Y.

Will "Tinkering" Lower Your Costs?

Is your ice cream plant the kind that is constantly being added to, rebuilt, repaired, remodeled and generally overhauled so often?

Do you wonder why there is such a waste of labor, power and material in your plant?

Do you find that production costs are increasing while production capacity falls off or remains stationary?



Willow Brook Dairy Co., Mt. Vernon, N. Y.

THIS is the situation in many ice cream plants today. And the answer frequently lies in the factory buildings and arrangements rather than in other factors commonly blamed.

If your plant is the kind that is constantly getting out of gear and needing adjustments—if it doesn't function efficiently, there's probably something fundamentally wrong with it and no amount of tinkering can help. There are many ice cream plants with high production costs which were not planned and constructed upon a flexible basis to take care of today's and tomorrow's growth and expansion. That's why low costs and high production are impossible.

The scores of progressive ice cream plant owners who have consulted and applied

McCormick Service

to their plants will tell you that the future demands of their plant and business were given the fullest consideration as well as the present needs. They will tell you, too, that production costs are remarkably low and production capacity exceedingly high.

If you are confronted with plant problems, no matter what their nature, our experience in the design and construction of ice cream plants should prove valuable to you. You do not obligate yourself in any way to consult us.

THE McCORMICK COMPANY, Inc.

PITTSBURGH
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Architects and Efficiency Engineers for the Dairy and Ice Cream Industry

NEW YORK
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Construction Executed by Your Own Contractor Under the Direction of Our Visiting Superintendents

the 83 pounds of sweet butter. Gelatine contains 95 per cent solids so that 5 pounds times 95 per cent is equal to 4.75 pounds. The sugar is also figured at the rate of 95 per cent solids so that 70 pounds of sugar will amount to 66.5 per cent solids.

* * *

Dear Sir:—We are installing a 300 gallon mixer, and a viscolizer. Wish you would figure out a good mix for ice cream with 10 per cent butterfat, and about 34 or 35 total solids. Our cream tests 18 per cent butterfat, and use condensed skim milk, condensed 3 to 1. Also please give a mix using butter and milk.

Yours truly, H. C. CO.

Reply: I am suggesting below in Tables 1 and 2 100 pound mixes which you will undoubtedly find satisfactory:

Table No. 1.

Ingredients	Fat	Serum Solids	Total Solids
12.0 lbs. sugar	....	.....	11.40
1.0 lb. filler and flavor	....	.....	.75
55.5 lbs. 18% cream	10.0	4.01	14.01
31.5 lbs. condensed 27%	....	8.50	8.50
100 lbs. mix	10.0	12.51	34.66

Table No. 2.

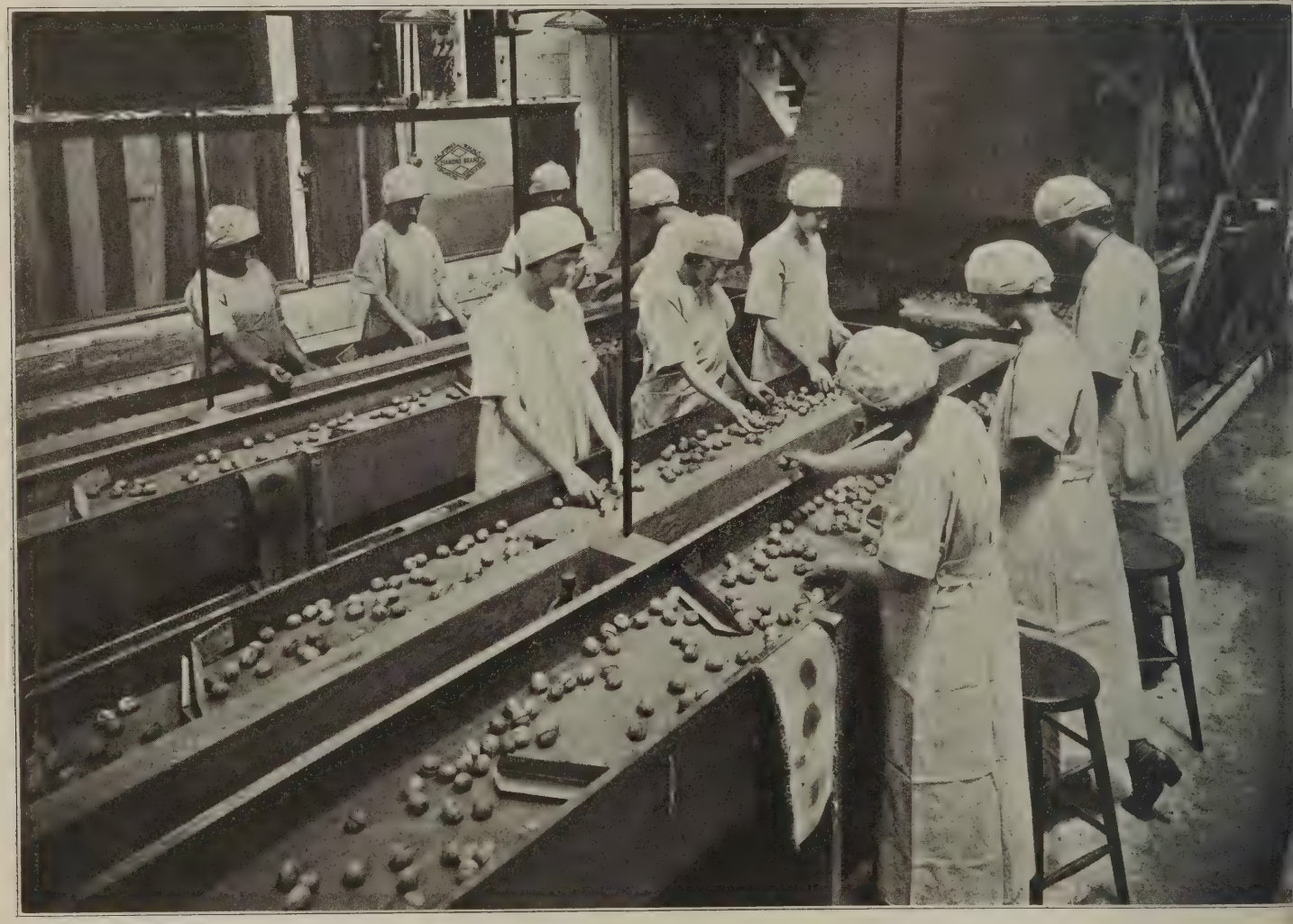
Ingredients	Fat	Serum Solids	Total Solids
12.0 lbs. sugar	....	.....	11.40
1.0 lbs. filler and vanilla	....	.....	.75
12.0 lbs. 84% butter	10.0	.....	10.00
30.0 lbs. cond. skim	....	8.10	8.10
45.0 lbs. skimmilk	....	4.01	4.01
100 lbs. mix	10.0	12.11	34.26

Each of these mixes will make approximately twenty gallons of ice cream weighing five pounds to the gallon.

Walnuts, Two Million Pounds A Year

SODA fountain specials may come and soda fountain specials may go, but the nut sundae goes on forever, growing more popular day by day, and becoming more palatable as fountain dispensers come to the conclusion that pure chopped California walnuts give patrons a satisfied sensation which can be obtained from no other kind of topping.

People like walnuts any way they are served. It hasn't been many years since walnuts were first used for topping sundaes, but in that time there has been a phenomenal increase in the consumption of California shelled walnuts. Five years ago, cracked walnuts were not offered to the trade in quantities large enough to be worthy of consideration. To-day the California Walnut Growers' Association is selling them at the rate of 2,000,000 pounds a year.



During the last twelve months the Association has sold 1,980,935 pounds of shelled walnuts, and it could have disposed of an additional 250,000 pounds had the stock been available. The demand for chopped and shelled walnuts has increased so rapidly that the associated growers in California have had to build great batteries of machines with which to crack the nuts. It takes 1,000 young women, working eight hours a day, nearly the year round to hand-sort the meats.

Shelled walnuts caught on with the catering trade from the very day of their introduction. Their whiteness and delicious flavor have made them a favorite with soda fountain patrons, ice cream makers, bakers and confectioners. Fig packers can use all the large halves they can get in embellishing their candied figs for the confectionery trade.

One of the most attractive features of California shelled and chopped walnuts is that they are packed in glass jars and tins by a vacuum process which absolutely assures their keeping qualities. For the soda dispenser, California chopped walnuts, chopped just right for topping nut sundaes, banana specials, etc., are available in three pound tins. It is an economical product, because it does not have to be kept in cold storage during the summer months. The dispenser is also relieved of the mess and waste attached to shelling and chopping the walnuts in his own factory.

California produces 50,000,000 pounds of walnuts a year. This is half of the world's production, and all of the walnuts grown in California are consumed in this country. The California Walnut Growers' Association prepares cracked and chopped walnuts for the trade by cracking the nuts in monster cracking machines, each of which can crack 20 tons of nuts per day and turn out 85 per cent of the halves unbroken. All of the halves are picked out of the shells and hand-sorted by uniformed young women, who work under ideal conditions in a new seven-story factory costing $250,000.

U. S. DEPARTMENT OF AGRICULTURE CONDENSED AND EVAPORATED MILK MARKET REPORT FOR JULY, 1921.

By Bureau of Markets and Crop Estimates.

Prices of Condensed and Evaporated Milk Lower but Movement Still Sluggish.

But little change in conditions is noted in condensed and evaporated milk markets. There have been spots when the tone of the market seemed to be temporarily stronger, and some individual firms, principally those producing bulk goods, reported demand better and stocks moving fairly well, but for the most part trade continued to be more or less sluggish. The bulk goods trade has profited through the summer demand from ice cream manufacturers whose business has shown the usual increase incident to extremely hot weather. Bulk goods manufacturers have for this reason shown more willingness than usual to let goods accumulate. Shrinkage in fresh milk production with a resulting curtailment in manufacture may have also been responsible for any better feeling which may have prevailed.

Total stocks in manufacturers' hands on July 1st show practically a 25 per cent increase over the June 1 stocks, but were 1 per cent less than July 1 a year ago. It should be noted that this accumulation follows close upon the season of flush production, which will account, to some extent, for an increase. It appears that unsold stocks were of more concern, for according to reports rendeered by manufacturers they were much heavier July 1 than June 1, and also July 1, 1920. Reports from the comparatively few firms which had unfilled orders indicated that these orders were practically all for evaporated case goods.

Prices paid producers during July averaged practically the same as during June. Slight increases which occurred in the Atlantic, northwestern and some of the middle Western states, were offset by correspondingly lower prices in other sections. Selling prices during June were reduced on all classes of goods, reductions being heaviest on case goods. Sweetened condensed in cases to domestic trade sold at 64c lower and unsweetened evaporated in cases at 39c lower than during the previous month. Reductions to foreign trade were 73c and 23c respectively.

Export business during June more than doubled that of May, and was slgihtly in excess of April business. Evaporated case goods constituted the bulk of the exports, and the heaviest shipments went to Germany. Total exports of condensed and evaporated combined during the first six months of 1921 were less than half of these during the first half of 1920, and it is of further interest to note that while in 1920 the bulk of the exports consisted of sweetened and condensed, the reverse has been true this year. Of the combined exports of the two classes of goods this year, January to June, inclusive, amounting to 131,322,504 pounds, Germany has received over 31,000,000 pounds, the United Kingdom over 20,000,000 pounds, Cuba some 18,900,000 pounds, and Poland close to 15,500,00 lbs.



Chopped Diamond Walnuts

Ready to Serve on Sundaes

SAVE TIME—SAVE MONEY

Diamond Walnuts are selected nuts from 4,000 California groves. Special 3 lb. tins contain the choicest tid-bits of Chopped Diamond Walnut Meats packed in vacuum all ready to serve over sundaes and cake. Put up especially for confectioners and soda fountains.

They are the same high grade Walnut meats that are known and prepared in most homes throughout the country.

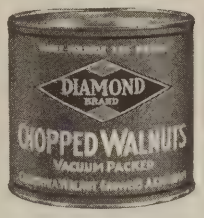
A bargain at the new prices.

Order from John R. Adams & Company or the California Walnut Growers' Association.

DIAMOND California WALNUTS

DIAMOND BRAND

"Crackin' Good Walnuts"



Here's the 3-lb. tin—six to a case packed in vacuum. They'll retain their freshness and delicious flavor indefinitely until the can is opened, and under ordinary conditions will not deteriorate for a month thereafter.

California Walnut Growers Association

Los Angeles, California

A purely cooperative non-profit organization of over 4,000 growers
Yearly output 40,000,000 pounds

Order from

JOHN R. ADAMS & CO., 130 N. Wells St., Chicago

OR

California Walnut Growers Association
Los Angeles, California

MEET us at the National Dairy Show, Minnesota State Fair Grounds (Twin Cities) October 8 to 15, 1921

Tell Your Friends and Neighbors You Are Going To The WORLD'S GREATEST DAIRY SHOW, MINNESOTA STATE FAIR GROUNDS, October 8-15

Monthly Powdered Milk Market Report for July, 1921

By Bureau of Markets and Crop Estimates, United States Department of Agriculture.

Prices Paid for Raw Material Delivered During June, 1921, F. O. B. Factory.

Geographic Sections	Whole Milk			Buttermilk per gallon	Skimmilk per cwt
	Price per CWT	Butterfat Basis	Allowance 0.1 p. c. fat		
New England	1.58	3.5	3.3	.75	...
Middle Atlantic	1.44-1.90	3.5	4-5	.75	...
South Atlantic	....	...	...	.75	...
E. North Central	1.36½-2.05	3.5	3.9-5	.75	20-35
W. North Central	1.50-1.97	3.5	3.0	.50-.75	.25
South Central	....	...	...	...	...
Northwestern	1.50-1.70	3.8	...	.75	...
Southwestern	1.40-1.64	3.5-4.0	...	.75	...

Manufacturers' Wholesale Selling Prices during June.

The wholesale prices given below are based on reports of manufacturers covering actual sales made to jobbers, wholesale grocers, and similar buyers on basis of cash or short time credit with freight included to distributing point in each section.

Prices in the column headed "Range of Prices" are the highest and lowest reported by all firms. Those given under "Bulk of Sales" are the highest and lowest reported by different firms as the "bulk of sales" prices.

NOTE—Bulk goods includes that sold in barrels and drums. Case goods includes that sold in tin containers.

Geographic Sections	Whole Milk Powder		Skim Milk Powder*		Buttermilk Dried	
	Range of Prices	Bulk of Sales Prices Fresh Goods	Range of Prices	Bulk of Sales Prices Fresh Goods	Range of Prices	Bulk of Sales Prices Fresh Goods
N. E. Case	..	..	..	14.5	...	...
N. E. Bulk	26-34	27-30	10-14	10.5-12.5	...	9.9
M. A. Case	..	..	..	10.5-14.5	...	...
M. A. Bulk	30	30	7-14	7-12.5	...	8.4
S. A. Case	..	..	..	12-14.5	...	...
S. A. Bulk	30	30	5.50-14	9.5-12.5	...	12.50
E. N. C. Case	40-60	60	10.5-14.5	11-14.5	...	...
E. N. C. Bulk	30-45	30	8.5-14	8.5-12.5	...	8.6
W.N.C. Case	..	..	..	14.5	...	...
W.N.C. Bulk	30	30	8-14	8.5-12.5	3.5-9	6-7.9
S. C. Case	..	..	..	14.5	...	...
S. C. Bulk	30	30	9-13	9-12.5	...	10
N. W. Case	..	..	..	15.5	...	...
N. W. Bulk	30-45	30	7-14	9-13.5	...	10.5
S. W. Case	..	..	..	15.5	...	...
S. W. Bulk	30	30	9-14	10-13.5	...	8

*Skim milk powder for export trade was reported sold at 12½c per lb., f. a. s.

New England (1)—Maine, New Hampshire, Vermont, Massachusetts, Rhode Island and Connecticut. Middle Atlantic (2)—New York, New Jersey and Pennsylvania. South Atlantic (3)—Delaware, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia and Florida. East North Central (4) Ohio, Indiana, Illinois, Michigan and Wisconsin. West North Central (5)—Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska and Kansas. South Central (6)—Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, Oklahoma and Arkansas. Northwestern (7)—Montana, Wyoming, Idaho, Washington and Oregon. Southwestern (8)—Colorado, New Mexico, Arizona, Nevada, Utah and California.

(Continued on Page 88)

PLEASE MENTION THE ICE CREAM REVIEW WHEN WRITING TO ADVERTISERS

Condensed and Evaporated Milk Market Report

By Bureau of Markets and Crop Estimates, U. S. Department of Agriculture.

MANUFACTURERS WHOLESALE SELLING PRICES OF CONDENSED AND EVAPORATED MILK (JUNE)

The wholesale prices given below are based on reports made by manufacturers covering actual sales of condensed and evaporated milk delivered to jobbers, wholesale grocers and similar buyers, delivered at manufacturers' distributing points on basis of cash or short time credit. Foreign prices are given as F. O. B., or F. A. S., points of export in section in which sales were made.

Geographic Sections	Sweetened Condensed, Bulk, Per Cwt. Unskimmed	Sweetened Condensed, Bulk, Per Cwt. Skimmed	Unsweetened Evaporated, Bulk Per Cwt. Unskimmed	Unsweetened Evaporated, Bulk Per Cwt. Skimmed
New England—				
Range	8.55—11.00	4.88—8.50	.....	.....
Average	10.18	6.26	8.00	4.00
Mid. Atlantic—				
Range	6.50—12.00	5.00—8.50	7.00—12.00	2.52—7.20
Average	10.13	5.99	8.86	4.07
So. Atlantic—				
Range	8.55—11.00	5.00—8.50	.....	1.92—4.00
Average	10.18	6.60	10.83	2.96
E. N. Central—				
Range	8.55—12.00	4.50—9.00	6.45—9.00	2.50—7.15
Average	10.17	6.51	7.69	4.40
W. N. Central—				
RaRnge	8.55—12.00	6.00—8.50	7.07—8.88	.....
Average	10.65	6.98	7.94	3.88
So. Central—				
Range	8.55—11.00	6.00—8.50	.....	.....
Average	10.18	7.14	.....	4.00
No. Western—				
Range	8.55—11.50	6.00—8.50	.....	4.40—5.38
Average	10.51	7.60	.....	5.05
So. Western—				
Range	8.55—11.00	6.00—8.50	.....	.....
Average	10.18	7.14	10.75	.....
United States—				
Range	6.50—12.00	6.00—9.00	6.45—10.83	1.92—7.20
Average	10.25	6.53	8.39	4.21

New England—Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, Middle Atlantic—New York, New Jersey, Pennsylvania. South Atlantic—Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida. East North Central—Ohio, Indiana, Illinois, Michigan, Wisconsin. West North Central—Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas. South Central—Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, Oklahoma, Arkansas. North Western—Montana, Wyoming, Idaho, Washington, Oregon. South Western—Colorado, New Mexico, Arizona, Utah, Nevada, California.

MANUFACTURERS UNSOLD STOCKS OF CONDENSED AND EVAPORATED MILK

Includes all stocks held by manufacturers which were not sold or under contract for delivery on unfilled orders.

Commodity	Total Unsold Stocks July 1, 1921		Comparison of Unsold Stocks For Same Firms Reporting			% Inc. or Dec. July 1, 1921 over July 1, 1920
	Firms	Pounds	Firms	June 1, 1921 Pounds	July 1, 1921 Pounds	
Condensed Case Goods	14	28,576,513	14	27,379,946	28,576,513	+ 103
Condensed Bulk Goods	48	20,970,380	44	13,701,653	20,970,380	— 14
Evaporated Case Goods	33	124,313,950	33	89,667,000	124,313,950	+ 143
Evaporated Bulk Goods	22	1,015,616	22	1,110,192	1,015,616	+ 53
Total		174,876,459	..	131,858,791	174,876,459	+ 95

UNFILLED ORDERS FOR CONDENSED AND EVAPORATED MILK

Includes the amounts of each commodity for which orders have been received by manufacturers whose orders were in excess of their unsold stocks.

Commodity	Total Unfilled Orders July 1, 1921		Comparison of Unfilled Orders For Same Firms Reporting			% Inc. or Dec. July 1, 1921 over July 1, 1920
	Firms	Pounds	Firms	June 1, 1921 Pounds	July 1, 1921 Pounds	
Condensed Case Goods	4	460,000	4	515,936	460,000	—100
Condensed Bulk Goods	..	.....	..	.....	.....	.....
Evaporated Case Goods	11	2,341,724	11	1,801,389	2,341,724	— 64
Evaporated Bulk Goods	..	.....	..	.....	.....	.....
Total	..	2,801,724	..	2,317,325	2,801,724	— 84

Tell Your Friends and Neighbors You Are Going To The WORLD'S GREATEST DAIRY SHOW. MINNESOTA STATE FAIR GROUNDS, October 8-15

MAGNETIZE ICE CREAM

With a Mysterious, Alluring, Delightfully Tempting Flavor and Fruity Taste that will draw customers as a magnet draws steel.

"What is it?" "Isn't it fine!" Yes, these and similar exclamations you will invariably hear, yet so supremely delicious is it customers always insist on more.

That's the kind of flavor and fruity taste you'll get by adding to your ice cream.

Blanke-Baer Honey Fruit Salad

Think what it would mean to you to ask thousands of customers their first choice of fruit, and flavors, and then offer those same customers a combination of a dozen or more of those first choice fruits and flavors, made into a **Supremely Delicious Ice Cream.**

That's Honey Fruit Salad—that's the tempting flavor and fruity taste that'll win customers and hold them—that'll overcome selling difficulties and gladden your heart.

Put up in gallon cans, 10 gal. kegs, ½ bbls. and bbls.

Don't lose time or wait for sample. Order TODAY a case (6 gal. cans) of this heavenly mixture. You'll be surprised at wonderful results and low cost.

Blanke-Baer Extract & Preserving Co.
3230 South Kings Highway
ST. LOUIS, MO.

EXPORTS OF CONDENSED AND EVAPORATED MILK FROM THE UNITED STATES.

	Condensed Lbs.	Evaporated Lbs.
June, 1921	8,060,056	13,640,173
June, 1920	27,723,269	16,678,053
Jan.-June, Incl., 1921	49,376,657	81,945,847
Jan.-June, Incl., 1920	178,776,532	101,005,818

MONTHLY POWDERED MILK MARKET REPORT NO. 1.

(Concluded from Page 86)

Manufacturers' Total Stocks of Powdered Milk.

Includes all stocks held by manufacturers reporting whether manufactured by them or purchased from others; whether on their own premises; in storage; or in transit (unsold) for warehouse consignment; and whether sold or contracted for sale but not delivered.

TABLE I.

Total Stocks of Powdered Milk Products.

Commodity	Code	Pounds July 1, 1921	Pounds July 1, 1920
Whole Milk Powder	Case	393,090	226,167
	Bulk	1,595,424	2,345,680
Skim Milk Powder	Case	218,560	80,268
	Bulk	8,830,708	10,909,288
Park Skim Milk Powder	Case	263,000	162,000
	Bulk	36,229	8,397
Cream Powder	Case	.....	.....
	Bulk	98,478	77,257
Dried Buttermilk	Case	.....	.....
	Bulk	2,160,345	751,354

Manufacturers' Unsold Stocks or Powdered Milk.

Includes that portion of stocks reported in Table 1, not covered by current sales or future delivery contracts.

TABLE II.

NOTE–Bulk goods includes that sold in barrels and drums. Case goods includes that sold in tin containers.

Unsold Stocks of Powdered Milk Products.

Commodity	Code	Pounds July 1, 1921	Pounds July 1, 1920
Whole Milk Powder	Case	.....	.....
	Bulk	1,579,624	1,984,000
Skim Milk Powder	Case	1,200	.....
	Bulk	6,294,121	4,086,026
Park Skim Milk Powder	Case	263,000	162,000
	Bulk	33,000	8,000
Cream Powder	Case	.....	.....
	Bulk	56,000	6,000
Dried Buttermilk	Case	.....	.....
	Bulk	1,307,725	232,700

Exports of Powdered Milk from the United States, 1921

Country	Jan.-May Inc.	June	Total Jan.-June Inc.
Belgium	202,762	22,500	225,262
France	62,835	90	62,925
Germany	854,766	559,081	1,413,853
Italy	55,018	16,510	71,528
Netherlands	223,885	.....	223,885
United Kingdom	285,664	98,560	384,224
Other Countries	317,262	38,830	354,092
Total 1921	2,002,192	733,511	2,735,769
Total 1920	1,981,488	58,595	2,040.083

Don't miss a single copy of The Ice Cream Review. We'll see that you do not if you send us two dollars for a year's subscription.

J. B. ANDREWS, President
H. F. WILDE, Manager



Albemarle Creamery Co.

Butter and Ice Cream Manufacturers

706-709 Brown Street

Charlottesville, Va.,

NOTICE!

THIS is one of the many ice cream manufacturers who lets "the picture tell the story."

You, too, should let the picture convey the fact that you sell ice cream.

See the other side for details.

TEMPTING pictures will create more desire for your product than mere words or any arrangement of type!

The picture tells the story. It conveys your business to the reader at a glance. Its attractiveness commands attention and the thorough reading of your letter which you strive for. It creates desire for your product, and makes the reader "sit up and take notice".

You can have this idea incorporated into ***your*** letterhead,—printed in four colors with your firm name and wording along the line of this sample and on the same grade of stock at prices that will interest you.

Only one ice cream manufacturer in each city can secure the use of this distinctive design. You may need a supply before long. Here is your opportunity for something different.

Write for prices.

THE OLSEN PUBLISHING CO.
210 SYCAMORE STREET
MILWAUKEE, WIS.

ASSOCIATION OF ICE CREAM MANUFACTURERS OF IOWA.

The time for the Twenty-first Annual Convention of the National Association of Ice Cream Manufacturers, which is to be held in conjunction with the National Dairy Show, is rapidly approaching and it behooves us as manufacturers to begin laying our plans to attend.

This great Show is to be held at a very advantageous location and season for us Iowa manufacturers, and I wish to urge the entire membership of the Iowa Association to be there. At the time set for this meeting you will be well over the crest of this year's strenuous activities and will need a relaxation, rest and vacation. In what better, more pleasant, beneficial and delightful manner can you spend it than by taking a week, beginning October 10th, drive to the Twin Cities, take in both these great meetings and see these two beautiful cities of the North, with their wonderful parks, lakes and boulevards. By the combination of these two shows you are afforded several unusual opportunities.

First—A vacation period at just the time most needed, immediately following a heavy season's run and just before settling down for the winter's struggle, trying to make expenses until another season opens.

Second—To see a combination exhibit of the most complete line of dairy machinery and equipment probably ever displayed.

Third—To be privileged to mingle with, examine and feast your eyes upon a gathering of the world's best and most famous dairy cattle.

Fourth—To have the privilege and opportunity to attend lectures by the greatest authorities on dairying and ice cream making.

Fifth—And by no means the least—the privilege of meeting your friends, competitors and fellow manufacturers, exchanging with them experiences, congratulations or condolences, as the case may require. If your competitor is more successful than you, find out how he does it, if he be less successful, tell him how you do it, and by this exchange of ideas help to make this great industry bigger, broader and more successful.

This to us Ice Cream Manufacturers of Iowa is a wonderful opportunity that none can afford to miss, so let's be there one hundred percent strong, ready to do our part to make the meetings successful, to help others enjoy them and to derive all the benefits from them possible ourselves, for as we help others, so shall we ourselves be helped. Tell your friends and neighbors that you and your wife are going to the "WORLD'S GREATEST DAIRY SHOW—MINNESOTA STATE FAIR GROUNDS, October 8th to 15th," and then see that you keep your word.

W. S. WILCOX, President
Association of Ice Cream Manufacturers of Iowa.

CHERRY CHANGES CHICAGO OFFICE.

It has been found necessary for the J. G. Cherry Company whose headquarters are at Cedar Rapids, Ia., to change the location of their Chicago office from 105 W. Monroe St. to Room 500 in the Northwestern Bldg., at 208 N. Wells St. This is also the location of the office of the National Poultry, Butter and Egg Association. The telephone number of the new location is Franklin 3473, and the office, as was the old one, is in the charge of J. B. Addison, better known to the trade as "Judge."

B-K Bacili-Kil

Solves Hot Weather Problems

Patrons' cans become very foul in hot weather. A B-K rinse gives instant sterilization and keeps bacteria out of milk or cream which comes to your plant.

Your equipment breeds bacteria rapidly these hot days, despite scrupulous care unless effectively sterilized. A little B-K in the rinse water destroys them without extra labor, and at the insignificant cost of ½ cent to a cent per gallon of dilution.

B-K is economical—quick—and handy. Thousands of dairymen and manufacturers of dairy products are getting the benefit of it these days and it will help you as well as the others.

At All Dairy Supply Houses.

ECONOMIZE BY USING B-K

Ask for Bulletin No. 320 on Better Dairy and Food Products.

GENERAL LABORATORIES
MADISON, WISCONSIN
Sole Mfrs. B-K

NEWS ABOUT SUGAR

Items of Interest for the Ice Cream Manufacturer

Tariff Increase not Reflected in Price

Readers of "Facts About Sugar" and especially those who have followed the illuminating articles on the tariff contributed to our columns by Judge Sidney Ballou, know that an increase in the import duty on sugar is not unvaringly added to the price. Conditions of supply and demand determine whether or not the duty affects the price.

No more striking illustration of this truth could be given than has been afforded by the course of the market following the enactment of the emergency tariff which went into effect on May 28. The closing price of 96 degree test centrifugal sugar, duty paid, in New York on the preceding day was 5.06 cents a pound. On the reopening of the market, May 31, following the signing of the bill, the first sale was made at exactly the same price. The market entirely disregarded the fact that between these two transactions the duty on 96 degree Cuban sugar, which is the effective rate, had increased six-tenths of a cent a pound.

Not only did the market fail to reflect this change in tariff, but in subsequent sales during the same week the price of raw sugar declined to 4.63 cents a pound and this downward movement has since continued and has been accompanied by a lowering of the price of refined from 6.60 to 6.25 cents a pound.

The controlling factor determining prices during [illegible] to demand. The particular influence that led to the market decline during the past fortnight was the realization that the Cuban sugar crop was going to be much larger than had been anticipated. Earlier reports from Cuba, almost without exception, had led to the belief that the crop would be no more than 3,250,000 long tons, if indeed it attained that figure. With final reports from fully half the centrals at hand, however, it became evident that Cuba's outturn for the season now closing would probably equal or possibly exceed that of last year. The addition of half a million tons to available stocks of a market already well supplied could hardly fail to depress prices.

Since Cuba occupies a marginal position in the United States market, supplying that part of its requirements which domestic production cannot satisfy, and since Cuba has on hand more sugar than this market can absorb and possesses no other ready outlet for it, the inevitable result of increasing the cost of landing Cuban sugar in New York was that this cost had to be absorbed by the Cuban producer. In this respect the import duty was in the same category as an increase in ocean freights or any other item in the marketing of the Cuban output.

The price fixed for any world commodity, such as sugar, by the controlling market represents that market's judgment of the price at which demand will absorb the immediately available supply. It fluctuates from day to day with every change in the information available to the market as to the probable extent of supply or of demand. The producer who is unable or unwilling to meet that price must remain out of the market. This in fact, is what has happened in the case of the Cuban Sugar Finance Commission. Its view as to the price that should be commanded by Cuban sugar being at variance with prevailing market opinion, the Commission has remained out of the market and the unusual spectacle has been presented of no Cuban sales, except from store, over a period of two weeks.

It has been pointed out repeatedly that while the increase of the tariff unfavorably affects the position of Cuban sugar as compared with the domestic product, it adds to the protection enjoyed by Cuba in the United States market, as compared with the rest of the world. As the rate on full duty paying sugar of 96 degree test is two cents a pound, and as Cuba under the reciprocity treaty enjoys a preferential of 20 per cent, the advantage of the Cuban in this market as compared with other foreign producers has been increased from 25 to 40 cents a hundred pounds.

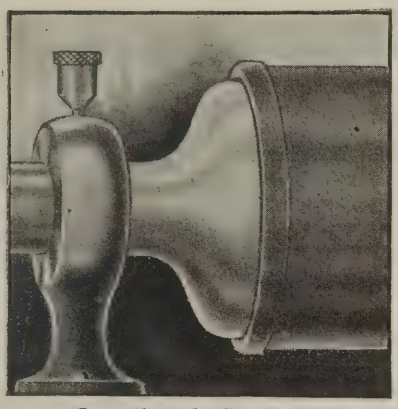
This argument would apply if supplies available from the domestic industry and from Cuba were inadequate to meet the requirements of the United States. In such case the Cuban would be able to take advantage according to circumstances of all or part of his preferential. Under present circumstances, however, all imported sugars, whether of Cuban or other origin, must pay the duty as part of the expense of reaching this market.

As a matter of fact one peculiar condition has operated temporarily to give full duty paying sugars a slight relative advantage over those coming from Cuba. Under the drawback clause of the tariff law the refiner

Electric Weld

Trade Mark Registered

RIVETLESS—SOLDERLESS ICE CREAM CANS



Inserting the Bottom.

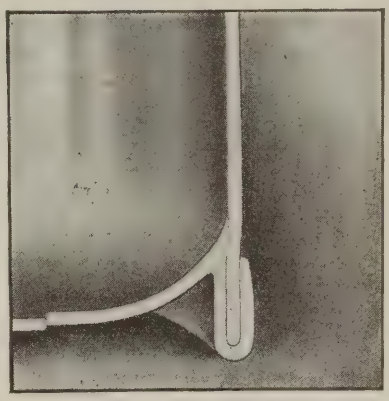
This bottom is inserted by 6,000 lbs. hydraulic pressure, the outside flange being forced against the cylinder.

The Retinning Feature

Electric Weld Ice Cream Cans may be retinned over and over again at small cost. They are made complete in the black, leak-proof and ready for long service. Every time you retin an Electric Weld you can save approximately 30 cents. Write for prices, list of "Repeat order buyers" and other data pertaining to the **Solderless Can.**

The Best Bottom Made

The illustration above shows the method of inserting the bottom into the cylinder by means of a hydraulic ram, the head of which exerts a pressure of 2200 lbs. on the bottom, giving it a much more severe test than would occur in actual use. The average ice cream can bottom is inserted by hand with the aid of a light tinsmith hammer.



Water Tight, Non-Leak Bottom.

This bottom construction absolutely eliminates leaks and at the same time presents a smooth, round edge for gripping with the hand and of a thickness sufficient to withstand rough usage.

JOHN WOOD MANUFACTURING COMPANY, Conshohocken, Pa.

CANADIAN, JOHN WOOD MANUFACTURING COMPANY, TORONTO, CANADA

To Make Better Ice Cream Use "Atlas" Flavors

We Guarantee the High Quality and Purity of "Atlas" Genuine Fruit Extracts, Pure Vanilla Extracts, Vanilla Compounds and Emulsions.

Before placing your next order, let us send you a trial quantity

Manufactured by

H. KOHNSTAMM & CO.

NEW YORK 83-93 Park Place

Established 1851

CHICAGO 11-13 E. Illinois St.

who imports raw sugar and exports it after refining is allowed to recover 99 per cent of the amount originally paid at the custom house. While the proportion recoverable is the same in the case of Cuban and full duty paying sugars, the actual amount returned is of course greater in the case of the latter since they pay a higher duty on admission.

Under these conditions refiners who have export orders on their books naturally find an advantage in using full duty paying sugars in filling such orders. This has led to the purchase of full duty paying sugars in limited quantities at a figure slightly above Cuban parity, but this situation can be expected to continue only while there is an export demand for refined.

—Facts About Sugar.



WORKING FOR A FIVE CENT CONE.

The American Cone & Pretzel Company, Philadelphia, has been waging an energetic campaign to induce retailers to sell ice cream cones for a nickel. We quote from one of their circulars as follows:

Why Ice Cream Cones Should be Sold for 5c, Retail —Six years ago cones were made to fit a sixteen to the quart dipper. With the increased cost of ice cream the cone manufacturer made a cone fit a twenty-four to the quart dipper.

The five-cent chocolate bar and the five-cent package sweet have come back and we suggest to the trade to reinstate the five-cent cone.

With bulk ice cream at $1.20 per gallon (it is $1.12 in some cities) the profit figures as follows:

Cost: Figuring 80 measures from a gallon of ice cream, $1.20; 80 cones, 40c; tax on 80 cones, 80c. Total, $2.40. Selling Price: 80 cones, at 5c, $4.00. Profit, $1.60

You can also sell two cones for ten cents and pay only one cent tax on the sale.

An observer was placed one day in a small corner confectionery store in a Western city. One hundred and twenty-six intending purchasers came in the store —seventy-two asked for articles costing ten cents or less. Of these seventy-two calls fifty-two asked for an ice cream cone. When they were informed of the six-cent price, thirty-eight out of the fifty-two changed their order to something that cost a nickel or went out buying nothing. Fourteen paid the six cents. Only fourteen out of fifty-two. THINK IT OVER.



Don't miss a single copy of The Ice Cream Review. We'll see that you do not if you send us two dollars for a year's subscription.

SELLING ICE CREAM BY WEIGHT.

It has come to my attention that several retail dealers in California are selling ice cream to the public by weight. I have communicated individually with the manufacturers supplying each of these customers so that they might personally correct this abuse.

There can possibly be no legislation requiring ice cream to be sold by weight for two years; however, this question has renewed itself on the part of the present State Superintendent of Weights and Measures whereby he is encouraging the further investigation by each County Sealer of Weights and Measures.

The office of our association will be particularly pleased to receive any specific information regarding propoganda above referred to.

THE CALIFORNIA AND SOUTHWESTERN STATES ICE CREAM MFG. ASSO.

By Robert J. Dryden,

Chairman Standards and Legislative Committee.



BOSTON BOYS DEMAND CHEAPER ICE CREAM.

Boston, Mass.—The boys of Boston have always resented anything that interfered with their seasonal enjoyment. In 1775 they braved the wrath of the British Gen. Gage to make protest against military encroachment on their coasting places on Boston Common. Today they marched again, in protest against prices that have curtailed their enjoyment of ice cream.

As in revolutionary times they went to Beacon Hill with their protest, but today it was to a smiling and perspiring representative of the Governor that they presented their petition. On the way to the State House they stopped at the City Hall to make a similar request to Mayor Peters.

Governor and Mayor were asked to bring down the price of ice cream cones. "Our fathers cannot buy them for us at the present prices," the children's petition said. "Please make the ice cream dealers do right."

In the demonstrations girls joined with their brothers.



OPENS NEW ICE CREAM COMPANY.

Mr. John Hollinger, formerly of Joplin, Mo., has opened up the Polar Ice Cream Co., 3724 Easton Ave., St. Louis, Mo. We appreciate the fact that Mr. Hollinger believes in starting out with the right literature on hand—he has already subscribed for THE ICE CREAM REVIEW.

Vanite
THE HYGIENIC CLEANSER

NOT only loosens dirt, fatty films and grease,—but softens the hardest water—dissolving the particles quickly, rinses perfectly and leaves everything sweet and clean with little effort and at small cost.

Write for prices and free trial offer

PYRAMID OIL COMPANY
ENDURING LUBRICANTS
MINNEAPOLIS MINN., U. S. A.

Glascote

White Glascote is the standard of quality and service in

THIS means not only the latest thing in glass lined tanks but the most modern and efficient design in performing equipment. It means saving to you in floor space, labor and time. It means sanitation and cleanliness.

A word from you will bring a list of Glascote users, including some of the largest ice cream plants in the United States who are well satisfied with our equipment.

Receiving
Pasteurizing
Ageing
Equipment

THE GLASS COATING COMPANY

NEW YORK, N. Y.
50 E. 42nd Street

CLEVELAND, O.
P. O. Box 25, Station H.

CHICAGO
220 So. State Street

First in the Field—Still Going Strong

Dunn's Celebrated Ice Cream Gelatines

Guaranteed to comply with all State and National food law requirements.

TRIED, TESTED and PROVEN

When you want a stabilizer that never fails you, it's gelatine

THOMAS W. DUNN COMPANY

248 Front Street, New York

Tell Your Friends and Neighbors You Are Going To The WORLD'S GREATEST DAIRY SHOW, MINNESOTA STATE FAIR GROUNDS, October 8-15

Scientific Boiler Feed Water Regulation, Can It Be Attained in Practice

By ROLAND MOELLER, M. E.

THE first efforts in boiler feed regulation aimed at keeping the water level in the boiler as nearly constant as possible. Later, in about 1912, it was realized that keeping the water level constant at all times had decided disadvantages.

Prior to that time, automatic boiler feed regulation depended on a combination of floats, pilot valves, diaphragms, springs, etc., which would give the feed water valve a full opening until a certain maximum water level had been reached in the boiler, and then would close off the feed water valve entirely, until a certain lowest limit in the water level had again been reached. This gave an irregular intermittent feed, which insofar as its effect on the generation of steam was concerned, was not much of an improvement over hand regulation.

While an automatic mechanical device that is absolutely reliable has never been made, there are many automatic mechanical devices which are far more reliable than a human being, especially where the apparatus is given a reasonable amount of care and attention. It is for this reason that a water regulator, properly designed, will add much to the safety of operating a plant.

The more intelligent help in the plant is relieved of a great deal of the strain and worry of watching the flow of feed water and its regulation, and the morale of the boiler-room is increased to the extent that more interest is taken in other matters of vital importance having to do with the economy of the plant.

A continuous flow of feed water with gradual variations in rate saves the boilers, heaters, economizers, meters, water pumps, piping, and all connection from shocks and strains due to violent and extreme fluctuations in the rate of feed water flow peculiar to many forms of old style regulators.

The continuous flow also makes possible the use of smaller feed pumps, feed water pipe lines, connections, valves, etc., because when the feed water supply is continuous, the rate of flow at any given time need not be as great as when water is fed intermittently.

As the equipment in boiler rooms became more and more involved with the addition of water softeners, economizers, feed water heaters, superheaters, temperature, steam and water meters and recorders, and other apparatus to promote economy and efficiency in the generation of steam, it became evident that the rate of flow in the feed water had a decided effect on the efficiency of all of this equipment and on the legibility of the charts produced by the various recording meters.

A water softener is calculated to handle a certain number of gallons of water per hour on the basis of a continuous even flow. Where the flow is intermittent

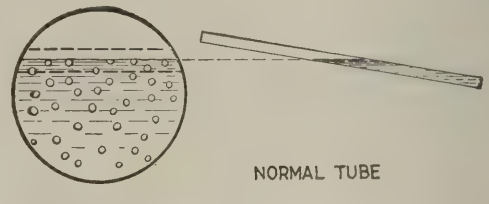


FIG. 1

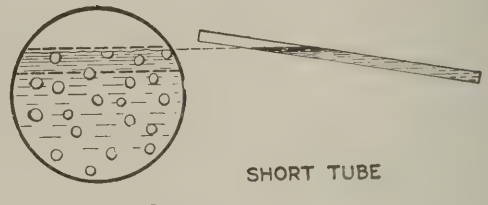


FIG. 2

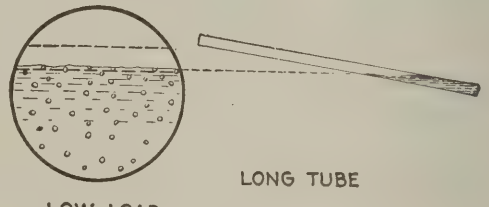


FIG. 3

and irregular, a much larger water softener must be installed to handle the same quantity of water, and its operation is far less satisfactory and economical than it would be if the flow of feed water were continuous and more closely in unison with the rate of steam output of the boiler.

The same is true of economizers and feed water heaters. When the flow of feed water through these

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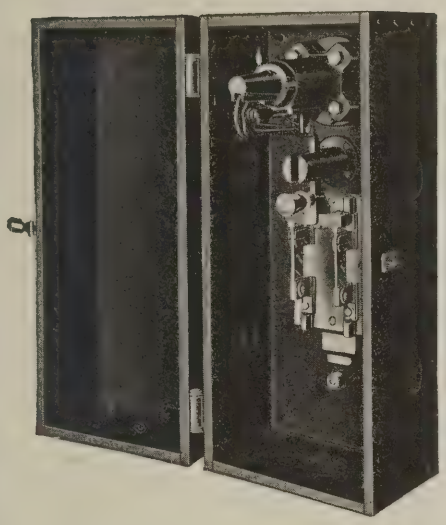
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is reduced, the feed water reaches an excessively high temperature and may even turn into steam, resulting in water hammer and other troubles in the feed water system. The apparatus under these conditions allows heat to escape without being absorbed. On the other hand, when at intervals the feed water valve is opened wide, the feed water rushes through at such a high rate that it is not warmed up to a temperature commensurate with economical boiler operation.

The rate of feed water flow has a decided effect upon the steaming capacity of a boiler itself. A full opening of the feed water valve may pass enough cold feed water into the boiler to absorb all the heat generated by its furnace without generating any steam whatsoever. Intermediate rates of feed water flow will, of course, reduce the steaming capacity of a boiler in proportion to the flow of the feed water.

Bearing this in mind, it is evident that there are frequent periods in the operation of a steam boiler when it would be desirable to reduce the rate of feed flow so as to make possible the maximum generation of steam. This is particularly true after a period of low load when a sudden peak load comes on. Under these conditions the furnace must be given time to catch up with the new peak load conditions, and if, during this time, the rate of feed water flow is temporarily reduced, the boiler has a far better chance to meet the sudden increased demand for steam, when little heat is being consumed in heating up feed water to the boiling point in the boiler.

On the other hand, should the load suddenly drop off after a high load period, it takes some time for the furnace to slow down to where it generates heat at a rate in harmony with new load conditions. It is then desirable to increase the rate of feed water flow temporarily so as to absorb the extra heat generated by the furnace during this brief period.

Again, where a large number of boilers are acting in unison, fewer boilers can be made to do the same work which would ordinarily require a larger number of boilers laboring without scientific feed water regulation. With unscientific feed water regulation, the steam output of some of the boilers may be so affected by the admission of feed water during a high load crisis, that their addition to the total steam supply is very much curtailed or even reduced to zero when it is most needed. With scientific regulation on the other hand, all the boilers would be delivering their maximum output, the rate of feed water flow being reduced to a minimum in all of them at the same time to make this possible.

A good automatic feed water regulator should, then, feed continuously as long as there is a load on the boiler. It should temporarily reduce the rate of

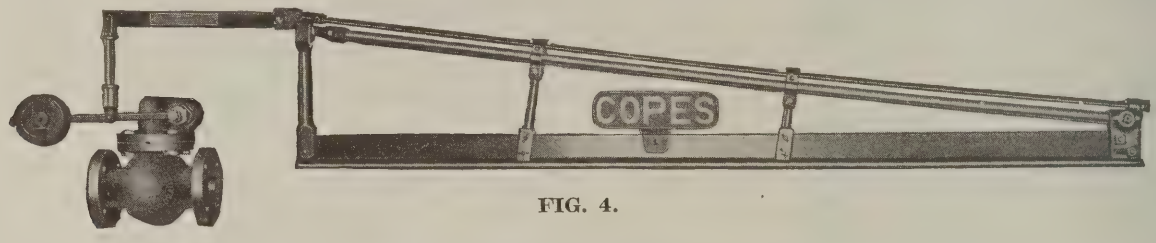


FIG. 4.

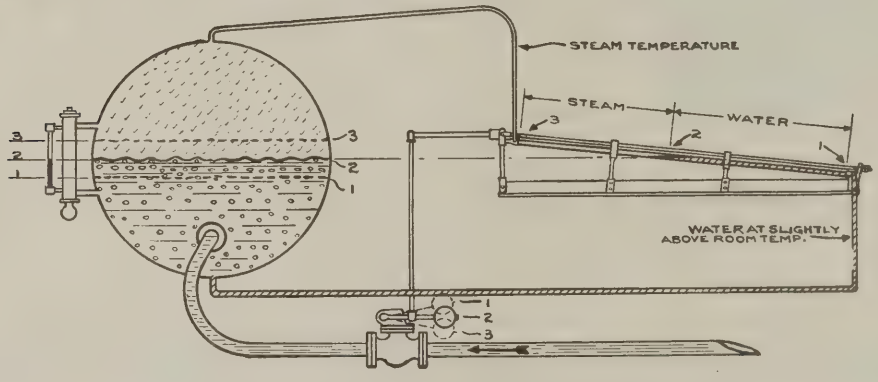
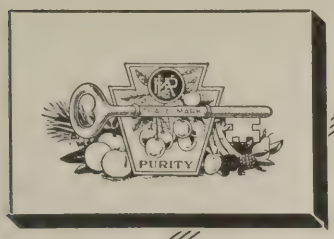


FIG. 5.

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feed water flow when there is a sudden increase in load and temporarily increase the rate of feed water flow when there is a sudden decrease in load. It should keep the water level high under low loads and low under high loads. During steady loads, it should maintain a constant water level by maintaining a constant rate of feed proportionate to the load. During gradual changes in the load, it should gradually adjust the rate of feed in proportion to the changes in the boiler load.

A regulator functioning on these principles acts as a sort of compensating boiler governor, that is, it supplies the means of absorbing the excess heat generated by the furnace during the brief period following a sudden falling off of the load when the furnace has not yet had time to adjust itself to the new conditions. It prevents the absorption of heat by the feed water when the furnace has not yet had time to catch up with a sudden increase in load, and all the heat that is generated is required for steam making. It utilizes the volume represented by the difference in the levels of the water between the the high and low water marks in the boiler as a sort of heat reservoir, and so regulates the water level as to insure dry steam at all times. It guards against damage due to too high or too low water level at any time.

It has been conclusively demonstrated that the water level of a steaming boiler undergoes pronounced fluctuations which have a direct relation to the rate at which it is producing steam. This is due to the increased volume of steam bubbles in the water when the steam output of the boiler is high. Illustrations Figs. 1, 2 and 3 show the variations in the water level in a steam boiler containing the same weight of water under normal, peak and low load conditions. This variation of water level according to load is one of the characteristics of steam boilers utilized in the type of regulator shown in figure 4.

A regulator of this construction is extremely simple, consisting merely of a straight tube, a lever, a heavy iron base, and a rugged balanced, practically frictionless valve. Such a regulator is easily adjusted to maintain the water level between any desired limits. The connections to the boiler as shown in Fig. 5, are of the simplest, so that any help ordinarily found in the boiler room can install it.

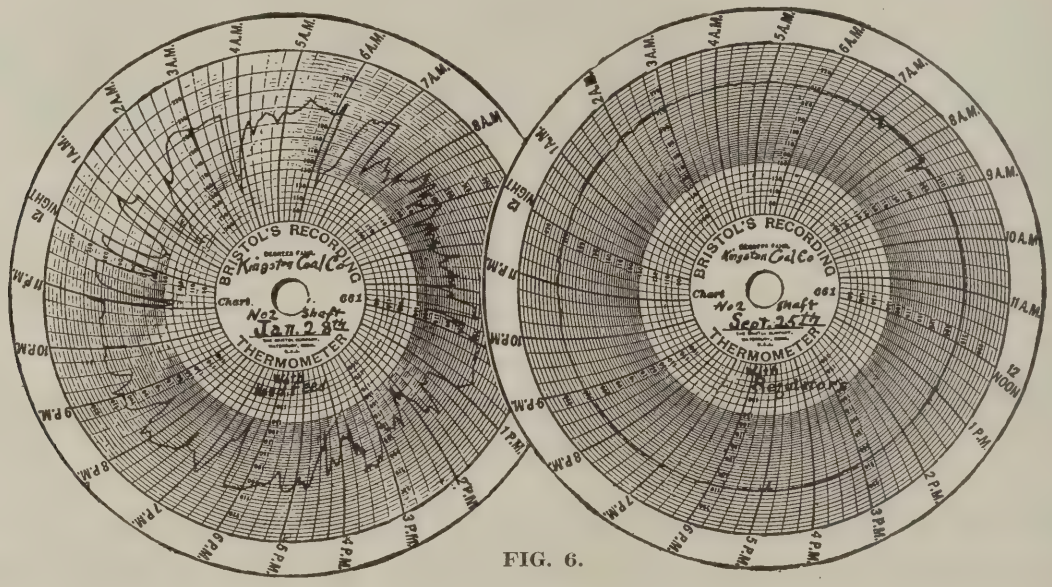


FIG. 6.

In this feed water regulator a metal tube having a large co-efficient of expansion is connected to the boiler in such a way that the level of the water in this tube varies with the level of the water in the boiler. The water in the lower end of the tube, not being exposed to any source of heat, becomes comparatively cool, while the upper end of the tube above the water level is kept hot by steam from the boiler to which it is connected. As steam slowly condenses in the upper part of the tube, it is returned to the boiler through

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Baker Ice Machine Co., Inc.

Factory: OMAHA, NEBRASKA

(Direct Factory Branch, 214 Lumber Exchange Bldg., Minneapolis, Minn., C. W. Williams, Mgr.)

the lower end. If the water level in the boiler suddenly rises due to an increase in load, as in figure 2, the level of the water in the tube also rises and the length of the tube above water containing hot steam is reduced. If, on the other hand, there is a dropping off of the water level due to a decrease in load, as in Fig. 3, the length of the tube exposed to hot steam is increased by the amount the water level recedes in the tube. The portion of the tube which is exposed to the hot steam expands, and the greater the length that is so exposed, the greater the increase in the over-all length of the tube. This difference in the over-all length of the tube between high or low water is utilized to operate a valve which controls the rate of flow of the feed water.

When there is a sudden increase in the demand for steam, the water level in the boiler rises. The length of the tube exposed to the hot steam is decreased and the length exposed to the cooler water is increased. Consequently there is a contraction, and the over-all length of the tube is decreased and this in turn reduces the opening of the feed water valve. If the high load continues, the level of the water will, of course, gradually drop off until the water level in the tube comes to a point where the feed water valve again begins to open. The opening increases gradually until a uniform rate of feed is reached, which is equivalent to the rate at which the water is used up in making steam. If the demand for steam is high, the demand for feed water is high, and the feed water valve must have a wide opening. To get this, the tube must expand more. This in turn can only be brought about by a lower water level, and that is exactly what is desired under high load conditions.

If, on the other hand, the demand for steam suddenly drops off after a continuous high load, the water level in the boiler falls immediately, and with it the exposed to hot live steam is increased, causing an increase in its over-all length. This in turn opens the feed water valve so as to admit water to the boiler at a greatly increased rate until not only the former level is reached, but until the level is higher than the one under high load conditions. To reduce the flow of feed water to conform to the reduced demand for steam, the opening of the feed water valve must be reduced to less than it was when the demand for steam level of the water in the tube. The length of the tube was high, and to accomplish this, the thermostatic tube must contract more. It does this only with a rise in the water level. Higher water level during low loads is very desirable for heat storage purposes, as explained before, and is entirely permissible with light loads.

The two time-temperature charts shown in Fig. 6 are typical before and after records where one of these automatic thermostatic boiler feed regulators replaced hand regulation. The left hand diagram shows an average feed water temperature of 178°, which was the best obtainable with hand regulation. The right hand diagram shows an average feed water temperature of 210°, which resulted with automatic continuous flow regulation based on the principle here set forth. The average feed water temperature was therefore increased 32° F., which is equivalent to a saving of 3 per cent in fuel.

⚜

A SUGGESTION.

An easy way to discover gas leaks about carbonic acid gas drums and regulators as suggested by the Maas Carbonator Company of Milwaukee, is to prepare a thick solution of warm water and common soap, and apply it to all connections and joints in the gas line with a cheap shaving brush or similar common bristle brush. The leak will instantly be shown by a large bubble that keeps forming. This little idea has saved numerous dispensers money and trouble when used.

⚜

WESTERN ICE CREAM MAN IS DEAD.

San Francisco, Calif.—Charles G. McCarthy, manager of the National Ice Cream Company of this city, died suddenly at Mount Zion Hospital, following an operation for acute appendicitis.

McCarthy was 30 years old. He was prominent in the Native Sons, and for a number of years was a member of San Francisco parlor of that lodge. He was popular in business circles.

Mr. McCarthy leaves his mother, Mrs. Maria F. McCarthy; two brothers, John F. and Edward F. McCarthy, and two sisters, Mrs. W. L. Hickey and Sister Perpetua of the Holy Family Convent. He was the son of the late Florence McCarthy.

⚜

It is no particular transgression of any one of the ten commandments to be poor, but we will all admit that it is mighty inconvenient.

* * *

What has become of the old-fashioned man who used to take such delight in helping pull the hose-cart to the village fire?



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THE MELLEN'S FOOD BABY.

The Mellen's Food Baby of the Ottawa Condensing Company, of Ottawa, Kansas, had his picture taken a few days ago in his office, hoping thereby to convince his friends he really worked. Who ever knew Henry Bennett to work, except when he was called on to make a speech?

Earl Ward and Hugh Harrington suggest that he mail a picture to all his hoodlum friends.

* * *

After explaining to the editor that it is not at all like him to be remiss in matters of correspondence, Sam W. Smith, with the Western Rock Salt Co., 514 New York Life Building, Kansas City, Mo., has the following to say: "I want to apologize for neglecting for such an unreasonable time replying to communications from a publication whose mission is to distribute information, to improve the quality of ice cream and the upbuilding of an industry whose product goes into most of our homes and is eaten by a large majority of the hundred million people in this country. Good ice cream pleases and nourishes. The ice cream business in general has more than held its own with any other line of business. I travel, as you know, in Oklahoma, Texas, and part of New Mexico, and call on the ice cream trade. In these states there have been built some new and most modern plants, while many others have been enlarged and improved upon during the year to take care of the enormous demand for their product.

The ice cream people are in the saddle and when this period of depression ends, which it will do soon, it will move out and on in the procession of business progress. As for the Wolf Hounds, they can always be relied upon to deliver the goods in one way or another. That your business is good and you are all in good health is the wish of the writer.

* * *

It was on July 14th that an inspiration hit L. C. Hanks, Creamery Package representative, between the eyes and he sat down and wrote a brief message for this column. At the time he perpetrated the deed he was parked at the Hotel Amarillo, in the Texas city of that name. He reports that it was very hot when he landed there with bag and baggage and then goes on to say: "If the kind of weather they have down here wont make them eat frozen products, then it simply can't be done, that's all. I was afraid to let them know around here that I am a Wolf Hound, because the sheriffs of the state were holding a convention here and held a wolf hunting party. It was a good thing that C. R. didn't show up this afternoon or we would have been rounded up and the jig would have been off." When Hanks isn't working, which is seldom, he makes his headquarters at 1315 W. Fifth St., Oklahoma City, Oklahoma.

⚜

BELLEVILLE, KANSAS, CREAMERY CHANGES HANDS.

Mr. Conrad Bache is the new proprietor of the Belleville Creamery, Belleville, Kansas, makers of "Velvet" ice cream and wholesalers of ice and butter. In sending in his subscription Mr. Bache says, "I always read your paper when I worked for the Beatrice people when at Concordia, Kansas, and I don't see why I should do without it now." Neither do we.

⚜

A man's sins may never find him out, but the chances are ten to one that his wife will.

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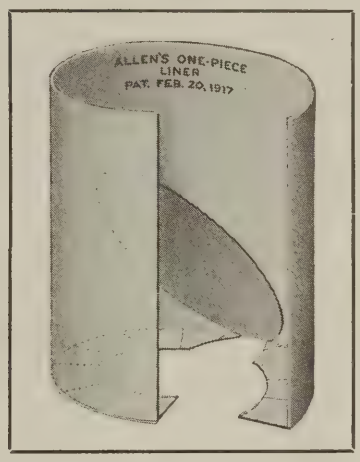
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CALIFORNIA ICE CREAM MANUFACTURERS' ASSOCIATION.

(Continued from Page 64)

My first point will be the discussion over the entertainment carried on by the supply men last night. I was going to compare that with the entertainment pulled at the Sunset Inn at Tijuana. But the Sunset Inn at Tijuana is backed off the map as regards such things as entertainment, so I will have to pass on to the next point. And that point is advertising.

We have done a good deal of advertising in the last sixty days, and I think I will tell you what the results have been. Our business has been going for seven or eight years, as some of you know I was in the creamery business for seven or eight years, but up to the first of November it was in the hands of a gentleman who had some stock, as manager, and when we took it over we went to work on entirely different lines to spend considerable money advertising, and in the last sixty days we have had a chance to see what the direct results were from the advertising, and if you don't mind, I will give you a line as to how we went at it.

We standardized on one thing: "Eat Sanitary Ice Cream, a Real Food." We have got twenty-eight tubs out in the country, twenty feet high and ten feet across, on the different roads, and you begin to run into them when you get to Oceanside, and when we got into town, we standardized the advertising at the customer's place of business all we could, and we have a window of stained glass that we put on if we can, and we have signs put on over their doors. But I want to say this, that if you are in the congested part of town, or down town, where people are walking, and are trying to stop them to get them to look at it, there is all the difference in the world if you put your sign down low. A sign over a door does not do so much good—they don't see it. But a sign in the windows or in an alcove, we standardize in that on the same thing, indicating that they should eat sanitary articles, and we put the word "Food" on, and I think we are getting through with that. Those customers for whom we have done that, have shown an immediate increase in sales. You can just see their account start right up, a week from the time the sign was put up. They are just ahead of the game.

When it comes to price accounting, I think it is a good idea, if you can follow this up for a time, to run a price accounting on individual customers—say for a week at a time. If you keep close tab on the customer, as to how much time and ice and so on you put in, why, you will find, as we have, that there are customers who run the expense up to as high as fifty cents a gallon from the time the cream leaves the platform. That would be an extreme case, of course. We have had one or two that way. We have always had an icing charge, and that holds that down. I didn't quite finish my discussion of that the other day. But where we spring an icing bill on them of thirty cents a gallon, they will only pay such a bill once, and you will find that they will cut their number of holes down, perhaps, from four to two, and that saves a whole lot of trouble with the customers.

I think we can't keep too close a tab on the matter of cost accounting, right down to the individual customer, if we want to make money in the ice cream business, and I think, as I have stated two or three times before in this convention, we have not yet had any big decline in our expense, aside from the cream and sugar, and I don't know of any chance for any big decrease anywhere else in the near future, and we will have to remember that when we come to cut that price.

The President: This is an open subject, gentlemen—the good of the industry. That means that everybody is expected to participate in a short discussion of that broad and general topic. Now go to it—let us have a few short statements.

Mr. Hosking: Is this an appropriate time to make a motion, Mr. Chairman?

The President: Yes.

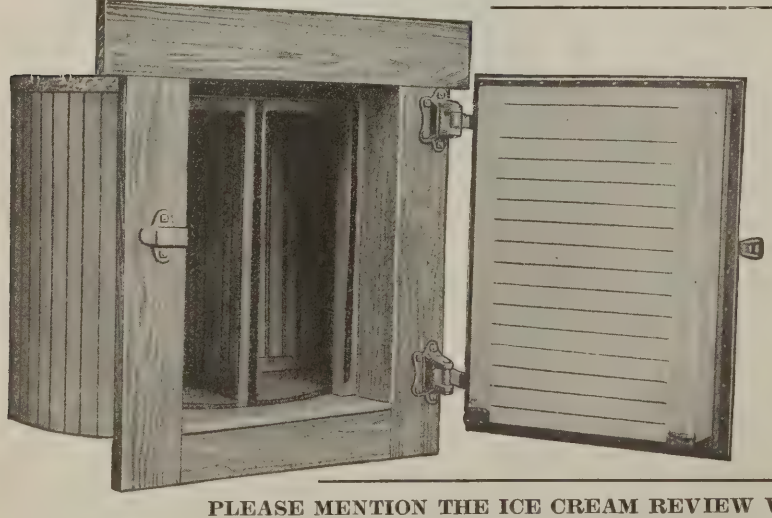
Mr. Hosking: I move that our Secretary be instructed to write a letter of thanks to the supply men who entertained us last night. We have thanked them individually, but I think we should do so officially.

Mr. Platt: I second the motion.

The President: You have heard the motion, which is that our Secretary be instructed to write a letter of thanks to the supply men who entertained us last evening. Are you ready for the question? Those in favor of the motion will say aye. Opposed, no. The motion prevails.

What further can be said under the head of "The Good of the Industry"? I know it is pretty good as it is, but let's make it better.

Mr. Goode: ..On the question of iceing-up charges, and cost of icing, and the question of how much a man should buy before he is entitled to free icing, etc., I want to tell you one thing I tried, and that worked very nicely. Beginning on the first of October, we found lots of customers that were buying a small amount of ice cream, and it was costing us more for the service than we were getting. So we put on a flat icing charge of a dollar a week to everyone, the man who had the small amount of ice cream as well as the man who had the large amount, and we found that the man getting the small amount could not afford to



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pay for the ice, and consequently he quit. The man who was getting the larger amount of sales profited by the man quitting, and he didn't mind paying the dollar a week. So we cleared that matter up very easily. While the money we did get from the sale of ice amounted to nothing, it enabled us to take off a service here and another service there, so reducing the price on our service very materially. That saved pro rata on the gallon more than the icing charge. It didn't bring us in any money, but it stopped lots of small men from selling, who otherwise would have insisted on selling. In any case where a man was taking four or five gallons of ice cream a day, it was no trouble to supply him. But with the man selling one or two gallons a day, that man was not an asset at that time of the year. He had barely enough business to pay the dollar a week. And of course, considering the price, we naturally had to figure the price of the ice cream from the season as to what it cost to make the service, and make the business. So it seemed very satisfactory, and we had really no trouble, and it was a material saving in the small business, on the service end of the business. The amount of business that we really lost by the additional price meant nothing to us, because in comparison, it saved such a great amount on the service.

The President: Gentlemen, I think this would be an appropriate time, under this topic, "The Good of the Industry," to extend an invitation to Professor Lea, of the Food Department of the State of California, who is with us. We would be very glad to hear a word from you, Professor Lea.

Address By Prof. E. J. Lea.

Of the Food Department of the State of California.

Prof. Lea: Ladies and Gentlemen: I have nothing prepared for you today. But it occurred to me that you might be interested in knowing a little of the results of the inspection work during the past year.

Our troubles have not been very many. I think very few of you here have had any trouble at all with the Food Department. However, there are some few matters that might profitably be called to your attention.

The matter of butterfat in ice cream has been exceedingly satisfactory, that is, the percentage of butterfat. I recall of only a very few cases where the percentage has been sufficiently low to warrant action. We have in some cases found certain manufacturers a little deficient, and, on re-sampling, they might go just a little bit over. Therefore the matter would be dismissed and no action taken on the first sampling. Some of the smaller manufacturers, in a few of the country establishments making ice cream on a small scale, have been found materially deficient in the butterfat content of their cream. But those companies are comparatively rare. So it would appear that you have that point properly covered.

There is one matter to which I would like to call your attention today, and that is, the use in certain places of old or renovated butter, homogenized with skim milk and some other various mixtures, into the manufacture of so-called ice cream. That practice is not legal. The only way that butter can be used, any kind of butter, even if you could, in ice cream, is to label the product as homogenized ice cream. The principal feature of that, of course, is the quality of the butter used. A renovated butter should in no case be used for that purpose, or butter which is rancid or of bad quality.

The other points we have noted in the inspection work relate principally to artificial color and artificial flavor in ice cream. The use of a small amount of fruit with artificial flavor in color in a product sold as strawberry or raspberry, or as any other fruit flavor, of ice cream is not legitimate, unless the product is labeled to indicate those facts, and unless the product is sold in a way that the consumer knows he is getting an imitation product.

Quite a good many are perhaps violating the law in that respect at times. And, owing to the activity of our Department in other lines of foods, we have not investigated as completely as we might in this direction. But I would much rather call it to your attention now than to have to take up samples officially and cause any trouble whatever. In fact, that is the way we like to work on the food problems, when it can be done, by co-operation rather than by the use of the law.

There is still tendency in a few quarters to use nut meats which are not of the proper quality. Those are matters which affect the health and the reputation of your products. For instance, it is not a good practice for the health of the community for them to be fed ice cream in which are rancid nut meats. And if that fact becomes known, it is not good for the business. So I would like to ask each and everyone to make a careful inspection of the nut meats in your products. The State of California and some of the foreign countries from which come the supply of nuts, have an abundance of good material. But at times, through speculation or carelessness, the nuts become rancid. We have at the present time some $25,000 worth of walnuts under investigation, endeavoring to solve the problem as to what use can be made of them without entailing too much to the owner. They are at the present moment, I think, being ground up for chicken

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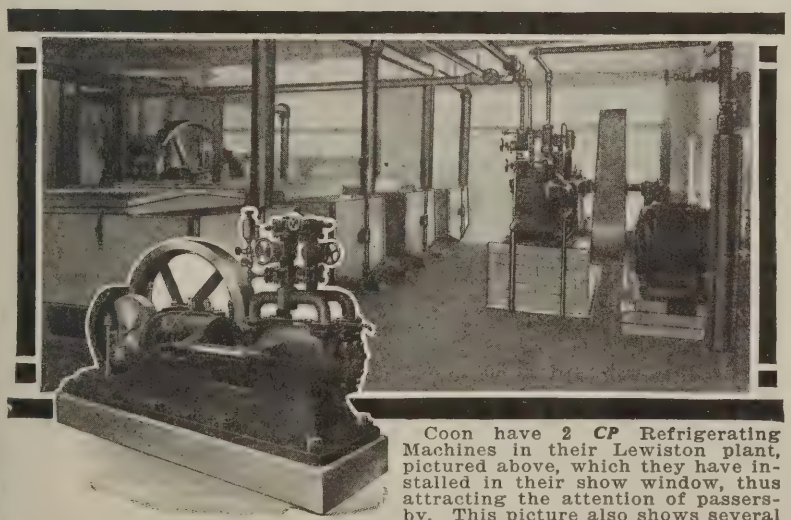
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Coon have 2 *CP* Refrigerating Machines in their Lewiston plant, pictured above, which they have installed in their show window, thus attracting the attention of passers-by. This picture also shows several Wizard Vats.

The nine ice cream and butter-making plants of the Coon Ice Cream Co., of Burlington, Vt., have standardized on *CP* Refrigerating Machines because this company has learned that the *CP* System is not only superior to all others as far as design, construction and workmanship are concerned; but because of the wide range of sizes to choose from, they can get an installation that will exactly suit their requirements.

CP Refrigerating Engineers are ice cream plant and dairy plant engineers as well and can frequently save considerable money for the purchaser by suggesting new line-ups. Furthermore, a Creamery Package representative calls on them at regular intervals and if they are to retain the good will of The Coon Ice Cream Co., they must see that the Refrigerating Machines give good service throughout a long life.

If you care to talk over the refrigeration problem with people in your own industry, address

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Tell Your Friends and Neighbors You Are Going To The WORLD'S GREATEST DAIRY SHOW, MINNESOTA STATE FAIR GROUNDS, October 8-15

feed. So you won't get any of those particular nuts. But at the same time, there are nuts scattered over the State from time to time which are not of proper quality, and you can't tell by the looks of them. It is necessary, especially in a case of Manchurian nuts, to test them in order to determine whether or not they are good. To illustrate that, I might mention one lot of nuts under consideration now, where tests were made from more than a dozen different packages of this one large lot, and we divided them up into two different classes or three different classes. The first class being the good nuts, then the second, nuts which were rancid or decomposed and which could be told by the color or appearance, and third, the nuts which appear to some as being good nuts. We found fifteen to twenty per cent of rancid nuts which could not be detected except by testing. But if those nuts were used in cakes or confectionery or ice cream, the customer biting into one of those badly rancid nuts would be disgusted and perhaps discredit that entire manufacturer's output of ice cream. So the only way we could tell, although there were a good many eatable nuts present, was to make some use of them other than for human consumption.

Those three points are the only ones I have in mind at the present time, and I trust you will all look into them: firstly, the use of any homogenized products sold under the name of ice cream, which is not a legal procedure, and especially if these products are not in good condition; secondly, the proper labeling and sale of your products, if they contain artificial flavor or color or both; and, thirdly, the use of such products as nutmeats or any other materials which may not be of proper quality. If you will observe those three points, as well as you have the matter of butterfat, we should come back next year and give you a great big compliment.

I thank you.

The President: I have no doubt some of you may have some questions you would like to ask of Professor Lea. I know he will be willing to answer any questions, if any should be asked. So feel perfectly free to ask him before the Professor steps down. Well, it must be exceedingly satisfactory to you, if you have no questions to ask.

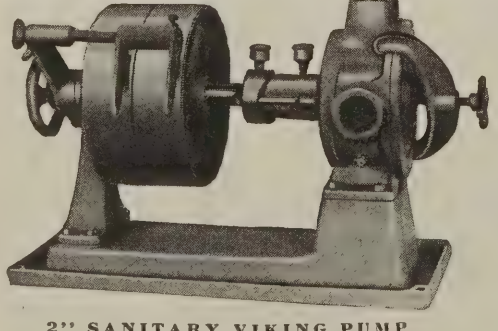
Mr. Hightower: I have just a remark to make regarding the good of the industry, if I may do so, Mr. Chairman. Promotion and good of the industry to me in large measure means increased production, and I take this time to put a thought before you all of an experiment I have carried out this year. Increased production, as I say, is what we all are after—there is no question about that. To do that, we must first maintain and produce a quality product and pave the way so that this quality product will be delivered directly to the consumer without getting away and depreciating that quality. I have carried on a little private investigation of my own regarding the knowledge that the dealer has of taking care of the product. That is a serious condition, I believe, throughout the different parts of the State. The average dealer does not know how to take care of his product. Consequently, when it reaches the consumer, it is not as it should be, and the ice cream does not appeal to the consumer as it should.

There is another thing that I wanted to mention at this time regarding the good of the industry. The Ice Cream Supply Men's Association, is an Association which has been organized directly for the good of the ice cream industry, and I believe that this Association should go on record as recommending and commending an Association of that kind, and also go on record as encouraging the different manufacturers and jobbers in the State of California to organize an organization and affiliate with the National Supply Men's Ice Cream Association. I understand they are contemplating that, but some of them don't know whether the Association appreciates the code of ethics that has been laid down by the National Supply Men's Association. I believe everybody connected with the code of ethics of these gentlemen believes that it is certainly beneficial and for the good of our industry, because they are trying to co-operate with us and trying to line up the manufacturers who are not doing a legitimate business. In other words, we are offered goods and material and equipment of all descriptions at different times from different manufacturers, and some of them are misrepresented. If the manufacturer, jobber, or anybody, broker or anybody else, belongs to the Supply Men's Association, they cannot very well afford to mis-represent anything, and I believe that this Association should go on record as recommending such organizations, and give the supply men in this State the right thought that the manufacturers have regarding an association of this kind.

The President: A very good suggestion. Has anyone else any question or thought before we pass

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this subject? If not, we will now call for the report of the Committee on Standards, of which Mr. Dryden is the Chairman.

* * *

REPORT OF THE COMMITTEE ON ICE CREAM STANDARDS.

By R. J. Dryden, Chairman.

CALIFORNIA AND SOUTHWESTERN STATES ICE CREAM MANUFACTURERS ASSOCIATION.

REPORT ON COMMITTEE OF STANDARDS AND LEGISLATION.

Members.

1. Robert J. Dryden, Oakland, Chairman.
2. Mr. C. J. Alfred, Los Angeles.
3. Mr. F. H. Bothell, Los Angeles.
4. Mr. F. H. Ames, San Francisco.
5. Mr. G. D. Turnhow, University Farm, Davis.

History and Programme.

On December 18, 1919, Mr. Charles G. Johnson, State Superintendent of Weights and Measures addressed a letter to our association suggesting that his office was interested in establishing a weight standard for Ice Cream. Prompted by this letter our association appointed a committee to work throughout the year gathering data and ascertaining various things having to do with Ice Cream standards.

The instructions given this committee were broad and unrestricted. It was the attitude of our association to thoroughly analyze the weight question and if possible to meet any constructive and progressive plan which would be of interest to the legitimate manufacturer and the public.

It was found by this committee that nowhere in the United States had the weight standard for ice cream been suggested officially by a State Department or any official body having the control of food standards.

The Dairy Division of the U. S. Department of Agriculture reported that the matter had never been discussed by them and that they were not authority for a statement regarding same.

The National Association of Ice Cream Manufacturers, a most progressive and strong organization, interested in the advancement of the industry, officially stated that the suggested California Weight Standard was impracticable and, to their knowledge, had never before been suggested as a standard for ice cream.

Because of a decided lack of available date upon which to base conclusions our committee met at the Oakland Hotel to organize a plan for original exhaustive investigation. It seemed advisable to call upon the following parties to meet with us in an advisory capacity.

1. Professor M. E. Jaffa, Dept.of Nutrition, U. of C.
2. Professor E. J. Lea, Director Pure Food & Drug Lab. Berkeley.
3. Dr. C. L. Roadhouse, Professor Dairy Mfg., U. of C.
4. Mr. Hoyt, State Dept. of Agriculture, Sacramento.

The advisory members of our committee it was hoped would be able to treat with us from an unbiased position, and help outline a programme for investigation. The outcome of this meeting was the following suggested plan.

1. Would a minimum standard of weight per gallon be a basis for control?
2. Would a standard of total solids be practical and would this tend to stabilize weight?
3. Has weight in ice cream a close correlation with food value?
4. Should ice cream be sold by weight, eliminating the liquid measure?

Dr. C. L. Roadhouse offered the services of the dairy division to gather data for our investigation. The following statistics were taken from these investigations as conducted under Mr. Turnbow and his assistant. The dairy division made no recommendation and drew no conclusions. However, our committee will offer at various times in this report suggestions which are the outcome of careful analysis of Mr. Turnbow's work.

1. Would a minimum standard of weight per gallon be a basis for control? It has been suggested that a high minimum standard per gallon be adopted as a basis for standardizing the weight of ice cream. I refer to the following table showing the weight per gallon of ice cream as drawm from three large mixes in three separate commercial factories in California.

Factory A. Mix 33.81 percent total solids.
Factory B. Mix 36.05 percent total solids.
Factory C. Mix 33.01 percent total solids.

Factory A Weight Per Gallon Separate Containers. Gallon Frozen

4.60 4.29 4.56 6.05 4.56 4.77 4.37 4.68 4.46 4.45 4.76 4.47
4.29 4.37 4.68 4.88 4.50 4.37 4.68 4.19 4.64 4.62 4.81 4.48
4.47 4.28 4.68 4.61 4.46 4.12 4.25 4.22 4.08 4.00 4.21 4.10
4.51 4.57 4.59 4.68 4.21 4.34 4.45 4.16 5.02 4.54 4.18 4.25
4.42 4.50 4.13 4.10 4.31

Average weight per gallon, 4.395 percent.
Maximum percent variation above average 37.65 percent.
Maximum percent variation below average, 9 percent.
Extereme percent variation, 46.65 percent.

Factory B. Weight Per Gallon Separate Containers. Gallons Frozen.

4.38 4.16 4.08 4.11 4.31 4.32 4.38 3.97 4.06 4.00 4.57 4.51
4.23 4.25 4.26 2.67 3.83 3.86 5.20 4.60 4.12 4.06 3.03 4.20
4.15 4.38 4.26 3.97 4.12 2.87 3.95 4.17 4.10 4.50 4.47 4.05
4.07 4.10 4.56 4.51 4.39 4.34 4.23 4.27 4.25 4.40 4.14 4.02
4.19 4.94 4.15 4.08 4.22 4.22 4.31 4.15 4.21 4.15 4.21 4.23
4.47 4.15 6.00 4.20 4.25 4.48 4.42 4.09 4.14 4.14 4.16 4.21
4.27 4.12 4.16 4.12 4.25 4.29 4.20 4.18 4.47 4.46 4.47 4.52
4.45 4.93 4.20 4.25 4.14 4.36 4.29 4.31 4.31 4.43 4.51 3.91
4.43 4.45 4.72 4.20 4.18 3.37 3.91 4.21 4.17 4.17 4.14 4.20
4.21 4.95 4.21 3.93 3.93 4.14 4.16 4.18 4.15 4.16 4.22 4.12

Average weight per gallon, 4.219 percent.
Maximum percent variation above average, 42.21 percent.
Maximum percent variation below average, 36.71 percent.
Extreme percent variation, 78.92 percent.

Factory C. Weight Per Gallon Separate Containers. Gallon Frozen.

4.70 4.60 5.25 4.50 4.40 5.09 5.00 5.00 4.80 4.50 4.60
5.00 5.10 4.40 4.30 5.20 4.50 4.40 4.80 4.50 4.40 4.50
4.95 4.65 6.00 5.11 4.65 4.71 4.60 4.50 4.67 4.60 4.65
5.20 4.40 4.50 4.80 4.50 4.90 4.50 5.00 4.30 4.40 5.33
4.30 4.30 4.92 5.00 4.80 5.00 4.70 5.10 4.70 5.00 4.50
4.50 4.40 4.60 4.50 4.71 4.71 4.70 5.00 5.00 4.89

Average weight per gallon, 4.663 percent.
Maximum percent of variation above, 28.67 percent.
Maximum percent of variation below, 7.78 percent.
Extreme percent variation, 36.45 percent.

It is noted that there is a wide variation in the weight of ice cream from the same mix. This is decisively illustrated in the above tabulation. Closer examination reveals the fact that the variation was not attributed to any one particular style of freezer, temperature of brine, flavor of ice cream frozen, or any other noticeable condition. In fact the freezing was carried on as carefully as possible and for this reason these figures are valuable, in that they show the true problem which confronts the commercial plant.

2. Would a Standard of Total Solids be Practical and Would this Tend to Stabilize Weight? It has been previously suggested by our committee that the total solid standard might be adopted, presuming that the higher the percentage of solids, the more uniform would be the weight per gallon. However, we refer again to the commercial factories in the following chart. Here it is shown conclusively that there is no particular correlation between the percentage of total solids, and the variation in the weight of ice cream. One might even draw the conclusion that the higher the percentage of solids, the larger was the variation.

Factory A. 51.30 percent variation 33.81 percent solids.
Factory B. 98.00 percent variation 36.50 percent solids.
Factory C. 39.00 percent variation 33.01 percent solids.

It would be entirely practical to establish a standard of total solids per gallon, but from the conclusions drawn from the above table it seems of no particular advantage so far as regulating the uniform weight of ice cream is concerned.

3. Has Weight in Ice Cream a Close Correlation with Food Value? In the following chart as suggested by Professor R. M. Washburn, University of Minnesota, it is clearly shown that the weight of ice cream has no correlation with the food value per gallon. If the percentage of overrun is increased in the same ratio as the percentage of total solids, the food value per gallon will be just as great in ice cream weighing 30 pounds per gallon as that which weighs 50 pounds and contains a less percentage of solids. Therefore it is readily seen that the basic weight of 1 gallon of



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ice cream is of no particular value unless the percentage of food solids is taken into account.

Total solids	Weight of gallon of mix	Weight of gallon of ice cream	Weight of total solids in gallon of ice cream	Per of overrun
30	8.80	5.0	1.50	76.00
33	8.95	4.5	1.50	96.6
37.5	8.90	4.0	1.50	122.4
42.8	8.95	3.5	1.50	156.0
50	9.00	3.0	1.50	200.0

If the sugestion were carried out to adopt a standard of food solids per gallon it can be seen that weight per gallon would be of no particular significance. If it were possible to associate a standard of percent food solids and weight per gallon ice cream, then we would arrive at a standard of real value. As it is, the determining factor is the inability of the manufacturer to control the weight whether the solid content is high or low.

4. Should ice cream be sold by weight, eliminating the liquid measure? For our committee to properly answer this question, we must of necessity consider the following factors.

1. Manufacture and distribution wholesale.
2. Retail purveyor and buying public.

Manufacture and Distribution Wholesale.

For the wholesale ice cream manufacturer to put up ice cream in containers to sell by weight would require the complete revolution of present manufacturing methods and equipment. Under these conditions, it would require the tare weight to be marked on each container, the cream would then have to be weighed as it is drawn from the freezer. Ice cream being frozen product, requires that it be handled with all expediency possible to preserve its quality. After being drawn from the freezer, the weighing and tagging necessary under these methods would therefore be a serious handicap.

Retail Purveyor and the Buying Public.

Providing ice cream were sold to the retailer by weight we find various seriously objectionable problems to meet. From this standpoint, ice cream as we all know melts readily and if it were necessary to weigh and handle it we are sure that the practice would be very distasteful and certainly would be a serious handicap toward pleasing the public. In the case of brick ice cream the problem would be to weigh separately each brick and if we should find a 90 percent variation or less, as was previously illustrated in this report, it can readily be seen that the retailer would have a hard problem convincing the purchaser why he should pay as much for one pint today as he did for one pint and one half yesterday.

In treating this problem we might add that the retail seller of ice cream absorbs the shrinkage in handling between the wholesaler and the public. If ice cream weighs 4½ pounds to a gallon, when it is dipped either for cones, dishes or to be packed in paper buckets it will weigh on the average of 15 percent to 20 percent more in equal liquid displacement when sold to the consumer.

These are facts which we manufacturers realize. The retailer also appreciates this fact and naturally regulates the margin between wholesale and retail in order to cover up this discrepancy. The public on the other hand actually gets more food value in a quart container of dipped ice cream than in a quart brick. Our observation is that the public is gradually buying more brick ice cream not because they do not appreciate the fact that they would get more food value in a container of "dipped" cream but because they feel more secure in trusting the manufacturer to measure the ice cream as is done in the form of bricks.

Conclusions

It would be the idea of our committee to carry these investigations on at considerably greater length and try if possible to show the cause for the extreme variations in the weight of ice cream out of the same mix. We would suggest that the following factors be determined:

1. Does the temperature of the mix or the brine have any effect upon the variation?

2. Does the proportion of sugar have any appreciable effect towards stabilizing the weight of ice cream?

Also as illustrated in the following table, chocolate and strawberry ice cream which naturally contain more sugar show less variation than did vanillas.

3. Does the percent of total solids have a relation to the variation of weight.

Fct.	Flav.	Low. wt. per gal.	Wt. of solids	High. wt. per gal.	Wt. Sol. per gal.	Vari-ation	Total solids
A	Vanilla	4.00	1.352	6.052	2.066	51.3 %	33.80
B	Vanilla	3.03	1.092	6.00	2.163	98.00%	36.05
	Straw	3.379	1.218	4.958	1.787	46.7 %	
	Choc.	4.479	1.615	5.20	1.875	16.09%	
C	Vanilla	4.30	1.419	6.0	1.981	39.53%	33.01
	Straw	4.40	1.452	4.71	1.555	7.05%	
	Choc.	4.80	1.584	5.11	1.687	6.46%	

In concluding this report (and we do so, mindful of the importance which is placed upon it) we are most certain that until we can ascertain the cause and correct same, that the uncontrollable variation in the weight of ice cream will prohibit the setting of a standard. We as an organization, however, should appreciate the sincere endeavor of Mr. Johnson to wait patiently for the cold facts. We hope he will appreciate the open frankness with which we have attempted to get this information for him. We want him to know that in our earlier investigation, we felt that a standard could be adopted. Now we can only say that until our knowledge of this problem is better, that we have no other suggestion, but to educationally and otherwise try to more uniformly manufacture our product. It is quite possible that through Mr. Johnson's forethought in the conduct of his duties that he has shown us a weakness which we now realize, and must strive to correct.

Mr. Dryden: There is possibly no one thing among the manufacturers of ice cream in this country that has attracted quite so much attention as the local situation in California, that has been suggested by our State Superintendent and Sealer off Weights and Measures, Mr. Johnston. A year ago, or thereabouts, Mr. Johnston suggested to the manufacturers, the ice cream manufacturers of this state, that he proposed to investigate the standard of selling ice cream by weight. About that time our association met at Catalina Island, and a committee was appointed to spend the time throughout the year investigating and gathering data relative to the advisability of considering a standard as suggested by Mr. Johnston. We have had, during the year, communications with our National Association, the federal department at Washington, the Pacific Coast Association, and individual authorities on subjects akin to this question, and we can say frankly that in no instance have we received any authentic data, or a suggestion, or have we found any organization or individual suggesting this particular proposition, other than Mr. Johnston, of Sacramento. We found that we were not in possession of any data or information to present to Mr. Johnston regarding this problem. It was with that thought in mind that our progressive manufacturers, thinking that Mr. Johnston's suggestion might have some merit, investigated this problem from the standpoint of food value. The committee that was appointed met here in the Oakland


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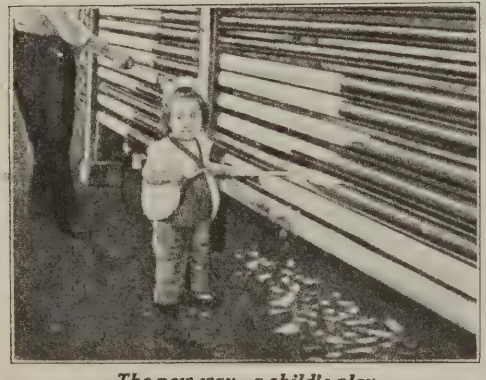
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Hotel several months ago, and at that time we notified the principal agencies of the state, who were more or less allied to our particular work, Mr. Hoyt, of the State Department of Agriculture, Professor Lea, who was directly in charge of the control of the butterfat standard and other standards in ice cream, and Dr. Roadhouse, in charge of the Dairy Department of the State University, and Professor Jaffa, of the Department of Nutrition, University of California. We had considerable discussion, and we tried to get a basis upon which to carry on our investigations. It was decided that at this meeting we would take the attitude that we could suggest some improvement in our standards for ice cream. We proceeded along the line that the percentage of total solids in ice cream should be regulated with a view of improvement in ice cream generally throughout the state. At that meeting, Dr. Roadhouse offered the assistance of his department, and they have since carried on, I believe, the most complete and accurate work for data relative to this particular problem. Professor Turnbow and his assistants spent considerable time gathering data relative to the weight of ice cream. They gathered it under varying manufacturing conditions. They went right into the factory and tabulated it, and it was considered from practically every standpoint. They did not confine their investigations to small can freezers, as was sometimes the case for carrying on such investigations. I want to point out that our committee has carried on this work, and we have come to this conclusion and this recommendation only, that it is impractical to attempt to control the weight of ice cream; that it is also definitely proven, so far as our figures are concerned, that the percentage of solids in the mix has no governing effect upon the regulation of weight of the individual sample of ice cream.

We have, as a matter of illustration, three exhibits, large packages of several hundred pounds of mix, frozen in three separate commercial plants, and under Exhibit A we found that there was 39.53 per cent variation in the weight of the ice cream, and, running down the line briefly, the first container drawn from that package of cream weighed 4.5 pounds per gallon. It jumped up, a similar package in the same factory, to six pounds per gallon, and we had these weights: 4.6 pounds, 4.7 pounds, 4.5 pounds, 4.6 pounds, 4.6 pounds, 5.2 pounds, 4.4 pounds, 4.4 pounds, 4.8 pounds, and 5 pounds. That particular mix contained 32.01 of total solids. It was below the standard that I really thought should be recommended. Take the other extreme. A mix contained 36 per cent total solids, and we found the biggest variation under this particular condition—we found that there was something over 60 per cent difference in valuation between the weight of ice cream drawn, and in that particular package. It was a large package of some 300 gallons of mix and was completely homogenized, as drawn into the freezer, and under practical conditions there was some sixty per cent variation in the different weights. It showed conclusively that, as we operated manufacturers in a practical way, for this factory, the yield, as Mr. Miller terms it, is not controllable to the point where we can base a standard of weight or of food value. If we recommend a standard that had sufficient tolerance to allow for this fluctuation, the law would be of no value, and unless we can suggest a method of controlling these factors, the law would be worthless, because there would be nothing left by which we could control these factors. Under other conditions we had about 34 per cent total solids. There were several hundred pounds of total mix, and we found 51.3 per cent variation in the weight of the ice cream. We discussed this matter with the Federal Department. It had never been brought to their attention before, and they had no suggestion to make. We feel that this is a premature suggestion on the part of the State Superintendent and Sealer of Weights and Measurs, and we desire to meet with Mr. Johnston in Sacramento and show him our figures and discuss this problem, and we think that until sometime in the future, when, as progressive manufacturers, we can try out certain of these problems in our plants, that no legislation should be undertaken, and we think that if we have an opportunity to make a full explanation to Mr. Johnston, he will understand our problem and dismiss the matter. We have not taken the attitude to stop this measure, but we have looked at it as progressive manufacturers, and I think that the people will bear us out in this impression, that it is our object, if possible, to suggest the standard which will have a beneficial effect upon the manufacturing of ice cream. And I can only say for our committee that the further we went in our investigations, the more determined we were that the problem was not controllable, and until such time as it is, the matter should be dismissed, and that that should be our recommendation to Mr. Johnston.

I would like to have some discussion of this matter, and I would like to call on Mr. Hoyt for a word. Mr. Hoyt acted in an advisory capacity to our committee and gave us the assistance of his department, and if you will allow Mr. Hoyt to say just a word, I want the members to know him, because he is in this respect instrumental in the welfare of our particular business.

The Persident: We shall certainly be very glad to hear from Mr. Hoyt.



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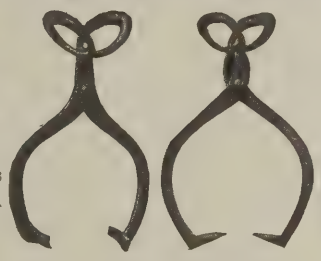
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Address of Mr. C. F. Hoyt.

Mr. Hoyt: I am not prepared to offer you any assistance in this particular thing, as the gentleman has just stated, I was invited to attend this meeting held here in this hotel concerning this matter of a standard for weight for ice cream, and I may say here that that was the first that I knew that there was any such movement on foot. Who is promoting the movement, or what the reasons may be for requiring such a standard as this that has been suggested, I don't know. Possibly, therefore, you will pardon me if I do merely say a little something of what the work of the State Department of Agriculture is, as it relates to this industry. Perhaps some of you gentlemen do not know what the State Department of Agriculture is. In years past, as you know, the enforcement of the laws relating to the dairy industry was in the hands of the State Dairy Bureau. The last legislature created a State Department of Agriculture, by consolidating into one the various commissions and bureaus that were in existence. Among them was the State Dairy Bureau. Therefore, the State Department of Agriculture is now charged with the enforcement of the laws relating to the dairy industry, the sanitation of dairies, the standards of dairy products, and the various laws that relate to the dairy industry, and ice cream is declared by the law to be a dairy product.

We have not done nearly the amount of work that I wish we could have done in this respect. The department was created for promoting the agricultural interests, and has at its head a practical agriculturist, Mr. Hickie. He has been in close touch with the men engaged in agricultural pursuits relating to fruit growing, and things of that sort, and I believe that through that close touch those industries have had great benefit. He has not yet had the opportunity of getting into such close touch with you gentlemen engaged with the various industries relating to dairing as he would have liked, and I feel that this is a misfortune, because I believe that through establishing that understanding between the present agricultural commission and the various interests represented here, there can come to the industry great good. I am sorry he is not here.

I have felt that it would be to your own advantage to have the present system of holding the meetings of the various industries that are allied to make up the larger industries held separately, that it would be better to hold them jointly.

Since we have undertaken this work, we have appointed a man to be particularly a factory inspector. The idea of that was that that man would become familiar with factory operations, and he would thereby be enabled, not only to enforce the laws relating to the factory organization, but he would become more familiar with such matters so that he might be of some real assistance to the men engaged in those factory operations. We have now asked the legislature for another man of that sort, and that recommendation has been approved by the budget committee, and we hope we will have another man who will be well trained in the same lines of factory operation, so that we can place that knowledge at the disposal of the people of this state. We have also asked for more money for the support of our laboratory, so that we can do more work there, and which will result not only in the better enforcement of the dairy law, but in the promotion of the dairy industry in all of its branches. There is a section of the law dealing with the returned containers which have been shipped out by manufacturers of ice cream to consumers. There have been some results so far, but we hope to do much more work along that line.

I don't know that I have anything further to say, Mr. Chairman. As I said, I have nothing that I can say toward this particular question under consideration. All I can do is to promote the good will, so to put it, of our department toward your industry, with the hope that our department may become to be regarded as an instrument for the promotion of your business.

The President: I think the major portion of any discussion of this subject in any of its phases had better be delayed until we have heard the paper of Professor Turnbow on a very closely kindred subject.

Mr. Dryden: I want to say one word regarding the University Farm at Davis. The information came to me yesterday that the department there would be glad to receive an open expression from our association here relative to this work which they have carried on, and I, for one, think that when you hear Professor Turnbow's paper and see the detail with which they have gone into the matter, in order to get us this data, that it will be in order for our association to write the University Farm at Davis and thank them for this co-operation, which in a measure will perhaps facilitate the work of that department in getting a little more co-operation in problems of this kind, which involves state expense, and I know that we have been grateful to the Dairy Division for this data which they have gotten. Upon the basis of their investigations, we have drawn our conclusion. And I would suggest that the association pass a resolution to that effect.

The President: We will now hear from Professor Turnbow.

* * *

ARE UNIFORM STANDARDS OF QUALITY IN ICE CREAM PRACTICABLE, AND IF SO ON WHAT SHOULD THEY BE BASED?

By Prof. G. D. Turnbow, of the State Dairy School.

Before I start on this, gentlemen, I want to be plainly understood that I am not going to recommend any standard for ice cream. I want that plain.

There has been such discussion of late as to standards for ice cream. Undoubtedly, from the standpoint of fairness to all concerned, there should be some standard established for the finished product. Just what that standard should be, however, in order to be practicable and workable, is so largely a question of personal opinion or judgment, rather than being based on any absolute facts, that much divergence in opinion, as to the ideal product, between individuals having varied interest within a state, as well as between the different states, is to be expected.

Up to the present time there has been more agitation as to the adjustment of the fat content than any other constituent, and it is generally conceded to be one of the most important ingredients to be taken into consideration. The percent requirements for fat varies greatly with the different states, for instance: a few states have standards as low as 6 per cent, several 8 and 9, quite a few 10, others 12, and a few require 14 per cent fat. Thus far, you see, even the requirements for fat has approached no definite standard, since there is over 100 per cent variation in the fat requirements between one state and another.

A certain amount of fat is desirable from the standpoint of palatability. A cream carrying from 11 to 12 per cent fat, is probably most palatable to the greatest number of people, and if the margin allowed for manufacture would permit, should be recommended. To increase the fat content beyond this figure would be of no advantage, for no doubt the consumption would be de-

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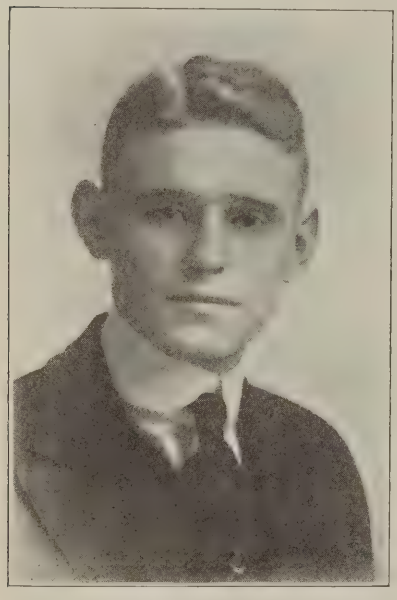
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creased by so doing, for the public as a whole finds a cream of high percent fat less desirable.

Prof. R. M. Washburn, one of the best authorities on ice cream has gone on record in the May, 1919 issue, of the Milk Magazine as recommending a 9.8 per cent fat content. In a recent letter from Professor Washburn, he states as follows: "Briefly, my judgment is that there should be a fat standard of 10 per cent for plain vanilla, 8 per cent for fruit, nut and chocolate ice creams. This difference is in order that the regular vanilla mix may be used for the other kinds of ice cream, and the dilution, by adding the chocolate, fruit, etc., will be taken care of by the lower standard, which even at that will cause the special creams to cost more than the straight vanilla."



G. D. TURNBOW

So much from the standpoint of fat content. Now let us turn to the consideration of another possible basis for obtaining a standard product, which, according to Professor Washburn, if I may be permitted to quote him again, is the only practical standard that can be used in ice cream, and that is the absolute standardization of the minimum weight of food solids in a gallon of ice cream.

Montana has already seen fit to require that the mix from which the ice cream is to be made shall not contain less than 33 per cent total solids; this is only one step, however, and does not solve the situation, for the yield which can be made to vary, may cause a variation of approximately 25 per cent in the true food value of a gallon of ice cream. We all know that the greater the percentage of total solids the higher the yield, though we may still deliver the same amount of food value per gallon. If you were to fix a standard on a percentage of total solids basis, without a stipulated weight of solids per gallon, a large swell would defeat the purpose of the law. To illustrate this point, I call your attention to Table I. (All the figures that I am going to give you are taken from commercial plants from regular runs.)

Table I.

Exhibit	% of T. S. in Mix	Desired Yield	Total Wt. of I.C.	Total Gals. of I.C.	Wt. Per Gal.	Wt. of Sol. per Gal.	Flavors
A	33.80	100	731.194	166.37	4.395	1.4886	All
B	36.05	110	1731.164	410.313	4.219	1.5209	All
C	33.01	100	1180.50	253.16	4.663	1.5393	All

You will note that if the standard should require a certain percentage of total solids, say 33.0 per cent, as does Montana, Exhibit A would only deliver to the consumer total solids at the rate of 1.4886 pounds per gallon. Under the heading of "Desired Yield" I wish to state that it was the aim of the manufacturer to pull his batch when this 100 to 110 per cent yield was obtained. In two of the exhibits a Mojonnier overrun tester was used. In the other exhibit the operator depended upon his skill. In Exhibit B there was a marked increase in total solids of the mix, a little higher yield was aimed at and, as a result, the consumer was but little better off than before. The difference in weight per gallon being only .0326 of a pound more than that of Exhibit A.

In Exhibit C we have 33.01 per cent total solids in the mix, with a cream weighing 4.663 pounds per gallon. Still we deliver 1.5393 pounds food solids per gallon, as you see, a trifle more than either Exhibit A or B. From these figures and the general knowledge of everyone familiar with the manufacturing of ice cream, it can readily be seen that a standard requiring any definite percent of solids in the mix, without stipulating the weight of solids per gallon of ice cream, would be worthless.

Considering then the standardization of ice cream on the basis of total solids, let me call your attention to Table III, which illustrates the necessity of careful study before a definite standard should be required.

Table II.

Exhibit	Flavor	Lowest Wt. per Gal.	Wt. of Sol. per Gal.	High. Wt. per Gal.	Wt. of Sol. per Gal.	% Variation	% T.S.
A	Vanilla	4.00	1.352	6.052	2.066	51.3	33.80
B	Vanilla	3.03	1.092	6.00	2.163	98.0	36.05
	Straw.	3.379	1.218	4.958	1.787	46.7	
	Choc.	4.479	1.615	5.20	1.875	16.09	
C	Vanilla	4.30	1.419	6.0	1.981	39.53	33.01
	Straw.	4.40	1.452	4.71	1.555	7.05	
	Choc.	4.80	1.584	5.11	1.687	6.46	

In Exhibit A you will note that the weight per gallon of ice cream varies from four pounds, as the lowest figure, to 6.052 pounds, as the highest. This gives us a weight of total solids per gallon in the first instance of 1.352 and in the second of 2.066, or a variation within the mix of 51.3 per cent. In Exhibit B we find a variation in vanilla of 98.0 per cent. In the latter case we started with a mix of lighter per cent total solids and the resulting ice cream had the lowest total solids per gallon, or 1.082.

In Exhibit C practically the same thing holds, except that the variation is not quite so great. It will be noticed that in Exhibits B and C both strawberry and chocolate are quite uniform in weight. From these figures you can readily see, with the present methods employed, the wide variation that is likely to occur within the same mix.

The question has arisen, is any particular draw within the batch responsible for this variation in the mix. To investigate this phase of it I have prepared some tables for your consideration.

Table III.

Exhibit	% of T.S.	Draw	Total Wt. of I.C.	Total Gal. of I.C.	Wt. per Gal.	Wt. of Solids per Gal.	Flavors
A	33.80	1st	298.438	68.000	4.389	1.483	All Flavors
A	33.80	2nd	189.063	43.250	4.371	1.477	All Flavors
A	33.80	3rd	178.813	40.428	4.423	1.494	All Flavors
A	33.80	4th	64.880	14.694	4.415	1.492	All Flavors

You will note that the greatest variation comes near the middle of the batch, indicating that the yield is slightly lower in the last drawn. In this exhibit we are dealing with a mix carrying only 33.8 per cent total solids, including all flavors. From this exhibit we note the variation in weight per gallon is very

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slight, being only .022 pounds solids per gallon, a figure too small to be considered.

Table IV.

Exhibit	% of T.S.	Draw	Total Wt. of I.C.	Total Gal. of I.C.	Wt. per Gal.	Wt. of Solids per Gal.	Flavors
B	36.05	1st	674.688	159.93	4.219	1.521	All Flavors
B	36.05	2nd	660.375	158.06	4.178	1.506	All Flavors
B	36.05	3rd	288.001	68.56	4.201	1.514	All Flavors
B	36.05	4th	101.313	23.763	4.263	1.537	All Flavors

In Table IV, Exhibit B, we have a little different proposition in that we have a 36.05 per cent total solids and a little larger volume. The result is a very slight variation in weight per gallon and a trifle larger weight of solids per gallon. The second draw in this case shows the lowest weight per gallon. I have heard that statement made that so much skill need not be exercised in turning out a uniform product when a mix of high solid content is used, this table would seem to substantiate the idea.

Table V.

Exhibit	% of T.S.	Draw	Total Wt. of I.C.	Total Gal. of I.C.	Wt. per Gal.	Wt. of Solids per Gal.	Flavors
C	33.01	1st	509.00	110.00	4.627	1.527	All Flavors
C	33.01	2nd	506.00	110.00	4.600	1.518	All Flavors
C	33.01	3rd	165.50	33.16	4.991	1.648	All Flavors

In table V, Exhibit C, this is again borne out. We have a low solids mix and a variation of .13 pounds per gallon. There is a decrease in yield in the last drawn cream as is the case with other tables considered.

In Table V, Exhibit C, this is again borne out. We have a low solids mix and a variation of .13 pounds per gallon. There is a decrease in yield in the last drawn cream as is the case with the other tables considered.

Table VI.

Exhibit	% of T.S.	Draw	Total Wt. of I.C.	Total Gal. of I.C.	Wt. per Gal.	Wt. of Solids per Gal.	Flavors
ABC	35.55	1st	1482.126	337.93	4.385	1.515	All Flavors
ABC	34.60	2nd	1355.438	311.31	4.354	1.506	All Flavors
ABC	34.61	3rd	632.314	142.148	4.448	1.539	All Flavors
AB	35.17	4th	166.193	38.457	4.322	1.520	All Flavors

Table VI shows a summary of Tables III, IV and V. It will be noted here that when the three exhibits are considered together we have a quite constant weight per gallon, as well as weight of solids per gallon.

Suggested standards in the past based on weight per gallon have named a figure considerably higher than this table would indicate to be practicable.

Considering a standard based on the weight of total solids per gallon, some authorities have recommended from 1.4 to 1.6 as the desired figure. From these tables it would seem that a 1.4 per gallon would be a reasonable figure for the manufacturer to stay above, and at the same time the consuming public would be assured a desirable food product. Just how practicable the enforcing of such a standard would be, is a question worthy of considerable study.

With a figure as low as 1.4 we find as much as 6.2 per cent of the ice cream considered in the three exhibits falling below it. With 1.4 as a standard, it would necessitate a smaller yield in order to keep all

the cream safely above the margin. It is true that some of the cream might be pretty heavy and have a tendency toward "sogginess", but a lower percent total solids requirement would deliver to the consumer a cream lacking in palability as well as food solids.

Exhibit A had a butterfat content of 10.25, Exhibit B of 10.50, Exhibit C of 9.92. All samples were taken at equal intervals during the day's run. The agitating coils were kept rotating continuously during the freezing of Exhibit A. In Exhibit B the coils were not kept rotating continuously during the freezing, but were rotated at approximately three equal intervals. In Exhibit C the same procedure was followed as in Exhibit B.

Exhibit A showed only .8 of 1 per cent variation in the percent of total solids, while both B and C showed a variation of 1.2 per cent. This does not mean that the coils should be kept rotating, however, for the body of the ice cream must be considered.

I am not yet ready to say that these figures give us enough information to draw any definite conclusions or to suggest any definite standard for ice cream. I do believe, however, that there should be a standard, but the details upon which this standard should be based is also a question for further study.

A a step toward determining a fair and workable standard, I have compiled these tables for your consideration from regular runs of commercial plants. They do not prove anything, but do suggest a few methods of approaching the subject. As a result of my investigation I submit for your consideration the figure of 1.4 pounds of solids per gallon of ice cream as being within reason from the point of view of solids.

Before California should set a standard, great care should be exercised so that when once adopted it may be practicable and fair to all concerned.

The President: Gentlemen, this certainly is a thing that is worth while, if we had nothing else to come before us at this convention. The results of the work done by this committee, as shown in this committee report, and the report of Professor Turnbow, are certainly worth while. The subject is before you, and we have some time that we can give it still further. Let me ask you, Professor Turnbow, at the limited time at your disposal in connection with this, were you able to give any study to the question or form any impression as to what might be the explanation of so wide a variation? Not that I am assuming that you have determined anything of that kind, but I wondered whether you had touched on that question and studied it any, or whether it had better be reserved until we know something more about it.

Professor Turnbow: I can make this statement, that from my limited study of this subject, and you will recall that this was passed to me about twenty-two days ago, and my Christmas vacation and everything else I had on this winter, went in order to get ready with this—from my limited study I think it is a supply man's problem to fix a machine that will control the overrun.

The President: A very excellent suggestion. It is up to the supply men, is it not?

Mr. Wilson: Would it not be a good idea to hear from Mr. Bennett on that question?

Mr. Dryden: Mr. Bennett could not do it, because the overrun scale was used in two instances.

Mr. Henderson: There are a good many factors that enter into that matter.

Mr. Platt: I admire Mr. Henderson's modesty in not saying that the new mixer and the new freezer will do the trick.

Mr. Henderson: We have adopted a code of ethics, you know, Mr. Platt, and we want to tell the truth.

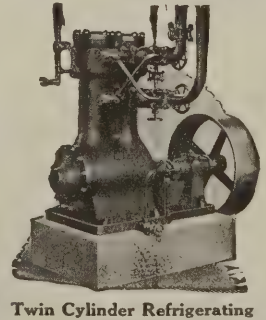
The President: Anything further on this topic, gentlemen? We have some time yet.

Mr. Platt: I might say that the National Association deems this topic very important, and it is the intention of the Secretary of the National Association to meet in Sacramento with us when this matter is discussed with Mr. Johnston, and we feel that, with the backing of the National Association, there should be no trouble whatsoever in showing Mr. Johnston the inadvisability of such a law.

Mr. Wilson: Mr. Chairman, I had a letter from the President of the Pacific Northwest Association just a few days ago, and I meant to bring it here with me. Several of the members from the northwest want to come down to Sacramento when we have this meeting at Sacramento. They would like to be notified, and they will be there. They are very much interested in this problem.

The President: One of the purposes, I take it, in continuing a permanent Committee on Standard,s and a large and strong committee, was that the handling of this whole question should be in the hands of the committee that has been making a study of it; and I think it is understood that it is up to that committee to arrange immediately, upon the adjournment of this convention, a date when a hearing can be had before Mr. Johnston, before any attempt is made to either draft a bill or introduce a bill on this subject, and the wire that I sent last evening to Mr. Martin was to that effect, that we were expecting to be able to arrange for such a meeting some eight or ten days hence. I thought that would give time enough for those peo-

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ple to get here, and also not an unreasonable time for Mr. Johnston to grant us. I am confident that by night I will have a wire as to what we can depend on there. But that will cause it also, the committee, to prepare, and when the committee goes to Sacramento they want to go, not only unanimously, but they want to go well prepared and have as many of the people interested on this subject, that is, of food people, food commissioners, agricultural college people, and other representative officials of the State who are interested, as may be, as well as people outside of the membership of the committee who are posted on the subject, and also such outside help as we may enlist, such as National Association representatives and officials or representatives of the Pacific Northwest Association. They are all vitally interested in this subject, so that when that hearing is arranged for, we can fully perceive the pressure that we will have and strength for accomplishment when we go there. Have you any further suggestions, Mr. Dryden, as to plans for the future?

Mr. Dryden: No, I have not.

The President: I am hoping before the banquet this evening that I can get further information from the National people on this question.

Mr. Henderson: Mr. President, in the matter of standards, there is one proposition that does not come in exact connection with your weights, but there has been in this state, and is at the present time a tendency to adopt different size of bricks. We have on our records now over twelve different sized bricks used in this state—different dimensions. That is going to lead you to a multiplicity of troubles, costing more for brick moulds and for cartons, because they are not standardized. You would buy brick moulds much cheaper and cartons much cheaper if you would establish a standard sized brick in the state. The tendency is to get more and more, instead of reducing the number of moulds.

The President: Why should you ask us that question—it is not up to the supply men?

Mr. Henderson: But it is the individual man who demands it.

The President: You gentlemen make the moulds and make a dozen different varieties. Why not standardize your moulds?

Mr. Henderson: You tell us what to standardize on, and we will do it. We can't tell what you want when you have twelve or fourteen of them.

Mr. Dryden: The most unusual sizes in use in the United States are used by the Crescent Creamery, and they make their own, I understand, down there.

The President: Are we too large, or too small, or the shape not right? What is the trouble?

Mr. Dryden: As I understand, there are two distinct shapes of bricks, that is, the western mould and the eastern mould. In the Crescent brick, the cross-section is square, the height is the same as the width, while the red brick, as it is known, is a little flatter than its height, that is, a little wider. The western mould is a flat brick, but the length is about 7¾ inches, and the eastern brick is a little over 6—6¼ I think.

The President: I think the trouble is that you gentlemen do not appreciate the effort the Crescent made to raze the way in setting a type that would be practicable on which to standardize. There are so many different brick forms on the market, and all subject to so many objections, we found it was difficult to get a form that seemed to have all the points in it, so that we were forced to correct some of the faults by mak-

ing our own, and there are several advantages. In the first place, I think any brick should be a standard quart brick in contents; if it is going to be sold as a quart, it has got to be a quart brick, or else quit labeling it as such, and very many of the forms do not hold a quart. Another thing is that a brick package, to work it right, should be a uackage that is uniform and will pack square in a packer or in a can or in a wrapped package, and two of the pints should exactly correspond with the quart, and in any form in which you turn them over, either way, and it is an admirable shape to put out to the wholesale trade. A quart brick in a packer that is packed, that takes the smallest size of can, and which is so rapid as to handle it in packing it and putting it up in packages where we put up an assortment of bricks in a package, sell a quart or two of this and a pint or two of that, I think should be in the shape so that we could put up a package with a brick that is convertible, and that we could not do with the style of brick that is of irregular shape. Those are some of the advantages of a uniform brick like that. There may be disadvantages also, but those are some of the things that brought us to the adoption of that standard form.

Mr. Jacobson: I think, Mr. Carver, that I recently had occasion to check up the brick slips, and I have not found any two alike in measurement. I believe it would be to the advantage of the Association if we were to put that question up to the National Association, with the idea of standardizing the size. In the first place, when you order brick slips from the can manufacturing concern, you insist upon the guarantee that they carry the quantity called for by the Sealer of Weights and Measures under the present system. Now there are no two sizes alike.

The President: Do you find that the average of them are up to the requirements of the law as to the quart in contents?

Mr. Jacobson: Yes.

Mr. Love: In the season, we ordered one hundred 8-quart slips. They came, and they were all right, the size was all right. Then we said we would have to have another order of those slips, and we ordered another hundred and they were entirely a different slip, they were shorter, the carton used for the first could not be used at all on the second. All the requirement we made was that they be up to standard. That is just the point against the supply man there, that they ought to have uniformity—and more than that, we took particular pains in ordering the second time to tell them to send them the same as the others, and we got an entirely different thing and couldn't get it changed, that is, we sent them back to be changed, and then they told us they could not give us anything else. and we had to take those slips, because we had to have them.

Mr. Jacobson: It should be standardized.

The President: Any further discussion of the brick mould question? I think we should probably proceed with the balance of the afternoon's program, if there is nothing urgent or further upon that subject now. Is there any unfinished business—before we pass to reports of committees? It will be next in order, if there is any. I hear of none, so we will pass to reports of committees.

Mr. Hightower: I brought up the subject just a few minutes ago regarding the supply men. I would like to have an expression from the members as to whether this Association wants to go on record as recommending, from our standpoint of its being a good thing for the industry, for those supply men in this state to organize and affiliate with the National Supply Men's Association? I believe that it is an important thing. Those people have organized with a view of helping this industry, and incidentally helping themselves. I think this Association ought to go on record as being in favor of that. It is not a matter of trying to eliminate anybody from selling goods, but simply trying to encourage the manufacturer and dealer to want to organize an association, to affiliate with the National, if the gentlemen in this state who are manufacturing ice cream think it is a good thing for our industry, and I personally think it is a very good thing. We need their co-operation, and, of course, they need ours.

The President: We all feel very kindly, of course, toward the supply men, and wish them to understand that we appreciate them. Yet the problem of whether they shall affiliate with the National Supply Men's Association, or not, is, it seems to me, their own problem. Anything that we might say would have very little bearing on that. But I think it is entirely proper if we want to express our good feeling and wishes for their welfare, etc., to give whatever encouragement we can. But why do they need to ask our endorsement of a plan for their affiliating with their own National Association? It is perfectly proper, of course, any expression we desire to give them.

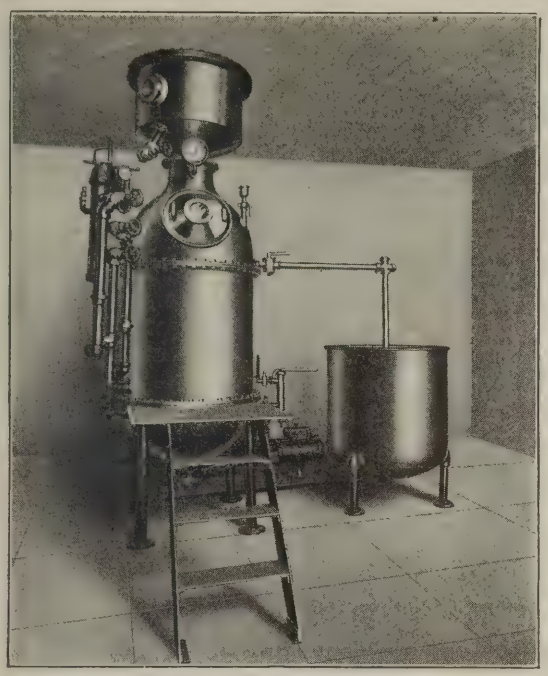
Mr. Hightower: That question has been brought to my attention, Mr. Chairman, from this viewpoint: that there are some of the manufacturers and jobbers throughout this state who do not think it is necessary to get into an Association of that kind, and I believe that if this Association were to go on record as recommending that, which is a proper thing, it would certainly promote the interests of the ice cream manufacturers, for the reason that if I am in the market for a particular piece of machinery, or going to make some additions to my plant, these people, different members of the Supply Men's Association, will write in to headquarters and tell them, and they will put that information out to everybody who manufactures a piece of machinery, giving me a chance to investigate several different pieces of machinery. That is one of the things that will be beneficial to the ice cream manufacturer, I don't care where he is located. We don't know all the things on the market, and this Supply Men's Association being in force and affiliated with the National, will give everybody in the country a chance to investigate everything that is on the market. That is the point, and that is why it is in our favor.

The President: Mr. Henderson, what suggestion have you? Would the supply men like to have us do that?

Mr. Henderson: We would like all the business we can get, Mr. President.

Mr. McFarland: If the supply houses do not see fit to join the National Association, of course that is for them to determine, and I hardly know just what to say by way of adding to what few remarks I have heard in this discussion. It is easy for any manufacturer in the West, if he so cares to do, to ask a man whether he is affiliated with the Ice Cream Supply Men's Association. The Ice Cream Supply Men's Association has a code of ethics that we are trying to follow. If you are purchasing goods from any concern that is not affiliated with our Association, of course that is up to the manufacturer himself, because it would not be right for the Association of Supply Men to try in any way whatsoever to dictate the policy of buying anything which may happen to be necessary in their plans. It is up to the individual concerns that go to sell you goods to decide whether they should affiliate with the National Association. We would like to see them belong, but, of course, that is a question for each and every individual to decide. And every one of the houses in the West have had the chance and

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opportunity to affiliate with us. We would like to see them join with us, if possible.

The President: I understand Mr. Hightower's suggestion was that we give an expression as to the wisdom or desirability of this Association, the Supply Men's Association, associating with the National Supply Men's Association.

Mr. McFarland: That question has not come forward from the Association of Ice Cream Supply Men, and it is the Western Association that is to be formed, and it is something outside of the National Association of Ice Cream Supply Men.

Mr. Hightower: The supply men of the State of California are contemplating organizing such an organization, and it is their intention to affiliate, as I understand, with the National Supply Men, but some of the concerns don't think the Ice Cream Supply Men's Association is worth while.

The President: Is that proposal to organize themselves different from the Association of Ice Cream Supply Men that these gentlemen are representing here?

Mr. Hightower: As I understand it, Mr. President, the supply men of the Pacific Coast in the state of California cannot very well belong as active members, because they only sell goods in this state. But the majority of them want to organize such an association in the state of California. There are a few in the minority, however, and they don't think the ice cream manufacturer regards it as of any importance that they should have and belong to such an organization and be affiliated with the National Association. And I think we want these people organized to the extent that they won't misrepresent any of the products that they sell us.

The President: What is the wish of the supply men here represented, as to whether that movement to organize that other Association is in their interest and they want it done or they do not want it done? I either haven't got the point or else I can't see where there is anything tangible for us to take hold of.

Mr. Henderson: Mr. Carver, this was the only idea that came up in our minds, that the only practical fact would be from the social end of it, to work in conjunction with the manufacturers in their conventions, to boost their conventions and to boost the social life of the conventions. There may be things come up, like the standardization of brick moulds, and things of that kind, that would be of real advantage to both sides. But in a meeting of this kind, and we had our experience last night, where twenty-one firms contributed to that entertainment, there is shown to be much less of a getting-together on the part of the supply men than there ought to have been. There should have been fifty there, fifty who are selling to you. We looked at it that if we could form a local organization of supply men that would work in conjunction with the manufacturers from the social end of these conventions only, that we might be of assistance in that way, not only to ourselves but to the manufacturer. It was just spoken of incidentally to-day, and we did not know how far the manufacturers would want to go along the lines of doing together the social features of conventions. So far as the National Association is concerned, they are doing that in a national way. Of course they could not come here locally and do that—we have to do it locally. If the manufacturers do wish to continue doing the social features of the convention, then it seems to me that if the manufacturers would help us as a local association, we would get

further in that line of work. That is the only place in which I can see that it would be of very much value.

The President: Gentlemen of the Convention, you have heard this explanation, Mr. Henderson states it clearly. What is your pleasure in the matter? Let us give the matter whatever action or attention it needs.

Mr. Platt: I move that it be laid on the table for future consideration, Mr. Chairman.

(The motion was seconded from the floor).

The President: Any discussion of the motion? If not, all in favor of it, make it known by saying aye. Opposed, no. That is not a very satisfactory vote, gentlemen. I will be very glad to hold that open. There should be a real vote on it one way or the other. There were only about two vots in the affirmative and no negative votes. I think there is no question about the feeling of the ice cream people towards the supply men and an appreciation of the advantage and pleasure that they have gotten out of the social end of the work so far at the different conventions. I believe we shall continue to enjoy that, and I think if our membership properly understood what is contemplated, they would not hesitate to express themselves more than they have. I confess that I did not get the point that was being driven at until Mr. Henderson's explanation, and yet the Chair is powerless in the matter, and we will have to pass on to the next order of business.

Under "Reports of Committees" we have several committees to report. First is the Auditing Committee, of which Mr. Hightower is chairman. Is the Committee ready to report?

Mr. Hightower: Mr. President, the Auditing Committee finds the Secretary's books in excellent shape, and his report as read yesterday correct.

The President: Then if there be no objection, the report of the Auditing Committee will be adopted and the report of the Secretary approved. Hearing none, it is so ordered.

The next committee to report is the Committee on Abuses in the Service—Mr. K. S. Carver, Chairman.

Mr. K. S. Carver: The Committee on Cabinets and Abuses of Service makes the following recommendations:

1. That our Association should go on record as being emphatically opposed to the common practice of furnishing fresh ice to dealers for other purposes than that of packing ice cream, and should recommend that this practice be discontinued and also that information regarding whatever action we take be properly conveyed to the ice manufacturer's association.

2. That every effort be used by the members of our association to push and develop the sales of brick ice cream, thereby giving dealers their desired variety of special flavors other than vanilla, which may be sold at a profit at least equal to that of bulk ice cream, and at the same time reducing the number of cabinet holes that are necessary in carrying a wide assortment of bulk flavors in stock.

3. That members of the association discontinue as soon as practical the use of one-gallon and two-gallon ice cream cans in connection with wholesale cabinet service trade.

4. That our association encourage standardization on cabinets of five-gallon capacity, it being our belief that it is practically as economical and efficient to pack three-gallon cans in five-gallon cabinets as it is to pack them in those of three-gallon capacity. At the same time this practice will afford an opportunity to carry more ice cream in stock at our dealers' stores in summer time without having to install additional cabinet capacity.

I might say, in addition to that, discussion about the cabinet rental and cabinet sale was not looked on with very great favor by the Committee. Such policies are not in practice by the ice cream industry at large, and we felt, too, that such a policy would tend to perhaps irritate the dealer—that it would be better to sell him his ice cream at one price and then make the price so as to cover some of those abuses that might creep in. We recognize the abuses, but it is a pretty hard thing to straighten out over the whole state. We can probably accomplish more by a little closer co-operation in each community, and if you find that your customers are using too many cabinets, bring your own pressure to bear on them as you see fit. We thought it was going a good ways to suggest the addition of a cabinet rental, without having the opportunity to discuss the matter more thoroughly than we have an opportunity to do at this time in the program.

The President: You have heard the report of the Committee on Cabinets and Abuses of Service.? What shall be done with it?

Mr. Hage: I move the recommendations be adopted as read.

The President: Does the mover mean that the recommendation be adopted as the practice of this Association?

Mr. Hage: Yes.

Mr. Wilson: I second the motion.

The President: Gentlemen, you have heard the motion, which is that the recommendation as contained in the report as read be adopted by the Association. That means just what it says, and I hope we appreciate that — that we are going to adopt some good strong recommendations, and that if any of us are not already working in harmony with them, that we will adopt that as uniform practice in our service, which will probably help us to bring a little more team-work into the industry. I am inclined to think we might have gone a little further and laid down some additional rules. But if we can make progress from time to time, as we can by action on one, two, three, or four of these abuses, we are doing great work, and it will only take a few years when we will have removed a great deal of the difficulty.

Mr. Goode: Would it be appropriate to suggest that the Secretary send each of us a copy of that?

The President: That is a good suggestion. And that will be understood as part of the motion, that the Secretary be instructed to mail a copy of this to every member of the Association, unless the mover, or the second, objects. I hear no objection, and it will be so understood. All in favor of the motion will make it known by saying aye. Opposed, no. The motion prevails.

I had hoped we would have a report of the scoring of samples, but it is not yet ready. We will finish the other committee reports. There is a Committee on Uniform Price and Price Basis, of which Mr. Platt is chairman. Are you ready to report?

Mr. Platt: The committee found that the prevailing differences in prices did not exist as was supposed in the morning's discussion, and their findings are also that at the present time the committee would not recommend any change in the prevailing prices. But if the general slump in prices in all food commodities expected to come does arrive, the committee believes that by March 1st, if necessary, it would be advisable to drop the price of bulk ice cream to $1.40, and flavors

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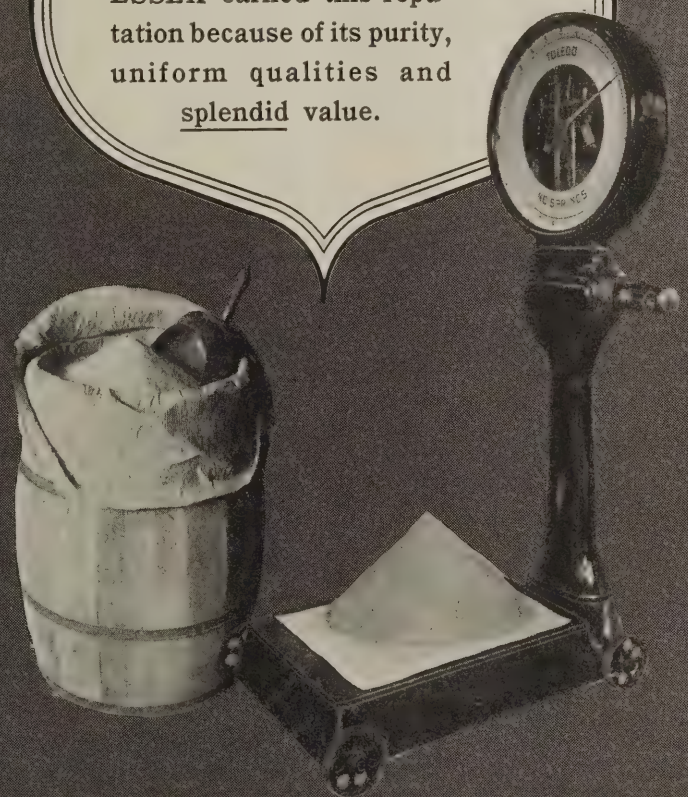
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THE ASSOCIATION OF ICE CREAM SUPPLY MEN MEMBER

to $1.50, and, while they do not recommend, they wish to report that brick ice cream in the northern part of the state seems to be selling for thirty cents over the bulk prices, while in the southern part of the state it is selling for twenty-five cents, a discrepancy that possibly should be adjusted by recommendation or resolution of the Association. The general recommendation of the committee seems to be that what inequality existed in one section in wages and other factors that enter into the cost of producing and handling ice cream is offset by advantages in the other sections, so that it would be advisable for the industry to maintain a uniform price in all sections.

The President: You have heard the report of the Committee on Price. What is your pleasure, gentlemen? If no action is necessary on it, the report will be received and entered upon the minutes of the proceedings. It would be highly proper to take action upon it, if you feel so disposed, committing the Association to the recommendations of the committee.

Mr. Dorman: Mr. Chairman, I would like to ask Mr. Platt if he means by that that we are to have a uniform price for the San Joaquin Valley and San Francisco and Los Angeles, all places the same price, covering all the different points.

Mr. Platt: That seemed to be the conclusion of the committee, which was selected from different sections. The differences, just as we stated them, seemed to be that what was costing more in one section was offset by costs in another section, so that it would be perhaps practical and feasible.

The President: The point of difference between the brick price and the bulk price is a thing that could easily be made uniform.

Mr. Hightower: Mr. President, it seems to me that at this time there cannot be any definite action taken on a uniform state price, inasmuch as in the Fresno territory the price of ice cream is twenty cents a gallon less than the decrease proposed in the price, and in the face of other commodities going down, I don't see how we can raise it very well. So I am afraid we cannot conform to any recommendations of that kind now.

Mr. Platt: Unfortunately, gentlemen, we did not have any member of the Fresno section on the committee, and the reports from the various members that were selected by the Chair did not bring that fact out. Consequently there was no discussion of it. For that reason I think it is important for the Convention as a whole to take the matter up.

Mr. Hage: I was on the committee, and it was my understanding that our view was that they should get together as near as they could—I don't think we meant that Fresno should raise the price, but that they ought to stick while we are going down.

The President: I think Mr. Hage's suggestion is a practical one as a method of dealing with the subject. The report of the committee will be received and entered upon the minutes, and it affords a basis for us all in our action in the next month or two in dealing with this question of price.

We have two other committees to report, one on nominations and one on the place of meeting. The Nominating Committee's report will consist of a report and recommendations or nominations for the Board of Directors for the Association for the ensuing year. There is a matter that I am not sure in my recollection as to what the present status of it is, whether the Board of Directors should designate, at the same time they are selecting the officers for the ensuing year, a representative of this Association to serve on the Board of the National Association, or not,—whether that is done by the Board the same as officers are selected. I am inclined to think it is, and that that has been the precedent set in the past. So that, unless some one moves that a different action be taken, I shall assume that the correct practice is the practice that has existed heretofore. So I think perhaps we should hear the report of the Nominating Committee, and then the Committee on the Place of Meeting. Mr. Hage has already handed in to the Secretary the report of that committee.

Mr. Beaudry: The report is:

"The Nominating Committee report as follows: Directors for 1921: L. J. Christopher, S. A. W. Carver, C. J. Alfred, F. A. James, F. E. Miller, W. T. Vahlberg, R. J. Dryden, George E. Platt, H. R. Peacock, L. W. Wilson, W. B. Hage."

The President: This Board should hold a meeting this evening, following the adjournment of this session and before the banquet. I think there will be ample opportunity so that any action they may take in the selection of the officers for the ensuing year can be known before they separate for final adjournment at the banquet.

The next committee to report is the Committee on Place of Meeting next year. Mr. Chapman is the chairman of that committee.

Mr. Chapman: Mr. Chairman, the Committee on Place of Meeting for 1922 suggests San Diego. Mr. Hage, of San Diego, has very kindly invited the Convention to meet in San Diego, and promises us a very good time and several bull features, etc.—for January, 1922.

Mr. Hage: Mr. President, I do not want to take the Convention down there against the wishes of the members. If it is too far, don't be afraid to say so. It won't hurt my feelings in the least. I telegraphed to the Grant Hotel and they told me that they would be glad to take care of us, and they have convention rooms and will be glad to look after all of our wants, and will be more than glad to have you, if you think it is not too far out of the way.

The President: You have heard the report and recommendation of the committee on place of next Convention. What is your pleasure?

Mr. Wilson: Mr. Greene, Secretary of the California Dairy Council, forgot to make one announcement, and that is that they are going, have positively decided to hold the Pacific Coast Dairy Show at Stockton next November, and I don't know but what perhaps the ice cream men would want to hold their convention there at that time. He says it is going to be a big affair, and they are going to make it an annual event, a dairy show at which there will be stock and also machinery exhibits. There will be several conventions there at that time—the buttermakers and the milk men, etc.

Mr. W. F. Sperry: I would like to ask for information. Mr. Chairman, if the list of nominees for Directors as read was supposed to represent the names of those selected for Directors—I mean those recommended by the committee.

The President: Yes, for directors.

Mr. Sperry: By whom was that recommendation made—by the committee?

The President: By the committee, yes.

Mr. Sperry: May the list of the nominees be read again, please.

The Secretary repeated the names of the nominees.

Mr. Sperry: For information, I would like to ask why there is no repesentation on the Board from either

Stockton or Sacramento? It seems to me that about ninety per cent of that committee is from south of the Tehachapi.

Mr. Hage: That committee, if you notice it, has provided exactly the same Board that was on last year. Possibly there should have been a change, but nobody said anything about it. The only change was, I think, the addition of my name, and Mr. Trompas, a former director, had me put on in his place.

Mr. Sperry: I have only been in business for a little over a year. And last year when the State Convention was called, it came practically before I knew very much about it, and we were not members, and we were asked to become members, and it was suggested that members in the Sacramento Valley become members and we did so, and now we meet here and we put up a board of Directors and do not represent anything, you might say figuratively, north of the Mason and Dixon line.

The President: I think the gentleman is in error in assigning so large a proportion of the Board as being being north of Tehachapi.

Mr. Sperry: Perhaps I should say south of Stockton.

The President: An east and west line through Stockton would about pass through Oakland. But speaking of a division at the Tehachapi, the Board is as nearly evenly divided as can be—there are six on one side and five on the other, on a line drawn south of San Joaquin Valley.

Mr. Hosking: I think it would be no more than fair that somebody up north should be a director of this Association. You have three here in Oakland, and most of the rest of them were down south.

Mr. Sperry: Mr. Chairman, if this Association is going to be a success, it wants to have the support and co-operation of all the men throughout the State, and if you talk over the list of recommendations, you will find that certain interests are very largely represented on that Board.

Mr. Wilson: Bill Hosking and I organized this association a good many years ago, and this is the first time that we have ever had anyone take any interest in who was going to be a Director. I am certainly glad to see it. I move that nominations be thrown open to the floor, and that we nominate anyone desired, and then have a real election.

Mr. Hosking: I second the motion.

The President: The motion is made and seconded that the vote by which the Directors were chosen be reconsidered, if I understand the scope of it, and that the matter of nominations be placed before the Board. You have heard the motion. All in favor of the motion make it known by saying aye. Opposed, no. The motion prevails. The matter is now before the house.

Mr. Dorman: Mr. Chairman, I am having to leave, and I just want to say this, before you go back to the place of meeting, that in connection with the Northwest Association, they are very anxious to extend an invitation to us to meet with them next year, and you might want to consider it in deciding definitely as to your place of meeting. As I say, they are anxious to meet with us if we can arrange that sort of program, and it might influence you a little in your decision as to the place of meeting.

The President: A vote has already been taken on the place of meeting, but it can, of course, be reconsidered.

Mr. Hage: I think it was not voted on, Mr. Chair-

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man. And, under the circumstances, I will withdraw in favor of Stockton, if they are going to pull a dairy show and want to hold it at the same time, especially if the Northwest people want to come down.

The President: Then I think the place of meeting should be left to the Board of Directors. I suggest that the committee make its report in the form of a recommendation that the place of meeting be referred to the Board of Directors.

Mr. Chapman: As a member of the committee, I make that recommendation, that it be left in the hands of the Board of Directors.

(The motion was seconded from the floor.)

The President: All in favor of referring the matter of the place of meeting next convention time to the Board of Directors will say aye. Opposed, no. The action prevailed.

Thereupon Messrs. S. A. W. Carver, I. J. Traynor, W. T. Vahlberg, Charles M. O'Brien, D. J. Alfred, Geo. E. Platt, F. A. James, W. B. Hage, H. R. Peacock, L. W. Wilson, J. M. Contraras, T. W. Hightower, Jr., L. J. Christopher, and R. J. Dryden were placed in nomination from the floor for members of the Board of Directors for the ensuing year.

The President: The Secretary will prepare ballots and distribute to each member, and the members will write in the names of those candidates for whom they vote. Only active members can vote. Tellers must be appointed.

Mr. Hosking: Are nominations closed?

Mr. Miller: I think, Mr. Chairman, we have not formally closed the nominations.

The President: No, they have not been closed formally.

Mr. Hosking: I would like to nominate Mr. T. Mogansen, of the Fairy Ice Cream Company, of San Francisco.

Mr. Hightower: I now move that the nominations be closed.

(The motion was seconded from the floor and unanimously prevailed.)

The President: I will ask Mr. Chapman and Mr. Hightower to act as tellers. (The tellers announced the result of the ballot to be that the following gentlemen were elected as directors: Messrs. Carver, Traynor, Alfred, Platt, Ames, Peacock, Wilson, Hage, Contreras, Christopher, Dryden.)

The President: The scoring of the exhibits of ice cream is all completed except in two respects, the fat analysis and total solids, so that we cannot give you the final report at this time. And it has been decided that it would be better that whatever announcement we can make, if the matter is before us completely this evening, can be made at the banquet. There will be something to say also regarding plans for another year on this matter of scoring.

Mr. Goode wishes to say a word concerning the Arizona Association.

Mr. Goode: Mr. President and Gentlemen: On behalf of the Arizona Ice Cream Manufacturers' Association, of which I became a member while I was down there, I have beeen asked to invite all of the California ice cream manufacturers to attend their association meeting, to be held in Tucson on the 20th and 21st of this month. I happened to be making a trip down there last Thursday, and this matter was communicated to me, and I know they will show you a good time if any of you can go. The little town of Tucson is worth visit-

ing, and they have a number of places to show you, and they are very much interested in us and in having us there. They extend a hearty invitation to attend the meeting on the 20th and 21st of this month.

Mr. Platt: Mr. Secretary, I would like to ask if the sectional representation is fair as the Board now stands. If not, I would like to withdraw, to have the condition of the Association in the best possible form.

The President: The south has five and north of Tehachapi six.

The Secretary: Four from Los Angeles, one from San Francisco, one from Bakersfield, one from Fresno, one from San Diego, one from Phoenix, Arizona, and one from Oakland.

The President: It would seem to be three from the Bay District, three from the Valley, four from Los Angeles, and one from San Diego.

Mr. Platt: I think, Mr. Chairman, to have the thing properly balanced, it would be advisable to have Mr. Miller, of Oakland, on the directorate in my place. I would, therefore, like to withdraw in his favor, if that be permissible.

Mr. Miller: We could not do it in that way any way, and Mr. Platt is more than generous. I think it is a very fair division the other way, and Oakland is represented and ably so. I am one of the kind who is going to be a front-seater in every convention, and right there all the time anyway. And you stay there, because we want your experience.

The President: The attitude that both of these gentlemen take is commendable, but the body has spoken and made its decision, and while it would be eminently pleasant to the Chair either way, I hardly think that it ought to be insisted on, although I would be very glad to see Mr. Miller a member of the Board.

Mr. Miller: I insist that the election go this way, and I think we can show Mr. Platt that all districts are represented.

Mr. Sperry: I approve the way it stands.

The Chairman: I think there is nothing else before the Convention. I will ask the members of the new Board of Directors to meet informally, at least, before the banquet. If there is no objection, I will now declare the Convention adjourned.

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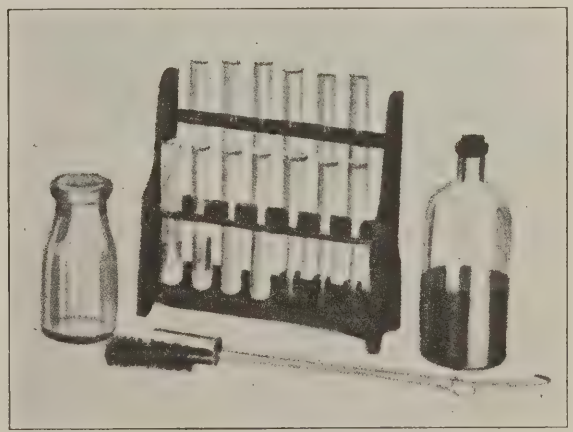


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WISCONSIN ASSOCIATION OF ICE CREAM MANUFACTURERS.

(Continued from Page 10)

tain they would have to collect the tax. If not served from the soda fountain, but from the kitchen, they did not have to pay the tax. You can see the difference between the table de'hote meal and the plate meal. How were they going to tell when they should charge one price? One meal would include ice cream. So the Department has just issued a letter which definitely says where a bona fide restaurant or hotel sells a plate meal, not a la carte meal, where it is sold separately, even though they sold it from the soda fountain they are not required to collect the tax. That is simple and plain. If that restaurant or hotel has an a la carte meal and they sell from their soda fountain in their place of business, then they are supposed to collect the tax for which that particular ice cream is sold.

As far as taxable sales are concerned we can say generally, outside of those three exempt cases ice cream is to be taxed when sold at soda fountain or similar place of business.

Our office noticed an article published in bulletins in Detroit, in which they quoted a Treasury decision to the effect that ice cream cones would not be taxable when they were not sold at the ice cream parlor. Evidently they misunderstood the office on that, because ice cream cones are taxable. It does not make any difference whether you sell it from an ice cream parlor or from a hotel, the ice cream cone is taxable and the tax is based on 1 cent for each 10 cents or fraction thereof, even though the people buy three or four ice cream cones and carry them with them.

Lots of ice cream parlors are located in buildings. People go down there at noon to get a luncheon. They buy ice cream sodas, and possibly a sandwich along with it. That sale is taxable even though there is a sale of food with it.

I will say further in regard to hotels or restaurants which serve regular meals with ice cream included, supposing during the day those hotels serve ice cream in separate dishes outside of their meal time entirely, they are subject to collect the tax even though they serve it from the kitchen.

Remember this tax as it stands to-day is paid by the consumer. The dealer's responsibility is to collect that tax and report it and pay it to the United States government. Under the law they are supposed to keep records of the amount of money they collect, and those records must show daily the number of sales they make, the number of sales where there is a 1 cent tax, a 2 cent and a 3 cent and so on, and those records must be kept available for an Internal Revenue officer. The larger places are handling this tax correctly. They can afford to take care of it and their overhead covers it, but the smaller dealer, perhaps he doesn't understand books, it is hard for him to keep books, and there is where the difficulty comes in. You can see on the other hand how it is possible for anybody who desires to violate this law and to be crooked, they can do it and it means that much more work for us.

It has always been the feeling of the Internal Revenue officers in the field in enforcing this tax that it should be a tax on the sale by the manufacturer rather than the sale by the dealer. I feel sure there is not a manufacturer in this room but would not rather handle it that way because he can do it. He has books of account and he can pass the tax on to the dealer and the dealer would rather have it that way and the public would rather have it. The question is whether or not the taxing of the manufacturer himself by the excise tax would not conflict with the pure food laws. There are heavy penalties. It is true any dealer who does not collect this tax, the Internal Revenue department or the government cannot force him to pay the tax he has not collected because he is not supposed to pay that tax. The Internal Revenue department in enforcing this tax has to resort to the other penalty. There is a penalty that says for every failure to collect a tax on the sale of ice cream, where it is wilfully refused, there may be a fine to about $1,000. If he fail to collect it six times in the day he would be liable to prosecution under that section which says he should collect that tax on each separate transaction, and the penalty runs up to $10,000.

That is the way the ice cream tax is on the statute. We do not know what Congress will do with it. Some change should be made in the tax and I have no doubt Congress will do it, but until Congress does we, the Internal Revenue collectors in this country and in this state, have to see that the people are living up to it. Until that time it is the intention of this department to enforce the collection in every case that comes to our notice of failure to collect the tax.

I have spoken to you this morning as a representative of the Internal Revenue Service. Your secretary asked Mr. Williams to send somebody over to talk to you and made this request two months ago. As you know, Mr. Williams is leaving the Service to act with his associates in advising the banks and their clients on all lines of tax matters, and Mr. Williams saw fit to ask me to go with him, and as a result of the fact that his resignation takes effect immediately my resignation took effect last evening, but I felt I could come over and talk to you this morning as a representative of the government, that I still have interest in the Service, although, technically, I was out at midnight last night.

If there are any questions you would like to ask, I would be very glad indeed to tell you anything I know.

Member: I would like to ask a question in connection with a hotel or restaurant serving a la carte meals, in case where they have a packer cabinet apart from the fountain?

Mr. Sprague: If that cream is served either separately or by a la carte meals, the cream from this separate packer cabinet would not be taxable. I mean by that a cabinet that is away from their soda fountain and not a part of the soda fountain. We do know if it is served from the kitchen it is not, but due to the fact that this ruling came through in regard to a la carte sales I believe the tendency of the Department would be not to tax that sale even though it was an a la carte meal.

Chairman: The next number on the program is "Ice Cream in the Diet for Children," by Mrs. Frances Donovan, of the Elizabeth McCormick Memorial Fund, Chicago, illustrated by stereopticon views.

* * *

ICE CREAM IN THE DIET FOR CHILDREN.

By Mrs. Frances Donovan, Chicago.

Mr. Chairman, Gentlemen: It is with considerable trepidation that a mere woman breaks into this meeting, but, as perhaps you realized in inviting me, it is fast becoming the fashion, in fact, it is almost compulsory, to include women in conventions and deliberations of all kinds. Since we women have been given our political rights and privileges, with their corresponding responsibilities, (which the men have borne so long and so cheerfully alone) I suppose it is but a sign of the new order that you should include a

woman speaker on the program of the Ice Cream Manufacturers' Convention.

I am, of course, ignorant of the details of your business, and I am not here to suggest any startling innovation in your manufacturing processes to advocate changes in the relations between you and your dealers, but I do come to say a word for the ulitmate consumer, and I am going to say it as a friend of the children. There is no question about the appetite for ice cream in America, but I hope to be able to suggest to you, that you have not as yet fully measured the capacity of the American child and of his parents for ice cream, nor yet given the public all the reasons for the purchase and consumption of your product. If I am able to furnish you with any "talking points" in your advertising program, I shall be very happy indeed and feel that it will not have been entirely a matter of courtesy that you have placed a woman on your program.

I have the pleasure of coming before you to-day as the Director of the Elizabeth McCormick Memorial Fund, a foundation established by Mr. and Mrs. Cyrus Hall McCormick in memory of their daughter, and devoted to improving the conditions of child life in the United States. The Fund has been, so far, chiefly devoted to promoting the health of children, because that is the field that has been most generally neglected. To further this purpose the Memorial Fund has been carrying on open air schools in Chicago, for the past twelve years, to benefit children who might otherwise become the victims of tuberculosis. It was also, during the past year, developed nutrition classes for underweight children in the public schools and elsewhere. The open air schools and the health classes are, of course, largely concerned with the diet of the child, and one of the things that we wish to show in our work is what results we can obtain in the improved health of children through proper feeding. Knowing, as you do, the vital properties of milk and all milk products for the human family, it is hardly necessary to say that we stress the use of milk, butter, ice cream and cheese, in all of the work. During the past two years, we have had the cordial co-operation of the National Dairy Council, and, during the past year, of the Milk Dealers' Association of Chicago. Through the Dairy Council we have had opportunities to show the value of correct feeding, including the use of milk, for children, and have prepared educational exhibits for the National Dairy Show showing almost miraculous changes in undernourished children, who have been given a quart of milk a day. The milk dealers have also been generous in giving us an allowance of milk for your health classes, so that we might teach the parents, through experience in the improved health of their children, the value of milk in the diet of the family.

This talk of health and the welfare of children seems almost to fill the air to-day, and yet until now both have been seriously neglected in our national life. The children of America are said to be more indulged (perhaps over-indulged) and more tenderly regarded by their parents than the children of any other nation on earth, but these same children have on the whole been more intelligently treated than those of almost any civilized country. We are seventh down the list of civilized nations in the death rate of our children, each year losing almost half a million of them under six years old. In this rich and progressive country we have been singularly blind to the fact that if we build without health as the foundation of our national existence we are but building upon sand and with small possibility of future greatness. We were, however,,

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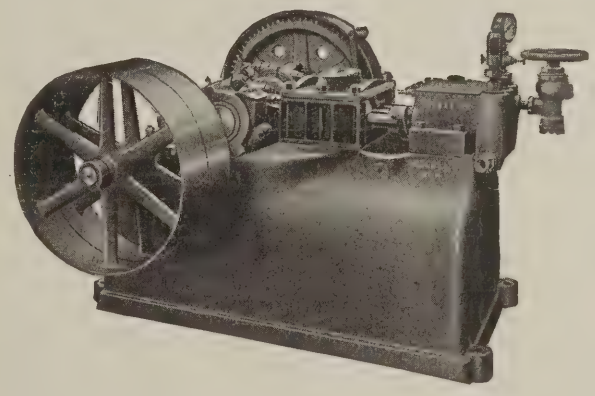
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Tell your friends and neighbors you are going to the World's Greatest Dairy Show, Minnesota Fair Grounds, October 8-15, 1921.

aroused from our complacent attitude in regard to our disgracefully lage toll of child life paid each year, and the general neglect of health, by the findings of our draft boards during the war. For the first time the youth of our nation was put through an acid test for physical fitness, with the result that over one-third of ouryoung men were rejected as not capable of sharing in the defense of the nation in her hour of need. It was proved, moreover, that most of these rejected men were suffering from difficulties and defects which could have been remedied hay they been recognized in childhood. The discoveries made through the physical examinations for army service were reinforced by extended surveys and studies made during the past few years, which showed that about 70 per cent of all our school children are suffering from physical handicaps that impede their progress to a greater or less degree, while from one-third to one-half of our school children are under weight and under nourished. It is evident, therefore, that the work of promoting the health of children is a movement vital to the future efficiency and welfare of our nation. You may feel that a health program is a far cry from the marketing of your product, but let me remind you, in the first place, that the promotion of health among your own employes, for instance, would be one of the soundest investments that you could make. If each of you had a corps of men and women working in your plants, all of whom come to their work with joy in the morning, and left it with "pep" at night, who had health equal to any emergency or unexpected strain upon them, you would certainly not have so large a labor turn-over, so many losses from inefficiency, and you would have a stable instead of an unstable quantity to deal with in considering the output of your establishment. In the second place, you are manufacturing a product which is one form of a food absolutely indispensable to the human race. Dr. McCollom and others have proved that man cannot reach his full stature, nor his full measure of physical usefulness, if he is not given milk products in some form. Therefore, your advertising might well be based upon the sound appeal to health, an appeal to which no mother interested in the welfare of her children could afford to turn a deaf ear.

I should like to state at once that the program in the nutrition classes we have carried on in Chicago, as well as in the open air schools, is educational in every sense of the word. It has been shown that as many children in our well-to-do-ditsricts are underweight and under-nourished as in the poorer neighorhoods, proving in every survey that has been made that the problem is not one of poverty, but of ignorance. Our methods, therefore, are bound to be educational and not philanthropic. We are not promoting a program of free feeding of school children, but are teaching the value of proper food in health building and giving such training in health habits as will lead to a future of full productivity efficiency and happiness. It is our idea that health through correct feeding and proper living can be taught just as easily and successfully as arithmetic, reading, geography and history, and through methods as simple and as practical as those with which we are now familiar in our schools. The ignorance in regard to the properties of food is so wide-spread that you could not do a finer service, not only for the promotion of your own industry, but for your community and your nation than to spread as widely as possible the knowledge of food values and of what constitutes a good diet for a child, whether he be rich or poor.

(To be continued in September issue)

A DAIRY INSTITUTE, CONDUCTED BY THE NATIONAL DAIRY COUNCIL.

The city and county milk and dairy products campaign has shown itself so vital and so helpful that a great demand has arisen for it in all parts of the country. The demand upon the National Dairy Council for this class of educational and promotion work is so great that we found it necessary to train a corps of workers to send out into different cities and counties beginning early in September, for the organization of educational school work necessary for the proper conduct of these campaigns.

The management of the Council from experience, reached the conclusion that to do this form of educational work properly it must be well founded, efficiently organized and directed, and given so much life and direction that it would keep moving for years to come. This makes it absolutely necessary to have experienced workers trained to see and develop every resource of the community where these campaigns are conducted with this fundamental idea in mind.

In order to have such workers, the National Dairy Council has brought together a force of twelve women already highly trained in organization work, and is giving them a three weeks' course of intensive training along the lines of the work being done by the Council—its methods of conducting campaigns, together with a broader understanding of the proper relationship of milk and its products to nutrition. This three weeks' course in addition to the training under the direction of the Council itself, includes an intensified course of nutrition training in relation to dairy products with the McCormick Memorial Fund organization. In addition to this, these workers, with an instructor familiar with the plan of procedure of the manufacturing and handling of products, were taken through milk plants, butter and cheese plants, and machinery plants.

We have brought to this course a corps of young women who are already engaged in community, domestic and dairy science work. They are all college and university graduates with experience along dairy extension line, urban and rural, home demonstrtaion work, and in some cases, Red Cross and nutrition work. Based upon this background, we are giving them a broadened idea and understanding of the dairy industry and its vital relationship to human and national welfare.

These workers will be ready to enter upon the campaign work which the National Dairy Council has already been called upon to perform, opening up in September.

NATIONAL DAIRY COUNCIL,
Publicity Department.



PACIFIC ICE CREAM MANUFACTURERS' ASSOCIATION.

To Members Pacific Ice Cream Manufacturers' Assn.:

Having made a canvass of the Board of Directors of the Association as to the city in which to hold our 1921 meeting, and the dates for the same, the vote is very much in favor of Seattle as the first choice, with the tentative dates of Nov. 14, 15 and 16.

The Executive Committee has decided the convention will be held in Seattle, Washington, on the above dates, at the same time asking that the Directors make it a point to be in Seattle on Sunday, the 13th, in order that a business meeting may be called before the regular session opens on Monday morning.

Your Program Committee will greatly appreciate your suggestions for Convention papers, giving the

"With the Tang of the Berry Patch"



A new Berry flavor that is the sensation of the ICE CREAM Industry—

Write for information

TRUE FRUIT

Mr. Ice Cream Man—Haven't you been looking and longing for a new flavor—one that is a true FRUIT? We have created it for you—Don't take our word for this—We are just ITCHING for an opportunity TO SHOW YOU—We will furnish you with four ounce sample on request, flavors and colors 10 gallons of cream. Beat your competitor to it. Now is your opportunity—GRASP IT.

Write us for prices

Advertising matter furnished free

KAW VALLEY FRUIT PRODUCTS COMPANY
509-11 W. 5th STREET KANSAS CITY, MO.

topic you would like to have taken up, also as to whom you think would be the best speaker to handle your particular subject.

We hope to make this meeting just a little better than former ones and to do this we are asking for the co-operation of all the members; there are a number of questions coming up each season in which you are vitally interested. We know what ours are, but will not be able to bring out YOUR particular one unless you advise the Secretary. Kindly do this at your earliest convenience for it requires time to arrange a complete program.

You will be notified later as to the Seattle headquarters and the committees having the different matters in charge. We will advise you of the different hotels and rates in the near future.

Anyone who has attended a Pacific Association Convention will be anxious to attend this one. We are going to maintain our reputation, and ask that every member help to make this the banner Convention.

PACIFIC ICE CREAM MANUFACTURERS' ASSN.
J. E. Dunne, President. Bert H. Walker, Sec'y.

CRUCES CANDY AND BOTTLING COMPANY INCORPORATES.

Cruces Candy and Bottling Company, of Las Cruces, New Mexico, has been incorporated under the laws of New Mexico, with a nominal capitalization of $25,000, no stockholders' liability. The incorporators are: E. T. Winters, J. B. Camunez and C. O. Bennett, of Las Cruces, where the company has two retail stores, and ice cream and candy factory and a bottling plant.

The certificate of incorporation, issued by the State Corporation Commission of New Mexico gives the company permission to establish and carry on all or any part of the business of manufacturing, importing, buying and selling either as wholesale or retail merchants, or both, of candy, ice cream, cigars, cigarettes, tobaccos, smokers' supplies, flavoring extracts, flavors, syrups, soda water, and all other soft drinks and all machines, parts, supplies and accessories used in and about an ice cream and soda water fountain and candy factory.

The company also is permitted to import, manufacture, deal in and transport ice and to manufacture, buy and sell all kinds of ice machines or apparatus and refrigeratory plants and processes, and to establish and carry on, either as wholesale or retail merchants, or both, all and any part of the business of a bottling plant, and to manufacture soda water and all soft drinks, extracts, flavors, vinegar, bluing, toilet lotions, toilet articles, medical preparations of all kinds, drugs, chemicals for medical use and to establish and operate, buy or sell all kinds of bottling machines and accessories.

Mr. Bennett, who is manager of the company, which is incorporated for a period of 50 years, said present plans are to do a yearly business of from $100,000 to $125,000. It is expected to increase the capital to $50,000 or $75,000 within the next two years.

F. H. BOTHELL RESIGNS

F. H. Bothell, for many years superintendent of manufacturing at the Crescent Creamery Company, Los Angeles, severed his connection with that company July 15th, to enter business in Los Angeles, where he will make and sell ice cream only at retail. His technical knowledge of ice cream manufacturing in solving many of its problems is recognized throughout the country.

PETER N. MILLER, Jr.
President
2213 11th Avenue
Birmingham, Alabama



Address all
communications to
T. J. STEWART
Secretary
Mercantile Library Bldg.
Cincinnati, Ohio

FROM MEXICO.

Throwing the bull is a particularly fascinating sport, both indoor and out, for the denizens of Mexico. Strangely enough, however, despite the fact that the diversion originated in Spain, eons and eons ago, and has ever since been perpetuated by persons of Castilian extraction, as a pastime, its exponents are not confined to either Spain or Mexico for that matter. On the contrary this specie of individuals can be found browsing in almost every quarter of the globe, And they can 'throw the bull' in any language spoken, written, gurgled or slaughtered without so much as wrenching an eye-lash.

Oh! yes, the world is full of toreodors, matadors and cuspidors. But what we started out to say was this:

The Olsen Publishing Company desires to make public acknowledgement of the receipt of a postcard from C. P. Hostetter from "Somewhere in Mexico." He selected for our particular delectation and amusement a card depicting a gory bull about to receive the coup de grace from a courageous toreodor, or is it matador (our knowledge of bull-baiting is very restricted.)

For the benefit of those who arrived late we will pause long enough to say that the author and sender of the Mexican epistle is the district manager of the J. B. Ford Co., at Atlanta, Ga. There was nothing on the card to indicate what C. P. was or is or should be doing down there. The natural inference is, however, that he is in pursuit of business for Chief Wyandotte. Naturally, being a Dixie Flyer gives one a great deal of latitude in both business and pleasure, so it is more than probable that when he returns from the land of chili con carne, hot tomales, lizards, Villistas and siestas, he will bring with him a new interpretation of the Spanish fandango or Mexican Misstep, acquired from some bewitching and dark-eyed senorita, who no doubt found him a most apt and ambitious pupil.

This, of course, is only conjectural, dear readers, but—knowing a little about the propensities and personality of the subject of this harangue, it is better than a 10 to 1 shot (in the elbow) that he is capable of all that has been intimated and then considerable more.

Now all this has nothing to do with throwing the bull—you say. Well, that's just where you are about four inches out of plumb. What do you call all this stuff that you have been wading through to get this far? And it was all inspired by a postcard from loco land that cost about 2 pesos or ½ of 1 per cent in Uncle Sam's coin of the realm. Don't make any boisterous threats to shoot us at sunrise. We positively refuse to arise that early.

* * *

J. W. Mulligan, ex-president of the Dixie Flyers, who keeps his finger pretty tightly placed on the pulse of this organization apparently is not altogether pleased with the manner in which his colleagues have failed to avail themselves of an opportunity to use these columns in which to ventilate their views and divulge news items gleaned during their trade seeking peregrinations, as is evidenced by his communication which follows:

"I was surprised to see the June issue of The Ice Cream Review void of any communications from our members. While we all readily admit that the weather has been extremely hot that is no excuse to let our department go by default. Write something. Don't be afraid that you will be criticised. That's what we want from the members—good, honest criticism.

"Now I want to say a word about the good work of the Association of Ice Cream Supply Men. I don't see how a concern in the manufacturing line can afford not to be a member. I for one can attest to the good benefits I have derived from my membership, and I am sure it has been lots of help to others of the boys. So keep up the good work and get more firms to join the association. They need the information, and when they begin to realize the amount of co-operation they will get and how hard our Secretary, Rob Evert, is working to keep all of us posted I believe a great many more firms can be brought into the organization. I am convinced that none of the boys is a slacker, and by January, 1922, we should have a nice increase.

"With regard to trade conditions in general. I have found that the ice cream manufacturer is optimistic over his business and is looking forward to a windup of an exceptionally good year.

"We have been hearing so much of late about the revenue tax on ice cream in its various forms and so much talk that doesn't get us anywhere, particularly with reference to bringing about a repeal of the tax on cones, sodas and sundaes that I believe it is high time concerted action was taken by those identified with the various phases of the industry to get some definite action along the desired lines. Let us all get together on a solid front and bring so much pressure to bear upon our representatives in Congress that the tax on ice cream will be repealed and the kiddies will be permitted to have their wholesome food at a fair price."

In conclusion let me say that I was very glad to see Mrs. Harris' communication from New Orleans. However, I think it was so warm she left off some of "iLttle Bill". Won't you please write some more? I want to ask some of the rest of the boys to write something for our department. Even if it is too late for that month's issue of The Review it will appear the following month. So keep up the column, boys, and boost The Ice Cream Review.

* * *

Just by way of having something a little different in our department it occurred to me that the various definitions of "What is a Kiss," might prove interest-

Diamond-F
Protective Papers
For Ice Cream and Candy Makers
Glassine
Vegetable Parchment
Greaseproof
Parchmoid
Made by
Diamond State Fibre Company
BRIDGEPORT (near Philadelphia) PENNA.

ing, especially to the Dixie Flyers, who have found the art of osculation a pleasant occupation. So here you are, boys:

WHAT IS A KISS?

A kiss is the twenty-seventh letter of the alphabet—the love liable—the limping consonant which it takes two to speak plainly.

OTHER BRIGHT DEFINITIONS.

A trust.
Free Trade.
A lip collision.
Self-surrender.
Execution proof.
A happy collision.
A bunch of tulips.
Love's reciprocity.
Heaven's electricity.
To salute with the lips.
A matter of discretion.
The only flower of love.
The key to the situation.
A night blooming serious.
The thrill of love's touch.
A report at headquarters.
An exchange of infirmities.
Nothing divided between two.
A lip tickle—round, all round.
A hyphen between two friends.
An inexpressible all overishness.
The ecstacy of angelic possession.
The acme of agony to a bashful man.
An exchange which is never below par.
Condensed animal and soul magnetism.
A meeting at the gateway of two hearts.
A feather dropped from the wing of love.
Woman's trump card in the game of love.
The only "smack" that will calm a storm.
Joy of the heart pressed through the lips.
Of no use to one, but much prized by two.
The food by which the flame of love is fed.
The only agreeable two faced action.
The door that opens the citadel of the heart.
Affords less pleasure than it begets mischief.
Good for nothing unless shared with another.
The drop that runneth over when the cup is full.
Operators working on the sounding board of love.
A draught of sweet nectar from the well of love.
A premium on love that all are expected to pay.
It grants forgiveness and occasions repentance.
It is like the wind that blows—felt, but not seen.
Something which requires two to make a good one.

* * *

Rather a warm dispute has been in progress between the Collector of the Port of New York and a firm of Japanese importers over the classification of frog skins. The collector held they were dutiable as leather, while the importers insisted that they should be classified as fish skins. Some time ago the Treasury Department experts decided that frogs legs were dressed poultry, consequently it would seem that frog skins should pay duty under the beneficient provisions of the Dingley tariff as chicken feathers. J. W. MULLIGAN.

* * *

THE "POETESS LAUREATE" OF NORTH CAROLINA.

Mr. A. E. Dixon, General Manager of the Carolina Ice Cream Co., Fayetteville, N. C., and Secretary of the North Carolina Association of Ice Cream Manufacturers, says he has a "poetess laureate" in his organization. He sent us the following poem which the

The Mark of Merit

JENSEN

Builders of "Equipment of Practical Efficiency."

We manufacture machinery of the highest grade for Milk Plants, Creameries, Condensaries, Ice Cream and Powder Plants.

Write TODAY for detailed information!

Jensen Creamery Machinery Company
BLOOMFIELD, N. J. OAKLAND, CALIF.
Southern Representative:
Blanke Mfg. & Supply Company St. Louis, Mo.

When in need of good

SWEET BUTTER

of fine keeping qualities

wire us for prices on our

Ice Cream Special

Can usually fill orders for few tubs or car lots

BLUE VALLEY CREAMERY CO.
General Offices
700-704 So. Clinton Street CHICAGO, ILL.

Factories at

Chicago, Ill.	Louisville, Ky.	Hastings, Nebr.
St. Joseph, Mo.	Parsons, Kans.	Cleveland, O.
Sioux City, Ia.	Detroit, Mich.	Columbus, O.
Cedar Rapids, Ia.	St. Louis, Mo.	Springfield, Ill.
Indianapolis, Ind.	Clinton, Ill.	Grand Rapids, Mich.

young lady composed and which is not only good reading but which carries a good business appeal. Here it is:

PLEASE RETURN THE LIDS.

There was a little ICE CREAM can,
Her name was CAROLINE,
Packed in a tub of ice and salt
She did look very fine.
Her sides were bright, her lid was new,
The tub was painted green,
She left the "CAROLINA" Plant
Filled with the BEST ICE CREAM.

She left us on a southbound train,
Soon reached her destination
Where everybody called the CREAM
"The BEST in all creation."
But when the CREAM was quite all gone
'Twas time for her return,
(And now there comes the awful part—
It makes our anger burn.)

When ere you start to go outdoors
In weather, rain or shine,
You always like to wear your "lid"—
Well, so did CAROILNE.
But, Oh! Alas, and also Woe!
Her lid was left, forgot,
The little can must go without,
And, gee, but it was hot!

The wait on the expressman's truck,
The long, cinder-y ride,
A night spent in the transfer
And another trip besides.
Sweet Home, at last, dear C. I. C.
When reach the plant she did,
Her sides were bent, her tub was scarred,
And, oh! she had no lid!

She wept and wailed (and so did we)
To think her lid forgot,
We had to buy another, and
They cost an awful lot.
So next when one of our CREAM cans
A visit makes to you,
Please send it back all safe and sound,
AND SEND THE LID HOME TOO.

CAROLINA ICE CREAM CO.

* * *

Bill Thoden wrote us the other day, a nice letter, too,—for Bill. He is roaming the plains of Alabam in the interests of the **United** Chemical and Organic Products Company. We haven't him listed as a member of Indiana Wild Cats, or the California Gold Diggers, or the Alabama Coon Chasers, but will confer upon the Dixie Flyers the honor of bearing his communication in their column:

"Am enclosing herewith money order, for which please send me The Ice Cream Review until said money order wears out. I notice Dad Mulligan is again riding herd on the Dixie Flyers. It's sure not his fault or the fault of Ye Editor that we all don't come across with some news, as I know that both of the above gentlemen have been trying their hardest to "extract" some of the "cream" from the good "mixes" that crowd the brains of my fellow Flyers. I, too, would like to hear from some of the boys through your columns. I'll say the Old Man is some "agitator". I'm not a writer, but as you all have been crowding me, I am enclosing a few stories. Maybe you'll let up on me after you see my "batch".

Yours very truly,
WM. A. THODEN.

* * *

A colored doughboy was on guard for the first time. About 11 p. m. he heard someone approaching. "Halt! Who's dar?" he asked. "Officer of the Day!" came back the reply. "Advance!" said the sentry. The O. D. advanced a few steps when the guard again halted him. "Well," said the officer, "this is the second time you halted me. What are you going to do now?" "Never mind what I'se agoing to do," said the sentry, as he cocked his piece and brought it to bear on the officer, "my orders are to say halt three times, then SHOOT!"

* * *

A traveling man bought a quart of "monkey rum" in a Southern city. It was a brand that would separate one's soul from his body. He could not drink it, so he presented the bottle to the negro porter. Several days later he saw the porter and said, "Sam, how did you like that whiskey?" "Jes right, Suh!" said the negro. What do you mean by "just right?" asked the salesman. "Well, Captain," said Sam, "if it was any better you'd a drank it yo'self, and if it was any wusser it would have killed me. It was jes right, Suh, jes right!"

* * *

Lars Larson, a yokel, walked into a restaurant in a Wisconsin town and said to the owner, "You bane got some squirrel whiskey?" "No," replied that worthy, "but I can slip you a little Old Crow." "Aye don't vant to fly," said Lars, "Aye yust vant to yump around a little."

* * *

HOTEL INCONSISTENCES.

What is the matter with the hotels? Is there a tangible reason for charging war period rates, when practically every item that enters into the hotel expense has been reduced?

I have just finished a trip over a good portion of the South, and with the exception of one or two hotels, they continue to gouge, bleed, "double you up", in fact exercise every subterfuge and prerogative, practiced and utilized during the war.

There are some endeavoring to cover up their obnoxious game through the medium of advertising a 50 per cent reduction in rates, but upon investigation the 50 per cent reduction applied only to rooms where the rate was from $4 to $10.

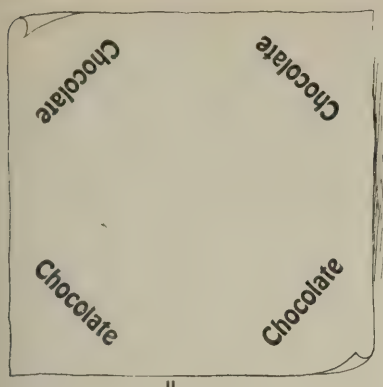
Ex.-Vice-President Marshall said a short time ago that what the country needed was a good five-cent cigar. He should have gone a little farther and said what the traveling salesman needs is, a hotel with a comfortable room for $1.

For the last four years hotels have "waxed fat", they are still waxing fat. They have more than prospered, and, for the capital invested, paid greater dividends, I believe, than any industry catering to the general public. And now that they are using cheap labor, they cannot hide behind the cloak of high operating costs, as an excuse, for exacting a charge, out of all reason.

Arrogating to himself the privilege of charging rates as is collected by hotel men to-day, is not only getting from the public, more than it can afford to pay, but he is pocketing a fee, which if reduced, would, ununder present conditions, enable thousands of salesmen to resume their traveling positions.

The hotel man has had the lucky end of the game. He now has the chance to show his sporting proclivities, with those who made it possible for him to win.

Those salesmen who are still on the road are not making, by 50 per cent what they did a year ago, and 25 per cent of them traveling a year ago, cannot travel



K. V. P. "Indexed" Vegetable Parchment Can Tops

Avoid confusion in your hardening and storage rooms as you would in your office records. Filled cans in storage contain the definite record of a manufacturing process. You can

Systematize Your Hardening Room

with these handy K. V. P. "Indexed" can tops and do away with having employes fumble can covers to establish the identity of their contents.

Combination Sanitary Can Top and Can Label

Made of genuine vegetable parchment in the "World's Model Paper Mill." These K. V. P. "Indexed" can tops are absolutely sanitary. They protect the contents of your cans against contamination and reduce the necessity of washing lids.

Prominently printed on substantial vegetable parchment, these tops are not a flimsy article just for show or effect, but an honestly made, practical, sanitary can cover that is serviceable and supplies a great need at a very nominal cost.—Try Them.

So You May Know the super-excellence of K. V. P. Products, samples will gladly be sent on request.

Send For Them

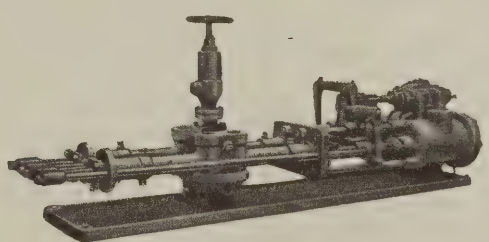
KVP PRODUCTS

Kalamazoo Vegetable Parchment Co.
KALAMAZOO, MICH.

DUMORE PUMPS

SIMPLE—SAFETY—EFFICIENCY—DURABILITY

Price
200 to 400 Gallons
$1,000.00



Price
400 to 600 Gallons
$1,250.00

THE DUMORE has proven its value in recombining dairy products and making a perfect homogeneous mass of an ice cream mix. It eliminates operator, mechanic, repair bills, motor and belt troubles, delays and possible accidents. If patented it would sell for five times its price and still be the cheapest machine of its kind for it lasts a life time.

Distributor

The Elyria Enameled Products Co., Elyria, Ohio

Manufacturer

National Steam Pump Company, Upper Sandusky, Ohio

to day, because of the high cost of hotel bills and railroad fare.

Commercial salesmen are etnitled to a hotel rate and railroad fare that would leave them a fair return for their effort. The hotel man should recognize this fact, that the time has arrived when he should shoulder his part of the burden, and by so doing help return to the road thousands of salesmen who, through the present high hotel rates, he, in a great measure, helped off the road.

The greatest asset the hotel man has is the commercial salesman. His weekly, monthly, or yearly visit is the life blood, coursing through the arteries of the great hotels throughout the country.

He is the daily food that nourishes, stimulates and keeps them in a healthy condition. Without him they could not exist.

Mr. Hotelman, you have had your share—in abundance. Wake up to the situation.

Square Yourself—by making restitution to the salesmen, in the form of equitable rates.

Be Human—Be a Man! Just put yourself for a few minutes in the salesman's place; particularly the ones you have helped force off the road with your high priced rooms.

O. M. P.



SOUTHERN EXHIBITION.

Your last bulletin told you about the Southern Exhibition. The southern states form an empire in themselves, in size and natural resources. Georgia, for instance, is the largest state east of the Mississippi, and has mineral and agricultural assets that are a potential foundation for incalculable wealth. Georgia is just an example—the whole south is destined to have a miraculous development.

The Association's Southern Exhibition is an entering wedge to make sure that ice cream receives its due regard in this big and awakening section. Whether you travel in the south or not, you should know about this exhibition and talk about it too, for it means an impetus to the ice cream industry that will be directly felt in the section comprising 15 states and that indirectly will react for a stimulated industry nationally.

Remember once more—

1. It will be the first big display of manufacturing essentials ever held in and for the south.

2. It will be held in conjunction with the annual convention of the Southern Association of Ice Cream Manufacturers.

3. It will be as big and comprehensive an exhibition as the big Eastern Exhibitions of the Association of the last two years.



OKLAHOMA ASSOCIATION.

It would seem greater changes in policy have occured during this season than ever before and manufacturers are realizing that from now on the public demands they produce quality goods, and under highest possible sanitary conditions. Attendance at conventions, which represent a post graduate course to the industry, is essential to every progressive manufacturer who hopes to survive this re-organization period, and it is to be expected a good attendance will be had at the various meetings.

M. T. COCHRAN, Secretary.

THE DAIRY SHOW PRESENTS A UNITED FRONT.

By E. W. Chandler, Pres. The Creamery Pkg. Mfg. Co.

It is a matter of the keenest pleasure to those of us interested in the welfare of the great dairy industry to note with what unanimity the many diversified branches of the dairy industry are backing up the 1921 National Dairy Show and endeavoring to make it the greatest exposition that dairyland ever beheld.

It is apropos that such powerful organizations as the International Milk Dealers' Association, the National Association of Ice Cream Manufacturers, the various national pure breed cattle associations, the National Creamery Associations, and many others will hold conventions in the Twin Cities during the Dairy Show thus proving by their presence that they are united in a genuine desire to make the show the greatest ever held.

That these diversified interests can get together and co-operate to make the National Dairy Show a success is proof positive that they can unite on other worthy projects for the common good. If they will do so, the time is not far distant when newspapers and professional politicians will hesitate to persecute the industry and stir up the public for their own selfish interests; the time is not far distant when the public will be educated to the wonderful food and health-building value of dairy products; and when the farmer will be educated to know that a herd of milk cows is an anchor to windward—a producer of ready cash when crops are failures or underpriced.

If every man who is interested in the dairy industry will make it a point to attend one or more of the conventions in the Twin Cities during the 1921 National Dairy Show, and of course attend the show as well, he will not only be the richer by learning new or improved methods, but he will be doing his bit to boost the industry.



NEW SOUTHERN DEPARTMENT.

The Essex Gelatine Company, 40 No. Market St., Boston, Mass., manufacturers of a famous brand of gelatine, announce the appointment of Mr. John J. Treacy, of 6401 Ventnor Avenue, Ventnor City, N. J., as their representative in the South. Mr. Treacy will take direct charge of the marketing of Essex gelatine, south of the Mason-Dixie line. Essex is very well pleased with the reception Mr. Treacy has received so far in that territory. He has already done a very substantial business. Essex Gelatine Company in the future, will devote more energy to developing their trade in the Southern states.



FOR STORING CANS.

A subscriber to The Ice Cream Review writes that he is using corn oil for the purpose of greasing cans for winter storage. He is wondering whether any other preparation is giving satisfaction elsewhere. Your experiences would be appreciated. Send them to The Ice Cream Review, for publication.



NEW ICE CREAM PLANT IN IDAHO.

Emmet, Idaho.—Emmett has a new ice cream factory which has opened for business by Lyons & Rodandt in the new brick and concrete building built by H. D. Buys.

ICE CREAM INCREASE PHENOMENAL.

Supply Men's Association Finds Season's Heavy Business Pre-Determining Great Importance of this Year's Two Large Exhibitions.

That the increase in production of many plants throughout the counrty during July has been little less than phenomenal, all factors of the country's economic condition considered, is the report made to members bby The Association of Ice Cream Supply Men from information given to it by persons qualified to speak for many different sections in a printed bulletin issued August 15th.

After commenting on a slowly increasing stabilization of general business conditions, this official bulletin of the Association then says, in part:

"That being a 'bear' on the ice cream industry is a losing proposition—as the most famous of speculators once said of being anything but a 'bull' on the United States—is pretty well proved by the evidences of this stabilization having thoroughly set in in the ice cream industry. Some plants are reliably reported to have increased production by more than 20 per cent in June and July, in spite of new and active competition. Despite a cold early summer and a general depression wide spread at that time, the gallonage produced to date undoubtedly totals a distinct advance from 1920.

"When, as an example is reported, a Connecticut crossroads country store keeper, six miles from a manufacturing city that has experienced for months plant shut down, and financial difficulties re-acting in the surrounding section, sells five gallons of ice cream, almost all in cones, in one day (and a small percentage only to passing tourists) there is no room for believing that either the latent demand for ice cream or its distribution methods have been exploited to anywhere near their maximum."

According to Oliver S. Jordan, President of the Association, the indicated continued increase in 1921 of the ice cream commercially produced in the country makes the two large exhibitions of supplies, equipment and machinery arranged for autumn of greater importance than any yet held for the benefit of the industry.

"The fact that the industry is continuing to increase production this year as it has in the past several years," Mr. Jordan recently stated, "means that the hold of ice cream on the American public is firmly fixed, a permanent and steadily growing thing that is not easily affected by other conditions.

"To keep pace with it ice cream manufacturers more and more must keep up to the minute in their methods of production and selling, and in the service they render not merely their customers but the ultimate consuming public.

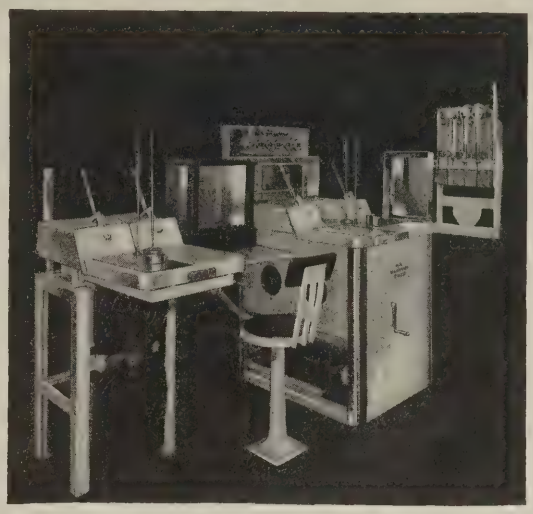
"The two great exhibitions managed by The Association of Ice Cream Supply Men this year in Buffalo and Atlanta will enable the ice cream plant owners and managers of thirty five states to examine and compare the merits of every class of article and service at a minimum of expense and time and yet with a maximum of convenience and pleasure.

"The manufacturers of the south, in particular, a section better adapted by nature for ice cream sales than any other, are vitally interested in the Southern Exhibition in Atlanta, November 28 to December 2, inclusive, the first of its kind ever held in that territory. The Eastern Exhibition in Buffalo, October 31 to December 5, inclusive, unquestionably will have a profound effect on the next year's further development of the immense investments in ice cream manufacturing equipment that now are at work in almost every community in the eastern and central states."

The Association has announced that arrangements are being made for the greatest attendance at its exhibitions that have ever been anticipated.

One reason why women talk so much more than men is because they do not get snubbed so much for it by the fathers when they are young.

Soon Pays for Itself—
then PAYS PROFITS



The MOJONNIER MILK TESTER is now an essential in all ice cream plants.
With it you can standardize your mix accurately—sold direct or through your jobber.

Write for Illustrated Booklet No. 14

Mojonnier Bros. Co.
MILK ENGINEERS
739 W. Jackson Boul. Chicago

Sales Branch Offices: New York, 79 Sherman Ave., Atlanta, 301 Bedford Place
St. Louis, 4931 Margaretta Ave., Seattle, 600A Central Bldg.

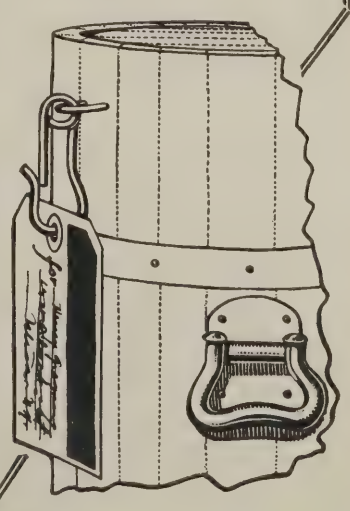
TAG HOOKS
Save Dollars

Why use expensive, untidy, time-losing strings or wires while tagging your tubs or pails of ice cream?

SNAP 'EM ON

and use our rust-proof tag hooks.

SAVE TIME—Figure the cost of strings or wires. Then think of the value of a man's time while tying the tags on your tubs.



CAN'T RUST

Our new type of hooks are made of SPECIAL SPRING BRASS. They sell at $1.95 per hundred, including staples. Besides a 10 per cent discount in lots of a thousand or more. Samples on request.

DALY BROS.
SCHENECTADY N. Y.

JACK RABBITS

ELWIN F. WEIL, Secretary

514 New York Life Bldg.,

Kansas City Missouri



Morrissey, (Joe for short) of DeCoursey Creamery Company, Kansas City, Kansas, has been hopping around his own state and Oklahoma and Missouri, rubbing noses with others of the hairy clan. We wonder why Joe always picks on "Bouvy." Read his letter:

"The writer had a pleansant visit with Mr. Frank Bouvy of the Purity Ice Cream Company, Tulsa, Okla. He visited with us Thursday, July 28th. Our friend, Bouvy was looking "fat and saucy" and if his personal appearance reflects his business, we are frank to state that he is doing fine. We are glad to see Frank and his other half, Porter, do well.

"The writer recalls pleasant visits from A. C. Sweeney of the Heller Company, Hugh Harrington, Consumers Gelatine Company, Mr. Spaulding, Sethness Company, A. E. Evans, Kennedy Supply Company, George Chapman of the David Watkins Company and other distinguished Jack Rabbits, whose names I just now cannot call to mind. They are all wondering as to the next convention of the Kansas Association and are wondering whether it will be in Topeka or Kansas City or where. The writer did not want to make any predictions as to where it will be held, but personally felt like going down to Mr. Manley's town."

* * *

Out here in Kansas things are running along as smoothly as one dollar wheat will permit.

The ice cream makers are making a mighty high class product. More people are eating ice cream than ever. Most every ice cream man is up on his toes and working over time.

The report from the northeast part of the state says they are having trouble with the rural telephone lines. The corn is growing so high that the ears are hanging over the telephone wires and the farmers along those routes refuse to let them cut the corn without paying for it. "**Some Corn.**"

One of the leading ice cream men in the state tells this story:

He has a young man in his employ who has some reputation as an amateur boxer. He was asked to stage a bout as a preliminary to a match held. When told whom he was to battle with he remarked that his mother objected to his fighting. His solicitors said that would be all right, as his mother need never know. To which he replied that his mother would see the doctor leaving the boy's home.

More next time.

ONE OF THE JACK RABBITS.

LARGE MILK CAN COMPANIES CONSOLIDATE.

Users of milk cans and ice cream cans will be particularly interested in the changes that post-war conditions have brought about in the making and marketing of these products. The recent combination of the Sturges & Burns Mfg. Co. and the Solar Metal Products Co., whose "Ultra" pattern ice cream cans have won for them a prominent position in the trade, is significant of the tendency of the times.

Wide-awake business concerns — those worthy to live and continue in their service to the public—realize that under present conditions a reviving market depends entirely on the practice of scientific economics. War's waste can be paid for only out of savings, and where the world cannot save it will not buy.

As fast as the manufacturers reorganize on this basis, the public shows its appreciation in terms of dollars and cents. The manufacturer who does not recognize the conditions, will drop from the running.

Production of standardized articles on a large scale is, of course, the key to lowered manufacturing costs. But rigid economics must likewise be effected in the administration of business and the distribution of products, otherwise the chain from maker to consumer will be broken.

The new company is called the Solar-Sturges Mfg. Co., and has taken over the business, manufacturing facilities, and personnel of the two original concerns. The splendid equipment of the new company will hold production costs to the lowest notch and the saving in expense of administration and distribution through combination of effort, is reflected in the prices quoted on goods.

Main offices and show rooms will be maintained in Chicago, with factories at Chicago and Columbus, and branch warehouses in principal centers throughout the country. A high development of service is naturally to be expected from the union of two such enterprising concerns.

ACTIVITIES IN THE NORTHWEST FOR THE NATIONAL DAIRY SHOW.

Meetings and picnics of farmers and dairymen are the order of the day in the Northwest, at all of which great interest is being shown in the National Dairy Show to be held in the Minnesota Fair Grounds, October 8th to 15th next.

The Northwest Minnesota State Editors Association held an outing last week at Duluth, where the business interests of the city through their organization, gave the editors an opportunity to see the possibility for agriculture, particularly by automobile tours through that section of the country, embracing visits to many of the successful farms.

The general manager of the Dairy Show was invited to talk to the editors at the Jean Duluth farm, a splendid setting for a good message and the State Editors promised to give every possible support by giving information regarding the Show to their readers.

On Saturday last, the Woman's Welfare Service and the County Agent of Polk County, Wisconsin, called a meeting of the farmers and breeders in the county, to be held in Milltown. There was a ball game and a band concert and the park place was filled with farmers. The speakers invited were Mr. Quamme of the Federal Land Bank, Mr. J. M. Hackney of St. Paul, Mr. E. T. Winship of Winona and the general manager of the Dairy Show.

Mr. Quamme was compelled to attend a meeting at Washington, so the speaking was left to the other three who talked chiefly about the coming of the Dairy Show and the result was an enthusiastic acceptance of the invitation to come to the Show.

Many other counties in Wisconsin and Minnesota have held meetings and representatives of the Dairy Development Associations were present and received assurance of active interest which will result in automobile and railroad excursions to the Show.

The work going on to spread the gospel of the Dairy Show all over the Northwest States means the biggest attendance the Show will ever have had. The opportunity to see these enthusiastic interested dairymen at the show and on their farms, is worth the cost of a trip from any part of this great country of ours. Let us all go

The Grand Rapids
ICE CREAM CABINET OF QUALITY

True Economy

IT is sometimes difficult to determine just what is true economy but not in the case of ice cream cabinets.

Here true economy lies in the ice conserving factor and the ability of the cabinet to stand constant usage over a long period of years. It is these attributes which have won for Grand Rapids Cabinets their high standing in the trade.



STYLE No. 4

Manufacturers who furnish their customers Grand Rapids Cabinets have the satisfaction of knowing that in this particular matter they have done their utmost in the way of service.

GRAND RAPIDS CABINET COMPANY

Successors to CHOCOLATE COOLER COMPANY

55-59 Alabama Avenue N. W. GRAND RAPIDS, MICH.

New England Sales Office and Warehouse, MERROW BROS., Inc., 44 N. Market Street, Boston Mass.
South Eastern Sales Office and Warehouse, CHERRY-BASSETT CO., 33 So. Charles St., Baltimore, M. D. 1106 Arch Street, Philadelphia, Pa.
North Western Sales Office and Warehouse, A. C. BLACK, 515 Lumber Exchange Building, Minneapolis, Minn.

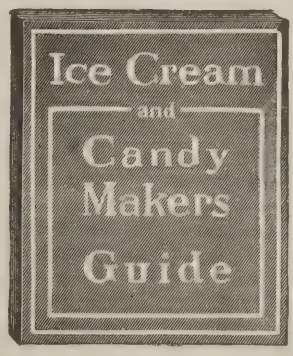
"COFFEE" AN INCREASINGLY POPULAR FLAVOR FOR ICE CREAM.

Considering the vast quantities of coffee beans imported by the United States each year it would be hard to say that coffee is not the most popular household drink of the Nation.

But only recently has this fact been capitalized and the popular coffee flavor been introduced into so widely eaten a dish as ice cream. To the ardent coffee drinker this coffee flavor makes a strong appeal. But where introduced by the ice cream manufacturer as a "special" flavor it finds favor with the average ice cream eating public.

The "Special" flavor, now used by many ice cream manufacturers to promote the general popularity of their product, and usually introduced as a little something out of the ordinary for the "week end" ice cream brick, has a wide field of exploitation. Such flavor as "coffee" would be ideal for this class. The name in itself would need no introduction and if the old time "kaffe-klatch" (afternoon gossip over a cup of coffee) retains its popularity, the present day dish of ice cream could supplant the less beneficial cup of coffee with the wider introduction of a coffee flavor. If such a condition could be brought about, think of the benefits that would accrue to the ice cream industry. Especially would such a development prove beneficial to the ice cream industry, because it would tend to promote the sale of ice cream at a season when larger sales are not the result of a natural demand caused by hot weather.

Limpert Brothers, a concern of manufacturing chemists located at Vineland, New Jersey, are manufacturers of a coffee flavor whose source of extraction is the coffee bean. The finished product is a concentrated liquid similar to other commercial extracts used in ice cream making. It will be interesting to note the development of so widely a known flavor as "coffee" in ice cream.



Fifth Edition

MAILED ON RECEIPT OF

$1.65

Contains Single FORMULAS that have made fortunes for the users.

CONTAINS THE WORLD'S EXPERIENCE IN

Ice Cream and Home-Made Candies

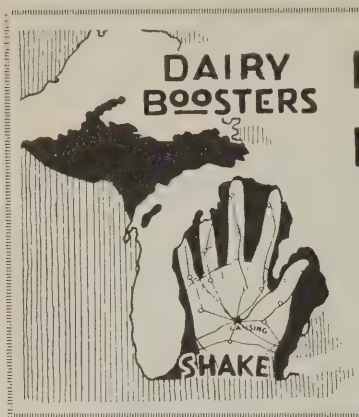
FOR THE CATERER — Fancy Ices, Frozen Fruits, Bombs, Sherbets, Parfaits, and Plain and Fancy Creams.

ICE CREAM MAKER — All that is known about Ice Creams, Ices, Fancy Fruit and Nut Creams, Brick Creams, "Condensed" and Gelatine Formulas.

CANDY MAKER — Takes the BEGINNER from the "A B C's" through the whole range of Popular Home Made Sweets.

The Chapter on "BRICK CREAM" shows how to blend Colors and Flavors, and so plainly that it is easy to follow. The "Guide" is used and endorsed by DAIRY AND DOMESTIC SCIENCE DEPARTMENTS, in many STATE COLLEGES, and by the entire profession is accepted as AUTHORITY. Contains 124 pages, copyrighted, and is PRACTICAL. The Formula for "Fortuna" Cream made a fortune for its originator, and has never before been published; the "Guide" is full of SECRETS. Will be sent postage prepaid upon receipt of $1.65. Address:

OLSEN PUBLISHING CO.
210 Sycamore Street Milwaukee, Wis.



MICHIGAN ALLIED DAIRY ASS'N.

Dairy Booster Officers:
Pres., R. J. ELLWANGER
1212 Bemis Ave.,
Grand Rapids.

Secy., C. J. W. SMITH
c/o Creamery Package
Mfg. Co., Detroit.

Editor The Ice Cream Review:

You are right! The boys on the road who are members of State Supply Men's Associations, could benefit each other considerably if they would only report to you the news from their territory. In that way, we could keep each other posted. In my travels I meet some of the boys occasionally and usually the first question that is popped to me is:

"Do you know where there is a new plant being built?" "Is so an so in the market for this,—or that?" etc., etc.

I usually come back with the question: "Why do you expect me to know all this?"

And they usually say that I cover the field a little more thoroughly and ought to be better posted. Maybe this is true, but there are others that are just as well posted on current events as I am. Why don't they do their share of reporting to The Ice Cream Review and to the Supply Men's Associations? If they would all do their bit, we would have plenty of news that would be of benefit to us all.

Just the other day a salesman told me that he didn't cover the field well enough to get news of any value, and I told him in very plain words that 'if he felt that way about it, he was not entitled to get any news from anyone else.'

Now boys, there is just one more thing I want to say. Lets all get together and boost. Send in your news and your ideas obtained from your territory. I don't know all that is going on in the territory that I cover, nor do you know of anything that is being planned in yours, but what I don't know, and what you don't know, someone else does, and if we will all just send in our reports, the dissemination of news will be a very simple proposition. C. J. YUNCKER.

Amen!—Editor. * * *

Connor Bros. Ice Cream Co., Coshocton, O., will make some improvements in their plant for next season.

The Supreme Ice Cream Co., Coshocton, O., will build a new cement block building, size 50x75 feet, two stories, for ice cream plant, and will then add new outfit consisting of viscolizer or homoginiezer, pacteurizer, ten ton refrigerating outfit, etc.

Wm. Gretzinger, at Loudonville, Ohio, has put in an ice cream plant and also a refrigeration outfit.

Paul Wilson, at Galion, O., has opened up a new confectionery, also an ice cream plant, and is doing fine. In the fall he will move in his own building and will then install refrigeration machine and storage room. Mr. Hubely is making the ice cream and candy for him. No doubt the boys will be glad to head of Mr. Hubley being back in the business in Galion.

Davis Bros., Massillon, Ohio., have built a new concrete building for their ice cream business.

Essi & Khourig, Bryan, Ohio., have insatlled a York refrigerating machine in their plant.

J. V. Mast, Newark, Ohio., has added a new ice cream freezer and enlarged his cold storage room.

J. F. Harms is no longer with Seneca Dairy CCo., Fostoria, Ohio.

Hunter Dairy Co., Lansing, Mich., has gone into the ice cream manufacturing business.

The Findlay Dairy Co., Findlay, Ohio, is now doing a fine ice cream business. They made a hit with the trade on good ice cream and did well when they hired Mr. Sam Gill, from Toledo, O., to take over the management of their ice cream department. Sam knows how to make the goods and can please the public.

The Defiance Ice Cream Co., Defiance, O., reports that their ice cream business is large and will have to enlarge their cold storage room and add more to their plant to take care of their business for next season.

THE PEACE PIPE — MINNEAPOLIS.

"From the vale of Tawasentha,
From the Valley of Wyoming,
From the groves of Tuscaloosa,
From far-off Rocky Mountains,
From the Northern Lakes and rivers
All the tribes beheld the signal,
Saw the distant smoke ascending,
The Pukwana of the Peace-Pipe."

The Indiana Warriors of the Ice Cream Tribe have seen the Signal, "The distant smoke ascending" from the "Mountains of the Prairie" and will smoke the Pipe of Peace with all other Warriors gathered in the wigwams of the Supply Men at Minneapolis from October eighth to the fifteenth, not far from

"Where the Falls of Minnehaha
Flash and gleam among the oak trees."

The National Dairy Show is the one National event that brings together representatives of all the departments of the big dairy cow industry. Men who attend this Show, depend upon it, are not strangers to one of the first principles of success — KEEP UP TO DATE.

Hoosier Tribes will be there in the front seat. Ice cream manufacturers, butter manufacturers, milk distributors, condensing factories, dairymen, supply men and their squaws and papooses, have "washed the warpaint from their faces" and are preparing to hit the trails for the great National Dairy Show at Minneapolis. A. P. HOLLY, Gen. Sec'y,

Indiana Manufacturers of Dairy Products.

NATIONAL ASSOCIATION OF ICE CREAM MANUFACTURERS.

To Ice Cream Manufacturers:

Are you going to the convention?

If so, immediate action is necessary!

The Ice Cream Manufacturers Train De Luxe leaves Chicago at 8:15 A. M. Saturday, October 8th, arriving Minneapolis 9:00 P. M. the same evening. Everything has been arranged so that you will travel in comfort and enjoy the luxuries awaiting you.

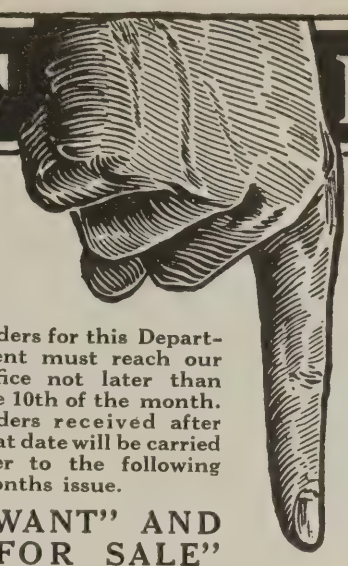
The Special Train will carry parlor cars, observation car, dining cars and a coach for those not desiring parlor car, thus assuring every convenience. In addition to this there will be a Passenger Agent aboard the train to look out for your comfort.

A distinctive feature of the De Luxe Special Train will be the Table D'Hote Luncheon ($1.25) and the Famous Dinner ($1.50).

ATTENTION: Instructions regarding **Reduced Rates.** When you purchase your railroad ticket buy a regular one way ticket to the convention and insist on a **Convention Certificate.** It must be understood that re-

(Continued on Page 146)

WANT DEPARTMENT



Orders for this Department must reach our Office not later than the 10th of the month. Orders received after that date will be carried over to the following months issue.

"WANT" AND "FOR SALE"

Notices will be published at the rate of 2 cents per word, cash with order. For blind address 15 cents extra.

NOTE: Names and addresses of advertisers using blind address cannot be furnished direct from this office. The advertiser can be reached only by using the key number and addressing your reply care of "The Ice Cream Review."

HELP WANTED

Superintendent Wanted—Have position open for high class experienced man who is not only an expert ice cream maker and manager, but is also an expert caterer, and who can also qualify for responsible position of Superintendent of large ice cream department, includig fine catering work. City of 500,000 population. Address: R-53, Ice Cream Review. 9-21

WANTED—We want a managing ice cream maker to take charge of the ice cream department in our new milk plant; a man with experience in an ice cream factory in the mixing and operation of freezers, packing and shipping is desired. You would have complete charge as to the results obtained in this department. We do not desire a helper but one who has initiative and executive ability. Give your experience and a detailed statement of the last five places where you have been employed, age, nationality, and other personal characteristics, also salary at which you would be willing to start. Address: Pittsfield Milk Exchange, Pittsfield, Mass. 8-11

POSITION WANTED

HIGH GRADE ICE CREAM MAKER, capable all around dairyman, open for engagement. Thirty years' practical experience, expert on testing, standardizing, pasteurizing milk, cream. Thoroughly experienced in all departments inside, and outside work, steam, refrigeration; good mechanic; reliable; best of references. Will guarantee to save and make you money in your plant. Desire position with reliable firm. Address: R-48, Ice Cream Review. 7-21tf

POSITION WANTED—As superintendent or manager by a thoroughly scientific and practical trained creamery man. Many years' experience in butter, butterine, ice cream and cheesemaking. Would like to receive part of salary according to success of business. Address: R-46, Ice Cream Review. 8-21

POSITION WANTED—As an ice cream maker, superintendent or manager. Thoroughly competent to turn out first class product. Understand refrigerating machinery, emulcification, standardizing, pasteurizing and testing of ice cream mix. Can come on short notice. Please state salary and particulars in first letter. Address: R-52, Ice Cream Review. 9-21

POSITION WANTED—By our superintendent who is a successful man, capable to take charge of any plant where milk products are manufactured, and a man of high standing. Address: Box 22, Akron, Pa. 10-21

SITUATION WANTED — As ice cream makes, 3 years experience. Understand pasteurizing, homogenizing and testing work, also experienced in ices and fancy ice cream. Age 33. Available at once. Address: M. C. Ward, 304 Fountain St., Akron, Ohio. 8-1

POSITION WANTED — As manager of ice cream plant or as Bacteriologist and Dairy Chemist by Cornell University graduate, four years' course. One year practical experience in an ice cream plant. Address: Lloyd E. Howland, Shortsville, N. Y. 8-21

POSITION WANTED—As superintendent or foreman of ice plant. Over 20 years' experience. Ten years with one company. Address: M. B. H., 428 West Carroll St., Paris, Ill. 8-21

POSITION WANTED—Ice cream maker with 12 years' experience wants position as superintendent by January first. Address: R-61, Ice Cream Review. 8-21

POSITION WANTED — By first-class butter and ice cream maker. Understand latest methods in mixing, freezing, pasteurizing and churning. Want steady work. Can furnish best of references. Address: R-59, Ice Cream Review. 8-21

FOR SALE BARGAINS

FOR SALE—Going creamery and ice cream plant, electric power. Strictly modern; new last year; 100 miles to competition. Particulars, W. L. Wamser, Clayton, New Mexico. 8-21

FOR SALE—Creamery and ice cream plant, located in Oklahoma. Capacity, 300 gallons ice cream and 800 pounds butter per day. Equipment in fine shape. Price right if sold at once. Address: R-31, Ice Cream Review. 8-21

FOR SALE — One complete small ice cream plant, will sell whole or in part.

Two 200-gal. motor driven Davis-Watkins batch pasteurizers.

One 40-qt. belt driven direct expension freezer.

One 20-qt. belt driven C. & B. brine freezer.

One 5-ton Frick Compressors, together with condensors and coils for same.

One 10-H. P. direct current motor and starter.

One 2½-H. P. direct current motor starter.

One No. 4 Crese ice crusher.

One 1000-lb. milk cooler.

Address: P. O. Box 257, New Orleans, La. 9-21

FOR SALE—Complete condensing plant, 200 and 500 gal. vats, milk and ice cream can washers, sterilizers, 49 Creasey Ice Breaker with elevator, 40 and 80 qt. freezers, several Fort Atkinson, equal to new at half price, homos, etc. Send for complete list. Phila. Retinning Co., North Phila., Pa. 8-21

Gumperts

Ice Cream Improver

The City Dairy, having discontinued the ice cream business, has about 1,000 pounds of the Gumpert Ice Cream Improver for sale. No reasonable offer will be refused. Address, Hartman K. Harrison, Secretary, Linden Avenue and Dolphin Street, Baltimore, Maryland.

FOR SALE — Modern, newly equipped ice cream factory. Nearest competitor 70 miles. Just installing viscolizer and tubular cooler. Up to date in every way. Address: R-54, Ice Cream Review. 9-21

FOR SALE—Ice cream plant donig a 45,000 gallon business each year. Capacity 400 gallons per day. Two Miller Brine Freezers; Automatic Refrigerating Machine; 500 large tubs and cans; two trucks and everything necessary to run an up-to-date ice cream plant. Profits were $11,000.00 last year. Will sell right, if taken at once. Address: R-58, Ice Cream Review. 9-21

FOR SALE—Ice cream and milk plant. Doing fine business. Reason for selling—health. Good terms and right price. Box 184, Manly, Iowa. 8-21

FOR SALE—Ice Cream Plant in full operation, city of 12,000; 350 gallons per day capacity; modern machinery; excellent city and shipping business; large territory reached by two main lines and eight branch lines; excellent opportunity for creamery and retail milk plant in connection; $6,000.00 for two-thirds interest. Address: R-56, Ice Cream Review. 8-21

FOR SALE—Up-to-date Ice Cream Factory in Oklahoma town of 7,000 population with two railroads to ship on; all machinery used one year; $8,000.00 outfit; will sell right if taken at once. Partners can't agree. Address: R-55, Ice Cream Review. 9-21

FOR SALE—A modern ice cream factory located in a good growing Texas town of about 11,000 and with three railroads. Daily average is over 200 gallons. Have $25,000.00 invested. Will sell; worth the money. Bad health reason for selling. Address: R-62, Ice Cream Review. 9-21

MACHINERY AND SUPPLIES AND

BOILERS, NEW AND SECOND HAND—Electric Motors, Engines, Pumps, Pipes and fittings, Valves, Belting, Shafting, Bearings and Pulleys. Money Saving prices. Harris Machinery Co., Minneapolis, Minn. 12-20tf

FOR SALE—Over 100 glass enamel lined tanks. 6-ton Remington refrigerating machine, with complete high side. Ice plant to make 8 tons of ice, complete with all equipment, including motor, refrigerating machine, can plant and high side. Chas. S. Jacobowitz, 1382 Niagara St., Buffalo, N. Y. 4-21tf

FOR SALE—One complete 10-ton ice making plant, practically new, very reasonable, for immediate shipment. W. C. Hardy, 1215 Filbert St., Philadelphia, Pa. 5-21tf

FOR SALE—Sharples belt drive emulsifier, 200-gallon per hour. Almost new; excellent condition. Have replaced with larger machine. Will sell for $250. Write Racine Pure Milk Co., Racine, Wis. 8-21

FOR SALE—One 15-ton Healy ice machine in first class shape, $500. The Erecting Engineers Co., 9 S. Clinton St., Chicago, Ill. 6-21

FOR SALE—Sharples direct motor driven emulsifier, complete with standard current motor. 300 gallon per hour capacity. Cost, new, $750. Will sell for $700. Has never been uncrated. Address: Aurora Ice Cream Co., Aurora, Ill. 8-21

FOR SALE—Three new Cherry model "I" 60-quart freezers; motor driven. Rich Ice Cream Co., Buffalo, N. Y. 3-21tf

FOR SALE—Cottage cheese in one, two or five tub lots, shipped date of make. Rock Lake Creamery, Lake Mills, Wis. 1-21tf

FOR SALE—One 40-quart vertical belt driven Progress freezer, good condition. Address: R-41, Ice Crea mReview. 8-21

FOR SALE—One Sharples emulsifier; capacity 200 gallons per hour; motor driven, 2 phase, 60 cycle, 220 volts; never used. Will sell for $650,00. Address: R-40, Ice Cream Review. 8-21

FOR SALE—Tanks, all sizes and styles, wood or steel; glass lined; prices far below the manufacturer's cost. We have a big stock. Send in your inquiries. Universal Company, Detroit, Mich. 8-21

FOR SALE—One Cherry ice cream freezer, one ice crusher, one 8 H. P. motor, shaft and pulleys, $500 cash. Address: F. Wenzil, 3037 West 19th St., Chicago, Ill. 9-21

FOR SALE—One 3x2 CP concentrator. Good as new. In use only four months. $1,000 cash, F. O. B. St. Charles. No surplus, reason for selling. St. Charles Dairy Co., St. Charles, Mo. 9-21

FOR SALE—DeLaval No. 1 belt drive emulsor, capacity 200 gallons per hour. In excellent mechanical condition and will guarantee to do work satisfactorily. Price $225.00. The Gassmann Ice Cream Co., Olney, Ill. 9-21

FOR SALE — One 100-gallon capacity Viscolizer, slightly used. Guaranteed to be in perfect condition. $600.00. Address: R. J. Wade & Company, 308 So. Canal St., Chicago, Ill. 8-21

FOR SALE—15 Ton Arctic Belt Driven Vertical Compressor. Two stands double pipe condensers, 8 pipes high. High side complete with receiver. Good condition. can ship immediately. Address: The Ice Cream & Bottling Co., Portsmouth, Ohio. 8-21

FOR SALE—Perfect sanitary all metal vat, never used. Dual churn, No. 5, used about two months. Strain Bros., Lamar, Colo. 10-21

FOR SALE—Bargains in Freezers, Belt and Motor Drive, all overhauled and in good condition, some absolutely new.

Verticals—Miller Motor Drive, Progress and Emery Thompson Belt Drive.

Horizontals—Miller 40 qt. latest type, also 80 qt. new, Miller Tyson 40 qt., also Motor Drive Twins pedestal base, Creamery Package 40 qt. Motor Drive, Emery Thompson 120 qt. new.

Prices ranging from $250.00 up.

We can suit your pocket-book, give us an opportunity. U. S. Freezer & Machine Corp., 270 Union Ave., Brooklyn, N. Y. 8-21

FOR SALE—Emery Thompson upright ice cream freezer at a bargain—One Hundred dollars cash. It is in good condition. We are standardizing on a different style of freezer. The Cline Ice Cream Co., Athens, Ohio. 8-21

FOR SALE—A customer of ours has 1500-20 qt. high pattern, "Ever Bright," one (1) piece, welded cans and covers that have never been used, and he is willing to sacrifice them. No reasonable offer refused. Wisner Manufacturing Co., 230 Greenwich St., New York City. 8-21

WANTED TO BUY

WANTED—Second hand butter tubs by the hundred or carlots. Address: Rock Lake Cry., Lake Mills, Wis. 1-21tf

WANTED TO BUY—Ice cream factory in Southern Illinois, preferably one doing shipping as well as local business. Describe equipment, location, and give price in replying. Address: R-51, Ice Cream Review. 9-21

WANTED TO BUY—Ice cream factory in live manufacturing city with good shipping facilities. Will pay cash, no fancy price or commissions. Address: R-60, Ice Cream Review. 8-21

duced fare is contingent on an attendance of not less than 350 members of the organization, or dependent members of their families, at the meeting holding regular issued certificate from ticket agent at starting point showing payment of normal one way tariff fare of not less than 67 cents on going trip.

When the required 350 certificates are presented same will be validated by special agent and will entitle the holder of a certificate to a return ticket via the same route as going journey at one half the regular fare.

It is hoped that all Ice Cream Manufacturers will arrange to travel on the Special Train. But should you not be able to avail yourself of that service it will be appreciated if you will use either of the following C. M. & St. P. express trains:

Leave Chicago, Union Station, Adams and Canal Streets, 8:15 A. M., 10:00 A. M., 6:30 P. M., 8:15 P. M., 10:15 P. M.

Arriving Minneapolis, C. M. & St. P. Station, Washington & 3rd Ave.: 10:00 P. M., 10:45 P. M., 8:05 A. M., 10:05 A. M., 11:30 A. M.

All these trains have parlor car, sleeping cars, dining car, observation or lounging car service.

Will you meet us on Saturday morning, October 8th, when the big special conductor cries, "All Aboard?" If so, fill out the Train Reservation Blank below and mail direct to Mr. F. N. Hicks. Do it now and have no regrets, for he who hesitates is lost.

Sincerely yours,

N. LOEWENSTEIN,

* * * Secretary.

TRAIN RESERVATION—National Association of Ice Cream Manufacturers, Minneapolis, Minn., Oct. 10, 11, 12, 1921.

Mr. F. N. Hicks, G. A. P. D.

C. M. & St. P. Ry.,

620 Marquette Bldg., Chicago.

I will attend Convention, using Special Train leaving Chicago at 8:15 A. M. Saturday, October 8, 1921.

Reserve.....Parlor Car Seats on Special Train.

Reserve.....Seats in Coach on Special Train.

I want Parlor Car reservation on.....Train.

Date.....

—OR—

RESERVE: Upper Berth..... Lower Berth.....

Compartment..... Drawing Room..... on train

.....(name train) Date.....

There will be.....in my party.

Name .....

Address .....

City .....

State .....

NEWS FROM FAR AND NEAR.

Los Angeles, Cal.—The Chapman Ice Cream Company has been incorporated for $25,000 to manufacture ice cream and confections.

Santa Maria, Cal.—Messrs. Hitt & Hiller, proprietors of "The Chocolate Shop" have contracted with the Doane Building Co., to erect a large addition to their present plant for the purpose of manufacturing ice cream for wholesale trade. The new factory will be built on West Main street.

Tulare, Calif.—The Armour Company, A. H. Smith and O. H. Cooley, managers, have purchased a creamery formerly owned by J. H. Frew, have installed new freezers and have enlarged the refrigerating rooms and general capacity of the ice cream plant.

Middleton, Conn.—Announcement is made that the Millbrook Dairy Co., has made plans to erect a new $30,000 ice cream manufacturing plant.

Elgin, Ill.—Messrs. F. H. Witherel and J. R. DeLancey of Elgin have purchased the ice cream manufacturing business of the Kind Baking Company on McBride Street. The new proprietors will manufacture ice cream and sell it to the wholesale trade of Elgin and territories tributary thereto.

Rockford, Ill.—The Crescent Ice Cream Company has increased both its ice making and ice cream making capacity.

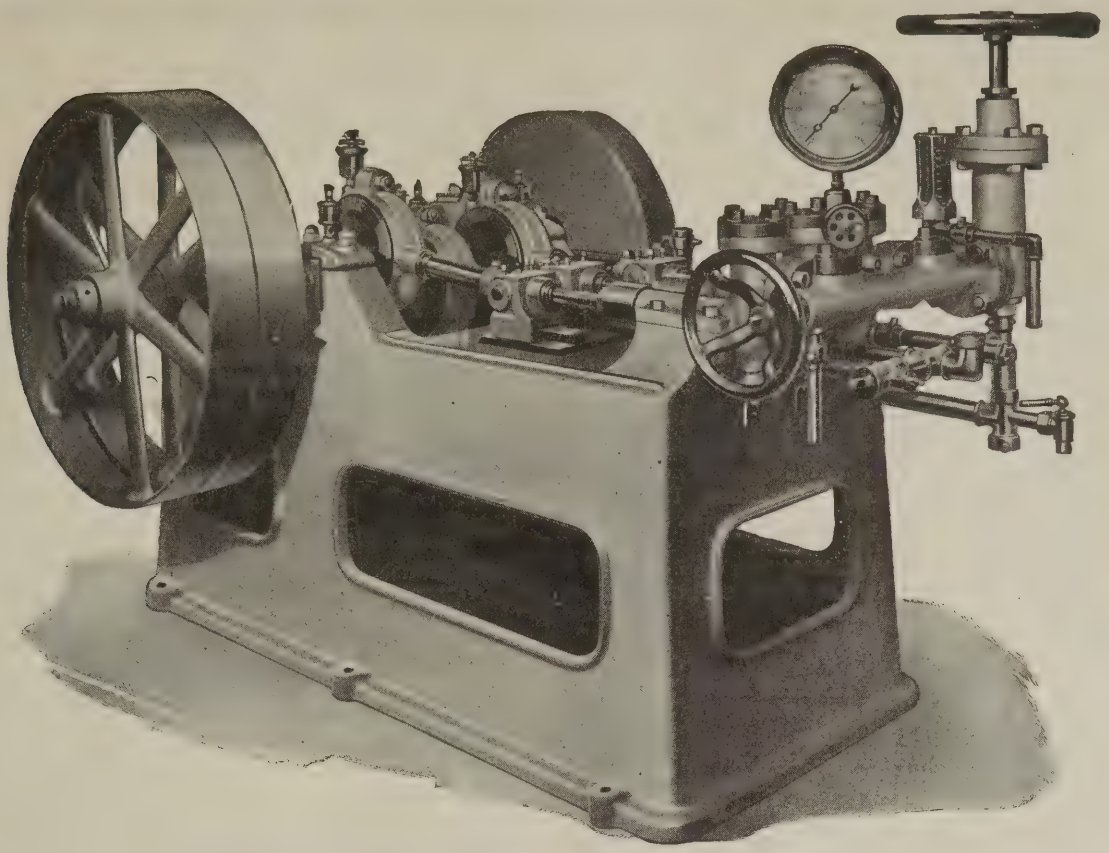
Madisonville, Ky.—John Long is preparing to build a modern ice cream factory in the downtown section of Madisonville.

Toledo, Ohio—A new million dollar ice cream and dairy plant is reported about to be incorporated by the farmers and other citizens in this city and vicinity.

Muskogee, Okla.—The Muskogee Ice Cream Company has been incorporated for $50,000 by C. P. Gotwals, C. E. Shannon and L. F. Austin of Muskogee.

Springfield, Mass.—A. Judesse has opened up an ice cream plant and in connection therewith will operate a milk business.

Port Huron, Mich.—The Wilson Ice Cream Co., is contemplating a number of plant improvements this fall including the installation of an ice plant.



Progress Homogenizer DH-4B, 400 Gallons

Principal Use Is in Ice Cream Industry

The principal use of the Homogenizer is, without doubt, in the preparation and treatment of ice cream mixtures. The ice cream manufacturer is no longer obliged to pay exorbitant prices for cream during the summer months when ice cream is in great demand and raw cream is scarce. Thanks to the development of the Homogenizer frozen cream can be stored during the plentiful period and converted back to its natural state when needed. Unsalted butter is also stored in large quantities and used by the ice cream maker as a basis for his cream. The Homogenizer, at a pressure of about 2,500 pounds, will restore the frozen cream or emulsify butter and skimmilk to produce a cream equally as good as the fresh product in flavor, body, and food properties.

Perhaps the greatest single use of the Homogenizer is for treating the ice cream mix before freezing. The ice cream batch is regularly heated to a pasteurizing temperature which thoroughly dissolves and mixes the sugar and other ingredients, and is then homogenized at about 3,500 pounds pressure. The great advantage of homogenizing the entire mix is that it makes the butterfat and solids go farther than would otherwise be the case. Since the solid particles are so finely broken up and uniformly distributed, they give the finished product a richer taste and a firmer body. An ice cream made from a homogenized mix will have a much better texture and will taste richer than an ice cream made from the same mix but not homogenized.

The exact treatment of ice cream mix is rather difficult to specify without knowing the individual conditions involved. The composition of the mix and the design of the machinery will greatly influence the temperature and the pressure to give best results. Where vats are used for mixing and pasteurizing, it is usually advisable to homogenize at the pasteurizing temperature of about 142° and directly from the vats. The action of the Homogenizer will increase the temperature slightly and the finished goods should be immediately cooled to 50° or lower and held until ready for freezing. The pasteurizing process will usually bring the mix back to its natural state so far as viscosity is concerned and, therefore, the addition of a starter or aging of the cream at low temperature, is necessary to obtain the desired body.

In large and complete plants where the mechanical equipment is available, it is considered advisable to pasteurize the mix at 142°, then heat to about 160°, and to pre-cool quickly to 120° on the way to the Homogenizer. This treatment gives the best possible bacteriological condition and a distinctive and pleasing flavor and excellent homogenizing results. It should be the object of each manufacturer to study his conditions carefully and to treat his mix in the best manner and in the same manner every day so that his product can always be distinguished by its flavor, texture and richness.

Those who are considering the installation of a Homogenizer may obtain full and complete information by addressing our Sales Branch in their territory.

6-21

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October 10, 11 and 12, 1921

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Advertising is the Fighter's Weapon in Business—

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The
ICE CREAM REVIEW

PUBLISHED THE FIFTEENTH OF EACH MONTH BY

THE OLSEN PUBLISHING COMPANY

H. P. OLSEN, President and Manager
E. K. SLATER, Secretary and Editor

Also Publishers of

"The Milk Dealer", "The Butter, Cheese & Egg Journal" and "The Milk Producer"

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OFFICIAL ORGAN

Ice Cream Division Indiana Mfgs. of Dairy Products
Oklahoma Association of Ice Cream Manufacturers
Wisconsin Association of Ice Cream Manufacturers
Michigan Association of Ice Cream Manufacturers
Nebraska Association of Ice Cream Manufacturers
Southern Association of Ice Cream Manufacturers
Kansas Association of Ice Cream Manufacturers
Louisiana Ass'n of Ice Cream Manufacturers
Iowa Association of Ice Cream Manufacturers
Texas Ice Cream Manufacturers Association
Arkansas Ice Cream Manufacturers Ass'n
Poodle Dog Association of Iowa
National Order of White Caps
The Nebraska Cornhuskers
Indiana Hoosier Wild Cats
Wisconsin Badger Flyers
Michigan Dairy Boosters
Oklahoma Wolfhounds
Kansas Jack Rabbits
Missouri Mules
Dixie Flyers

SEPTEMBER 1921

BULLETIN OF EVENTS

National Dairy Show, Minnesota State Fair Grounds (between St. Paul and Minneapolis)—Oct. 8-15, 1921. W. E. Skinner, General Manager, 910 So. Michigan Ave., Chicago, Ill.

National Association of Ice Cream Manufacturers—Twenty-first Annual Convention, Hotel Radisson, Minneapolis, Minn., Oct. 10, 11 and 12, 1921. Secretary, N. Loewenstein, 155 No. Clark St., Chicago.

Eastern Exposition, Association of Ice Cream Supply Men—At Elmwood Music Hall, Buffalo, N. Y., October 31st to November 5th, inclusive. Roberts Everett, Secretary, 1328 Broadway, New York City.

Pacific Ice Cream Manufacturers Association—Annual Convention, Nov. 14, 15, 16, 1921, Seattle, Washington. Bert H. Walker, care of Royal Ice Cream Co., Tacoma, Wash., Secy.

West Virginia Association of Ice Cream Manufacturers—Annual Convention, at Wheeling, W. Va., November 21st and 22nd. C. F. Jamison, Huntington, W. Va., Secretary.

Southern Exhibition—Association of Ice Cream Supply Men, Auditorium Armory, Atlanta, Georgia, November 28-December 2, inclusive. Roberts Everett, Secretary, 1328 Broadway, New York City.

Southern Association of Ice Cream Manufacturers—Ninth annual convention, Atlanta, Georgia, Nov. 29, 30 and Dec. 1, 1921. J. W. Clopton, Decatur, Ala., Secretary.

North Carolina Ice Cream Manufacturers' Association—Annual Convention, at Atlanta, Ga., in connection with Southern Exhibition, November 28th to December 1st. Headquarters, Ansley Hotel. A. E. Dixon, Fayetteville, N. C., Secretary.

Texas Ice Cream Manufacturers' Association—Fourteenth Annual Convention, Ft. Worth, Texas, December 7, 8, 9, 1921. Headquarters, Texas Hotel. H. F. Owsley, Dallas, Secretary.

Oklahoma Association of Ice Cream Manufacturers—Annual convention, Oklahoma City, Dec. 12-13-14, 1921. Secretary, M. T Cochran, Altus Ice Cream Co., Altus.

Kansas Association of Ice Cream Manufacturers—Annual Convention, Kansas City, Mo., December 15, 16, 1921. B. T. Perkins, Pittsburg, Secretary.

Louisiana Association of Ice Cream Manufacturers—Second Annual Convention, New Orleans, January, 1922. Newton F. Manning, Monroe, La., Secretary.

Michigan Allied Dairy Association—Annual Convention, in Municipal Auditorium at Saginaw. Tentative dates, Feb. 14, 15, 16, 17, 1922. H. D. Wendt, General Secretary, Lansing.

THIS is the annual National Dairy Show edition of The Ice Cream Review. We hope it will enjoy a favorable reception by our readers. We have put in a lot of hard work to make it worthy of its name. It represents not only the labor and thought of our organization, but it also represents the hearty co-operation of an army of the most faithful folks who ever backed up a trade publication.

The Ice Cream Review is too big and too powerful for one office to handle. It has grown beyond us. All we try to do is to direct policies and assemble what comes from hundreds of folks who feel that they are members of The Review family. They are really the owners of the paper in the big sense that they are largely responsible for it and for the important work it is doing to promote the ice cream industry.

It is just a little over four years old. Only a baby, but a husky one and well beyond the colic stage. Its growth has kept pace with the development made during the past four years by the industry which it champions.

This issue is dedicated to the National Dairy Show and the annual convention of the National Association of Ice Cream Manufacturers. It contains many urgent appeals to ice cream men to visit the big doings in Minneapolis next month. We hope that these appeals will bring a big attendance. We want to see you there. And we hope that the man who can not attend will gain from this issue of The Ice Cream Review a better understanding of the show and of the National Association than he ever had before.

We take this opportunity to thank the friends all over the country who have helped to make this issue what it is.

IT IS very pleasing to dairymen in other branches of the business to see the way the ice cream manufacturers all over the country are boosting for the National Dairy Show. Of course, holding the annual convention of the National Association of Ice Cream Manufacturers in a nearby city makes it easy to boost for the show, but it is pleasing to the on-lookers just the same.

There was a time in the history of the National Dairy Show when other dairymen questioned the loyalty of ice cream manufacturers to the dairy industry. They wondered whether the average ice cream manufacturer was interested in the development of the dairy industry or whether he was only interested in producing ice cream as cheaply as possible, even to the extent of using substitutes for dairy products in making it.

The chief aim of the National Dairy Show is to advertise and promote the entire dairy industry. When the ice cream manufacturers of the country get behind the show as they are now doing it is further evidence that they are just as interested in promoting the dairy industry as the butter man, the cheese man,

the milk man or any other of the many representatives of the industry.

The ice cream manufacturers of this country, through their national organization have gone on record in favor of using pure dairy products in making ice cream. They are following up this action by boosting for the National Dairy Show in a way that stamps them as real dairy enthusiasts, who are backing up their words by their deeds.

Any branch of the ice cream industry which feels that it is too important not to boost for the National Dairy Show is hanging a mill stone about its neck. The ice cream manufacturers of this country are big enough and broad enough to boost for whatever promotes the dairy industry, and any affiliated branch that does not realize this fact is making a big mistake. Again we want to commend the ice cream manufacturers for their bigness in boosting for the National Dairy Show and the annual convention of the National Association of Ice Cream Manufacturers.



THE ice cream industry is so young and growing so fast it would be unreasonable to expect that all of the problems incident to the business would be settled up to date. Some day when more of the big problems have been solved we will look back to 1921 and smile when we consider the comparatively crude methods which now prevail. This may sound like a wild prophesy to some, but if it is then the ice cream industry will have a different history than other industries in which methods have been improved from year to year covering a long period of time.

Some ice cream manufacturers are right now years ahead of their competitors in the race to secure a high consumption of their product. They have solved many of the problems which now hinder most ice cream manufacturers in their efforts to build up tonnage.

One of the chief faults of ice cream, as found on the market, is the lack of uniformity of temperature. When the customer calls for a dish of ice cream he is too often furnished with cream that is too soft or too hard. He is not always furnished with ice cream that is "just right." The degree of hardness of the ice cream at the time the consumer eats it makes a big impression on him. It materially affects the opinion he forms as to the quality of that particular ice cream. Possibly our cabinet manufacturers would do well to investigate the practicability of using a small mechanical refrigerating machine in connection with their cabinets, so as to secure uniform temperatures.

We are not blaming anybody for this condition of affairs. It is simply one of the big problems to be worked out. We know that it is difficult to get ice cream to the consumer at just the right temperature, but we have faith enough in the men in the industry to predict that sometime this problem will have been solved. It is one of the faults of the trade to-day, but some day it will be corrected. It must be corrected before the consumption of ice cream will have reached the maximum.



"BUSINESS is good!" exclaims the enthusiastic ice cream manufacturer when a friend asks him about his gallonage. Gallonage may even be slipping but "business is good." He makes it that way whether things are running along smoothly or whether there is a monkey wrench in the machinery. He just will not get discouraged. At least if there are any tears to shed he doesn't collect a crowd about him to see him shed them.

The optimistic business man is usually a progressive business man too. He uses his knowledge to make business good. His progressive spirit backs up his optimism. No wonder "business is good" with such a fellow. He is the kind of a fellow who makes good in any business. His optimism attracts trade because customers like to do business with the man whose business is thriving. Yes, "business is good" is a mighty good slogan.



MR. W. P. ABEL, President of The Impruv-Mix Co., New York City, paid The Review office a call one day recently while in the city. Mr. Abel was calling on his many customers and sizing up business conditions generally throughout the country. He reports a splendid season's business for his firm.



WE CORDIALLY invite the readers of The Ice Cream Review to make their headquarters at Booth 186 while attending the National Dairy Show. We want to get better acquainted and you will find us right on deck trying our best to make everybody feel at home.

THE PRESIDENT SPEAKS.

It is my desire at this time to urge every member of our association to arrange in some way to permit of their attending our convention to be held in the Twin Cities October 10th, 11th and 12th. You can be assured of a wonderful time, as I understand the Twin City members of our association are arranging a splendid entertainment feature, and I am sure you will all be given a program that will warrant your making the trip.

The location of the National Dairy Show at the Minnesota State Fair grounds is a most wonderful place for the holding of the convention, located as it is mid-way between St. Paul and Minneapolis, and very accessible.

The exhibits this year will out-do the exhibits of any of the previous shows held, and I feel that it is due the West that a large attendance prevail.

F. N. MARTIN, President.

TENTATIVE PROGRAM

Convention of the

National Association of Ice Cream Manufacturers

October 8, 1921

Special train leaves Chicago via the C. M. & St. P. Railway for the Convention. Time of departure, 8:15 A. M.; arrives Minneapolis at 9:00 P. M., with a stopover at the Dells of Wisconsin, which will afford an opportunity to view the scenery there, classed as about the most beautiful to be found anywhere.

October 9, 1921

Registration.

Directors' Meeting.

October 10, 1921

Registration.
Address of Welcome.
Response to Address of Welcome.

Report of Secretary.
Report of Treasurer.
Address of President.

Adjournment at 12:30 P. M.

October 11, 12, 1921

Subjects for Consideration

Progress in Studying Causes of Sandy Ice Cream.....Dr. O. E. Williams
Dairy Mfg. Specialist, U. S. Department of Agriculture, Washington, D. C.

Developments in the Express Situation.....Mr. F. D. Jones
Davies & Jones, Washington, D. C.

The National Dairy Council in Its Relation to the Ice Cream Industry.....Col. M. D. Munn
President, National Dairy Council.

Proper Depreciation for Ice Cream Equipment.....To Be Assigned

Value of Ice Cream in the Diet.....To Be Assigned

The Layout and Design of a Modern Ice Cream Plant.....Mr. F. D. Chase, C. E.
Chicago, Ill.

The Refrigerated Truck in Ice Cream Delivery.....Mr. J. H. Schindler
Telling-Belle Vernon Co., Cleveland, Ohio.

Address.....Hon. C. Heen
State Dairy and Food Commissioner, St. Paul, Minn.

Increasing Ice Cream Sales in Winter...Mr. W. M. B. Sine
Imperial Ice Cream Co., Clarksburg, W. Va.

An Innovation in the Ice Cream Industry.....To Be Announced Later

---

The matters to be discussed by the Directors this year are of unusual importance to the Association, including, as they do, various problems that have arisen affecting the industry.

President Martin has appointed several very important committees during the year, the chairmen of which will bring in their reports at the Convention.

Mr. C. G. Morris, Vice-President of the Association and Chairman of the Tax Revision Committee and the Code of Ethics Committee, will have two reports of very great importance to members.

The following gentlemen will also report the activities of their various committees:

Mr. A. B. Gardiner, Chairman, Research Laboratory Committee.
Mr. T. H. McInnerney, Chairman, Express Rate Committee.
Mr. S. T. Nivling, Chairman, Cost Accounting Committee.
Mr. T. D. Cutler, Chairman, Committee on Weight and Shrinkage.

Entertainment

Monday afternoon and evening the Convention will be turned over to the Ice Cream Manufacturers of the Twin Cities, who will entertain the visitors in a royal manner.

On Tuesday morning the ladies will be taken on a sightseeing tour of the Twin Cities.

On Tuesday evening, the Annual Banquet of the Association will be held.

On Thursday the visitors will assemble for a trip to the Dairy Show.

N. LOEWENSTEIN, *Secretary*.

WHEN YOU VISIT THE DAIRY SHOW SEE

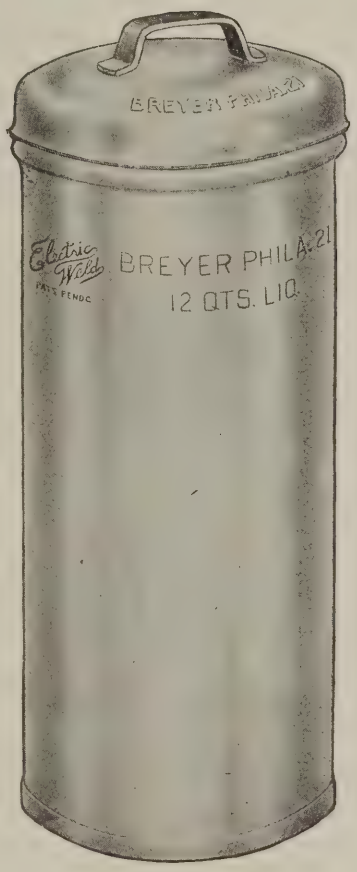
Electric Weld Trade Mark, Registered

Rivetless - Solderless Ice Cream Cans

At Our Booth No. 338—Mezzanine Floor

The Electric Weld GUARANTEE

1. That no solder, lead or rivets are used in the construction of Electric Weld Ice Cream Cans.
2. That all Electric Weld cans are made of a specially prepared copper-bearing, rust-resisting steel known as "tinning" or "dairy plate" and made of the same gauge material as specified in our advertising.
3. That all welds, being subjected to hammer and pressure tests, are sound and will not crack, break, leak or come apart.
4. That the can is completely assembled in the black before tinning and that it is coated by soaking the entire can in one piece in pure "straits" tin by the old-style hand dip, triple coating process.
5. That Electric Weld cans are of exact capacity and that each can is carefully examined and stamped by our Inspection and Test Department before shipping.



Patent Allowed.

The Electric Weld Ice Cream Can.

The Retinning Feature

Electric Weld Ice Cream Cans may be retinned over and over again at small cost. They are made complete in the black, leak-proof and ready for long service. Every time you retin an Electric Weld you can save approximately 30 cents. Write for prices, list of "Repeat order buyers" and other data pertaining to the **Solderless Can.**

The Non-Deforming Lid

Non-deforming edge keeps the lid round. THE RIM: One-piece expanded bead rim reinforces and protects the can from hard knocks and affords a positive grip for wet, slippery hands. SEAM: Butt welded, solid fusion of the joint that will not crack, break or leak. BOTTOM: A solid flanged leak proof bottom for hard wear and tear. No interstices or rolled edges to collect dirt. Affords a fine grip. Easy to clean. The strongest as well as the most sanitary bottom, three thicknesses soundly welded and solderless.

In 1920 the Horton Ice Cream Co., of New York, bought 2000; in 1921 a repeat order called for 5000 more. In 1920 the Breyer Ice Cream Co. of Philadelphia, Pa., bought 14,000; in 1921, 10,000. In 1920, Colonial Ice Cream Co., Philadelphia, Pa., 1000; in 1921, 30,000. Proof of quality and service in a nut shell.

John Wood Manufacturing Company

CONSHOHOCKEN CANADIAN, JOHN WOOD MANUFACTURING COMPANY TORONTO, CANADA **PENNA.**

Branch Offices: Cleveland (1841 Carter Road) Brooklyn (No. 5 Bush Terminal Bldg.)
Chicago (320 E. North Water St.) Boston (78 W. 2nd St.)
Philadelphia (1223 Hamilton St.) San Francisco (268 Market St.) Los Angeles (1333 E. 7th St.)

Address All Communications to Home Office, Conshohocken, Pa.

Industry's Future Will Be Reflected In Convention

IT IS not so much the present nor the past, but the future, of the ice cream industry that the national convention in Minneapolis will mirror. The past is known, its lessons largely learned already; the present problems are working to their own solution, slowly but inexorably in these times of economic reconstruction. It is the future that commands the interest of the ablest ice cream manufacturer.

The time is past in any business when the mere happy statement that "this industry is only in its infancy" will suffice. That the ice cream industry now faces a tremendous future is every man's belief. But the history of successful industries is full of the repeated fact that futures must be planned for and successes safeguarded.

The significance of the convention in Minneapolis is not so much in the individual features of its unusual program, nor in the personalities that will meet there, as in the fact that the National Association represents in a measure an industrial self-consciousness that can plan for success and safeguard it when won. The ice cream industry is national—so will be the matters dealt with in Minneapolis. The ice cream industry has its individual, its unique problems and realization of this is evidenced in the very organization of the National Association. The ice cream industry requires concerted action, community of effort as well as of interest, co-ordinated purpose and industrial self-consciousness and the existence of these assets so essential to industrial development and protection is attested by the very fact of such a gathering as that to be held in Minneapolis.

It is the future that calls for intelligence, **for action,** for determination, for the mobilized power of the ice cream industry, exerted along definite lines of increased profit. It is the industry's attitude of approach to this future that holds so much that may be won that the Minneapolis convention will reflect and signalize.

ROBERTS EVERETT, Secretary,
The Association of Ice Cream Supply Men.

The Path of Progress

IT IS about as difficult to set forth new reasons why you should attend this convention, in following the path of progress, as it would be for a minister to give new reasons why you should go to church in following the path of righteousness.

Yet, actually, the man with the convention habit is the wise one. He learns by contact with his fellowman and goes home better fitted to carry on his work; he has gained in knowledge, keenness of mind and breadth of vision.

Again, the social spirit, invaluable in success winning, is kept alive and quickened by the convention atmosphere; there is an increased ease and delight in intercourse with one's fellows, and particularly will this be true of the convention, for already a very splendid spirit of comradery has developed. Reservations on the De Luxe Special Train from Chicago for the convention are being taken in an extremely satisfactory manner, and the ice cream manufacturers of the Twin Cities are planning some splendid social affairs.

Impress upon the ladies that they have a special invitation to this convention, and their pleasure and comfort will be well looked after.

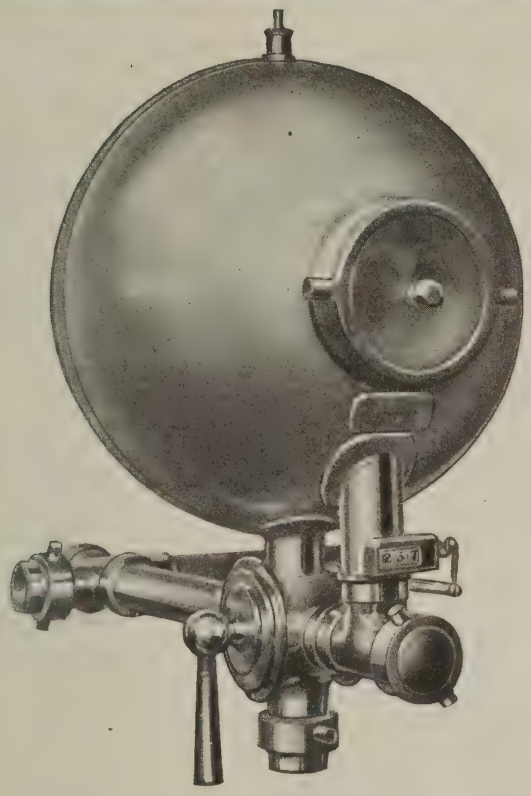
A reduced railroad rate of fare and one-half for the round trip on the certificate plan has been granted; dates of sale, October 6th to 14th, inclusive. Return limit, October 19th.

No extra fare will be charged on the Ice Cream Manufacturers' De Luxe Special Train, which will leave Chicago via the C. M. & St. P. Ry., at 8:15 on the morning of Saturday, October 8th. This train will carry parlor cars, observation car. dining cars, and a coach for those who may not desire parlor cars. Reservations for this train may be made through F. N. Hicks, G. A. P. D., C. M. & St. P. Ry., 620 Marquette Building, Chicago.

Note the date and arrange to attend this convention. You'll enjoy every minute of it.

N. LOEWENSTEIN, Secretary,
National Association of Ice Cream Mnfrs.

THE C-B CALENDAR



Don't Overlook Our Exhibit at the Buffalo Show

Make sure you are there — Oct. 31 — Nov. 5

The photograph and drawing should give you a fair idea of these devices. They are automatic—gravity does all the work; just turn the valve handle to operate. They are very simple in construction with but 3 moveable parts. They are handsomely finished in nickel. They can be attached to any brine freezer, new or old. They are not very expensive and if a new freezer is ordered "with T. B. M." there is hardly any increase in price, since the old style batch tank is dispensed with.

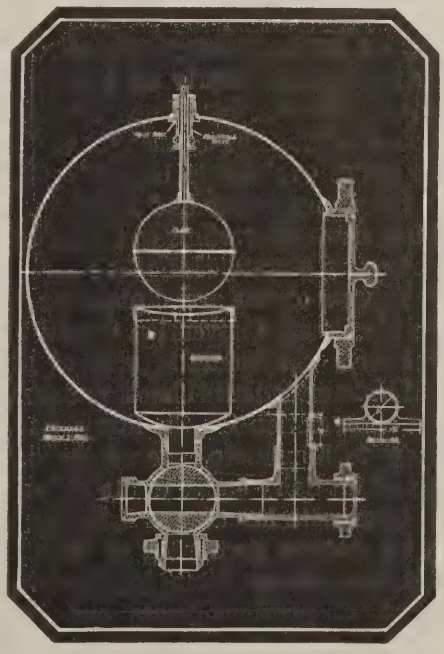
Let us send you our new booklet which describes every detail and shows views of installations. It also contains a few of those enthusiastic letters we mentioned. Send for it; you can't afford to neglect an opportunity of familiarizing yourself with the greatest improvement for freezer rooms since the invention of brine freezers themselves.

Let This Be Your Last Summer Without Thomas Batch Measures

They have been so improved that not the slightest objection can be found with them. To the contrary, so many prominent ice cream manufacturers have already found them to be a great investment, that you have no excuse for further hesitation.

You should see the enthusiastic letters we receive from firms who have installed them. To say the least, they are convincing. Every manufacturer is quick to see the many advantages that Thomas Batch Measures possess, and appreciates them.

One man less in your freezing room counts for something. No running over and no waste counts for much. A way of keeping close tabs on the amount of mix used—the overrun—and a check against the finished product are extremely valuable advantages. T. B. M.s gives you all of them.



CHERRY-BASSETT COMPANY

PHILADELPHIA BALTIMORE

Minnesota, the Vacation Land of America

Minneapolis, Minn., Sept. 1, 1921.

Editor, Ice Cream Review,
210 Sycamore Street,
Milwaukee, Wis.

Dear Sir: The 1921 convention of the National Association of Ice Cream Manufacturers to be held in Minneapolis, October 10th, 11th and 12th, promises to be the biggest and best in the history of the ice cream industry. As it is held in conjunction with the Dairy Show it affords ice cream manufacturers an unusual opportunity to see the wonderful progress of the various branches of the dairy industry. Both Minneapolis and St. Paul are doing their utmost in planning entertainment for the many visitors and the whole northwest is in hearty accord with plans to make the educational features long to be remembered.



J. E. Woolsey, President, Minnesota State Assn. of Ice Cream Mnfrs.

The State Fair Grounds, where the Dairy Show will be held, is situated midway between the central points of the two cities and is conceded to be the greatest show place for that purpose in the country. Space for exhibits are nearly all contracted for at this time, the class of exhibits being such that the entire week could be spent at the Dairy Show and something new, interesting and educational discovered every minute of the time.

In view of this grand place for dairy exhibits the Ice Cream Convention should be doubly attractive. The manufacturers of the northwest will be in attendance almost to a man, thus showing appreciation for the first visit of the Dairy Show to Minnesota, one of the best and most important dairy states in the Union.

Minnesota has always been deeply interested in all matters pertaining to the dairy industry and has always been loyally represented at shows of previous years and it is sincerely hoped that other states will be equally loyal and have large representation.

Headquarters for the Ice Cream Convention will be at the Radisson Hotel, Minneapolis, a few minutes walk from all depots and but a few minutes from a dozen other hotels of the vicinity.

October in Minnesota is as wonderful to nature lovers as the beauties of the southern states and the many delightful drives and parks of the Twin Cities are clothed at that season of the year in the vari-colored autumn adornment so beautiful and yet so different from other seasons of the years. Minnesota is noted for its wonderful lakes and streams and the Twin Cities have taken advantage of these natural resources, arranged driveways, linked the lakes together in various ways so as to make this part of Minnesota the beauty spot of the northwest. The Indian mounds in St. Paul and the fish hatcheries are very interesting and beautiful, Como park is almost unexcelled.

In Minneapolis, St. Anthony Falls is a point of great interest, as well as the flour mills, the largest in the world. Minnehaha Falls, made famous by Longfellow in his poem Hiawatha, is also a place of interest. There are many other interesting and beautiful places in both cities and surrounding country that excite the admiration of all. Those who have never visited Minnesota will go back home with a greater knowledge of the resources of the Bread and Butter State and their minds will be disillusioned of the old ideas of the west. Indian tepees are no longer in evidence nor does the hardy plainsman drive into town emptying his revolvers as he rides up the main thoroughfare.

The Minnesota State Association of Ice Cream Manufacturers extends an urgent invitation to all ice cream manufacturers to attend the convention this year, honestly believing that all will be well repaid for the visit to the northwest. No effort will be spared to make visitors and members welcome and the visit pleasant, entertaining and educational.

Yours truly,

J. E. WOOLSEY, President,
Minnesota State Assn. of Ice Cream Mnfrs.

NATIONAL CONVENTION of ICE CREAM MANUFACTURERS ~ OCT. 10-11-12
NATIONAL DAIRY SHOW ~ OCT. 8 ~ 15
Twin Cities, Minn.



A. H. Ives
Ives Ice Cream Co
Minneapolis



Carl Steele
Steele De Soto Co
Minneapolis



Joe Hayes
Jersey Ice Cream Co
Minneapolis



W. R. Cammack
Crescent Creamery Co
St Paul



W. H. Kemps
Kemps Ice Cream Co
Minneapolis



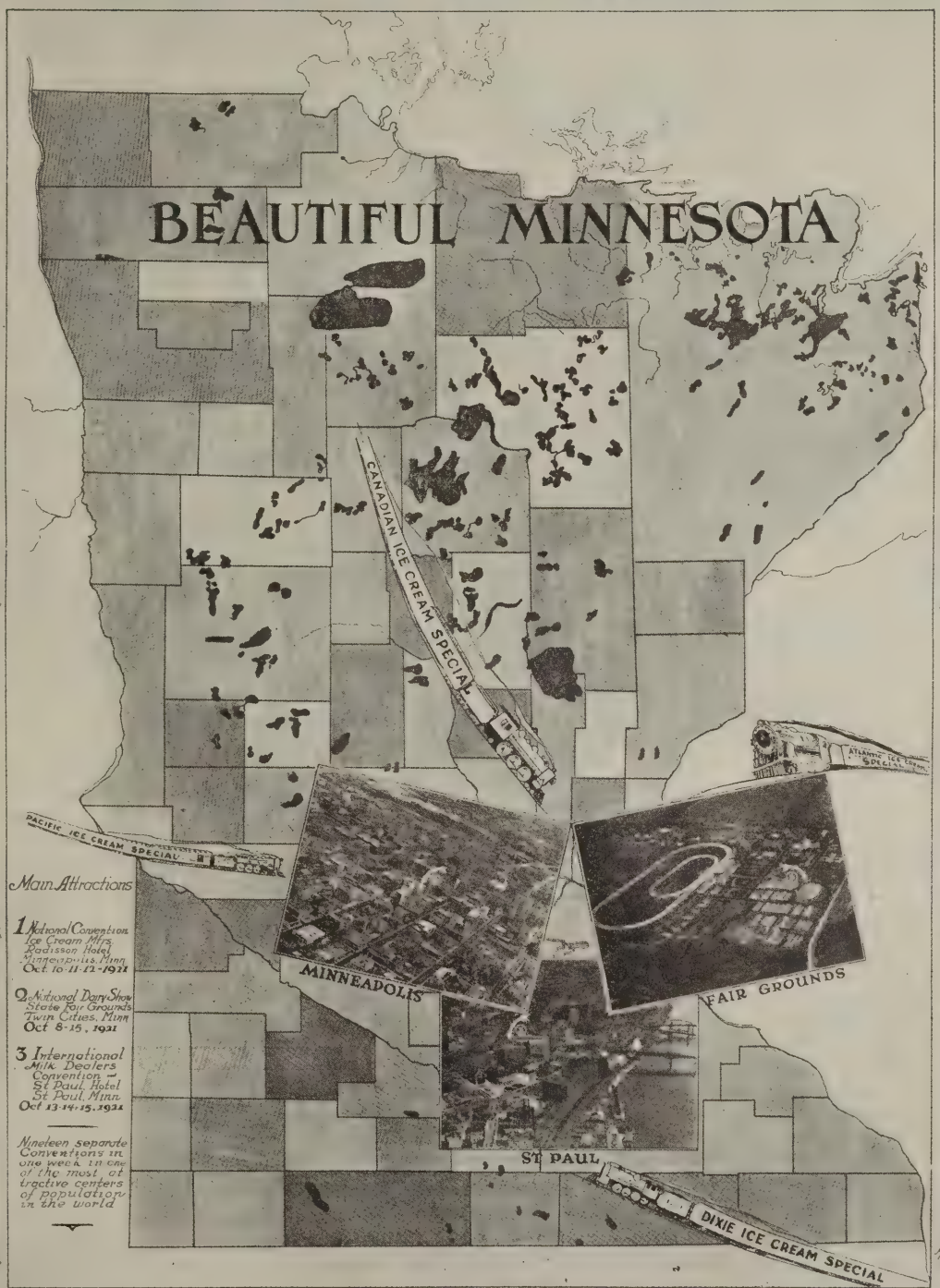
W. A. Sprague
Metropolitan Co
Minneapolis



B. P. Daye
Quality Creamery Co
Minneapolis



Mr. A. H. Vander Bie (Deceased)
J. C. Vander Bie Co
St Paul



Minnesota in October Clothed in Nature's Gorgeous Hues — a Veritable Paradise

The Time, the Place and the Boys (and girl)

Tell Your Friends and Neighbors You Are Going To The WORLD'S GREATEST DAIRY SHOW. MINNESOTA STATE FAIR GROUNDS, October 8-15

TWIN CITY FACTS

Saint Paul

The Capital City of Minnesota. Population, 250,000 including suburbs immediately adjoining legal boundaries of city.

The Gateway to the Northwest. Nine railroad systems enter the city. Four transcontinental lines, with others extending north and south, make Saint Paul the transfer point to all points north and south, east and west. Its location on ten automobile highways makes Saint Paul headquarters for tourists.

The Agricultural Capital of the Northwest. The chief purchaser of the agricultural products of the northwest. The home of the State Agricultural College, the State Fair, the Federal Land Bank, and of various farmers' marketing agencies which make Saint Paul the "Farmers' Market."

The Distributing Center of the Northwest. The chief distributor of the staple lines of merchandise consumed in its trade territory comprising the states of Minnesota, North Dakota, South Dakota, and portions of Wisconsin, Iowa, Nebraska, and upper Michigan.

The Manufacturing Center of the Northwest. The leader in the manufacture of a majority of the various classes of merchandise made in the northwest. Saint Paul leads in manufacture of meat products, fur goods, men's clothing, boots and shoes, foundry products, machinery, coke, gas, food products, candy, refrigerators, cigars, and numerous other kinds of manufactured products. Total value (1919) estimated at $215,000,000.

The Educational Center of the Northwest. The location of various denominational colleges and schools with high standards and large enrollments and the several state educational institutions give Saint Paul pre-eminence along educational lines.

A Most Desirable Residence City. Desirable residence sections, good schools, unexcelled local transportation facilities, numerous parks and playgrounds, excellent water supply, first class retail stores, and other numerous advantages make Saint Paul a most desirable residence city.

Minneapolis

Minneapolis is the largest city in Minnesota and the northwest—the manufacturing, wholesaling, financial and educational center of this vast, productive region.

Minneapolis postoffice receipts exceed $4,456,825.21 annually and its annual U. S. customs receipts are more than those of the rest of the state of Minnesota combined.

Minneapolis is the Federal Reserve City of the Ninth Federal Reserve Banking District. Bank clearings in Minneapolis in 1920 was $4,012,206,419. It must be remembered in making comparisons, that the Minneapolis Clearing House Association embraces only nine banks. The real indication of the banking and business strength of any city is more closely disclosed in its bank transactions. In this, the figure for Minneapolis in 1920 was $4,514,357,000.00. The city has sixty banks and trust companies. Bank deposits on Feb. 21, 1921, totaled more than $230,823,000.00.

Minneapolis is the "Vacation Capital" of the west. It is the possessor of five beautiful lakes within its own city limits and is the gateway to "The Ten Thousand Lakes of Minnesota." Every visitor to the state should plan to spend at least several days in Minneapolis, if not his entire vacation period.

Minneapolis is the world's chief flour manufacturer. The capacity of its flour mills is 93,000 barrels daily. Flour shipments have exceeded eighteen million barrels annually. The city's linseed mills have a capacity of 16,349,947 barrels annually.

Minneapolis, with its State University and notable private educational institutions, its art galleries, its Symphony Orchestra, its Municipal Band and various other agencies devoted to educational and civic activities is the recognized cultural center of the northwest, as well as its commercial metropolis.

Minneapolis has a population of 380,582, covering an area of 53.29 square miles.

THIS YEAR'S CONVENTION WILL BE GREATEST EVER HELD.

Before the National convention opens in Minneapolis, October 10th, I believe that every ice cream manufacturer in the country, whether his business is done in a small or large community, should join the National Association for his own profit. Only through a national association can an industry's present investments and its profitable future be safeguarded. The bigger it is, the more truly national, the better such an association can safeguard an industry. The ice cream industry needs to protect its own interests and that manufacturer who does not join it is, in my opinion, as negligent as if he failed to take out fire insurance policies on his plant.

OLIVER S. JORDAN,
President, Association of
Ice Cream Supply Men.

Wood's Gelatine

IT'S PURE

Guaranteed Food Products

Gelatine
India Gum
Kreamine
Fairy Cream Powder
Yum Yum (Ice Cream Flavor)
A-XXXX Vanilla
Grinders of Cocoa

The Most Complete Line on the Market

Write for Price List

W. B. Wood Mfg. Company

Manufacturing Chemists
ST. LOUIS, MO.

Ample Accommodations for Dairy Show Visitors

MANY dairymen in the northwest who are planning to attend the National Dairy Show, to be held at the Minnesota Fair Grounds, Oct. 8-15, will be pleased to learn that there will be plenty of rooms in hotels and boarding houses to accommodate them during the period of this big agricultural educational exposition, and that they need have no fear of being charged exorbitant rates. This assurance has been given by the hotels, the St. Paul Association and Minneapolis Civic and Commerce Association. All the ralroads have agreed to give reduced and excursion rates consisting of one fare and a half, so everything possible has been done for the comfort and the economical interests of the prospective visitor to the National Show.

The same comfort will be found in the world's biggest cattle barn at the Fair grounds, where the show will be held. At an outlay of $100,000 this great building has been modeled to take care of more than 150,000 square feet of exhibits and to accommodate 2000 head of cattle. Complete heating apparatus has been installed, and a big mezzanine floor has been erected, where the exhibits will be displayed, in addition to the immense exhibition on the main floor.



Home of the 1921 National Dairy Show, Minnesota State Fair Grounds.

Visitors to the National Dairy Show with a little spare time on hand and a desire to visit the sights in and around the Twin Cities will find plenty to occupy their time.

The State Capitol.

Minnesota's beautiful capitol building rises majestically on a height of land on the north edge of the city overlooking the down town business district. This building, erected under the personal supervision of the famous archietct, Cass Gilbert, at an expense of $4,500,000, is one of the most beautiful structures in the country. Guides conduct parties through the building at regular intervals. Mural decorations and paintings by Howard Pyle, John LaFarge, Kenyon Cox, Guernsey, Blashfield, and many other famous artists make the tour through the building exceedingly worth while.

The new Minnesota Historical Society building is located directly opposite the State Capitol. Herein are housed the historical records of the State of Minnesota.

Fort Snelling.

(by Auto or Street Car.)

Situated on a high bluff at the junction of the Minnesota and Mississippi rivers this post which reaches back to the early days in American history, is of more than unusual interest to the tourist. Added to the natural beauties of its location, and the historical interest given by its old block houses are its present day activities.

Suburban Trips.

White Bear Lake, northeast of the Twin Cities, one of the beauty spots of the state, is easily reached by motor car over a boulevard highway or by trolly or train. Bald Eagle Lake immediately adjoins it.

Immediately to the north of the city, the country is dotted with beautiful small lakes which are made accessible by excellent highways. Along the banks of the Mississippi south of the city is a delightful road which takes one to Mendota, the oldest settlement in the state and the site of the famous Sibley House, the home of the Territorial Governor who became the first governor of the State of Minnesota. This house is now the property of the Saint Paul Chapter of the Daughters of the American Revolution, and one may spend a very interesting half hour going through it. The return trip to St. Paul can be made by crossing on the ferry to Fort Snelling and thence back down via the Mississippi River Boulevard and Summit Ave.

Twin City Parks.

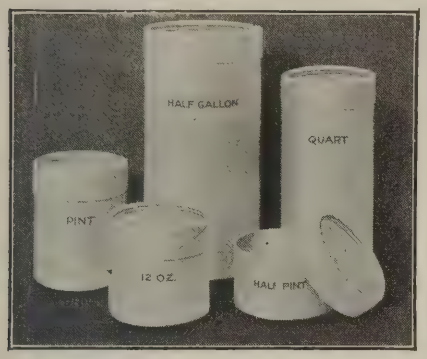
Guests are more than amply repaid by visiting Twin City parks, so varied in nature and purpose that one can suit any whim or fancy whether it be merely a desire to see and enjoy the beautiful recreation for the children, canoeing, boating, bathing, or just rolling along winding boulevards in automobiles or strolling through wooded and secluded pathways.

Throughout the city proper—even in the busiest down town section there are many small parks where passers-by may linger on comfortable benches beneath cool shade trees while fountains play and musicians entertain. But at Como Park the visitor finds that nature and man have vied with one another to produce a lovely spot almost unequalled for rare beauty, real floral magnificance and aquatic splendor. Miles of hard surface boulevard wind round two picturesque little lakes and dip and rise over gentle hills and vales of trees, flowers, conservatories, zoological gardens and play grounds. At evening time canoes glide over the smooth surface of the cool lakes while people promenade beneath vine clad pergolas amid luxuriant flower beds. Truly the goddess of peace, contentment and beauty reigns supreme at Como.



The Buyer's Page





Sealright Paper Containers

The Ideal Ice Cream Container—Exact Measure—Saves Time and Money.

Prices F. O. B. Chicago.

	Regular Stock	Packed Per Case
¼ pint	$18.00 M.	....
½ pint	18.60 M.	300
12 ounces	19.75 M.	250
Pints	20.95 M.	200
Quarts	25.65 M.	100
½ gallon	50.15 M.	50

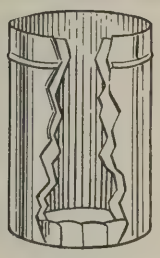
1,000 lots less 3% Discount
5,000 lots less 5% Discount



Ice Cream Plates

Made of waterproof stock, beveled. 500 plates to the bundle.

1,000 lots	$2.15 per 1,000
5,000 lots	2.05 per 1,000
10,000 lots	1.95 per 1,000
25,000 lots	1.80 per 1,000



Chicago Perfect Can Liners (Two Piece)

Size	½ M.	1 M.	2½ M.	5 M.	10 M.
1 quart	$ 5.35	$10.60	$10.30	$10.05	$ 9.50
2 quart	6.55	12.60	12.35	12.05	11.50
4 quart	8.48	16.65	16.40	16.10	15.00
8 quart	11.87	22.75	22.30	22.10	21.00
12 quart	13.55	26.30	25.75	25.20	23.00
20 quart	17.00	32.75	32.00	31.10	30.00

Special Discount 20%

Ask for prices on **Allen's One-Piece Sanitary Ice Cream Can Liners** in 1 to 40 quart sizes.





Can-Pro-Co STAY-ON TUB COVERS

A water-proofed, brine proof, mildew proof, guaranteed cover. Attaches to the tub and stays with it. Ties in front with metal tipped strings.

Prices per Hundred.

Size	No. 14 oz.	No. 16 oz.	No. 20 oz.
4 quart	$43.50	$46.00	$51.50
8 quart	47.50	50.50	56.50
12 quart	50.00	54.00	60.50
16 quart	53.50	58.00	66.50
20 quart	55.50	60.00	68.50
40 quart	70.50	76.50	90.00

DISCOUNTS.

Lots of 250	5%
Lots of 500	10%
Lots of 1,000 or more	15%

Parchment Circles

NET PRICES

Circles for	Quart Cans	1 M.	2 M.	5 M.	10 M.	25 M.
5 in.	1	$0.79	$0.70	$0.66	$0.62	$0.57
6 in.	2	1.01	.95	.89	.83	.78
6½ in.	3	1.18	1.11	1.05	.98	.91
7 in.	4	1.31	1.28	1.16	1.09	1.01
7½ in.	8	1.58	1.49	1.40	1.31	1.22
8½ in.	12	1.97	1.86	1.74	1.63	1.52
9 in.	16	2.23	2.10	1.98	1.85	1.72
10 in.	20	2.76	2.60	2.44	2.28	2.13
10½ in.	20	3.02	2.85	2.67	2.50	2.33
11 in.	20	3.37	3.18	2.98	2.79	2.60
12½ in.	40	4.33	4.08	3.84	3.59	3.34

Printing Extra.

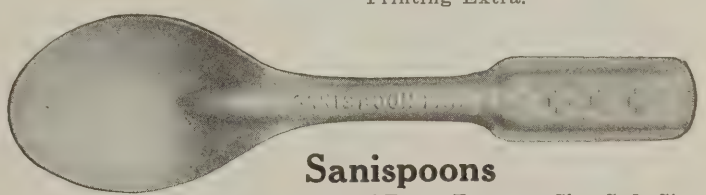
Genuine Vegetable Parchment Paper

NET PRICES

Net Prices	5M	10M	20M	30M	50M	100M	200M
6½x13, for pint bricks	$1.53	$1.50	$1.40	$1.38	$1.34	$1.28	$1.25
7x14, for pint bricks	1.72	1.68	1.58	1.57	1.51	1.44	1.41
10x13, for quart bricks	2.25	2.16	2.07	2.03	1.98	1.89	1.85
10x14, for quart bricks	2.43	2.33	2.24	2.19	2.14	2.04	1.99
3½x8, for small slices	.56	.55	.54	.53	.50	.50	.48







Sanispoons

	Demi Tasse	Teaspoon Size	Soda Size
1,000 lots, per M.	$3.25	$5.25	$7.00
10,000 lots, per M.	2.75	5.00	6.75

Packed 1,000 to the package. 10 packages to the case.

Tin Ice Cream Spoons

3½ Inches Long		Picnic Size	
1,000 lots	$1.80 per M.	10,000 lots	$1.65 per M.
5,000 lots	1.70 per M.	25,000 lots	1.55 per M.

Send for Prices on Ice Cream Pails, Boxes, Straws, Etc.

We carry a complete line of ice cream containers. Printing extra. We have Cremo Cake Ice Cream Cones at $4.75 per M. Order NOW. All prices listed here are subject to change. We give you the benefit if lower than quoted.

See our exhibit at the National Dairy Show, Minneapolis—St. Paul, Oct. 8th to 15th, 1921

A.H.BARBER CREAMERY SUPPLY CO. CHICAGO, ILL.

A.H.Barber Creamery Supply Co.
302 W.Austin Ave., Chicago, U.S.A.

Tell Your Friends and Neighbors You Are Going To The WORLD'S GREATEST DAIRY SHOW, MINNESOTA STATE FAIR GROUNDS, October 8-15

Special Advertising to the Little Folks

By DAVID J. BUCKINGHAM, Advertising Manager, Manning Manufacturing Company, Rutland, Vermont

RIGHT at the start let me say that the reason for this is a "holler for help" on the part of the editor of The Ice Cream Review. The advertising is so big, he says, that there's got to be enough supplementary reading matter to make the Dairy Show and National Convention issue the big hit that it should be. First, he pleads, write us a message for our readers in which you tell why you support the National Dairy Show and emphasize its importance to the dairy industry. That's not such a terrible job!

Of course one of the big reasons why we support the National Dairy Show is because it means more business for us. Then too, it gives us a chance to step out for a couple of weeks and although we are generally kept pretty busy taking care of our exhibit we have a good time after all. But we're not wholly selfish about this. The importance of the show to the dairy industry lies in the fact that it keeps everybody up to date. The dairymen get together and exchange ideas; they see the various exhibits right there before them so that they can compare notes and get a better idea of which is really the best. The manufacturers realize this and just about break their necks trying to make their exhibits the last word in "class" and whatever else the buyers want,—and that keeps the manufacturers up to date. After all that's the kind of competition that every manufacturer of equipment with real merit likes to indulge in and we're not at all backward about saying that we're right up there with the rest.

Now to come back to the editor's "holler for help." Write us a message, he says to the readers of The Ice Cream Review. As an advertising man I'm naturally strong for an advertising message and I suppose that the readers of The Ice Cream Review are most interested in one that pertains to ice cream. To this end I'm going to tell about a brand new and most effective method of selling ice cream, which is fully described in the August 18th issue of Printer's Ink, the well known journal for advertisers.

Given a certain product to advertise the first thing to do is to discover what class of people to advertise to and then talk to them in their own language. Ice cream, says Printers' Ink, would seem at first sight to be a universal product, appealing to young and old alike. The Chapin-Sacks Corporation, which manufactures the Velvet Kind Ice Cream in 17 plants that cover a territory from Washington, D. C., to Jacksonville, Fla., has started a comprehensive campaign directing the appeal at the children, who, after all, are the biggest consumers of ice cream and who influence to a large extent the purchasing of the grown-ups.

In order to talk to the children in their own language the Chapin-Sacks Corporation has used "Mother Goose" and "Alice in Wonderland" rhymes in their ice cream copy, twisted so they fit into the Velvet kind campaign and actually sell the children on that particular brand of ice cream. In commenting on the effectiveness of this method Printers' Ink says: "Children can never get enough of their favorite characters and are always eager to follow their adventures still further. They regret the fact that the story of Humpty Dumpty ends with the unfortunate incident of the gross failure of the king's horses and the king's men. In the Chapin-Sacks advertisement they find out more about their favorites, but the rhymes have been changed so that ice cream becomes the dominant idea."

Here's the way one advertisement goes:

"Jack Sprat could eat no fat,
His wife could eat no lean,
But when they tried the Velvet Kind
They licked the platter clean."

While this style of copy cannot help but appeal to children, it is the illustrations that really put over the

(Concluded on page 66



A Section of the Manning Exhibit at the Last National Dairy Show.

PLEASE MENTION THE ICE CREAM REVIEW WHEN WRITING TO ADVERTISERS

A good suggestion

When you attend the National Dairy Show and the National Ice Cream Manufacturers Convention next month at the Twin Cities, you will profit by visiting our booth No. 191 and learning how and why SEALRIGHT Paper Containers, *filled direct from the freezers*, the new way to pack ice cream, keep down overhead, eliminate shrinkage and waste and find favor with the retailer by reducing his labor cost in re-handling.

At Buffalo Too

October 31st to November 5th

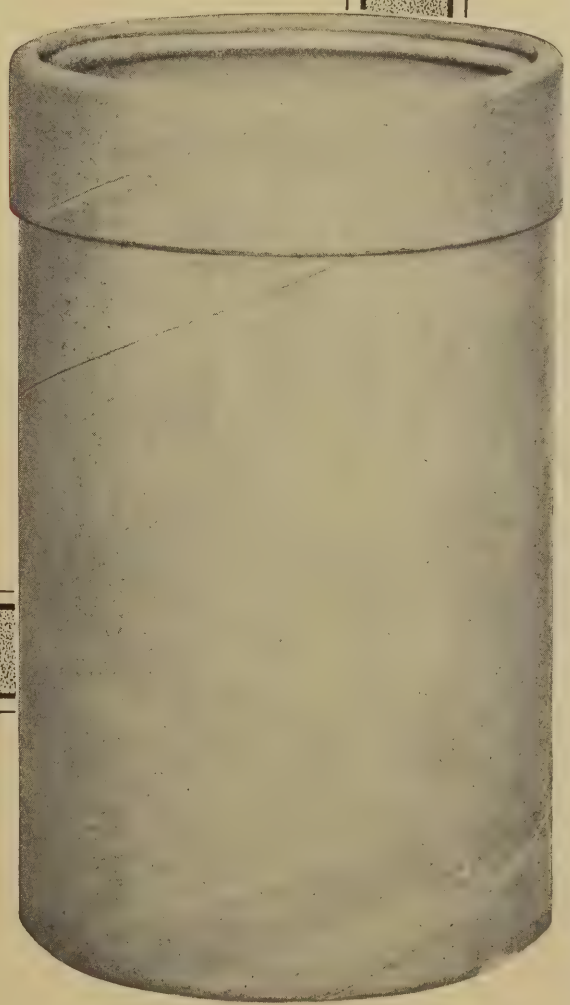
Third Annual Eastern Exhibition

Association of Ice Cream Supply Men
Elmwood Music Hall

Visit our booth at this remarkable exhibition marking the progress and ambition of the ice cream industry.

THE ASSOCIATION OF ICE CREAM SUPPLY MEN — MEMBER

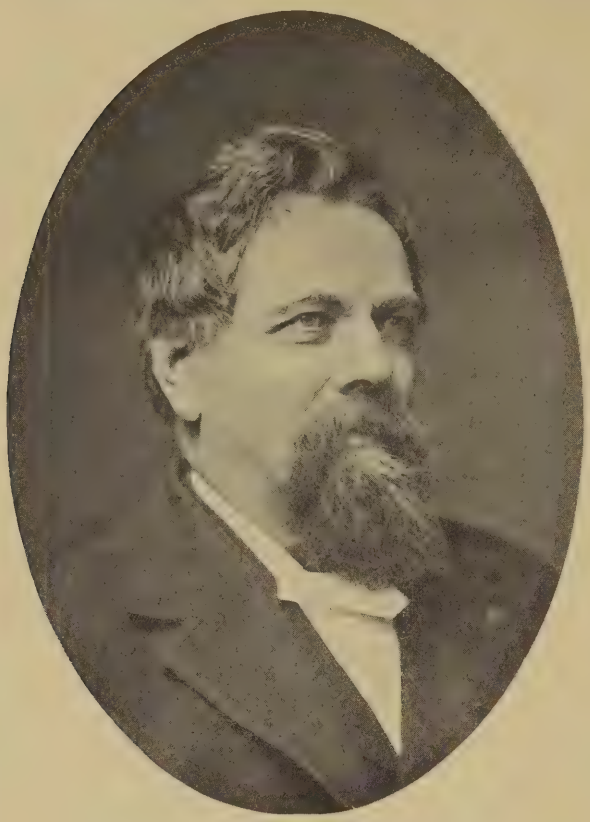
SEALRIGHT CO., Inc.
Fulton - - New York
Largest Manufacturers in the World of Cylindrical Liquid-Tight Paper Containers



Pin Your F

Nelson Pa

will save 65% of ice, salt and labor over any metal lined cabinet made, keep the cream uniformly hard (in which



CHARLES NELSON
The inventor and patentee of WOOD LINED Cabinets, is a veteran ice cream man, having for years had charge of the largest ice cream plant west of the Mississippi River.

A Test

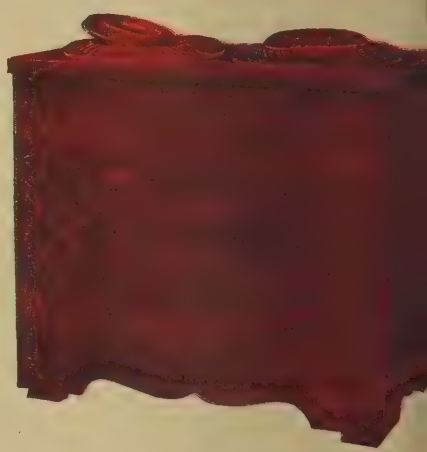
ON THE month of August we made a test of the ICE-keeping qualities of our cabinets. We put 50 pounds of manufactured ice in a 20-quart bulk cabinet. The temperature of the room varied from 90 to 98 degrees, and it required 5 days and 4 hours, or 124 hours, to melt all the ice; temperature of water remained at 42 degrees for several hours after the test. This is the best known way to test the ice-keeping qualities of any cabinet. No other cabinet has equaled this test.

We invite competitive tests

Uniform Temperature

The ice cream is always kept in a uniform condition, as the circular Ice Chamber allows an equal distribution of ice around the can.

The Nelson is the only cabinet that will keep ice cream in perfect condition where Electric Fans are used. Red Wood being a non-conductor, it does not convey the warm air to the inner compartment or allow the cold air to escape and thereby cause condensed moisture (sweating) on the outer case as a metal cabinet will.



Two Compartment

A Full Can Always in Reserve

This Proposition

Any responsible ice cream manufacturer — particularly wholesale ice cream manufacturers and dealers—may order from 1 to 100 Nelson patented Ice Cream Cabinets, place them in practical use and after 30 days, if not entirely satisfactory, return at our expense for freight, both ways.



One Compartment, Insulated with Granulated Cork, Built of Everlasting Redwood.

Prices Reduced

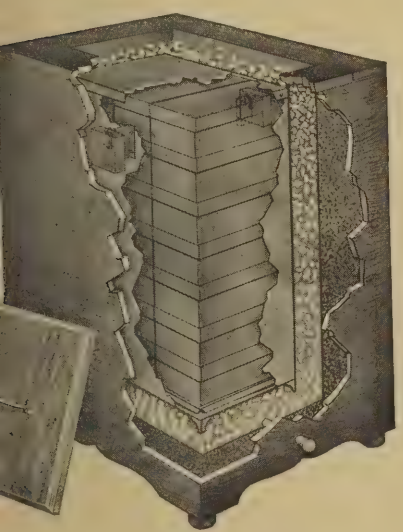
C. Nelson Manufac

ST. LOUIS, MO.

ith to Proven Facts

nted Ice Cream Cabinets

ndition it will yield 50 per cent more
ofit) and require packing with ice but
nce in twenty-four to thirty-six hours.



Patented May 8, 1906.
C. Nelson Brick Cabinet

Construction

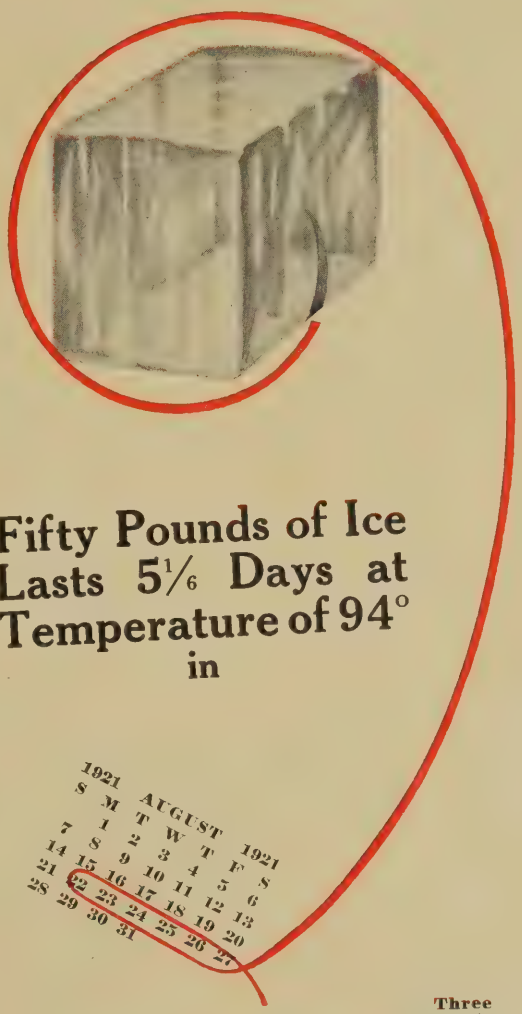
The Nelson Patent Cabinets are constructed entirely of wood. Everlasting California Red Wood used for the outer case, and White Cedar for the circular independent compartments. The compartments are separated from the outer walls and from each other by granulated cork (the best non-conductor of heat and cold known). Drain pipes are of heavy brass tubing and secured by brass locknuts. Both are everlasting. Great care is used in selecting the lumber and other material that go into these cabinets. Our object is to build the best.

Life

Cabinets sold in the spring of 1899 are still in use, giving satisfactory service.

Finish

All stock cabinets finished in a Rich Mahogany Color, two coats shellac, two coats of special brine-proof varnish. Other colors on order only.



Three Compartment Cabinet

ill Interest You

n any manufacturer offer a more liberal or fair proposition? ou owe it to yourself to thoroughly investigate the price, merits d construction of the Nelson Patented Ice Cream Cabinets be-re making any further purchase.



Write for New Price List

uring Company

2306 Division Street

"Confessed the Best When Put to Test"

for

Ice Cream, Toppings, Marshmallows and Jellied Fruits

there is no better, purer and more uniform Gelatine than "UCOPCO."

It is the product of the largest manufacturers of Gelatine in America.

"UCOPCO" is produced under the personal supervision of the foremost chemists in the industry.

Special processes and special equipment help to maintain its high purity and standard. Made in five grades to meet specific requirements. All grades abundantly meet both federal and state pure food laws. Write for details and prices.

The United Chemical & Organic Products Company

4200 So. Marshfield Ave.
Chicago, Ill.

217 Broadway
New York City

"UCOPCO comes packed in red drums"



Seventeen Big Conventions Dairy Show Week

From Northwest Development Committee.

Seventeen big conventions allied with the dairy industry will be held in St. Paul and Minneapolis during the period of the National Dairy Show at the Minnesota Fair Grounds, October 8th to 15th.

In making this announcement, William E. Skinner, general manager of the Dairy Show, declared that he had just received official notification from Eben E. McCloud, of the Western Passenger Association, that an open rate of a fare and one half for the round trip had been authorized for the National Dairy Show from the following territory to St. Paul or Minneapolis.

Northern Peninsula of Michigan, Wisconsin, North Dakota, a portion of Montana, South Dakota, east of the Missouri River, Iowa on and north of the Illinois Central, Sioux City to Dubuque.

Fare and one half on the regular certificate plan for the conventions of allied organizations also was authorized under the same ruling. The conventions to be held in the Twin Cities during the big educational exposition are:

National Creamery Buttermaker's Association.
National Dairy Association.
International Milk Dealers' Association.
National Association of Ice Cream Manufacturers.
National Conference of Co-operative Creamery Men.
National Dairy Council.
American Jersey Cattle Club.
American Guernsey Cattle Club.
Holstein-Friesian Association of America.
Ayrshire Breeders' Association.
Allied States Creamery Association
North Central States Association of Dairy and Food Officials.
Wisconsin State Cheese Association.
Wisconsin Dairy Protective Association.
Brown Swiss Cattle Breeders' Association.
Minnesota Creamery Butter Manufacturers' Association.

County Agents, State Extension Service and Railway Agricultural Department Men.

"The action of the railroads in giving reduced rates for the National Dairy Show and the seventeen big conventions to be held in the Twin Cities during the period of the Show ought to bring half a million people to St. Paul and Minneapolis," said Mr. Skinner.

"Plans for big excursions of farmers from most of the counties in the Northwest states already are being made. Delegations are coming in automobiles from many counties in Minnesota and Wisconsin, flying banners advertising their counties, and with the delegates wearing badges which will identify them when they mingle with the leaders of the dairy world who will be at the Dairy Show and in attendance at the conventions. Other delegations plan to come by train. I look for this exposition, of such vital value to the farmer, held in the northwest for the first time, to be the best attended in the history of the National Dairy Show."

DIPLOMACY.

Newlywed—"You know, I don't know what to call my mother-in-law. I don't like to call her 'Mother' and yet I can't very well call her 'Mrs. ————.' What did you do?"

Experienced Husband—"Well, I called mine 'Say' for the first year, and after that everybody called her 'Grandma'."—Voo Doo.

LOW PRICE

Fresh Fruit Ice Cream All Year Round

The business is available—*yours* if you use our

COLD PACK CRUSHED PEACHES

is selling Reyam Brand goods, and Quality is keeping them sold. Positively lower quotations on all Fruits and Flavors for the Ice Cream manufacturer and a guarantee of your entire satisfaction or you may return the merchandise.

We beat the world on

SOLID PACKED FRUIT

The best quality at prices so tempting that you simply must buy—NOW.

Lowest prices in 5 years on

"Whole-and-broken" Maraschino Style Cherries

also Crushed

in all size containers from 10# tins to 50-gal. bbls.

Tutti Frutti Mixture

Fancy brick work looms up on the horizon—why not make an effort to get this business? Fortify yourself with our Tutti Frutti Mixture, ready for instant use and superior to all the rest.

The Cincinnati Extract Works

422-424 West Fourth Street CINCINNATI, OHIO

B-K Bacilli-Ki

Eliminates Chance

Don't fool yourself just because you get by occasionally without sterilization. To be sure of high quality **all** the time, keep bacteria down with B-K all the time.

The doctors and hospitals say that in warm weather both pasteurized and certified milk are often seriously contaminated.

The daily use of B-K on all equipment and in patrons' cans reduces the bacteria that would otherwise contaminate your product. This practice continued year in and year out will keep your quality uniformly high and pay you many times the cost of the B-K. It will help increase confidence in your product and satisfaction of your customers.

Ask us for information on improving the quality of your product.

— Quality Pays —

At all supply houses

Economize by using B-K
Ask for Bulletin No. 320 on
Better Dairy and Food Products.

GENERAL LABORATORIES

MADISON, WISCONSIN

Sole Mfrs. B-K

Tell Your Friends and Neighbors You Are Going To The WORLD'S GREATEST DAIRY SHOW, MINNESOTA STATE FAIR GROUNDS, October 8-15

Ice Cream Mix Made by the Vacuum Process

By JULIUS J. MOJONNIER. Secretary Mojonnier Bros., Milk Engineers

FOR some time we have been at a great expense experimenting with our method and process of preparing a uniform mix under vacuum. Now that this method is fully developed and thoroughly tested and proven we have taken the necessary steps to protect our method and process by United States Letters Patent. We are now prepared to grant license for the use of this method and process and supply and install equipment for carrying out the same.

It has been the aim of our company from the start to develop methods and equipment that will enable the ice cream manufacturer to improve his product thereby increasing his sales and at the same time decrease his manufacturing costs. From day to day the public is demanding a better ice cream and at the same time the consumer is anxious for lower prices. To keep pace with this demand it is necessary for the ice cream manufacturer to study every available means of improving his product and at the same time keep down his costs. We are greatly pleased to be able to be of material assistance to the ice cream manufacturer in helping him accomplish both of these results.

During the past year a great many very successful installations have been made using the Mojonnier process for making ice cream mix which has been made possible by equipment of our own special design. It is a well-known scientific fact that the acids in butter that cause rancidity and off-flavors can be eliminated by boiling under vacuum. It is almost impossible to buy raw materials, which at some time, do not have slightly off-flavors. When made into ice cream these give a product not entirely satisfactory to the consumer. By preparing the mix under vacuum these flavors can be eliminated.

We would not recommend that cheap, rancid butter be used in making ice cream mix, but with this process it is possible to use butter or other milk products without any ill effects that is absolutely impossible under any other process. When mix is made in the Vacuum Pan we find that overrun is much more easily obtained in the freezer. Furthermore, by this method there is absolutely no danger of heating the ice cream to a temperature above the pasteurizing temperature, namely, 145 degrees F. This eliminates absolutely any cooked flavor and gives the mix a fine, fresh taste.

Wherever possible we recommend that the mix be made under vacuum using fresh milk and sweet butter as a source of solids not fat and the fat in the ice cream. Fresh cream can be substituted for sweet butter if preferred.

With this method the fresh milk is received and stored in a glass lined jacketed tank. From this tank a measured quantity is run into the hot well. Here it is tested accurately for butter fat and solids by means of the Mojonnier Milk Tester. From these accurate tests the proper amount of butter fat, sugar and gelatine is added to the hot wells. After heating this mixture to the proper temperature in the hot wells it is drawn into the Vacuum Pan, condensed down to the specific gravity that gives the proper amount of butter fat, solids not fat, sugar and gelatine to make a standardized ice cream mix. From the pan the ice cream mix is dropped into the weigh tank where a sample is taken and again tested upon the Mojonnier Tester for butter fat and total solids. Water is added to the mix at this point to standardize it to exactly the point desired.

From the weigh tank the mix is viscolized or homogenized and run over a surface cooler from which it is pumped into the holding tanks. This is continued until the total amount of ice cream mix is prepared for the days run.

When there is a surplus of fresh milk above that required for making the regular run of ice cream mix, this can be converted into bulk whole sweetened condensed milk. This product may be stored and held for future use. If too great a surplus is accumulated, some of it may be sold to candy manufacturers, bakers or to other ice cream manufacturers.

By storing this product in a bonded warehouse, the cost of holding is only the interest upon the investment plus the storage cost. With the present low cost of sugar there is no means by which milk products can be stored for future use or for marketing as unsweetened condensed milk.

Actual savings in dollars and cents is brought out more specifically in the two tables below:

Mix No. 1—Prepared in Pasteurizer.

(Chicago Wholesale Market Price.) July 26, 1921.

Raw Materials Used	Pounds	Price per Cwt	T't'l Cost
20 per cent cream	208	$11.86	24.67
Fresh Milk	324	3.47	11.24
Bulk Whole	...	....	....
Condensed	237	8.99	21.31
Sugar	126	6.00	7.56
Gelatine	4.5	70.00	3.15

Total cost of 100 gallons ice cream mix when raw materials are bought wholesale is $67.93.

Mix No. 2—Prepared by Mojonnier Vacuum, Cond. Process.

(Chicago Market)

Raw Materials Used	Pounds	Price per Cwt	T't'l Cost
Fresh Milk	1105	$ 2.45	27.09
Sweet Butter	40.2	40.00	16.08
Sugar	126	6.00	7.56
Gelatine	4.5	70.00	3.15

Total cost of 100 gallons ice cream mix when fresh milk is bought direct from farmers and sweet butter in open market is $53.86.

$2.30 per 100 lbs. plus 15 cents per cwt. for hauling.

This represents a saving of $14.07 on every 100 gallons of mix.

Gross saving upon 500,000 gallons ice cream yearly ,$35,175.00.

Less one per cent per gallon for receiving and condensing operations above cost of pasteurizing, $2,500.00.

Net saving per year, $32,675.00.

Making ice cream mix from fresh milk and sweet butter works especially well in smaller towns so situated that milk may be hauled directly to the city by farmers. Plants making as little as fifty to one hundred thousand gallons of ice cream per year can easily afford to use this method both on account of the improved product produced and the cash saving effected.

In the cities we recommend that the Mojonnier Vacuum Condensing Unit be installed directly in the ice cream plant so that all the mix can be pasteurized under vacuum. In the city it is possible to make arrangements with condensing plants in the country to ship their whole fresh milk or skimmed fresh milk condensed four to one to the ice cream plant. This will supply all of the solids not fat in good fresh form and a large part of the butter fat. The balance of the butter fat can be bought upon the local market as needed in the form of sweet butter. The whole mix is then run through the Vacuum Pan. The proper amount of water is added so as to get the mix to the right standard for butter fat and total solids. In this case the Vacuum Pan is used as a vacuum pasteurizer and it affords a positive means for removing any off flavor from the product.

In the city it is also possible to haul fresh milk in a tank wagon, tank car or on a truck with cans from a receiving and cooling station in the country and make all of the mix from fresh milk and sweet butter.

The ice cream manufacturer in the city has a further advantage of being able to buy sweetened skim condensed milk or any other product in which the butter fat and solids cost the least money in making up his ice cream mix. By making the mix in the Vacuum Pan he can be sure that every batch of ice cream that he makes will be of the same uniform high quality. In the city the fresh milk dealers usually have a large amount of surplus skim milk. This product can be used for making the mix. The full quantity can be purchased at a very reasonable figure, condensed down with sugar and held in storage until a time of shortage.

To show the advantage of making the mix by the new

Audel's
"Answers on Refrigeration"
A practical treatise for engineers. This book is the most complete work on the subject of refrigeration and ice making on the market today. 690 pages. Half leather binding.
Sent Prepaid on Receipt of $2.00.
OLSEN PUBLISHING CO.
210 Sycamore St. Milwaukee, Wis.

ESSEX

INCORPORATED 1905

"His Standard Measure"

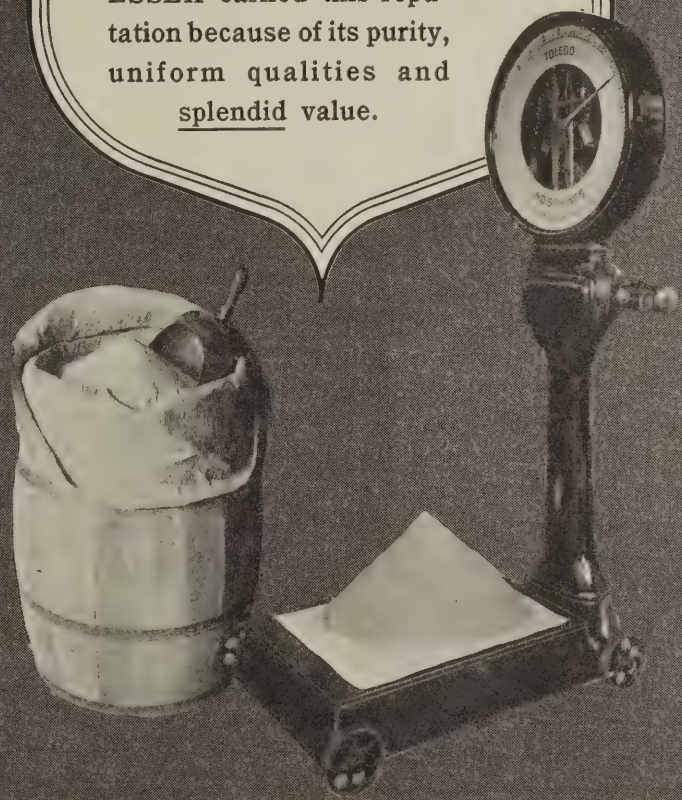
"When buying gelatine each year we still use the ESSEX product as our Yard Stick."

This is the expressed opinion of a large and nationally known ice-cream manufacturer.

ESSEX earned this reputation because of its purity, uniform qualities and splendid value.

1 2 3 4 5 6 7 8
ONE

26 29 30 31 32 33 34 35 36
YARD



ESSEX GELATINE COMPANY

BOSTON *Manufacturers* MASSACHUSETTS

Warehouses for Service

NEW YORK PHILADELPHIA CHICAGO ST. LOUIS SAN FRANCISCO

THE ASSOCIATION OF ICE CREAM SUPPLY MEN MEMBER

method, we present herewith a list of operations necessary to make a mix by the old method as compared with the new.

In making mix from cream, fresh milk and whole condensed milk, it is necessary to carry out the following operations. Each one of these necessarily costs money.

Cream—Fresh milk received, milk is skimmed, cream pasteurized, tested and standarized, cooled, put into cans, stored, delivered to the ice cream plant.

Fresh Milk—Fresh milk is received, pasteurized, cooled, tested, put into cans, stored, delivered to the ice cream plant.

Bulk Whole Condensed—Received, condensed, cooled, standardized, put into cans, held in storage, delivered to the ice cream plant.

The Ice Cream Manufacturer—Holds milk products in storage, tests the cream, tests the fresh milk, tests the whole milk for butter fat and solids, mixes milk products with sugar and gelatine, pasteurizes, homogenizes, standardizes mix for butter fat and total solids, cools, holds.

With the Mojonnier method we have the following operations—Milk received, tested, standardized, heated to 140 degrees in the hot well, condensed, weighed, standardized, homogenized, cooled, held in holding tanks ready to freeze.

32 operations in old method. 10 operations in new method.

The advantage of this method—(1) All of the solids not fat and most of the fat may be obtained from fresh milk which offers the cheapest source of supply.

(2) The method provides a positive means of pasteurizing the mix that helps to produce a better flavor. This cuts down the bacteria count and produces a better, cleaner flavored product.

(3) It makes it possible to produce an accurately standardized ice cream mix, that will be uniform from day to day.

(4) It makes it possible to buy milk from a certain number of farmers every day and all surplus can be converted into sweetened condensed milk. Products that can be easily stored and held until the time of shortage. This insures a high quality of ice cream mix for every day in the year.

(5) Ice cream mix made in this way produces a better overrun, a better product and more profit.



HAVE A THOUGHT FOR THE ROAD.

By M. L. Pulcher, Vice-President and General Manager Federal Motor Truck Co.

Motor truck operators must have a constant thought for the road and its traffic limits in order to avoid further anti-truck legislation.

One of the lagest office buildings in the world was recently erected in Detroit. An immense amount of yardage of earth had to be removed quickly. Result, contractors insisted on every truck hauling an overload. Three and one-half ton trucks carried five or six tons. Five and six ton trucks were forced to load to eight and ten tons. Result, the absolute destruction of about twenty blocks of heretofore adequate pavement on one street. No truck on this job was sufficiently tired for the loads they carried. So the pavement was pounded into debris in a few weeks. Result, a more drastic ordinance, but surprisingly fair in view of the destruction caused by the penurious contractors who were willing to spend the public's money for new roads and the truck owner's money for repairs to put a few dollars in their own pockets.

This story has been duplicated many, many times all over the country. The truck owner is not always wholly to blame although he is in the end responsible.

The comparatively few trucks on such jobs create a sentiment against all reasonable truck owners, and with city fathers, legislators, and congressmen so anxious to find objects of regulation—the result is often times unreasonable and frequently ruinous legislation against the motor truck.

It is time to be more thoughtful and less greedy. The commerce of the nation absolutely depends on motor truck transportation. Roads and bridges, happily, are being properly built and stengthened to carry the loads which good business demands of highway transportation. But it is high time for abuses to stop. Arrived is the moment to have some regard for our neighbors. There are other men, women and children depending on motor haulage for their living besides you and yours. There are little ones by the thousand who must have milk. If you dig a hole in the pavement or highway with your overload some one may demand that all trucks the size of yours be kept off the road. That may stop the milk supply or the fresh vegetables, or the coal or any one of a hundred other necessities that we must have continuously delivered.

Have a thought for the road. Remember your neighbor. Be fair — be reasonable, so that trucks will be fairly treated on the statute and tax books.

OF INTEREST TO DAIRY SHOW EXHIBITORS.

To the Exhibitors:

Mr. N. C. Tomkins, who is on the Publicity Committee of the Machinery Exhibitors' Association, has just written us a very splendid letter of the wonderful amount of interest that active moving exhibits are creating in the Pageant of Progress Exhibition in Chicago.

There is an inherent desire in the human mind to see the wheels go round and while all of our exhibitors cannot make their wheels go round because of the character of their exhibit, yet those who can would find an added attraction to their exhibit if they did in our Show.

You can perform your work of placing your exhibit this year with open shop labor. The rates for electrical work will be about half of what they were in Chicago last year and other labor charges correspondingly reduced. I presume you can get your motors for very much less than they would have cost you for the last five or six years.

We have made great progress in our exhibits and manner of showing and there is nothing to complain of in this connection, but I am offering this suggestion to all who desire to make their exhibit still more interesting in the Northwest this year.

You know we are some distance from either city with the Show with nothing to compete in the way of entertainment and the man who presents his case in the most attractive and interesting way, will undoubtedly get the attention of the people.

We will work along this line with you to make this the greatest Dairy Show yet held.

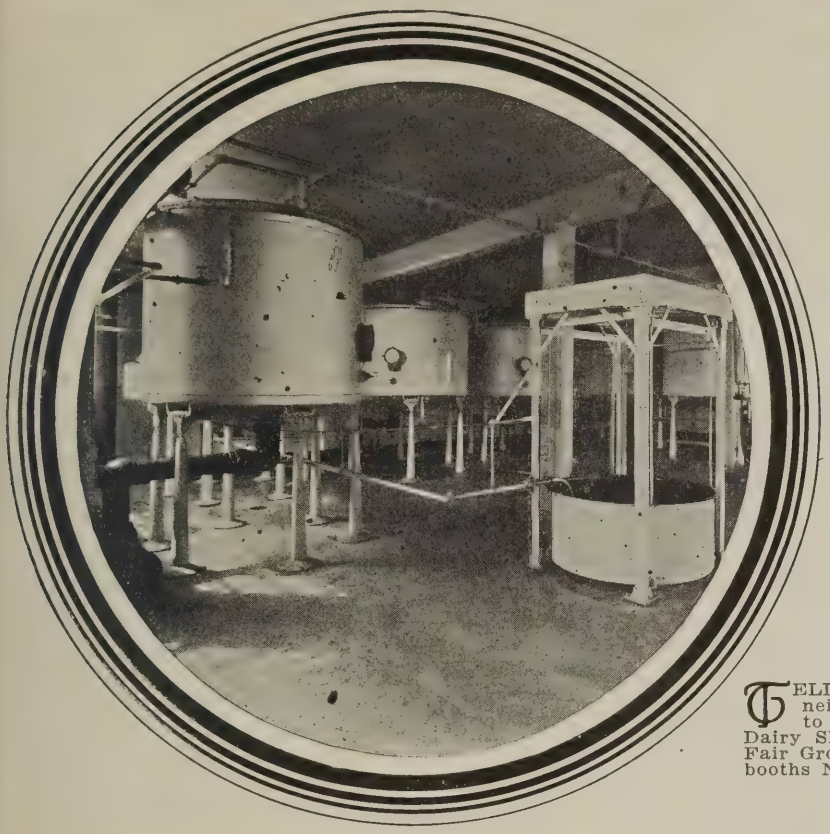
This year is the dairyman's opportunity in all lines. We are organizing the bankers, the creameries, the county agents, the country press, the lumber yards, the elevators, the cement interests, the breeders and the milk producers in every county in the Northwest States and if every exhibitor will utilize his influence with any of these factors in any country in which he may be strong, it will only tend to insure the result that we must get in the way of attendance. to make the Show of the greatest value to the dairy interests of this Section.

We now feel that with everyone keeping up to the mark on work in hand for the success of the Show, this should be the greatest Show yet held.

Therefore we want you to keep up your good work in every direction until the returns are all in.

Yours truly,

W. E. SKINNER,
General Manager.



IF YOU are traveling through New York State stop off at Rochester—217 Cutler Building, and we should like to show you through one of the most interesting plants in the world.—Or, call at any of our branch offices —1802 World's Tower Bldg., New York.—1442 Conway Bldg., Chicago,— 206 Sharon Bldg., San Francisco. If at London visit our British company, Enamelled Metal Products Corp., Ltd. Imperial Bldgs., 56 Kingsway, W. C. 2.—Or, in Australia, Mauri Bros. & Thomson, 123-131 Castlereagh St., Sydney. Please do not hesitate to communicate with our Main Office for any information on our equipment. Address: The Pfaudler Co., Rochester, N. Y.

TELL your friends and neighbors you are going to the World's Greatest Dairy Show, Minnesota State Fair Grounds, Oct. 8-15. Our booths Nos. 96-97-98.

EVERY dairy or ice cream plant has its own individual method of handling—and some such have proven to be very instructive. Out at the General Necessities Company, Detroit, the various Pfaudler Storage Tanks [shown at left and in rear of photograph] hold respectively sweet cream, condensed milk, etc. to be used in the making of ice cream.

All the tanks are connected to a common, sanitary pipe-line, which empties into a weigh tank [shown in the foreground]—the various constituents of the mix, being drawn off in quantities as desired.

This method is rather unusual, in that it eliminates entirely the use of a cold room, large numbers of cans, and the handling that goes with them.—It further saves a good deal of floor space.

It has been the pleasure of the Pfaudler Co. to have worked with General Necessities on this proposition—and with many other dairy and ice cream plants on similar projects, which have meant to them the saving of considerable money.

Perhaps YOU have a definite problem on your hands, as to just how you shall lay out your plant, and just what equipment would represent the most profitable investment for you.

Use your scissors then, on the coupon at the right—or call at our booth at the Dairy Show—or better still, do both.

This advertisement is the 3rd of a series designed to show the various points of superiority in Pfaudler Equipment and Service. The above installation is illustrative of the real engineering service which the Pfaudler Company is endeavoring to give.

The PFAUDLER CO.

The World's Largest Makers of Glass Lined Steel Equipment

ROCHESTER, NEW YORK

NEW YORK OFFICE
1802 World's Tower Building

CHICAGO OFFICE
1442 Conway Building

SAN FRANCISCO OFFICE
206 Sharon Building

Foreign Agencies:

Enamelled Metal Products Corporation, Ltd.
Imperial Building, 56 Kingsway
London, England

MAURI BROTHERS & THOMSON
123-131 Castlereagh Street
Sydney, Australia

Here are two chances for you to make money. FIRST—clip and mail this coupon. SECOND—attend the Dairy Show

The Pfaudler Co., ..., 1921
Rochester, N. Y.

Gentlemen: Send me ideal layout for dairy plant ☐ ice cream plant ☐ Send me further information on Pasteurizers ☐ Milk and Ice Cream Storage Tanks ☐ Truck and Car Tanks ☐ Ice Cream Batch Mixers ☐
Will see you at the Dairy Show ☐

.....
.....
.....

Ice Cream — Plain, The National Dish

By Mr. HENRY W. STERN, Manager Ice Cream Specialty Department, A. Daigger & Co. Chicago

Unfortunately for the ice cream manufacturers throughout the United States, they have allowed the dealers to get in a rut, insofar as ice cream sales are concerned — hot weather sales pyramid the business, and it seems as though heat and ice cream are synonomous.



HENRY W. STERN

A co-operative campaign on the part of the manufacturers, in conjunction with their various dealers, to educate the mothers in the local community, to the benefits to be derived from the daily consumption of at least a dish of ice cream on the part of each child in the family, regardless of whether it is zero weather or ninety degrees in the shade, is something that can be worked out that is ultimately going to prove that "Ice Cream — Plain, is the Nation's Standard Dish." There is no question but that every medical authority in the country agrees that occasionally a straight milk diet for any person not only cleanses the system, but offers an easily digested and stimulating food that will build up the body tissues, the mentality and the whole physical being to a point beyond that obtained in a mixture of conglomerated foods picked at random, and eaten in haste.

The mere fact that ice cream is very cold, makes it necessary for the child to eat ice cream slowly, in the winter time, and this if anything enhances its value as a food product at that particular time.

At one time it was our suggestion to various ice cream manufacturers, that advertising inferring that eating of ice cream together with the drinking of hot coffee would stimulate the sale of ice cream in the winter time, and, while we still believe this is true and can be worked out advantageously in the sales campaign, at the same time it becomes secondary to the above mentioned outline.

So many things have been said in favor of the food value of ice cream, and these very things have been good, however, we have not overlooked, in the exploiting of sales, that the fellow who advances this same theory, in the meantime becames almost a land mark for his lack of initiative. However, it has been said that constant dripping wears away the hardest stone, and so it is we believe with a good thing, "Ice Cream —Plain, the Nation's Standard Dish" and the repetition of this very phrase is going to help make it a fact as well as in theory.

Those ice cream manufacturers who are patient enough to read this, if they happen to have children at home, can readily appreciate, how, if a mother was given to understand that the very fact that the weather is cold, and that the coldness of the ice cream of necessity made the child consume the ice cream slowly and hence benfit to a greater degree, we believe they would coincide with the outline as given, and possibly be influenced thereby.

We believe in a short outline by way of a descriptive pamphlet, which might call the attention of various mothers throughout the community to the fact that considerable time is given to the study of geography, mathematics, spelling, grammar, music and various other subjects, when the children are in the primary grades. The most important subject of all, "Dietetics," and the selection of the best combination of foods is given a place so far down on the list that it can almost be classed as negligible. As a matter of fact eating to-day as is done by the American public in general is of the "hit and miss variety," and it certainly is of more importance to the coming generation that they select the best food, than to be able to either spell or to write correctly, or to know about geography.

Further, if the subject of eating becomes one of importance as it should, ice cream of necessity must take its proper place among the more nutritious and and most desirable, as well as easily digested foods. We earnestly solicit every man who reads this to give this article more than passing thought. Rather mark it with your blue pencil, talk it over with your neighbor, and then later when concerted action becomes possible, bear in mind the fact that a good story bears repetition, and that ice cream and its food value and its many other merits is certainly a good story.



LENOX ICE PLANT READY FOR ACTION.

Mr. Harry Hays is in Lenox, Iowa, to install the ice manufacturing plant for the Lenox Ice and Ice Cream Company. Work has been progressing very rapidly during the past three weeks, in the erection and assembling of the new plant since that time, and soon Lenox will have real manufactured home made ice.

The Vilter Manufacturing Co., of Milwaukee, Wis., are the makers of this machine and it is of a ten-ton capacity every twenty-four hours. This machine is new and is said to be one of the best machines of its kind. The motto the manufacturers claim for this machine is "Crystal Clear Ice". Ice can be made the year round, day and night, and from what we are able to gather it will be working continuously the rest of the summer, day and night.

A home ice manufacturing plant is an asset to the community, and is something that few towns are fortunate enough to have.



THINK OF IT.

One quart of ice cream contains as much nourishment as 14 eggs. If your family numbered five and you should eat 14 eggs at one meal you would think you had had a good full meal, granted, of course, that bread and butter, and possibly a vegetable or fruit salad had been added. Just as much nourishment would have been provided with a quart of ice cream. You would enjoy the meal just as much and probably more, because there is more plesure found in eating ice cream than in eating eggs.

Ice cream will never supplant eggs in the family diet. They are both necessary—ice cream as much so as eggs—but for a balanced diet at all seasons of the year, ice cream is in a class by itself.—The Dairy Diet.

LET'S PULL TOGETHER !!



MANY of the largest ice cream manufacturers use Nordhem Connective Advertising year in and year out. Why?

They have found that when the manufacturer and the advertising service really *pull together* they can increase ice cream profits to a figure impossible for the manufacturer who pulls his advertising oar alone.

How the entire Nordhem organization pulls together for your benefit will be told you in answer to your inquiry.

Mr. E. B. Conliss
has been appointed Rocky Mountain & Pacific Coast Manager of the Nordhem Syndicate Department, with offices at 424 Security Building, Los Angeles, California. Get in touch with him for sales ideas and ad suggestions.

IVAN · B · NORDHEM COMPANY

Advertising and Selling Service for Ice Cream Manufacturers

8 West 40th Street · · · New York City

MEMBER THE ASSOCIATION OF ICE CREAM SUPPLY MFR.

Milk Production in 1920 About 90,000,000,000 Pounds

Annual Statement Shows Output to be Nearly That of 1919 — Utilization of Milk also Shown

THE total production of milk in the United States for 1920 is estimated at 89,658,000,000 lbs. in the annual statement compiled by the Bureau of Markets and the Bureau of Animal Industry, U. S. Dept. of Agriculture. This amount is practically the same as for 1919, the production for that year having been placed at 90,057,500,000 lbs. The production of milk was decreased from 100 gals. per capita in 1919 to 98 gals. (848 lbs.) in 1920. There was a decrease in the number of milk cows in the country during the year. According to the Bureau of Crop Estimates, there were on farms 23,619,000 milk cows on Jan. 1, 1920, and 23,321,000 on Jan. 1, 1921, a decrease of 298,000. The number of cows other than on farms was estimated as 1,400,000 for 1919, but for the year 1920 the number was prorated from census figures as 1,200,000.

Per Capita Consumption.

The consumption of fluid milk fluctuated during 1920. In the first part of the season there was an abundance of milk and the consumption was larger than that of previous years. However, during the period of industrial depression that marked the closing days of 1920, milk consumption rapidly decreased, though this decrease was partly offset by the milk campaigns carried on throughout the country and which greatly increased the consumption in the territory covered. The estimate of the population of the United States as used in the annual statement covering 1919 was too high, as shown by the returns of the late census. But when the quantity of milk used for household purposes in 1919 is divided by the correct population figure the consumption of milk for 1920 is shown to be the same as for 1919, i. e., 43 gals. per person.

The amount of milk used in the manufacture of oleomargarine was estimated this year from data received from the factories and shows a decrease in the proportional amount of whole milk used. The quantity of milk and skimmed milk combined, as now used, is practically equal to the quantity of whole milk formerly used. However, in the manufacture of nut margarine, whole milk is not used in the same proportion as in the regular oleomargarine.

This year original data were received from the factories relative to the quantities of milk used in the manufacture of milk chocolate and, while complete reports were not received, the quantity shown in the table was prorated from these reports and is very conservative.

The production figures for ice cream are estimates. The figures for 1920 show an increase in production of 13% over 1919 based on factory reports received by the U. S. Bureau of Markets. Calculations were made on the basis of 13.75 lbs. of milk per gallon of ice cream for 1920 and 15 lbs. for 1919. The latter figure was based on the "batch" method of manufacture only. Ice cream made by the continuous machines weighs

Production and Uses of Milk in the United States, 1920 and 1919.

Product	1920				1919		
	Milk used per unit of product	Quantity of product manufactured[1]	Total whole milk used	Per cent of total milk	Quantity of product manufactured[1]	Total whole milk used	Per cent of total milk
	Pounds	Pounds	Pounds		Pounds	Pounds	
Creamery butter	21.	863,577,000	18,135,117,000	20.226	875,000,000	18,375,000,000	20.404
Farm butter	21.	675,000,000	14,175,000,000	15.810	685,000,000	14,385,000,000	15.973
Cheese (all kinds)	10.	[2]362,431,000	3,624,310,000	4.042	420,000,000	4,200,000,000	4.664
Condensed and evaporated milk	2.5	1,578,015,000	3,945,038,000	4.400	1,925,000,000	4,813,000,000	5.344
Powdered milk	8.	10,334,000	82,672.000	.092	9,000,000	72,000,000	.080
Powdered cream	19.	309,000	5,871,000	.007	670,000	12,000,000	.013
Malted milk	2.2	19,715,000	43,373,000	.048	18,000,000	40,000,000	.045
Sterilized milk (canned)	1.	5,623,000	5,623,000	.006	4,500,000	4,500,000	.005
Oleomargine (all kinds)	[3].065	370,162,925	24,256,000	.027	371,320,000	87,000,000	.097
Milk chocolate	.....	([4])	60,000,000	.067	.....	.....	.....
Ice cream, gallons	[5]13.75	[6]260,000,000	3,575,000,000	3.987	230,000,000	3,450,000,000	3.831
Total milk used in manufacturing	.....	.....	43,676,260,000	48.712	.....	46,439,000,000	50.456
	Per capita	People			Per capita		
Household purposes	[7]43.	105,708,770	39,090,000,000	43.599	[8]43	38,619,000,000	42.882
		Calves					
Fed to calves	[9]200.	[10]21,012,000	4,202,000,000	4.687	[9]200	3,500,000,000	3.886
Waste, loss, etc	.....	.....	2,689,000,000	3.000	.....	2,500,000,000	2.776
Grand total	.....	.....	89,658,000,000	100.000	.....	90,057,500,000	100.000

[1]Figures for manufactured products for both years are from reports to the U. S. Bureau of Markets; other figures are estimates based on surveys, etc.

[2]Including 6,300,000 lbs. of farm cheese.

[3]A large proportion of skim milk is also used. The figure used in 1919 (0.23 lbs.) included some of this.

[4]A large part was made from milk powder, condensed milk, etc.

[5]Batch-made ice cream weighs 6 lbs. per gal., and continuous machine made ice cream weighs 5 lbs. per gal., averaging 13.75 lbs. of milk to make, rather than 15 lbs. as calculated for 1919.

[6]Reports show 13% increase over 1919.

[7]Gallons.

[8]Population in the 1919 statement was estimated at 106,700,000.

[9]Pounds.

[10]Figuring 5% slaughtered at once, and 85% fed. Calf crop 90% of cows.

PLEASE MENTION THE ICE CREAM REVIEW WHEN WRITING TO ADVERTISERS

The continued use of C.W. Brand Vanilla gives that peculiar satisfaction and pride that comes only with the knowledge that the vanilla flavor in your ice cream is as good as it is humanly possible to make it.

The continued use of C.W. Brand Vanilla gives your ice cream a character and individuality that is easily distinguished from ice cream flavored with the ordinary vanillas.

If your ice cream *tastes better* than your competitors', it must *be better*. This is the logic of the ice cream consumer. C. W. Brand Vanilla is as good as it is humanly possible to make it and is bound to make your ice cream sell better because C.W. Brand Vanilla will make it taste better.

The Widlar Company of Cleveland, Ohio, who manufacture C.W. Brand Vanilla will be glad to show you that your ice cream really can be made to taste better.

less per gallon. The quantity made by the continuous method was large enough to warrant the use of 13.75 lbs. per gallon for the year 1920.

The total calf crop for 1919 was estimated at 80% of the number of cows. Data compiled more recently from a number of representative States indicate that the estimate was too low and that the calf crop was 90% of the total number of milk cows. The number of calves slaughtered at birth, and the number vealed are estimated from data obtained from the principal markets, census reports, and reports of the U. S. Bureau of Markets.

In a comparison of the figures for 1920 and 1919 a decrease is noted in the quantities of milk used in the manufacture of butter, cheese, condensed milk, powdered cream, and oleomargarine. An increase is shown in the quantity used for whole milk powder, malted milk, sterilized milk, ice cream, and household purposes.



POWDER PLANT AT WAUKON, IOWA.

Take a can of it off the pantry shelf, empty the cream-colored powder contents into a milk crock, add water and set in a cool place over night. The next morning there will be rich cream on top all ready to be skimmed off for the coffee and oatmeal. It will taste just like cream—it will be cream just the same as though it had been raised on milk fresh from the cow the evening before. Put some of the cream in a churn and you can churn butter from it, yet the can of powder may be a year or more old.

This is the product which is being put on the market by the powdered whole milk factory of D. J. Murphy at Waukon, Iowa. The factory began doing business three weeks ago.

For fifteen years concerns here and there throughout the country have been producing powdered skimmed milk, but every effort to devise a method of reducing whole milk to powder without breaking up the fat globules had failed. "It can't be done" was the verdict of scientific men. Then a couple of years ago Dr. S. M. Dick, a Minneapolis chemist, accomplished the impossible—a powdered milk with fat globules intact—by simply letting gravity do the work instead of subjecting milk in the powdering process to high pressure which breaks up the fat globules as was the practice before. The result is a whole milk, all there but the water, and nothing else with it.

The invention has been patented and the patents now are the property of the International Dry Milk Company of Minneapolis and St. Paul. Dr. Dick is a director of the company. The officers are: President, J. E. Burchard; vice-president, F. A. Griswold; secretary, Howard Everett; treasurer, A. B. LaDue; chemist, R. V. Washburn, former head of the agricultural college of the University of Minnesota. During the last year and a half the company has been fostering the establishment of factories to make the product, granting rights to use their patented process to companies on a royalty basis. Two factories have been opened in Canada, one at Gananoqua, Ontario, and the other at Chilliawac, British Columbia. Three have been established in Wisconsin, at Mayville. Alma and New Richmond, and now a first one is opened in Iowa at Waukon. The president of this last concern is D. J. Murphy, banker and lawyer at Waukon and brother of D. D. Murphy, president of the Iowa board of education. His son, R. Murphy, is manager. The plant the company has established is similar to the Canadian and Wisconsin ones, though not so large as some of them. The building of tile reinforced concrete, with its equipment represents an investment of $75,000. The plant as soon as it gets into full operation will consume 100,000 pounds of milk a day and produce 11,000 pounds of powdered milk. Farmers for quite a territory around Waukon will sell to the factory.

It requires not more than twenty minutes to convert the raw milk into powder. When the milk is delivered at the factory by the farmers it is weighed and run through a clarifier which removes all dirt particles. From the clarifier it passes into cooling coils and from the coils into a glass-lined tank where it is thoroughly cooled by refrigeration. The chilled milk is then pumped to the top of the building into a cell where it falls through a shaft on to eight discs revolving at the rate of 4500 revolutions a minute. As it is sprayed into the cell from the disc, hot air currents act upon it, completely dehydrating the milk in twenty seconds. The powder resulting drops like a snowstorm to the bottom of the cell. The water from the milk goes out of the top of the building through exhaust pipes.

The milk powder is taken out of the bottom of the cell as fast as it falls is sifted and aerated and then packed in barrels and cans. The canned powder keeps on store shelves and cupboard shelves without deterioration for many months, the International Dry Milk company claims they have proved by tests made over long periods in climatic conditions in all parts of the world.

—Elkader, Iowa Register.



TRIPLE COMBINATION OF KLEINHEINZ DAIRY COMPANY IS PROSPEROUS.

The plant of the Kleinheinz Dairy Company, Wausau, Wisconsin, has been in operation a little over a year, having started in business the latter part of July, 1920.

From the start business was good and their ice cream was of such a superior quality that it soon advertised itself, and good sales were realized.

New equipment has been added continually to meet the steady increase of business and now the Company has a 60 quart and a 40 quart U. S. freezer, which gives a capacity of 100 gallons per hour. The plant is also equipped with a 300 gallon Cherry mixer, a viscolizer, cooler, etc., a York 10-ton compressor and two hardening rooms of 1500 gallons capacity each, are other assets of the company.

This summer's business has been running from 300 to 700 gallons per day and almost double this amount on holidays.

Their main business is the city milk supply trade which is conducted in an adjoining building. There they have a most complete plant for pasteurizing milk and cream for the city trade.

The company also manufactures butter to supply their trade. Last fall they purchased the Church Hill cheese factory, which is about five miles from the city of Wausau, and this place is used as a reserve supply station to supply both the milk plant and ice cream plant with sufficient milk and cream when needed. All the surplus milk is manufactured into full cream cheese.

Their triple combination of city milk plant, ice cream plant and cheese factory works out to excellent advantage, as all their surplus milk is disposed of with a profit.



Don't miss a single copy of The Ice Cream Review. We'll see that you do not if you send us two dollars for a year's subscription.

38 Lbs. of



SNOW DRIFT SKIM MILK POWDER

+ 62 Lbs. of



GOULD'S OWN BRAND SWEET BUTTER

=60 Gallons 10% Sweet Cream

IN PREPARING your ice cream "mix"—instead of using liquid milk—try this. To 38 pounds of Snow Drift Skim Milk Powder, dissolved, add 62 pounds of Gould's Own Brand Sweet Butter. This makes 60 gallons of 10% sweet cream—which insures a smooth delicious ice cream absolutely velvety.

In hot weather, when milk sours easily and deliveries can't be depended upon, if you use Snow Drift Skim Milk Powder, you'll be prepared to meet the heavy ice cream demand and get your share of the season's profits. Snow Drift Skim Milk Powder is made from the finest fresh milk and won't cake in the barrel or develop a musty odor because it's made fresh every day. Packed for shipment in 180 to 225 lb. drums—carlots or less.

When You're in Minneapolis for the

1921 National Dairy Show

AND

1921 Annual Convention

NATIONAL ASSOCIATION OF ICE CREAM MFRS.

Let Us Show You Why Gould Products Make Better Ice Cream

WE'D LIKE to have you drop in our office when you're in Minneapolis for the Dairy Show and the Ice Cream Manufacturers' Convention and let us show you how Snow Drift Skim Milk Powder, Golden Key Brand Evaporated Milk, and Gould's Own Brand Sweet Butter will not only improve the taste and texture of your ice cream but also lower your production costs.

Only the finest dairy products are used in the manufacture of Gould products. They are tested in an up-to-date laboratory by expert chemists and are guaranteed to be fresh, uniform, and conform with Federal standards. We will be glad to quote you prices and arrange deliveries to suit your convenience.

C. A. GOULD

720 Temple Court **Minneapolis, Minnesota**

"1921 Will Reward Fighters"

By P. PETERSEN, Coster-Petersen Company, Chicago, Ill.

It is with pleasure that we submit our little contribution with best wishes for the success of the National Dairy Show of 1921. The officers and leaders, who, through tireless and unselfish work, have made possible this great event of the season deserve our appreciation and undivided support. Never before in the history of dairying has there been a more urgent need of whole-hearted boosting and sincere loyalty to our great industry than at this time.



P. PETERSEN

We are optimists and believe in the success of our industry — that 1921 will reward fighters and that the coming year will be even more prosperous for the dairy industries than the years past. In these troublesome times when the world seems at edge and unrest, and dissatisfaction reigns, our country is looked upon as a leader among nations. It is up to us to prove the success of our constitution. Co-operation and combined effort in the proper direction is the only solution to our problems. In order to co-operate, we must have explicit confidence in each other, which can be established only through faithful service and square dealings.

The National Dairy Show is a demonstration of what can be accomplished through co-operation. Let us therefore heed the lesson and learn to serve the best interests of the dairy industries, each one in his respective place, that we may deserve the faith and confidence of our fellowmen and in turn reap the profit and satisfaction from work well done.

The Coster-Petersen Company is a recent incorporation, and while the individual members are well known, our company is unknown to many of you. Being a new concern, we are unable to do things that we would like to do. For instance, you may look for us in the list of exhibitors and fail to find the name of our company, but **we will be there.** You will find our apparatus exhibited in the booth of the Jensen Creamery Machinery Company, which company are the exclusive distributors of our line in the Eastern and Western territories. We are pleased to announce that we represent the Jensen Creamery Machinery Company in the Central States, and are as proud of selling the Jensen equipment as we are of our own line. Next year we hope to have our own exhibit for, incidentally, we believe in the right kind of advertising, and among the best media National Dairy Show.

The policy of the Coster-Petersen Company is to give the best possible service to the dairy industries, to be fair to our competitors and always ready to boost a good cause. We aim to give our customers the benefit of savings through quantitive production, but will not lower the high standard of our equipment in order to meet competition.

We are offering the manufacturer the Petersen Culture Cabinet, a combined sterilizer and incubator for pure cultures used in the manufacture of butter, buttermilk, cheese and for ripening ice cream mix. This cabinet insures complete sterilization of the milk media as well as temperature control during incubation. (Patents allowed by the U. S. Patent Office on June 17, 1921,) also Petersen's Ice Cream Gain Indicator (patents pending) which is a simple and reliable device for determining freezing gain or overrun in ice cream. This tester is of exceptional value as a means of checking freezer efficiency and controlling freezing gain. The price is within reach of the smallest manufacturer. We would welcome an opportunity to demonstrate these apparatus to you at the National Dairy Show.

Last, but not least, we want to urge you to attend the sessions of the National Convention. This is a wonderful opportunity to gather information on various subjects pertaining to the manufacture of dairy products, as it brings together men from the various parts of the country who are ready to exchange views and relate their experiences. The convention is also supported by the authorities from all over the country who are giving their service for the benefit of the manufacturer. Don't fail to derive the benefit from the educational features of the National Dairy Show.

MEET us at the National Dairy Show, Minnesota State Fair Grounds (Twin Cities) October 8 to 15, 1921

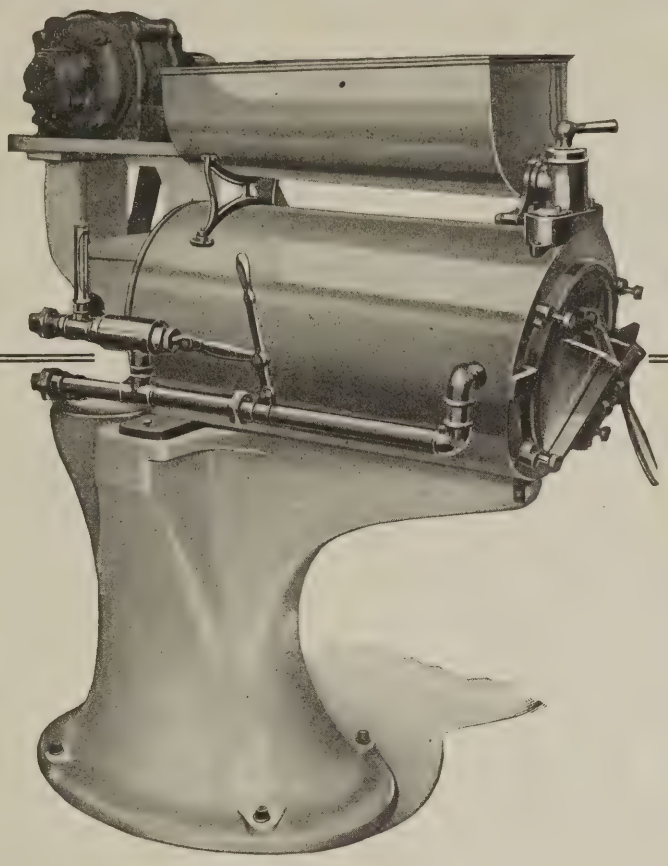
CHINESE FOND OF U. S. ICE CREAM.

Canadian papers report that a new export outlet has been discovered by American and Canadian manufacturers who are shipping, with almost every steamer, thousands of gallons of ice cream to China in containers holding about 500 gallons.

This development of the ice cream trade was revealed in the course of an investigation to discover whether the prohibition era, and the subsequent coming of moderation, had in any way affected the sales of ice cream and soft drinks. As far as could be learned the effect, if any, has been negligible.

Although the Chinese are now showing great partiality for ice cream, the Japanese do not regard it with favor, and positively will not consider soft drinks. But beer is getting a strong hold in Kobe, Tokio, Yokohama and other important Japanese centers, according to G. Reifel, a Vancouver brewer, who has been spending several months in the Orient.

Sake, for centuries the national drink of the Nipponese, is being more and more forsaken by the Japs, who are encouraged by the Government to drink beer in place of the native liquor, which contains 15 per cent alcohol, and which, according to some authorities, had not a little to do with the Japanese being of small stature. Most of the beer is manufactured on the island, the annual output being estimated at 3,000,000 barrels.—Pittsburgh (Pa.) Dispatch.



Good Ice Cream

The finer and more particular likeness for Good Ice Cream instinctively turns to the finer and smoother bodied Ice Cream. That is why so many ice cream producers in this and other countries use Emery Thompson open circulating brine base freezers.

The Ice Cream made on an Emery Thompson is easily distinguishable for its fineness and choiceness of ice cream flavor.

Right at this time can assure prompt delivery.

Please let us send you catalog

Emery Thompson Machine & Supply Company

271-275 Rider Avenue 6-8 Canal Place (Bronx) **NEW YORK CITY**

A Unique Service to the Ice Cream Industry

By H. SCHLOTTHAUER, 140 W. Kinzie St., Chicago, Ill.

THE present day expansion of the ice cream business—the graduating of the small ice cream man from the tub freezer to the brine freezer; and from one brine machine to a battery of machines; the need for larger mixers, ice making equipment, homogenizing machines, and so on, has opened for the smaller commercial man an avenue to savings that he should not overlook. The effect of all these changes has been to place on the market USED machinery that is NOT WORN OUT machinery—machinery that has merely become too small for the increased business.

It is not our feeling that it is good business to buy used machinery. We feel that, wherever a man can afford it, he should buy needed equipment of the very finest make. Trade expansion, however, uses up capital so rapidly in the form of tubs, cabinets, cars, advertising, etc., that, quite frequently, little is left when it becomes necessary to increase the capacity of the manufacturing plant itself. When the ice cream manufacturer is confronted with this problem he can frequently solve it by picking up used equipment at a fraction of the cost of new machinery.

The Ice Cream Review lists in each issue, in its Classified Columns, equipment of this nature. Human nature, however, makes it almost impossible for the seller of used machinery to see any but the good points of the equipment offered. The seller remembers the cost of the equipment and tries to get as much out of it as he can. The temptation to over-praise the machine offered is almost too great to be resisted, and the glowing descriptions should, in many cases, be taken with a grain of salt. The date of the manufacture of the equipment should not have an undue bearing in determining the condition of the machinery offered. We have all seen instances of—say automobiles—that have been in use one season that are in poorer condition than others that have seen several years of service—due to careless handling, lack of proper lubrication, etc. A freezer that has been overworked and carelessly handled is, after a season or two, in worse shape than another that has seen five years of proper service with proper attention.

In the manufacture of ice cream, as a general rule, low speed equipment is used. Our freezers, mixers, crushers, can washers, etc., revolve slowly. With care, therefore, the life of this equipment is indefinite and we should not be too greatly prejudiced by the date of manufacture. The writer recently looked over a used freezer, manufactured in 1905 and offered at a ridiculously low price. This freezer had been in service a few months each season, being carefully greased and covered the balance of the year. This freezer was, in his opinion, a better buy than another of the same make with but two season's use, that a Chicago manufacturer wanted to dispose of at four times the price.

It is the writer's business to call on the ice cream trade in the Middle West soliciting retinning business, can, freezer and tub orders, etc. In visiting around he makes it a point to inquire whether his customer has any equipment to dispose of. If any equipment is offered, he looks it over very carefully, giving particular attention to the gears, bushings, alignment, and any other points that affect the satisfaction the machine may give in the future and to determine how it has been cared for in the past—regardless of how nicely it may have been painted up for re-sale. The very lowest price the seller will accept is ascertained, if, in the writer's opinion, the machine is in good condition. The machine is not bought—the writer undertakes to help dispose of the equipment, adding a nominal commission for his service in bringing the buyer and seller together. The buyer gains, for he has the unbiased opinion of the writer who has actually inspected the machine offered, and whose commission is too small to induce him to misrepresent — the seller also gains through having his machine put before any prospective purchasers in a true light, and a deal follows through this personal element that would otherwise be absent.

We repeat—buy new equipment and the very best quality if you have ample funds; but do not lose business when you can buy first-class used equipment and cannot afford the new. The writer will be happy to serve you in this connection.



OLYMPIC ICE CREAM COMPANY'S NEW BUILDING BEING SHARED BY PIERCE COUNTY DAIRYMEN'S ASSOCIATION.

The official opening of the new home of the Pierce County Dairymen's Association in the new building just completed by the Olympic Ice Cream Company, at a cost of $50,000, has been held. The new plant is not completely enough equipped to care for the entire dairy output available to the association plant, and the fresh milk is being handled at the Yelm, Wash., plant of the Olympic Ice Cream Company, according to O. R. McKinney, president of the association.

The establishment of a wholesale house and factory in Tacoma, Wash., is a new departure for the association. In the past it has been the practice of the dairymen to do their manufacturing at the Roy Creamery. Recently this plan was shifted and, while the new building now being occupied was under construction, the dairymen did all their manufacturing at Yelm.

All the milk produced in Pierce county could be handled in the new plant, Mr. McKinney said. The association has 340 members which represents a large part of the industry in Pierce county. The members of the association are not compelled to sell to the organization but the organization keeps in the competitive field.

The new structure is a brick building, one story high on a concrete foundation 60 feet by 200 feet in dimensions. One-half of the building is to be used in the factory and office quarters of the association, while the remainder will be reserved for the company owning the building. The Olympic Ice Cream Company, of which Joseph Falco is manager, is planning on constructing another unit the same size and capacity as the one just completed.

The company's dairy plant now being operated at Yelm is to be moved at once to the new building. Preparatory to constructing the new plant the company began the drilling of a fresh water well six months ago. The well is now down over 500 feet deep but the flow of water sought has not been found. City water has been found to be much warmer in summer than deep well water and is therefore more expensive to use in the making of artificial ice.

The refrigeration for the new plant will be furnished from the old plant of the Olympic Ice Cream Company, which is located across 25th street from the new plant.

We are what we have learned to be

EACH year we feel a higher sense of responsibility to the Ice Cream Manufacturers who depend upon us for advertising service. Each year we bring this work to a higher degree of perfection.

Our job is constant study of sales problems to the point where we can relieve the Ice Cream Manufacturer of all details of his advertising and supply him each year with a complete campaign, worked out to fit his individual needs, and of course, superior to any effort his competitor might attempt. Our 1922 Campaign is nearing completion. It is built upon a comprehensive knowledge of unusual conditions the country over during 1921, and is backed up by twelve years practice in successful Ice Cream Advertising.

To manufacturers who are located in territories where we do not at present have a client we are ready to submit plans. Use the coupon.

BARKER, DUFF & MORRIS

PITTSBURGH, PA.

BARKER, DUFF & MORRIS
PITTSBURGH. PA.

Would like to have an outline of your 1922 Advertising Plans.

NAME_____

ADDRESS_____

How Truck Tires Are Ruined

Tire Company Official Illustrates the Meaning of the Destructive Traction Wave.

"Solid tires wear rapidly when under heavy load," says J. V. Mowe, general sales manager of the Kelly-Springfield Tire Co. "The reason for this is simple, but is not generally understood," Mr. Mowe continues. "When anything is compressed it occupies a smaller space than it did before. Thus, when a pneumatic tire is pumped up it takes a large amount of the surrounding air and squeezes it into the restricted space of the tube. That air is compressed because the same amount of it occupies less space than it did before. But rubber is not compressible. You can change its shape because of its elasticity, but not the amount of space that a given mass occupies. Therefore, we say that it is not compressible, but that it is replaceable. Take an ordinary pencil with a soft eraser and squeeze it down on the desk. The eraser "squashs" out and bulges all around. It is shorter but it is also correspondingly wider. You have not compressed it by the pressure on the pencil, for you have not changed the total mass or volume—you have merely changed its shape by displacing part of it into the bulge. The softer and more elastic the eraser, the greater will be the amount of this bulge under given pressure.

"This displacement of the rubber is precisely what occurs in a solid tire. If the tire is sufficiently soft and elastic to produce resiliency, it will be considerably flattened at its point of contact with the road. The rubber which is pressed out by this flattening must go some place, and it squeezes out in the form of a bulge at the beginning of the point of contact with the road. Now as the wheel revolves, carrying its load, this bulge stays in the same place with relation to the road, but continually changes its position on the rubber of the tire. Thus when the wheel is rolling this bulge forms what is known as a "traction wave," which is the principal cause of wear in a solid tire. The more resilient the rubber of which the tire is composed, the greater will be the traction wave with all of the increased stretching and pulling off the rubber which accompanies it.

"The traction wave is formed, in a solid tire, because the rubber has no space into which it can flow when it is displaced by pressure. If we cut notches in the tire, however, the rubber will bulge and the wave will travl only until a notch is reached into which the rubber can flow. These notches form one of the patented principles of the Kelly-Springfield Caterpillar tire and provide a displacement space into which the rubber of each section may be forced. The action of these displacement notches is two-fold. When a truck is backed into the curb or other sharp obstruction, the surface of the tire is pressed in at one point and is stretched. Instead of extending this stretch throughout the large surface of the tire it is taken up by the notches which grow wider at the outside ends as the surface of the tire is elongated.

"On the other hand, a caterpillar tire subjected to load on a flat surface, especially at the moment of application of the engine power, will force the section of rubber in contact with the road out on each side because the resilient rubber has been flattened. But if this rubber has been flattened, it must also occupy a longer space because the mass or volume is the same. This added length of the section of rubber under load is absorbed by the displacement notches cut into the tire which, under such a condition, tend to close slightly as the tire revolves. As a succeeding section comes under load, the same action takes place, the elongation being absorbed by each of the displacement notches in turn. Thus the destructive traction wave is localized with the result that tires are longer-wearing and more resilient.

"The displacement notches in the caterpillar tire also furnish a firm traction grip to driving or steering wheels when running through mud, sand or snow. The resilient rubber allows the portion of the tire under load to become flattened, but the displacement notch, as it turns into contact with the road, presents a sharp, firm edge to the road material. Each section of the tire becomes a soft, padded foot of large area which enables the catrpillar-equipped truck to negotiate road difficulties insurmountable to other types of tires.

"This same notch construction also serves effectively to prevent wheel spinning and side skidding on wide asphalt streets and makes the use of chains unnecessary."



LITTLE ADVERTISING HINTS FOR THE ICE CREAM DEALER.

Ice cream, and the ice cream family, is a social food. People consume a certain amount of it as individuals, but it is enjoyed the most when eaten in crowds. And herein lies the confectioners' opportunity.

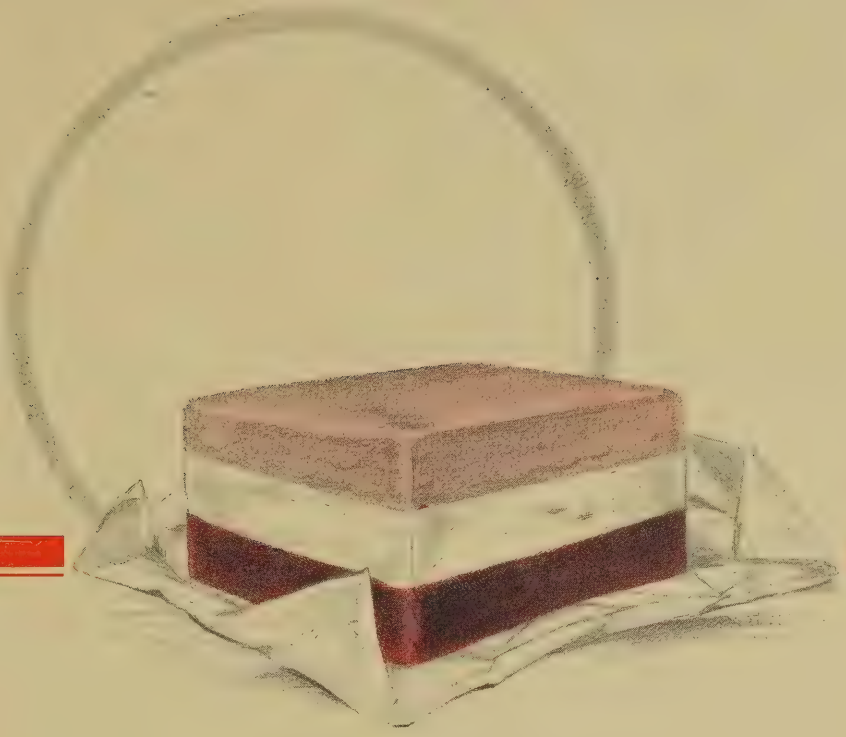
Family reunions, birthday parties, and particularly picnics, offer a chance for sales on an extensive and profitable scale. The point of this article is to suggest how to know when picnics are coming off and how to get the picknickers to think of your shop after they have been made to think of ice cream or other suitable confections.

A typewriter, letterheads and a constant perusal of the local papers make a good combination for bringing this about. If there is going to be a family reunion, where a hundred Joneses, more or less, will gather to do honor to Grandfather and Grandmother Jones, the papers usually tell about the event several days in advance. How easy for the confectioner, on the strength of this newspaper tip, to write a dignified note to the manager of the re-union, with a mixture of congratulation and suggestion that he can furnish the ice cream.

I live in a live Oregon town of ten thousand people, and no picknickers ever get such notes from confectioners. I don't believe it would be considered in this aggressive age as being in any way improper. Insurance men in the community know when a new car is bought and the purchaser will soon get a note or telephone call from one of them. Printers know the birthdays of the children of their community, and do not hesitate to suggest to the mother suitable printing for these recurring and profitable occasions. Stationers will send congratulations and suggestions for wedding stationery to couples whose engagements have been announced.

The daily or weekly newspaper in the town is a valuable trade paper to the confectioner if he cares to join the other merchants in considering it so and using it as such. He must keep his ear attuned to the happenings where his trade is converned. He must get the idea that it pays for Mahomet to go to the mountain occasionally, rather than to expect the mountain always to come to Mahomet.

Motor cars have multiplied picnics a thousandfold. A man in the confectionery trade can address typewritten notes with much profit to his business and to the catching of the patronage. Side by side, with this promotion, he can develop his cartons so that transportation of his goods in a cool, attractive and unmelted state will be a matter of convenience, and add to the cumulative upbuilding of patronage.—By Alfred Powers, Western Confectioner.



"Sentiment In Business"

IT has been said, "There is no sentiment in business." "That business is business" with no room for expressions of genuine appreciation for favors extended or special services rendered. However, we are happy to state, our experience has been otherwise. It has taught us that there is a sentiment in business which does play its part, and rightly so, in these busy work-a-days. It counts for much. We value it highly. And in the spirit of this friendly business relationship we extend to all ice cream manufacturers a most cordial invitation to meet us at our Dairy Show Exhibit, Booth Number 317, Mezzanine Floor.

Surely, the Dairy Show affords a most pleasant opportunity for all of us to become better acquainted and, thru this better understanding of each other, to conduct future business with a keener regard for the faith in one another's sincerity of purpose. Such is the nature of the welcome we wish most to greet you with at the Dairy Show.

The Boerner-Fry Company, Iowa City, Iowa

MANUFACTURERS OF HIGH GRADE EXTRACTS

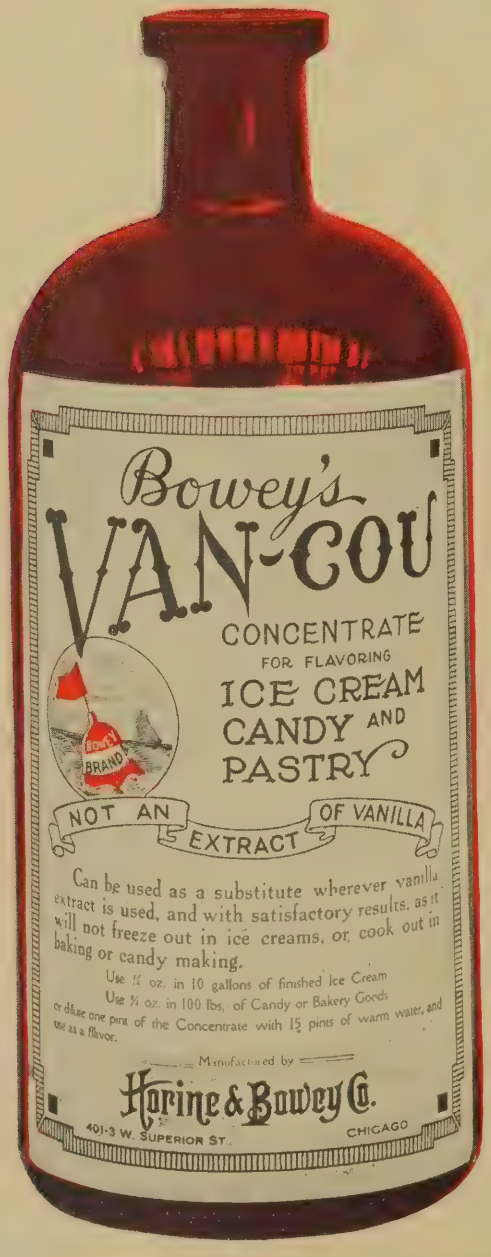
We'll Dare You to Taste Your Flavored with BOWEY'S VAN-

You're an Ice Cream Manufacturer.

But before that—you're a human being. You eat, sleep, laugh and cry, just like the rest of us.

And the only way *you* can really judge an Ice Cream Flavor is by the way it *tastes* to *you*—just *you*.

And if the flavor doesn't freeze out, you know it, mighty soon, when you taste it.



But Who is the Ultimate Judge?

The Ice Cream eating public is the best judge of flavor. It soon finds the store that serves Ice Cream with that delicious *fresh smack*.

That is why Bowey's *Van-Cou Concentrate* will increase your business—it gives that delicious *fresh smack* to your Ice Cream.

"Retains its Flavor"

Besides this *distinctive flavor* it has a lasting quality none other has—it retains its flavor and *will not freeze out.*

HOW PACKED and COST: Bowey's *Van-Cou Concentrate* is put up in pint bottles (12 to case) at $4.00 the pint; gallon bottles (6 to case) at $30.00 the gallon.

Ma

HORINE & B

401 WEST SUPERIOR STR

ESTAB

Own Ice Cream OU Concentrate



Van-Cou is Easy to Use and Cuts Down Costs for Large or Small Batches

FOR LARGE BATCHES: One pint to 250 gallons raw goods, or 500 gallons of finished Ice Cream.

FOR INDIVIDUAL BATCHES: Three-eights ounce to 6 gallons raw goods or 12 gallons of finished Ice Cream.

Either way at a cost of **¾ cents** a gallon Ice Cream, for this wonder flavor with the *fresh smack* to it.

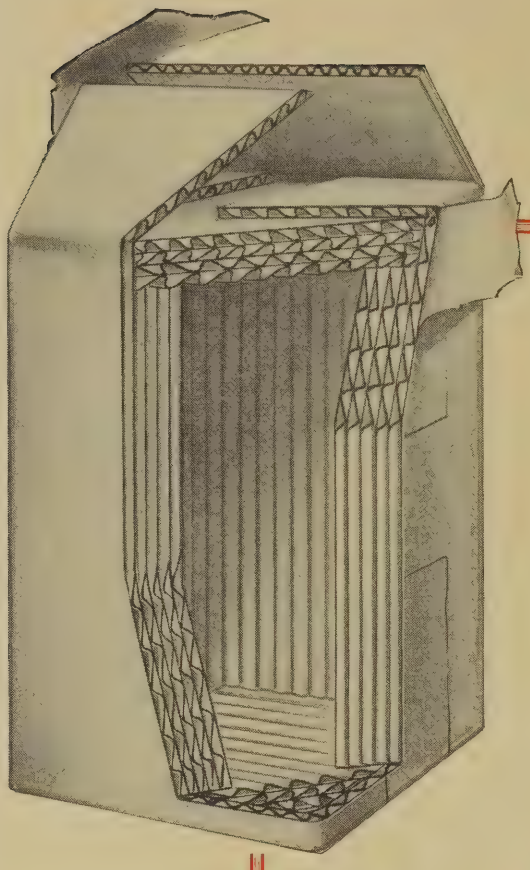
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WEY COMPANY
CHICAGO

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Trial Order

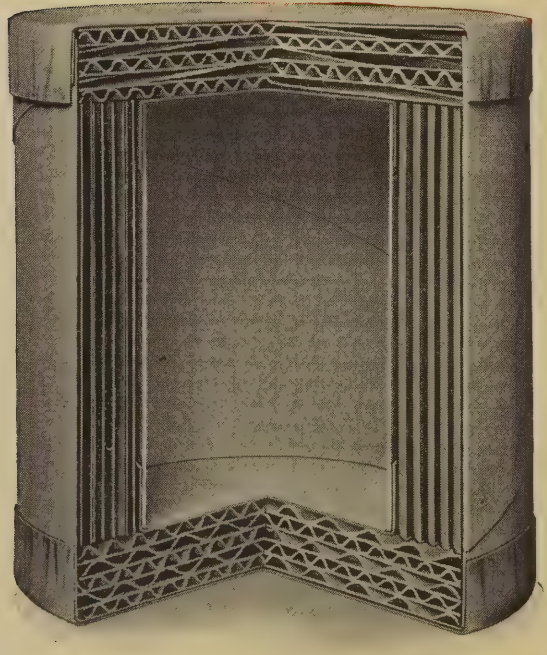
If you order at once, we will prepay express and guarantee satisfaction or you may return at our expense



Test The Value of These Containers

Now, while the rush has died down can you watch the full service to which you can put these

Single Service Iceless Containers



They have a distinct place in your delivery system. They reduce costs, make unprofitable deliveries worthwhile and save a lot of trouble and expense here to fore unavoidable.

Try out a hundred or so. The cost is small, the possibilities great. Prices and Booklet on request—Write

The Hunt-Crawford Company

Manufacturers of

Cellular Fibre Products

Orchard & 14th Sts.

Coshocton, Ohio

CHAS. A. PARKER JOINS FREDERICK C. MATHEWS COMPANY.

Charles A. Parker, one of the ablest advertising executives in the country, has subordinated all other interests to become actively associated with the Frederick C. Mathews Company, Detroit, specializing in advertising and educational material for the dairy industry exclusively.



CHARLES A. PARKER

Parker will consult with leading members of the dairy profession in the interests of the industry, and serve with the advisory and editorial staff of the Detroit office.

Frederick C. Mathews, as advisor-in-chief to the dairy industry, occupies a unique position and is receiving a recognition which justifies him surrounding himself with men of mature and seasoned merchandising ability.

This is in line with plans for further expansion of the business of the Frederick C. Mathews Company.

Mr. Parker returns to Detroit after an absence of several years in California. Prior to his departure he was for many years a stockholder and director of the Curtis Company, and originated and serviced some of their largest accounts.

He is to take an active part in the Mathews Company's affairs.

Mr. Mathews, in speaking of the connection, said, "Our business has grown so rapidly that it has at times been quite a problem to select seasoned and experienced men to keep pace with developments in the industry. Mr. Parker's long experience and practical application of merchandising should prove invaluable to our clients."

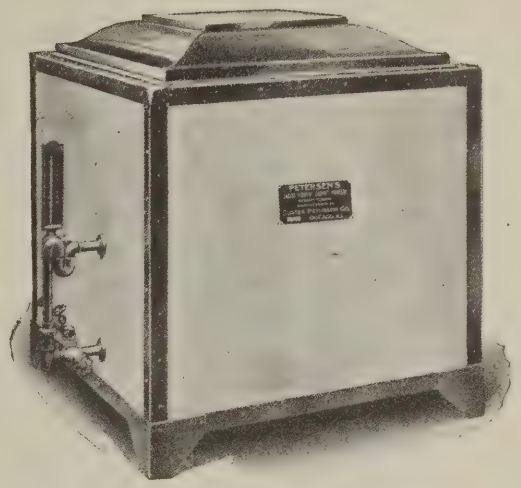
ICE CREAM PLANT OPENS AT WATERTOWN, WISCONSIN.

The ice cream plant recently installed by William Hartig in a portion of the brewery buildings in Cady street, Watertown, Wis., has been put in operation. The plant is located in the north wing of the brewery, the interior of which has undergone remodelling, with a view to perfect sanitary conditions. New cement floors were laid and the whole interior put in a spotless white condition.

The placing of the necessary machinery has been going on for several weeks, under the direction of James Lloyd, erecting engineer for the Creamery Package Company, of Chicago. The plant has been constructed with a view to increased capacity. Its present capacity is 500 gallons daily with a ten ton ice machine. There are two 300-gallon sanitary vats in which the cream is pasteurized and mixed. The hardening room has a capacity of 1200 gallons.

Mr. George M. Brown, a man of much experience in the manufacture of ice cream has been engaged to superintend the plant, which will also give employment to several men and be a welcome adjunct to the industrial growth of the city. Mr. Brown was formerly with Spate-Barrett Ice Cream Co., of Rockford, Ill.

Improve your IceCream with a Pure Culture



Patents examined and allowed June 17, 1921
Serial No. 429055 U. S. Patent Office

PETERSEN'S Combined Sterilizer and Incubator for Pure Cultures that enables you to control ripening of mix and manufacture a clean, fresh flavored ice cream.

Do you want to get rid of that "Old Butter Flavor" or "Unclean After-Taste" in your Ice Cream? Write us. We will tell you how.

Coster-Petersen Co.

2531-33 Homer Street

Chicago

Exclusive Distributors
Eastern and Western Territory

Jensen Creamery Machinery Co.

Bloomfield, N. J.
Oakland, Calif.

Minnesota's Development as a Dairy State

By Northwestern Dairy Development Committee

MINNESOTA'S wonderful record in butter production, in which it leads the nation, and how the dairy cow, a real business stabilizer, came to the rescue of the farmer and the banker in days of stress will be one of the big object lessons at the National Dairy Show, which for the first time is to be held in the Northwest, October 8th to 15th, in the mammoth building on the Minnesota Fair Grounds where farmers, breeders, creamery men and others interested in the dairy industry will witness the greatest exposition of its kind ever held.

The coming of the National Dairy Show to Minnesota is a recognition of the commanding position the state has taken as a producer of dairy products. Minnesota boasts of its iron mines, forests, corn, wheat and potato crops but not many people realize that the dairy cow in Minnesota is producing wealth each year next only to its mines. According to figures compiled for 1919, the value of Minnesota's dairy products was $169,761,127, as compared to $200,000,000 for the iron mines. The corn crop that year was valued at $139,200,000, wheat at $90,788,000 and the potatoes at $41,264,000. Corn, wheat and potatoes are the three great staple crops of the state, but dairy production outstripped them all and the wealth producing possibilities of the dairy cow are just being realized.

It was not many years ago that Minnesota was one of the leading spring wheat states, but it was eventually found that continuous wheat cropping left in its wake a depleted soil and noxious weeds. It soon became apparent that diversified farming with livestock was the only way in which to restore and maintain the fertility of the land.

During the past year of financial depression the farming industry suffered from deflation. The state produced a tremendous crop in 1920, but it sold below the cost of production to farmers and left thousands of them unable to liquidate their obligations. When the business of the farmer is bad, all business is bad, because farming is the great basic industry of the country. But Minnesota has been more fortunate than many of her neighboring states.

An examination of the production by counties of creamery butter gives the answer. Farmers of Minnesota, patronizing 811 creameries, were paid the sum of $80,793,278 for milk that was manufactured into butter. This was for butter alone. Figures compiled by the State Dairy and Food Department show the total value of all milk sold to creameries, condensaries, city distributors, ice cream and cheese factories and all dairy products consumed on farms worth the stupendous sum of $169,761,127.

Minnesota has 27 counties that produced more than a million dollars worth of butter in 1919. Seven counties produced more than two million dollars worth and one county has a record of more than three million dollars. In Stearns, Meeker, Wright, McLeod and Carver counties the farmers were paid a total of more than $12,000,000 for their milk. Bankers or business men of these counties declare the business situation is good. Then in any of the counties in the western or southwestern part of the state that produced less than $500,000 worth of butter a different situation is revealed. The difference lies in the fact that the man who milks cows has a steady monthly income the year around. He isn't like the chap who gambles with the weather and the market on one or two crops only, and then has to dump his entire year's production on the market at one time. Few banks in Minnesota have been in serious difficulty, thanks to the dairy cow.

The surface of the possibilities of the dairy business has not been scratched, and yet Minnesota leads in butter production with 143,176,204 pounds in 1919. The state produced one-seventh of all the creamery butter made in the United States in that year, when Iowa produced 87,914,633 pounds and Wisconsin 85,054,334 pounds.

The reason the National Dairy Show has come to Minnesota is because of the great development along dairy lines. The show is an educational institution that has for its primary object the improvement of dairy cattle and the teaching of better dairy practice. The choicest dairy stock in the country will be assembled at St. Paul the week of October 8th to 15th, as object lessons in animal perfection. The most modern equipment now used in the farm dairy, the creamery, the cheese factory, the distributing plant, the ice cream factory will be shown. People from all over the United States and foreign countries will be present to see and learn. The dairy show furnishes the greatest opportunity farmers of the Northwest have ever had to study their business from a national standpoint, and it also permits business men and city dwellers generally to gain an idea of the importance and scope of this gigantic industry.

"Tell your friends and neighbors you are going to the World's Greatest Dairy Show, Minnesota State Fair Grounds, October 8-15, 1921."

JUST A NOTE FROM ONE OF THE DIRECTORS.

My Dear Fellow-Members:

I wonder whether each and every one of you realize the value the annual conventions of the association are to your own progress and to the progress of the industry.

I have never seen the Rotary slogan of "He Profits Most Who Serves Best" exemplified in a greater degree than in the ice cream industry. The very successful fellows have been the ones who have attended the conventions regularly, who have always been willing to give and who as a reward of their unselfishness have usually received the greatest benefit themselves.

Therefore, Mr. Fellow-Member, make this trip to the national convention a duty that you owe to your business and to your own progress. Do not mistake what I say. It is absolutely vital and necessary to your progress and I mean it exactly as I say it. Your business needs your attendance at the convention more than any one single thing, and at the same time you can make it your vacation.

WM. F. LUICK.



The "Perfection" Imprint on Your

Ice Cream Cartons, Can Liners and Butter Cartons

is your assurance that the Buying Public is going to get the correct impression of the quality of goods that you have put in your package. INSIST on the best, it COSTS NO MORE

Write for Booklet

CHICAGO CARTON COMPANY

4433 Ogden Ave., Chicago

NEW YORK, 516 5th Avenue
CINCINNATI, Gwynne Bldg.

CHICAGO CARTON COMPANY

DALLAS, 601 Elm Street
DENVER, 1526 Blake Street
SALT LAKE CITY, 355 Pierpont Ave.

Industrial Relationship

Address by W. W. MARPLE, Director, Department of Industrial Relations, Beatrice Creamery Company, Chicago, Ill.
Delivered at the Meeting of the Michigan Association of Creamery Owners and Managers,
May 19, 1921, at Kalamazoo, Michigan.

HAVING been denied the opportunity of meeting with your association for a long time I deem it a special privilege to be here today, and my ambition is to make some suggestion that might be of some interest and benefit to you as individuals and to the cause you represent in general. When your secretary asked me to address you on this occasion I felt like the boy in a public institution in New York (that was attended by many races) when he was asked who discovered America. The boy hesitated to make any reply much to the teacher's surprise, and said, "Please, ma'am, ask me something else." She said, "Why should I do that?" He said, "The fellers were talking about that yesterday and Pat McGee said it was discovered by an Irish saint. Olaf said it was a sailor from Norway, and Giovanni said it was Columbus, and if you had seen what happened you wouldn't ask a little fellow like me."

The gravity of the situation in our business makes this meeting a serious one and requires the best brains, the coolest judgment, the greatest wisdom, and the richest experience to guide us in our deliberations, and I feel in a superlative degree my weakness. There is, however, one thing of which I am certain, and that is, In union there is strength, and in a multitude of counsel there is wisdom. Had I the wisdom of Solomon and the eloquence of Patrick Henry I know of no better subject than the one given me (Industrial Relations) to solve the great problem that confronts us, and I would burn into your memory those things that make us weak, and make plain to you the panacea that would scatter the clouds of impending disaster and place us on that pinacle of success so much to be desired, and the object of our continual effort. If we have been switched off of the track, if we are on the wrong road, if we are on the highway of extravagance, inefficiency, distrust, enmity, discord, envy, and strife that leads to chaos, I would point to the industrial pathway of economy, efficiency, confidence, friendship, harmony, charity, and union that leads to ultimate prosperity, success and happiness. The combined wisdom of all the ages has utterly failed to make a law that, if kept, would solve every question, industrial and social, such as was given us by the Son of Man centuries ago: "Whatsoever ye would that men should do to you, do ye even so to them." So appropriately and beautifully called the Golden Rule. I would if possible remove any doubt in your mind that this rule can apply in our business. It is the only safe and sane rule to be governed by in any business. It is the one infallible guide to success in man's relationship to man, and the only foundation that will withstand the storms of time. I knew a man whose rule of life was the golden rule, and in the conduct of the creamery business he reached the pinnacle of industrial supremacy by making it an inviolable rule. Abraham Lincoln, the greatest man in American history, who was placed in the highest position in the gift of the people, made the golden rule the ruling principle in his administration, and the victory he achieved has no parallel in the annals of time, for he conquered prejudice and changed enemies into friends, hatred into love, and left an impress on the hearts of men that time nor eternity cannot efface. Dr. Shannon said that a man once said to him that Lincoln was an ugly and a vulgar man. He replied that God spent so much time making the soul of Lincoln he had none left to give to his personal appearance in making tht habitation for that soul. History is replete with the story of men who attained the greatest achievements through the application of the golden rule, and there is not a single instance on record of a failure where it was applied. Why not incorporate it into the rule that governs us in our industrial relations.

A very illiterate man was elected to the Missouri legislature on the promise that he would have a law passed that would protect the sheep from the onslaught by vicious dogs that seemed to prevail in his district. He went to a lawyer to have a bill drawn and when the man asked him what he wanted incorporated in this bill he said, "Make it so it will suit my constituents and not interfere with the dog." The Golden Rule will suit our constituents and certainly not interfere with our business.

Robert K. Fask says: "Industrial relations management has developed through a process of evolution in the relations between workers and management."

One of the most constructive leaders in the study of industrial relations and the originator of one of the most practical and successful systems of industrial relations management says: "The industrial system now passing contained a world of struggle, of selfish greed, of competition, of the domination of the strong and the crushing of the weak, or irresponsible management, and of a belief in the materialistic concept of life."

The same thing is true with us collectively as with any individual organization. I see no difference in our business and a steel mill or a woolen mill or a printing office except that we are larger than any individual organization. Every man who milks and furnishes us with the raw material is a part of our organization and our relation to those people is identical with the relation of the management of a woolen mill or cotton mill to the employes of that mill, and if we prosper they must prosper. No set of men can do efficient work unless they are happy. Modern management realizes that; so in the pursuit of our business we want to remember that our industrial relation field is broad. It reaches away beyond those with whom we associate daily in our factory. There is not only the producer but the consumer as well. During the war when prices for butter fat as well as all farm products were high, general conditions were conducive to happiness for the farmers' reward was abundant. They didn't need any coaching, we may have neglected them. Now their wages are reduced materially by a reduction in the price and they need especial attention because they are unhappy. It requires the greatest care to keep them from rsigning, and when they do we are out of business. During the war help was scarce. There were two or three jobs for every man. Efficiency was at a low ebb. Men were indifferent and careless. If he didn't like one job he could get another. Men who had been getting fifteen to eighteen dollars a week were offered six to eight dollars a day. Money was the most plentiful thing on the market. People went wild, the most extravagant habits were formed. Cotton shirts remained on the shelf covered with dust, and the demand for silk shirts at any price was far in excess of the supply. Cotton hose factories closed down and silk hose factories ran day and night to meet the demand. Women wore seal skins and diamonds, and men hundred dollar suits and overcoats, and everybody owned an automobile of some kind. The marriage license departments required extra help. High priced flats were elegantly furnished, and every meal was a banquet. Theaters and operas at unheard of prices hung up the S. R. O. sign every night. Railroad trains and electric cars were crowded to capacity. The lower and upper berths in sleepers were occupied every night. The greatest extravagances were indulged in everywhere. We were like the old colored man who lived close to Mr. Sloan down in Georgia and was often hired by him to do odd jobs around the place. There had been a storm and many of the fences were blown down,

MANUFACTURERS OF WEST VIRGINIA.

Your Secretary, C. J. Jamison, in a recent letter, says in part:

"I hope and urge that every manufacturer in the state of West Virginia shall take the time to attend the annual convention of the National Association of Ice Cream Manufacturers, which will be held at Minneapolis, Minn., on October 10th, 11th and 12th. This promises to be the most important and instructive ice cream manufacturers' meeting ever held."

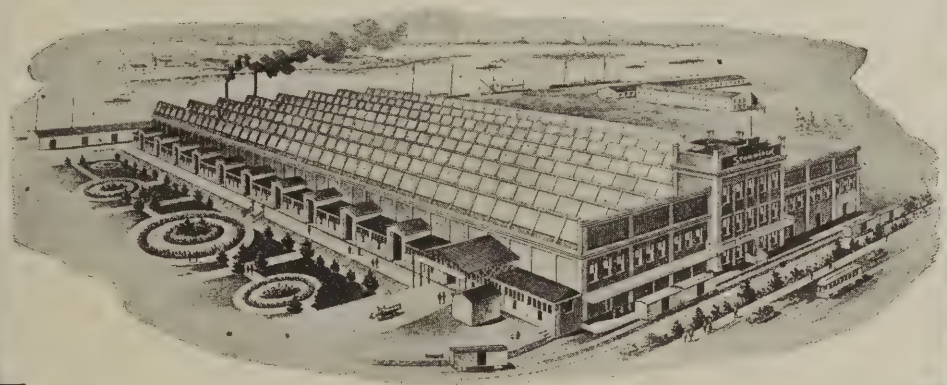
STOLLWERCK

COCOA POWDER

Quality, Flavor and Color unsurpassed. Best results in ice cream making can be obtained by the use of Stollwerck Cocoa Powder.

Prices and samples upon request

Packed in 25 and 50 lb. drums Also barrels and cases



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STAMFORD, CONN.

BRANCHES:
NEW YORK BOSTON CHICAGO KANSAS CITY
SAN FRANCISCO SALT LAKE CITY SEATTLE PORTLAND, ORE.

and Mr. Sloan saw the old man and said, "Uncle Mose, I would like to have you come over Tuesday and help fix up the fences, and by the way, we expect to butcher on that day and you can have the jowls." The old colored man replied, "That's all right, boss, I'll come over and help fix up the fences, but since I got my pension I been eatin' a little farther back on the hog."

Note the change that was inevitable. The pendulum had to swing back and as it had swung too far one way it had to swing proportionately far the other way. Those who dance must pay the fiddler. The dance is over and the fiddler has presented his bill. Help is plentiful. There are two or three men for every job. The highest degree of efficiency is required. Men who were indifferent and careless ar now on the alert and careful. If he doesn't like his job he hangs on to it anyhow for he doesn't know where to get another. Some men who were getting six to eight dollars a day have gone back to eighteen dollars a week. There are lots of things more plentiful than money. Economy is the watchword. Cotton shirts look more attractive and are more fashionable. Silk hose are being made out of cotton, and the pure article has been darned. Pawn shops are loaded down with seal skin coats and diamonds, and men are wearing overalls instead of hundred dollar suits. Garages have become second hand automobile sales depots, and the streets are lined with machines that have the "For Sale" sign on them. Extra clerks in the marriage license departments have been discharged and divorce courts are crowded to the limit. People are living in tents and buying modest furniture, a dollar down and a dollar a week. Pork and beans have taken the place of chicken, goose, livers, and caviar, and free soup kitchens haven't soup enough to go around. Strong healthy men strike you in every block for a little money to get something to eat or a place to sleep. Butterfat has dropped from 75 to 25 cents and yet it is acknowledged by dairymen to be the most substantial and dependable of any farm product. Notwithstanding this conclusion there is much dissatisfaction. There is a firm conviction that the price of dairy products is unfair as compared with other commodities, and this may be true. So may it be true that in some instances the compensation for labor is not in harmony with house rent, and children's shoes, but all this is regulated by the immutable law of supply and demand. During one of the panics of the last decade Tom Watson of Georgia, a lifelong Democrat and an orator of national repute, got disgusted with the Democratic administration and was running for office on the Populist ticket. In his appeal for votes he blamed the condition of the times on the administration, and in referring to the rich promises made by those in office he said in one of his speeches: "Two years ago we were living on the ambrosia of Democratic expectancy. Today we are living on the corn cob of Democratic reality." My friends, we have had the ambrosia. The man in your institution who is in trouble is not himself and cannot render the best service. In many instances his trouble is imaginary. He needs counsel, he needs encouragement, he needs treatment. I know a man who thought he was dying from heart trouble. He got out of bed and stuck his head out of the window and gasped for breath. A physician in whom he had confidence was called and he told him to lie down and be still. He examined him and said: "There is nothing the matter with you, there is nothing wrong with your heart, you ought to get up and go to work." The man was at work the next day. That was fourteen years ago, he is still doing business. It has been necessary for him to go to this doctor occasionally to have him tell him there is nothing the matter with him, and with this treatment he has grown to be as great a specimen of health as can be found. This is not exactly the situation with the dairyman. With him, in the language of Grover Cleveland, "It is not a theory but a condition." Many dairymen are producing butterfat at a loss. He is gloomy, he is discouraged, he says there is no use. He is brooding over the situation. He is in no condition to meet the situation bravely and work out a plan to improve conditions. He needs some kind of a shock to eliminate that depression that is hastening him on to failure. I have in mind an instance that I believe is worth relating and may be of some assistance to all of us, for the creamery man is now passing through an experience that to say the least is not conducive to happiness but creates worry to such an extent that we are unfitted for business, because the energy that should be applied to changing conditions is consumed in worrying. The incident to which I refer is the experience of a banker. In starting his private bank he secretly felt that he did not have quite enough capital, but he started and for a time met with remarkable success. Later there was a tightness in the money market, some of his best customers came to have their notes renewed. He couldn't afford to lose them, so he renewed their notes. All the time he harbored the feeling that he hadn't capital enough, he began to worry, he tried to keep outsiders and his depositors from knowing that he was hard pressed. His worry changed his manner, he became less pleasant to meet, he became morose and crusty, first at home, then with his employes. Customers noted the change and some of his small borrowers who pay promptly and that he needs the worst go somewhere else to borrow money. Depositors feeling the morbid atmosphere got uneasy and drew out their deposits. He expected his bank to fail and his own savings and his honor to go down with the bank. He expected the bank examiner in a few days, his name is Gregg. He feared him. About this time his wife prevailed on him to visit a psychologist. He hesitated because of the fee. The psychologist, a woman, realized his mental attitude must be changed and that very quickly. After a long talk he promised to carry out her instructions. She discovered he had twenty dollars and she charged him that amount. That was the first shock. She wanted him to feel he had purchased a right to expect results. She went into another room and wrote on a slip of paper:

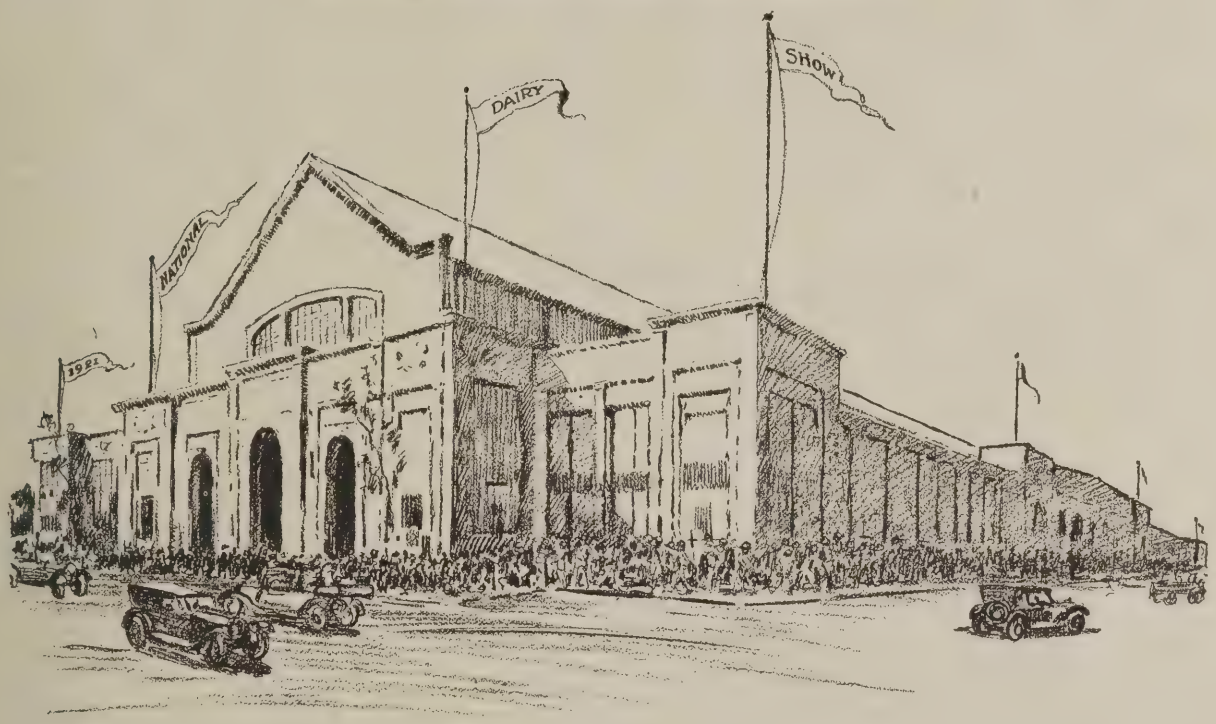
"Little Jack Horner
Sat in a corner,
Eating a Christmas pie,
He stuck in his thumb,
Pulled out a plum,
And said, "What a big boy am I'."

She placed this in a sealed envelope and told him to open the envelope at nine o'clock and read the lesson three times. The next morning at eight he was to read that lesson three times and do his best to realize she was trying to help him get his mind off his worries. Then at twelve no matter where he was he was to read them over three times, and repeat exactly at the stroke of three. A short time after opening the envelope at night his wife called up the psychologist and told her she was afraid the man had lost his mind, that while he was not in the habit of swearing the air was blue. She told the wife she would expect him to live up to his word. He didn't sleep any but occupied the time thinking about the swindle out of twenty dollars and how he would get even with the woman. He went to the bank and was mad. His associates noticed the change and it was a relief. He stuck to his promise and read the lesson over as instructed. Finally his anger cooled off. He remembered the woman had said, "It will take a shock to jolt you out of your fearful lethargy and get your mind off your worries," he said, "I got the shock all right and I forgot all about my troubles last night." He saw the point of what she was trying to do and he smiled. Then he read it over again and laughed out loud. The cashier went into the office where the banker was, to see what had happened and when the banker told him about it they both laughed. He gave up the thought of having the psychologist arrested. Mr. Gregg, the examiner, came, went into the office, learned the whole story and told the banker his bank was all right, all he needed was more capital and he found it for him. To me this is a wonderful lesson. During the time when this banker was worrying himself sick and incapacitating himself for business he needed what the girl told her sweetheart he needed. They were walking on the beach near St. Augustine, Florida, and the wind was blowing a perfect gale. The young man had tried for some time to get up courage enouh to propose, and his girl had hoped he would succeed. On this occasion everything seemed to be favorable, the music of the sea waves was inspiring, the solitude in the absence of a human being to be seen anywhere was conducive to that confidence that leads to a permanent union, conditions were perfect for the long expected proposal. The young lady was sure it would come, only to be disappointed. Finally the young man began to spit and make a good deal of fuss and his girl asked him what was the matter. He said he had gotten sand in his mouth, and she immediately said, "Swallow it, kid, you need it in your gizzard."

Now keep in mind there is an industrial relation between you and the producer. When you get your balance sheet at the end of the month and find a loss you immediately hunt for the cause. You cannot eliminate the trouble by raising the price of butter or lowering the price of butterfat below the market for you have nothing to do with the market. As a rule you can find some slack motion somewhere, some waste, maybe some trouble in quality. A reduction of expense by greater efficiency through harder work or improved machinery, and elimination of waste, and improvement in quality, and increase in volume. The dairyman is in exactly the same situation. He cannot control the market, but he can control very largely the cost of production. He may need some new machines, or better care and better feeding of what he has. Don't forget he is your partner. Tell each other your troubles and solve the problem together. In your manufacturing plant your relation is with the office force, the manufacturing department, the print and packing room, the sales force, and

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REDUCED R. R. FARES

HORSE SHOW IN EVENING

OUR dairy friends of the Northwest are proud to welcome the members of the dairy fraternity to their great country, and promise to give each visitor a royal good time—to give him an entertainment he will never forget—and to make him a permanent booster for their wonderful country.

The 1921 National Dairy Show will be even greater than the magnificent exhibitions of past years. It will be housed in a beautiful building of great size, adequately lighted, well ventilated, and with every facility for the comfort of visitors.

October is the Northwest's most glorious month—an ideal time for a visit.

Tell your friends and neighbors you are going to the

World's Greatest Dairy Show

MINNESOTA FAIR GROUNDS

October 8th to 15th

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Int. Milk Dealers' Ass'n.
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Nat. Holstein-Friesian Association
Nat. Jersey Cattle Club
Nat. Guernsey Cattle Club
Nat. Ayrshire Breeders' Association
Nat. Brown Swiss Breeders' Association
Nat. Co-operative Creamerymen's Convention
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Allied States Creameries Association
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National Association of Dairy and Milk Inspectors
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the shipping department; but this is not all, it is only the beginning. There is the producer and the consumer and they are legion, and I beg of you don't let the almighty dollar hide them from view.

From an industrial standpoint our relationship is close for upon these we must depend for the perpetuity of our business. I am impressed that the greatest incentive to act in any movement is selfishness. The greatest awakening in the advancement of any cause comes through an appeal to selfish personal interest. I care not who it is or what the cause I am glad to acknowledge that while the accumulation of wealth is the most alluring it is not the only inducement or motive that prompts us in our efforts. The elevation of our social position, the acquiring of superior knowledge, the attainment of high political position, the matter of a profession, the greatest proficiency in the world of sports, popularity, fame, and it may be the joy that comes with the consciousness of having done a good deed are all to be considered. There are just two principles by which we are governed in all our actions. One is the fear of punishment, the other is the hope of reward. So in my effort today to awaken a deeper interest and encourage a closer industrial relationship I am particularly favored by being able to warn you of the danger of punishment and at the same time impress you with not only the hope but the certainty of reward.

A few days ago I sat in an amphitheater in the midst of four thousand people and I heard this question asked in poetry and song:

"Somebody did a golden deed
Proving himself a friend in need,
Somebody sang a cheerful song
Brightening the skies the whole day long,
Was that somebody you?

Somebody said 'twas sweet to live,
Willingly said I am glad to give,
Somebody fought a valiant fight,
Bravely he lived to shield the right,
Was that somebody you?

The problems that confront us will not work themselves, and upon your effort and mine will depend the outcome. If united we make a valiant fight and bravely live to shield the right, if success (that is sure) crowns our efforts, if we have proven ourselves friends in need, then will we welcome the question, "Was that somebody you?" If we live thoughtlessly in vain, if we fail to embrace the opportunity, then through the ages to come will be heard the voice of the producer and the consumer crying in their distress, "Was that somebody you?" Now is the time to make hay while the sun shines. Walter Malone says in a beautiful poem on opportunity,

"They do me wrong who say I come no more
When once I knock and fail to find you in,
For every day I stand outside your door,
And bid you wake, and rise, and fight, and win,
Each night I burn the records of the day,
At sunrise every soul is born again."

This is a comforting thought for if we believed that opportunity knocked but once many would be compelled to live in despair, for few there are who cannot look back at a lost opportunity. The unsuccessful man is he who is deaf to the knock of opportunity, and satisfies himself that it will come again. The same is true of a business enterprise or an organization. The man who shuffles along through life anchored to hope, inspired by the fallacy that there is just as good fish in the sea as ever was caught, is a failure. It makes no difference how often opportunity knocks this man is the same shuffling failure. He is like the Justice of the Peace said about his wife. In a little village not far from my Missouri home Giles Cook ran for justice of the peace and was elected. He was very much elated and went strutting home to tell his wife. She said, "Now, Giles, if you're Justice of the Peace, what am I?" He replied, "You are a damn fool like you always were."

There are two things in connection with opportunity as it pertains to a successful life. First to be able to recognize the knock and then to respond with promptness and intelligence. The man who is awakened by an alarm clock and turns over and goes to sleep several times in succession finally does not hear it, his sensibilities are dulled; so I believe it is possible to become deaf to opportunity's knock and blind to the possibilities. It was Daniel Webster who said "There is room at the top." With this as an axiom opportunities are multiplied in every profession and every industry. The names of men are legion who have sought and found opportunities. Peter Cooper learned that American glue was defective and that we were dependent on foreign products. He saw the opportunity and manufactured a glue that met the needs and made a success. James Gordon Bennett saw the need of a great daily paper in New York City to be conducted on certain principles, and he established the New York Herald and perfected it. Booker Washington, Cornelius Vanderbilt, and John D. Rockefeller, were all examples of seizing opportunities to their own gain and the benefit of humanity. P. D. Armour towards the close of the Civil War knew that pork would decline on the fall of Richmond and sold out, laying the foundation for the Armour millions. A barber saw that if he had an instrument that would cut men's hair a uniform length it would save him work, the result was the invention of the clippers. Adams, who organized the Adams Express Co., Stanford and Huntington, who built railroads on the Pacific coast, and George M. Pullman, who perfected a conveyance for the comfort of the traveling public, immortalized themselves and amassed fortunes by responding to the call of opportunity. I would not forget that the secret of success is to be ready for opportunity, and that the common events of life bring the rarest opportunities. Doctor Babcock discovered a means by which the fat value of milk and cream could be determined accurately and quickly. Doctor De Laval utilized a principle in mechanics through the invention of a machine that separated the solid from the fat in milk by centrifugal force. Doctor McCollum after years of research and experiment has discovered the true value of dairy products as a body builder and health promoter. The names of Lincoln and Grant will live forever as statesmen and warriors, and yet they might have lived lives of obscurity and filled the graves of a recluse had it not been for the opportunity given by the Civil War. Foch and Pershing are household words, no history will ever be complete without a story of their valor and generalship. Opportunity knocked at their doors and they opened them.

The unusual and abnormal conditions that have affected business in general and ours in particular has opened wide the door of opportunity for these organizations and for executive heads who have met at this time for conference. As Pilots you have assumed grave responsibilities, for on you depends the entering of the frailest bark under your command into the harbor of safety and success. Just remember that you are passing through a part of the stream that is full of shoals and an occasional breaker. The headwaters of this stream because of volcanic disturbances are at this time muddy and boisterous, and every time they begin to clear and quiet down some crater in Minnesota belches forth melted lava, stirs up the water, and covers our crafts with ashes. Opportunity is knocking at our doors now individually and as an organization, and as it stands outside awaiting recognition we must quickly decide or it will be gone. The producer says, you don't pay for butterfat in proportion to what you get for butter. The consumer says, the price you charge for butter is an outrage when you pay so little for butterfat. The creameryman when he looks at his statement at the end of the month says, we are paying too much for butterfat and selling butter too cheap. There is something wrong. You say the producer is never satisfied and the consumer is always kicking, and they say you want the earth. I am satisfied to an extent that they are all right and justified in making a complaint sufficient to cause a careful analysis, and if found necessary use a neutralizer. The remedy, in my opinion, is economy. The producer is dissatisfied because he isn't making any money. His relief can only come through economy and in most instances his only means of economizing is by greater efficiency and increased production. The man who gets $3.00 a day for chopping wood and only chops one cord makes the chopping of wood cost $3.00 a cord, and this $3.00 enters into the price. By increasing his speed to two cords a day he reduces cost to $1.50 a cord and this reduces the price of the wood. It is possible to cut three cords and this would reduce the cost to $1.00 a cord. In other words that leaves $1.00 for the man who chops the wood, $1.00 additional for the man selling the wood, and $1.00 reduction to the man buying the wood. The dairyman whose cow costs him 30 cents a day to keep and from which he gets one pound of butterfat that he sells for 25 cents is losing 5 cents a day. He finds by investigation that he can increase the production to 2 pounds a day with only 5 cents additional cost for feed, so that his expense is 35 cents and his income 50 cents, which makes him a profit of 15 cents a day instead of a loss of 5 cents. Possibly the limit of the cow's capacity is one pound, and he finds that he can procure cheaper feed for 20 cents a day that will produce the same result. He then has a profit of 5 cents a day instead of a loss, and the difference is 10 cents. If he has ten cows he has increased his profit a dollar a day. I mention this to emphasize how opportunity knocks when the occasion demands. Out of this condition investigation is encouraged and the result is a contribution of thousands, even millions to the dairymen of the country through more intelligent feeding. I am wondering how far our opportunity reaches in the direction of removing some of the

Why The U. S. Freezer Is A Heavy Duty Machine

YEARS of experience in the designing and manufacturing of ice cream freezers has shown the superiority of heavy duty construction throughout, with ample bearings and large gears made by the best process known of the best materials obtainable.

The shafts, bearings, gears and housings of the U. S. Heavy Duty Freezer are more solid and heavy than any ever offered before.

The gears used on all sizes are of the generated type exclusively.

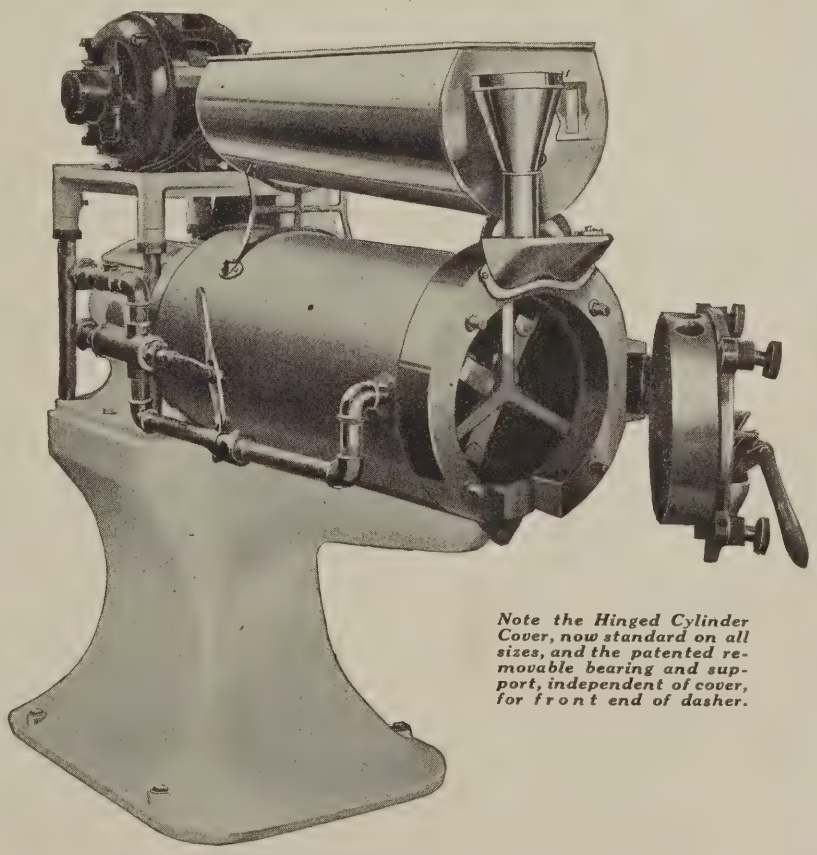
Where common composition metal is ordinarily used for bearings, U. S. Heavy Duty Freezers have bronze or roller bearings.

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Everything to promote saving in labor, time, space and power has been enbodied in these up-to-the-minute freezers. No other machines are so easy and convenient to handle, so reliable, so economical in power, so durable, so saving in space. On account of their simplicity of operation, they do not require such skilled, high-priced labor to operate them as old-fashioned freezers do. With the larger sizes the same labor may turn out considerably more ice cream with U. S. Freezers.

U. S. Heavy Duty Freezers lower the cost of manufacturing ice cream, and will help both the small and large manufacturers to meet all competition without lowering the quality of their ice cream.

They will be on exhibition at the National Dairy Show at Minneapolis. In the meantime, write for complete details and ask for our circular, "How to Tell a Good Freezer," which is yours for the asking.



Note the Hinged Cylinder Cover, now standard on all sizes, and the patented removable bearing and support, independent of cover, for front end of dasher.

A really heavy duty machine

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Union Avenue and Frost Street **BROOKLYN, N. Y.**

Representatives and Distributors in All Parts of the United States and Canada.
May we not arrange to have one call on you?
See our Exhibit at the National Dairy Show.

17

rough places in the dairymen's pathway with whom we have a very close relationship.

It is said that necessity is the mother of invention. It is the key that unlocks the door to opportunity's knock. There has never been a time that such an opportunity was extended to this organization as right now. The cry for help comes from every quarter. Now is the time to make a record, to do some real constructive work. Business in our line is sick. I doubt not the patient has been examined by each one of you and the case diagnosed. The pulse is below normal, the temperature is high, the case is dangerous, and the object of this meeting is to hold consultation. In some cases, not represented here, it is too late. The patient is beyond hope. The disease got too far before a remedy was applied. I doubt not your unanimous conclusion will be that the application of economy in large doses will be the principal ingredient, and the necessity for immediate action or application is apparent. I remember an incident in my own life that explains the situation in the case over which this consultation is being held. I woke up one night suffering with the most intense pain. I immediately called our family physician. After a cursory examination he sent for another doctor. They retired to a room adjoining to discuss the case. My wife standing near the door could hear them and she understood the gravity of the situation when the following dialogue took place. One doctor suggested a remedy. The other one said, "That's dangerous, it might kill him." To which the first one replied, "He'll die anyhow unless relieved immediately." So I say, ours is a case that needs heroic treatment. It may not be wise or expedient to reduce factory wages. They may not be out of line now, but efficiency can and must be increased. The tester must test two samples where he tested one before. The butter maker must churn two pounds of butter where he churned one before. The print wrapper must wrap two prints where he wrapped one before, and so on down the line. Along with this, and most important, the buying cost must be reduced. The day of three and four and five cents a pound for buying cream is a thing of the past. It is gone forever, it is unfair to the creamery, to the producer, and to the consumer. A cent a pound in the mildest cases and three cents in the worst cases means thousands of dollars, which if equitably divided will save the creamery, add to the dairyman's revenue, and reduce the cost to the consumer. In addition to the commission for buying cream innumerable additional expenses have crept in that must be eliminated. All of this is in harmony with industrial relations. This disease called extravagance that was contracted during the war and that has been eating like a canker on the creamery industry is not only an epidemic but a contagion, and to eradicate it will require co-operation. When a contagion breaks out in a community the citizens are asked to co-operate. They respond cheerfully and by so doing they stamp it out. The members of this organization are very closely related. They are one family, have a common purpose with the same end in view, and I warn you if a remedy is decided on (and that is imperative) if anybody fails to apply it and the disease breaks out, remember it spreads like wild fire and the second attack is always worse than the first; and the hospitals will be inadequate for the patients. So I ask you in the name of all who are interested in this great industry, co-operate and let your rule of action be the Golden Rule.

Industrial relation should be synonymous with co-operation, not only within our own individual organization but with our competitors. It has been demonstrated that the man who whole heartedly works to give his associates the best co-operation gets the same brand in return. That is as true in our business as competitors as it is our separate organizations. Co-operation is a recognition of the rights of others. It is a direct appeal to the best that is in your competitor. Co-operation does not eliminate proper competition. Perfect co-operation wipes out resentment, jealousy, anger and malice. Co-operation is necessary to progress. The one who fails to co-operate works against himself. Co-operate with your enemy, it will help make a friend of him. You can't go it alone. It was co-operation and a recognition of the relation between the different armies in the late war that made victory possible. The success of any man, of any organization is sincerity. Practical experience has shown that one cause of failure is the lack of co-operation. That is just as true in the case of competitors as inside of a corporation. I have in mind a man who was in the creamery and produce business who felt strong enough to stand alone and refused to co-operate. When the receiver was appointed he found over seven hundred thousand dollars liabilities and about fifty thousand dollars assets. The man had the satisfaction of making it cost his competitors a lot of worry and unrest and probably a profit. He had his own way and a clear field. He was a big man for a time and for his price for the raw material was a reflection on his neighbor in the same line of business and who couldn't meet it; but finally he was in the situation of the stingy man who was scoring his hired man for his extravagance in carrying a lantern when he went to see his best girl. He said, "When I went courtin' I never carried a lantern. I went in the dark." "Yes," said the hired man, "but look what you got."

I beg your indulgence to enumerate some of the things to remember and some of those that are to be considered in industrial relations, for the field is broad to be covered. Sincerity is essential, optimism, cheerfulness, environment, happiness and reward are prominent elements in an industrial relationship. Time forbids elaborating on the influence of these as it pertains to efficiency and success. The foundation of our business is the raw material. This comes from the farm and is prepared by the household who depend on the revenue from this product for the necessities and comforts of home. The future dairyman is to be reckoned with, he is to be the successor to the present management. He is a prominent factor and needs encouragement in order that the business may be perpetuated. He is the absent one and our hope. He is the greatest discovery of the twentieth century, and my message in his behalf is not alone because of his prominence, but in addition for the sake of his mother, the sweetest word ever uttered by mortal tongue, the uncrowned queen of the American home, and to whom we owe as creamery men much of our prosperity. I would offer our sympathy for him who fails to appreciate the twentieth century boy. Let us gather flowers and strew them along the young man's pathway and light it with the light of experience, and send a message to his mother promising unqualified protection to the boy she loves, and careful consideration in the interest of his success. Philip Armour said a boy counts one long before he can vote, without him the wheels of commerce would stop and the hum of machinery in our industrial institutions would be forever stilled, for he goes into every avenue of social, commercial and industrial life, undaunted by danger and not deterred by the elements. We love him for his energy as well as his heroism and we will give him recognition by a careful consideration in the discussion of industrial relations problems.

Let us remember the twentieth century home of which there is no word in the English language so expressive and full of meaning. We may differ on politics and religion and the manner of conducting our business, but we will all agree on that place, around which clusters the most sacred memories, and in our activity and all of our deliberations we will never lose sight of a contribution to the betterment of the home. Much pleasure as it would give me at this time I will desist from a discussion of the modern home, for it is an extended as well as a beautiful story.

Gentlemen, by virtue of a common calling we are one family. A house divided against itself can never stand; so in conclusion I want to impress on you the necessity of co-operation and the reward that is assured as indicated by every contingency that has arisen in the history of the American people. We have gone through a season of unusual prosperity and in consequence the present depression is all the more keenly felt, because of the comparison, and the need of co-operation is the more apparent. The present low prices of butterfat and the attendant difficulty in adjusting our business ought to be a stimulus to greater action. Will Carlton says to enjoy heaven we have to be in hell awhile. So when the storm has passed and the business horizon has been cleared of the clouds and the sun shines we will feel all the better for having gone through the bitter experience of an industrial upheaval. I believe that the creamery man is not only the world's greatest philanthropist but the synonym of supremacy in the industrial world, and we are especially favored in having an opportunity to prove it. A lady was going to have a social function at her house and her niece asked her if she was going to ask her next door neighbor. She replied, "Well, I should say not. I entertained her once and she never recuperated." If in your business experience you have some competitor whom you entertained and he never recuperated, forget it. Clean the slate and begin anew, your mutual interests are in jeopardy. Your business has been assailed, its foundation is being undermined by that arch enemy—Extravagance. You need help. No general ever won a battle alone. In 1861 when the Union was threatened with dissolution a mighty army arose to protect it. Political enemies worked side by side to meet the enemy. All differences were forgotten and there was true co-operation without which the cause had been lost. We would today be under the cruel dominating rule of a king if the spirit of co-operation had not prevailed in the late war. All differences were forgotten. All social barriers were broken down. The millionaire and the hobo bunked together. All religious faiths were amalgamated, the Jew and the Gentile, the Catholic and the Protestant united in a common cause. Co-operation was complete, and victory was sure. Emerson

Not what *we* say, but what *others* say who make *HEATHMADE* Ice Cream

HAZELWOOD COMPANY, SPOKANE

"Hazelwood Carbonated Ice Cream is not only 100% purer, but far better than the best ice cream we ever made before Carbonation was discovered"

BOEDEKER MFG. CO., DALLAS

"There's as much difference between Carbonated and ordinary ice cream as there is between a carbonated ice cream soda and one made with plain water"

HYDROX COMPANY, CHICAGO

"The damage that air does to foods is too well known to need stating. It sours milk—spoils canned fruits and turns butter rancid. Why freeze it into ice cream? We DON'T. And therein lies one of the most important reasons for the rapidly increasing demand for our ice creams"

And there are scores of others from manufacturers who swear they wouldn't go back to the old fashioned air-whipped ice cream at any cost. Heathmade Carbonated Ice Cream is better, safer, cleaner and purer. It stands up better and sells faster than any other kind.

The first scientifically worked out advertising and merchandising plan ever offered ice cream manufacturers is an important part of our service. Ask us!

Heathmade Carbonated Products Co.

Sole Licensors of Heath Patents for Making Heathmade Carbonated Ice Cream

Wrigley Building **CHICAGO**

expressed a beautiful thought when he said: "In the beginning the Gods divided man into men that he might be more helpful to himself." We get out of life what we put into it. This is the law of compensation and is unchangeable. Selfishness breeds contempt and misery. Extravagance and wastefulness breeds poverty. Economy brings wealth. Cheerfulness assures contentment. Generosity and the discharge of duty creates happiness. Virtue has its reward. We get out of our business, and we will get out of this organization, what we put into it, honesty, courtesy, loyalty and service brngs success.

In my anxiety to fulfill a mission and in behalf of the interests you represent as well as the dairyman, the future dairyman and his mother and the home, I beg of you regard this question of industrial relations seriously. Remember the bigest part of any business is the human part of it, and where this is shorn of its beauty or divested of its ideality and sentiment the business itself is limited to that extent. Let your attitude towards your competitor be that of a brotherhood. Co-operae, the cry of co-operation resounds from coast to coast and from the Gulf to the Great Lakes, and the voice of a common brotherhood can be heard from across the mighty deep as it reiterates the watchword—co-operation. Go away from this meeting with the spirit of co-operation and enlist under the banner of economy, and the state of Michigan will resound with the battle cry of freedom.



EULOGIZING W. W. MARPLE.

Mr. R. F. Frary, secretary of the Michigan Creamerymens' Association, is some poet. We always knew he was an artist in handling the king's English, but we didn't know he was an aspirant for honors in the poetical field. Here is an expression by him in honor of W. W. Marple, of Chicago:

With hair as white as a silvery night
On a moonlit sheen of snow,
With an eye as keen for good or mean
As any man I know;
With a face as round and smooth and sound
And wrinkle-free and fair
As the maiden queen some seventeen,
With creamy waving hair.

With an ear that's trained to hear the strain
Of a struggling brother's call,
And a heart that moves and not reproves
With a fainting fellow's fall.
A mind that guides the hand that gives
Both mental and material gifts,
And best of all a soul that's full
Of sympathizing love.

Men love him most who know him best;
But all the creamery host
Will sing his praise in future days
From coast to shining coast.
So we honor our friend who measures men
Not by a code of heartless gain,
But by the little or much of human touch
Contained in the human brain



A FLOURISHING MISSOURI FACTORY.

The following account of a Newsboy's Picnic is gleaned from the Jefferson City Post, Jefferson City, Missouri:

"The newsboys' parade temporarily caused business to recess while merchant and clerk stepped to the door to see what it was all about. Pedestrians stopped in their tracks to smile and to wave at the happy youngsters. Armed with whistles and other noise-making devices, the boys, about sixty in number, left Weber's factory, marched down Madison street to McCarty, McCarty to Jefferson, Jefferson to High, High to the courthouse, where they boarded a street car for State Park.

Under Weber's arrangement a special street car was on the sidetrack and was given right-of-way to the park. There Weber had all the ice cream and cake hungry youngsters could dispose of. A wagon was held in readiness to get more should the supply fail to meet the demand.

The boys picniced until 4 o'clock, when they returned to their respective newspaper offices to carry their papers. "'Well," they were asked, "did you get enough?" "Uh huh," was the answer. They looked it.

The picnic was given to commemorate the eighth anniversary of the Weber Ice Cream Company. The boys unanimously agree that Weber knows his eggs when it comes to celebrating a birthday.

Eight years ago, July 21st, 1913, Weber Brothers bought out and took possession of the little one-freezer ice cream factory of W. C. Callender & Co., 309 Madison street, Dallmeyer building. Their output at that time was from 50 to 100 gallons of ice cream per day. Eighteen months later they moved into their present location, at 306 Madison street, installing modern equipment, which now has a capacity of 1,000 gallons per day.

Miss Mary Weber, now Mrs. F. N. Raithel, joined her two brothers in the partnership and later incorporated under the name of the Weber Ice Cream Co., John J. Weber, prsident; A. J. Weber, vice-president, and Mrs. F. N. Raithel, secretary-treasurer.

In 1916 the Weber Ice Cream Co. added a creamery to their plant, making about 500 pounds of butter per week. The dairy business being very poor in this part of Missouri at that time, but after the farmers found a ready market for their cream at Weber's Creamery, they soon began to buy cows, which increased the flow of cream, and now the Weber Ice Cream Company is making from 6,000 to 8,000 pounds of Blue Grass Creamery Butter per week, paying to farmers for cream nearly $10,000 per month.

In 1917 the Weber Ice Cream Company opened a new ice cream factory at Moberly, Mo., A. J. Weber managing that plant, which has also a capacity of 1,000 gallons per day, and doing equally as large a business as the Jefferson City plant. February, 1921, the Weber Ice Cream Co. contracted an agency for Weber's Carbonated Ice Cream with Stotler & Hinds, Fulton, Mo., who always carry a stock of two hundred gallons to take care of the business in and around Fulton.

May 1st another factory was started in Sedalia, Mo., with a capacity of 500 gallons per day, and from late reports they will be compelled to build a new factory to take care of the increasing business.

You can buy Weber Carbonated Ice Cream in nearly two hundred towns in Missouri, being advertised extensively as exclusive manufacturers of Carbonated Ice Cream, which has opened up a new era in the ice cream business. They have recently had an inquiry regarding the carbonating process from caterers from New Castle on Tyne, England.

The number 13 has played an important part in the success of John J. Weber, who was in business at 413 N. Hickory St., Joliet, Ill., and in 1913 started business in Jefferson City, later opening a plant at 513 Coates St., Moberly, and again at 413 S. Engineer St., Sedalia, Mo.

The Weber Ice Cream Company is to-day employing thirty people. When they started here they did the work, John J. Weber making the ice cream, A. J. Weber assisting, and one driver.

Webers have always taken an active part in the upbuilding of the community and are members of all the leading organizations of the city. Their plant is considered a valuable asset to the community.



Sethness Company,

Denver Office:
2910 Huron Street
DENVER, COLORAEO

Pittsburgh Office:
609 Chamber of Commerce Building
PITTSBURGH, PA.

718 N. CURTIS STREET
CHICAGO, ILL.



Cosco Brand

FRUITS

ICE CREAM CRUSHED FRUITS (BULK)
SOLID PACK FRUITS IN NO. 10 TINS
C. P. CRUSHED FRUITS IN BULK PKGS.
COLD PACK STRAWBERRIES

EXTRACTS

FLAVORING EXTRACTS, ARTIFICIAL
TRUE EXTRACTS
ORANGEADE EXTRACT (FOR ICES, SHERBETS AND PUNCHES)
CONCORD GRAPE EXTRACT (FOR ICES, SHERBETS AND PUNCHES)
VANILLA COMPOUNDS
VANILLA EXTRACTS, PURE
MARVEL PURE VANILLA BEAN EXTRACT
VANILONG
WALNUT FLAVOR
MAPLE COSCO CONCENTRATED
PINEAPPLE JUICE
EMULSIONS
QUINTOLS

COLORS

LIQUID CERTIFIED COLORS
CERTIFIED DRY COLORS
CARAMEL SUGAR COLORING
BUTTER COLOR ANILINE
NEW YORK ICE CREAM COLOR

TRUE FRUIT PASTES
CERTIFIED PASTE COLORS
MARSHMALLOW TOPPING
COCOA
CARAMEL SUNDAE
BUTTERSCOTCH SUNDAE
CARAMEL SUNDAE
GELATINE
CITRIC ACID
GUM, PURE INDIA, POWDERED
ICE CREAM POWDER
SOLUBLE SKIM MILK POWDER SPRAY
KREMOLIN R. ICE CREAM RIPENER AND BINDER
VANILLA BEANS
VANILLIN
COUMARIN
GLYCERINE
TARTARIC ACID

SODA FOUNTAIN FRUITS AND PRIVATE LABEL MARSHMALLOW TOPPING FOR JOBBING PURPOSES

Ice Cream Freezer Selection Includes One of Four Choices

By W. C. DAVIS, President, Davis-Watkins Dairymen's Manufacturing Company

The rapid growth of the dairy industry here in America has been greatly assisted during the last few years, because of the rapid development and growth of the ice cream branch of this mammoth business. We who have been closely associated with it have found difficulty in anticipating the rapidity with which it has been necessary for us to keep pace. However, in looking back over the experience of the last three years, I am confident that we machinery manufacturers have accomplished a great deal more than we originally thought could possibly be accomplished in so short a time.



W. C. DAVIS

There are really four distinct classifications, or divisions constituting our sales work in the building of efficient ice cream plants. These four classifications are primarily based on the kind and character of machines selected for the ice cream freezing department. Any man entering on, or building in this particular line of work, must at the outset form a definite conclusion in his own mind as to the size and character of the freezer installaton in the freezing department. Around this he builds the rest of his business, in order to conform to the requirements of the freezing department. These classifications include really only three groups, that is 40, 50 and 100 quart machines, with one of the group divided into two: or taking it another way, there are two groups, that is, brine and direct ammonia expansion, with one divided into three sections.

I will enumerate all four divisions, permitting you to make your own decision as to how these may be grouped; endeavoring to explain in detail, as we go along, the characteristics of the machines coming under the several divisions.

40-Quart Vertical Brine Freezer.

This type of machine is about as old as the ice cream business itself, having been developed as the business has grown. There are perhaps more ice cream plants fitted out with these machines than any of the other divisions, and that is why we consider this machine first.

Almost every large city, and most of the smaller ones, have ice cream freezing departments equipped with these machines. There are perhaps a great many more small plants with one, two or three machines of this character, than there are of any other. The years of practical experience with this machine have permitted a standardized machine of great efficiency, and one which can be made in quantities at a low cost.



Anheuser-Busch Sales Corporation, New Orleans, La., Branch.

Vertical machines have certain natural advantages which it has been hard to overcome in the other types. They are rapid freezers. The position of the cream in the cylinder has much to do with their popularity. The brine enters in the bottom of the cylinder, and this affords direct application of the greatest amount of cold to the largest quantity of cream.

The weight of the cream itself being forced down by the force of gravity, makes it a simple matter to discharge the frozen cream from the cylinder through a small opening without mechanical means.

The dashers in these machines have, as the years passed, been greatly improved, and with the new type of squirrel cage dasher, it is a simple matter to secure a full overrun in an unusually short time, many concerns freezing as high as five batches per hour.

The Reich-McJunkin Co. in Pittsburgh, have thirty-four of these machines in one room, all of which have been operating over a period of more than ten years. Right in the same city, in the plant of the Ohio and Pittsburgh Milk Co., there is a battery of twelve freezers which have been in operation for a similar period. If you will take the time to visit large ice cream plants in Philadelphia, Boston, New York, and many other eastern cities, you will find them highly satisfactory users of the vertical type machine.

Our former sales manager

KEEP OUT OF THE RUT.

Rockford, Ill., Sept. 1, 1921.

The Ice Cream Review:

I shall be in Minneapolis at the national convention personally and using all my personal effort in interesting ice cream manufacturers in Illinois to go and take advantage of an opportunity like this to learn more of their own business. We are very apt to get into the rut of thinking that our own particular business cannot be run on some one else's suggestions. I have always found that at every meeting of the association I attended, I learned something new.

To the Illinois Ice Cream Manufacturers I say, ATTEND THE MINNEAPOLIS MEETING; learn what the other fellow is doing and I know you will come home with a better knowledge of the business and at the same time know something of the good fellowship of your competitors.

GEO. R. COURTRIGHT, President.
Illinois Assn. Ice Cream Mnfrs.



Get the *bigger* business that looms behind your Fall sales

YOU'VE got two salesmen working for you: Heat and Taste. Heat quits for half the year, but Taste is a *sticker*. He works *all the time*.

Hundreds of manufacturers of ice cream, water ices and sherbet are building up their Fall and Winter business by making products so tasty, so rich, so smooth that folks keep up the ice cream habit, heat or no heat.

And among the greatest helps these manufacturers have are

GUMPERT'S

Ice Cream Improver

Far more completely than Nature alone, Gumpert's Improver breaks down and softens the milk solids that surround the globules of fat in cream. The higher proportion of butter fat thus released and the more thorough softening of the solids, give ice cream a finer, richer taste and a smoother, more velvety texture.

Textor

For Water Ices and Sherbets

Textor eliminates the rough and uneven grain usually present in water ices and sherbets. It gives a smooth, even, luscious texture without ice crystals or lumps.

And no matter how often repacked, water ices stabilized with Textor will harden uniformly and smoothly.

S. GUMPERT & CO., Bush Terminal, BROOKLYN, N. Y.

started to use ice cream equipment as the Hughes Ice Cream Co. in Los Angeles, Calif., was so thoroughly sold on this particular style of machine that he would have no other. St. Louis has many vertical machines, and if you will visit the smaller cities, you will find these machines predominant.

It is customary among manufacturing concerns, when they enter a field, to grab the new ideas and compete with machines by developing rather than to try to compete with old, efficient, established machinery strongly protected by patents. It is largely for this reason that there is so little competiiton among the manufacturers on this vertical type of ice cream freezer.

50-Quart Horizontal Brine Freezer.

These machines, while not as old as the vertical type, have been rapidly developed during the last five years. There has been such keen co-operation among the manufacturers, that it has resulted in each of them making an effective 50-quart brine freezer.

These machines have been improved so as to include characteristics, which must to a large extent offset the advantages of the vertical machine. We refer particularly to the double entry and discharge for the brine, and scraper blades on the outside of the dasher, placed there to facilitate rapidly emptying the cylinder of the frozen cream.

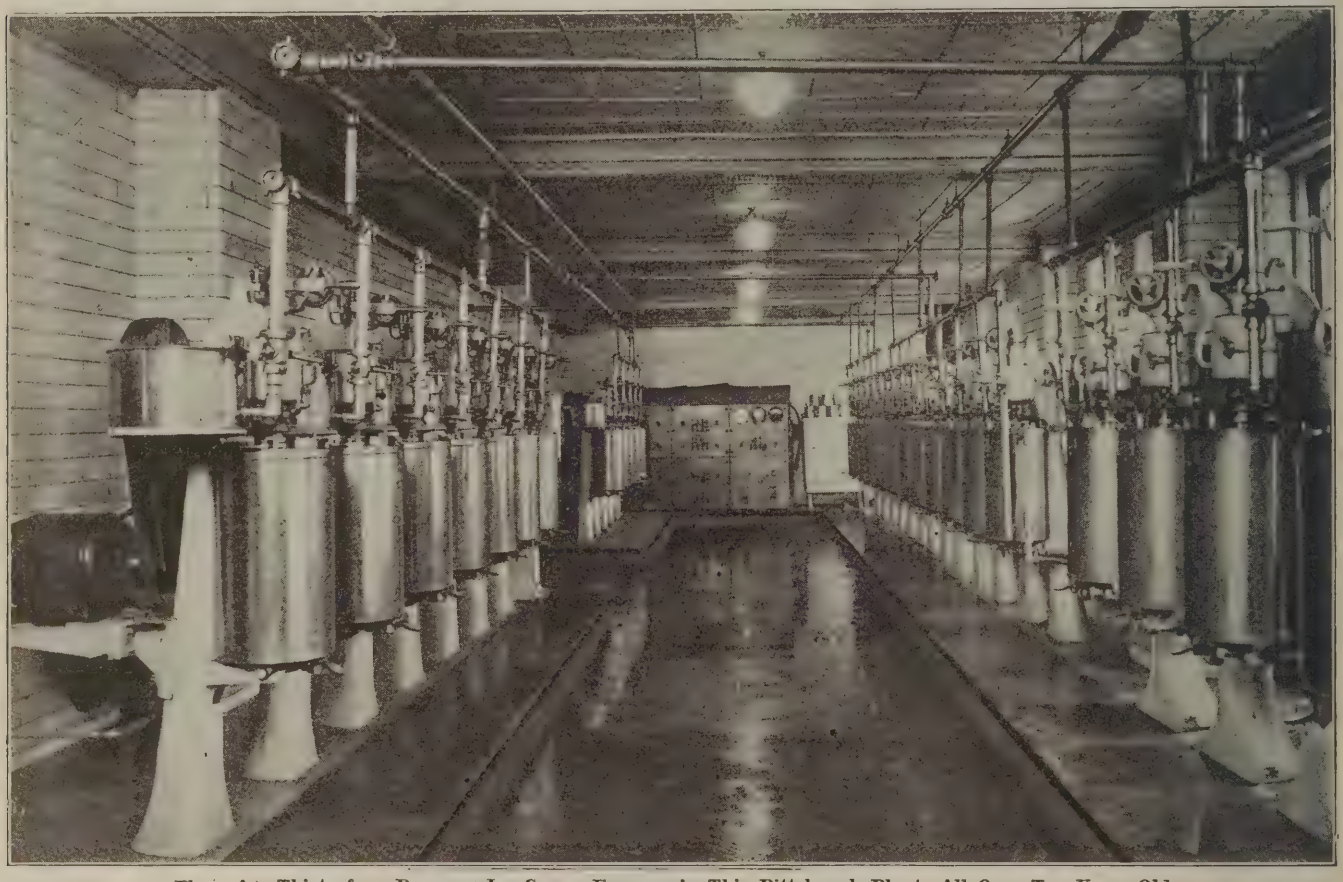
The double flow of brine is a wonderful improvement. In this the flow of brine is divided so that half of it enters the outside jacket at the discharge end of the cylinder, and flows out near the middle, the second brine pipe operating on the back half of the cylinder. In the latest machines these brine pipes are equipped with thermometers, so that at all times the efficiency with which the machine is operating is known.

The latest of these machines are equipped with a squirrel cage dasher. The inside part revolves one way, and the outside part another.

The inside part of the dasher is really built very similar to a squirrel cage of the old fashioned type, which has a ring at each end, and numerous steel, tinned rods connecting these two rings. This applies the "fork" principle in properly beating air into the mixture.

The outside part of the dasher has two sets of scraper plates. These scrape the outside of the cylinder, forcing the mix in the center where it is beaten up by the rods. Originally the scraper blade was made in one long segment. Now it is made in numerous parts, or small sections. The reason for this is greater efficiency.

The second part of the outer dasher is equipped with diagonal scrapers, which come close to the side of the cylinder, and are so arranged that they continually force the contents toward the discharge end of the cylinder. This facilitates a rapid discharge of the contents from the machine.



There Are Thirty-four Progress Ice Cream Freezers in This Pittsburgh Plant—All Over Ten Years Old

Recent developments have made it possible to so attach this dasher to the gear end of the freezer, that there is no need for oil on the connection. Much trouble was originally caused by machines of this type owing to the fact that when the dasher was pulled out of the cylinder, it invariably dropped grease or oil on the inside.

The Corbett Ice Cream Co., Denver, Colo., is a very good example of such an installation. They have six of these efficient machines in their modern plant.

100-Quart Horizontal Brine Freezer.

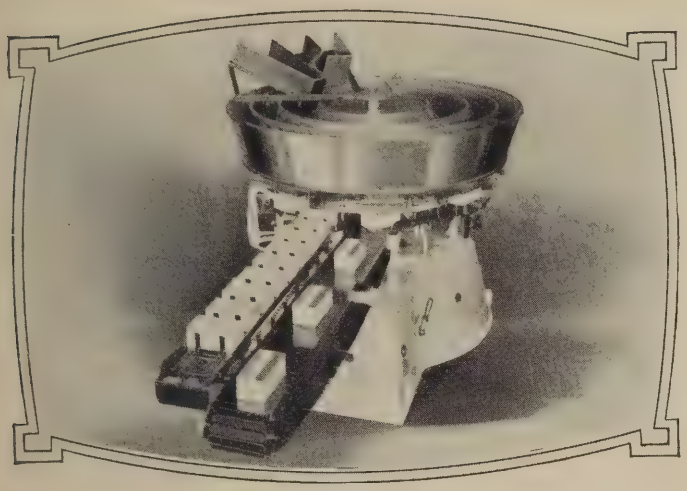
These machines have been developed for the man who has a large business, and decides to freeze a larger quantity of cream at every operation. These machines take up very little more room than the one last mentioned, yet have a double capacity.

In construction they are just the same as the 50-Quart brine machine, both as to gearing, dasher, stand, and appearance.

(Continued on page 61)

C.E. Rogers DETROIT

Automatic Brick Maker 1200 to 1800 Per Hour





THE Rogers rotary machine will fill from 1200 to 1800 Neapolitan or solid-flavor bricks per hour—ready for the hardening room. The Neapolitan bricks are mechanically and accurately portioned, the dividing line between flavors being sharp and straight. With a special conveyor the filled boxes can be carried directly to the hardening room at the same speed of the machine.

The labor-saving effected by this machine is remarkable. Only two people are required—one to feed the empty boxes into the machine and another to put the covers on as the filled bricks pass by on the way to the hardening rooms. By the use of a paraffined carton extra wrapping is eliminated. The carton covers, or tops, carry the brand name and decorative colors on five sides, making the package unusually attractive. When this package is opened by the consumer the cover is removed, the ends of the container are easily detached and all sides are turned down, leaving a perfect brick, free from muss, ready for the cutting knife.

In making Neapolitan bricks the three flavors pass from the freezers directly into the hoppers of the machine. This can be accomplished by gravity or in any manner best suited to your freezer arrangement.

A Rogers brick maker has been in practical operation in a large Detroit plant during the 1921 rush-season—and under constant and critical observation for the purpose of ascertaining the slightest defects in operation and utility. It is only after the most thorough tests, under rush-season and rush-day pressure, that we are prepared to announce a mechanically perfect machine backed by a Rogers guarantee of performance.

The machine occupies a floor space of 5′ 8″ x 10′ 1″ and is 5′ 5″ high. It is mounted on wheels, being portable and easily pushed aside after the run is completed. (The accompanying illustration of the Neapolitan brick is from an actual photograph and shows the straight-line flavor divisions.)



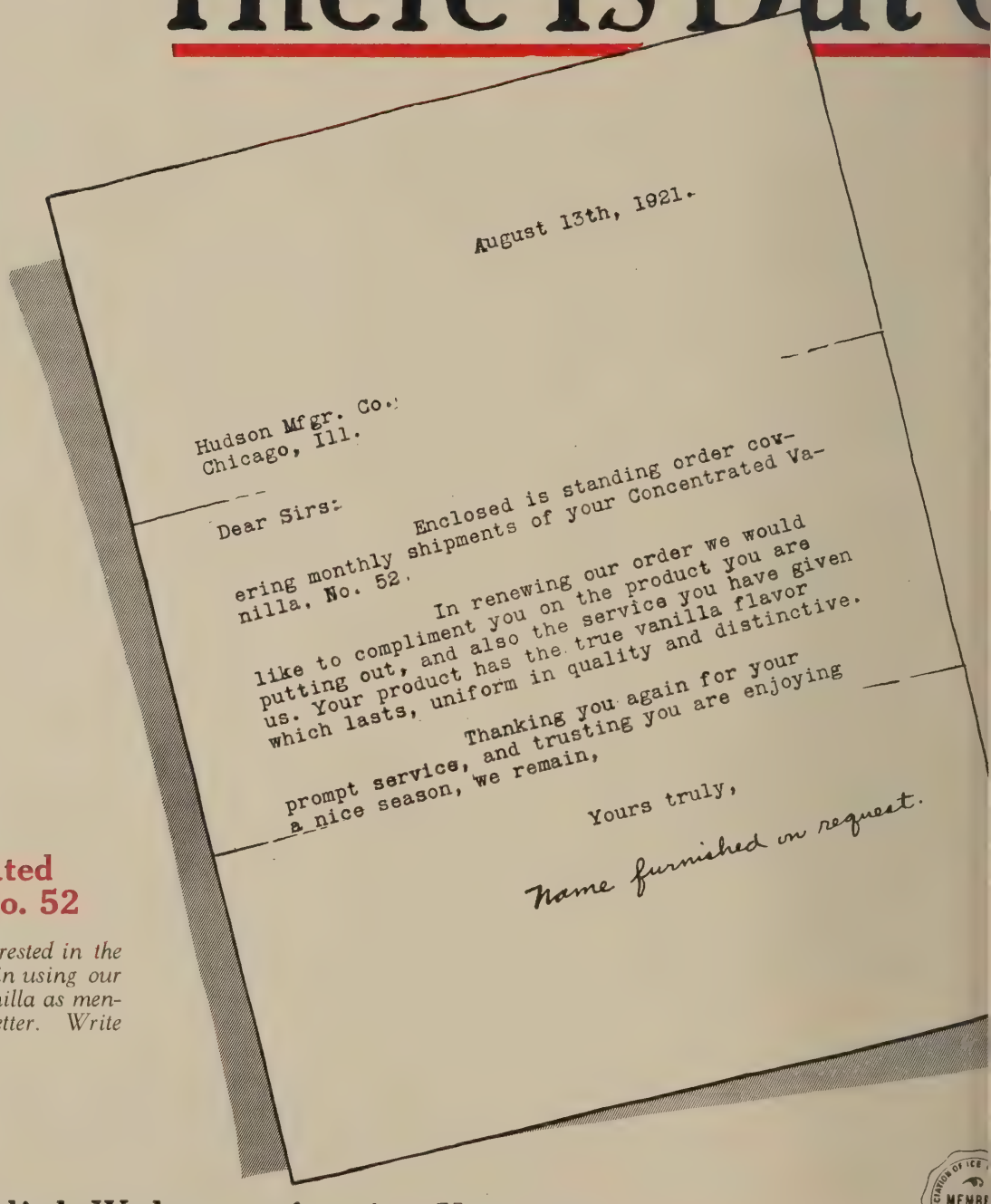
C. E. ROGERS

8731 Witt Street Detroit, Mich.

Complete Information Upon Request

We will be represented at the National Dairy Show, Booth 169

There Is But (



August 13th, 1921.

Hudson Mfgr. Co.
Chicago, Ill.

Dear Sirs:

Enclosed is standing order covering monthly shipments of your Concentrated Vanilla, No. 52.

In renewing our order we would like to compliment you on the product you are putting out, and also the service you have given us. Your product has the true vanilla flavor which lasts, uniform in quality and distinctive.

Thanking you again for your prompt service, and trusting you are enjoying a nice season, we remain,

Yours truly,

Name furnished on request.

Concentrated Vanilla No. 52

You will be interested in the saving afforded in using our concentrated vanilla as mentioned in this letter. Write us for details.

A Cordial Welcome Awaits You Here

National Dairy Show and National Ice Cream Mfgrs. Convention

Minnesota State Fair Grounds, October 8th to 15th

BOOTH Nos. 93, 94 and 95

Ice Cream Supply Men's Association Exhibitions

Third Annual Eastern Exhibition
Elmwood Music Hall—Buffalo
October 31st to November 5th
Booth Nos. 114-121

Southern Exhibition
Auditorium Armory—Atlanta
November 28th to December 2nd
Booth Nos. 59-60

MEMBE

119-
Branche

ıe Hudson Policy

NCE 1888 we have been serving the ice cream industry. We began in a small way—in fact, those were "pioneer days" ıs, just as they were then for the comparatively few ice n manufacturers. Our business relationship was very in-te. The industry was still in its "swaddling clothes." There still unsolved, mutual problems to meet. This early ıate business relationship promulgated a spirit of working ther. And, because of the confidence thus established, it rally followed that we recognized, in a most significant the obligation necessarily imposed upon us—that Hudson illa Products should at all times be of a dependable, rm, high-grade quality.

his became, as it is now, the per-eating spirit of our organization. is the only policy we have. It has een the bulwark upon which our usiness has grown thru all these ears. And, today, it is indeed grati-ing to go thru our files to find tter after letter, of various dates, from old and new customers, all expressing their appreciation of the Hudson Policy. We illustrate, herewith, and with pardonable pride, one of many such letters received. Of course, we shall continue to hold true to the standard that merits such letters.

Hudson's Famous Ice Cream Flavor Vanilla and Tonka Blend No. 52 Special is First by Merit. You Will Like to Use It.

he Hudson Manufacturing Co.

THE ASSOCIATION OF ICE CREAM SUPPLY MEN · MEMBER

S. WEGENER, *President* INCORPORATED *Established 1888*

Vanilla Products

. Union Avenue - - - CHICAGO, U. S. A.

CRUZ, MEXICO WINDSOR, CANADA DALLAS, TEXAS SAN FRANCISCO, CALIFORNIA



4 True Servants

There is probably no appa
ratus that has done more to establis
operating efficiency and economy in th
ice cream industry than the Mojonnier equipmen
which is briefly described herewith.



Patented.

Mojonnier Milk Tester in the Laboratory

This apparatus determines accurately the butter fa
and total solids in all classes of dairy products. I
enables the ice cream manufacturer to purchase his raw
materials intelligently, paying only for actual amount o
butter fat received; also to standardize his mix to withi
.05%, insuring absolute uniformity and eliminating al
guess work. One percent excess butter fat means a los
of 5.4c per gallon of mix, while 1% excess total solid
means a loss of 2.5c per gallon. Figure it out for your
self and see how many times this device will pay fo
itself in your plant, then let us send you our bulleti
giving full particulars.

Mojonnier Vacuum Condensing Unit in the Mixing Room

App. & Process
Pat. Pend.



The Mojonnier Vacuum Condensing Unit represent
another efficient achievement that is fast being adopte
by enterprising ice cream manufacturers. By displacin
his pasteurizer and mixing tank with a Mojonnier Vacuu
Condensing Unit, the manufacturer is enabled to no
only make his mix from fresh milk direct from produce
but also take care of his surplus. Several manufacturer
have in this way decreased the cost of their mix 15c pe
gallon. When there is a surplus of fresh milk above tha
required for making the regular run of ice cream mix, i
can be converted into sweetened condensed milk or som
other condensed milk product for which there is alway
a ready sale, eliminating all losses thru waste and con
verting them into actual profits. Investigate the possi
bilities of the Vacuum Condensing Unit in your plant

Be Sure to See Them at the

to the Ice Cream Industry

Mojonnier Over-Run Tester in the Freezer Room



Pat. Pend.

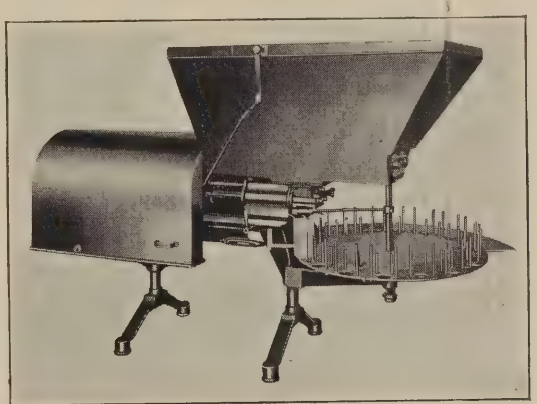
Every ice cream manufacturer knows what the over-run, or swell, means to him. Good over-run means a nice profit at the end of the year. Insufficient over-run means an actual loss.

By the aid of the Mojonnier Over-run Tester, you can control your over-run absolutely. Each percent of over-run is worth .4c per gallon of ice cream. Frequently the flavor and texture is improved by changing your ratio of fat and solids not fat, and increasing the over-run. If you can increase your average over-run only 10%, it means a saving of 4c a gallon, or $4,000 a year on 100,000 gallons.

If you are interested in saving these extra profits, write for more complete details of the Mojonnier Over-run Tester and proof of what it is doing for others every day in the year.

Mojonnier Ice Cream Packing Machine in the Packing Room

Here is a packing machine that is an indispensable acquisition to the ice cream industry. All but human, it automatically packages ice cream just as it comes from the freezer, one, two or three layers at the same time. Fills either quarts or pints, in either one, two or three flavors. Eliminates pouring into molds, dipping, cutting and wrapping. Delivers cream from freezer to package without being touched by human hands and insures absolute uniformity of measure. Capacity twenty quarts per minute or 1200 bricks per hour. Whether your plant is small or large, you cannot afford to neglect the great opportunity for cost-saving which the Mojonnier Brick Machine offers. Investigate our easy purchase plan.



Patented Dec. 17, 1918.
(Process and Other Patents Pending)

Mail the Coupon

For your own advantage and to give you an opportunity to thoroughly investigate the incomparable benefits to be derived from Mojonnier Efficiency Equipment for Ice Cream Plants, let us send you full and detailed information on any or all the devices here referred to. Use the coupon herewith. Check the equipment in which you are especially interested and you will have made the first step to new and decidedly attractive profits.

Mojonnier Bros. Co.
MILK ENGINEERS
739 West Jackson Boulevard CHICAGO, ILL.
Sales Branches
NEW YORK ST. LOUIS ATLANTA SEATTLE COLUMBUS

Mojonnier Service Coupon

.....
.....

Please send complete descriptive literature covering apparatus checked below:

.....Mojonnier Milk Tester
.....Mojonnier Vacuum Condensing Unit
.....Mojonnier Over-Run Tester
.....Mojonnier Brick Machine

Name .....
Address .....
City ..... State.....

Dairy Show

Stronger

Than

U. S. P.

MAS

BR

PURE V

Think of It! Only

PER GALLON $

Manufactured and

MASSEY & MA

EXPERT VANI

1214-1216 Webster Avenue

SCO

Made Especially

For Flavoring

Ice Cream

ND

ANILLA

25 IN BARRELS

And Well Worth the Money

buted Exclusively by

SSEY COMPANY

A CHEMISTS

CHICAGO, U. S. A.

Cream City

"Western" "Iowa" "Wisconsin" "Jersey" "Extra Heavy Iowa" "New York"
(Ohio Style) (Tiger Style) (Cleveland Style)

"The Cans with the Strong Straight Breasts"

SANITARY—DURABLE—CORRECT CAPACITY



CREAM CITY WARE G&P F MILWAUKEE

GEUDER, PAESCHKE & FREY CO.

MANUFACTURERS - MILWAUKEE, WIS.

CREAM CITY WARE G&P F MILWAUKEE

(Continued from page 56)

On each of the machines, the gearing arrangement is carried on the rear end of the stand, with gears similar to those of the transmission on automobiles, and which continually run in oil.

Recent developments in these machines have permitted the placing of the motor on a platform over the freezer cylinder. This makes it a very close connected proposition, and gives the right balance to the machine so that it is not as easily upset as are some other types.

Speaking of motors, practically all the ice cream freezers we sell today, are individual motor driven. This does away with all overhead shafting and belting, and much of the dirt and grease which no ice cream manufacturer can afford to have in his ice cream freezing room. It also does away with considerable expense when the machines are not actually running.



Progress Freezers Owned by Corbett Ice Cream Co., Denver, Colo.

Many large concerns are now putting in batteries of these machines. One of our recent installations is that of four of these large machines in the New Orleans plant of the Anheuser-Busch Sales Corporation.

50-Quart Horizontal Direct Ammonia Expansion Freezer.

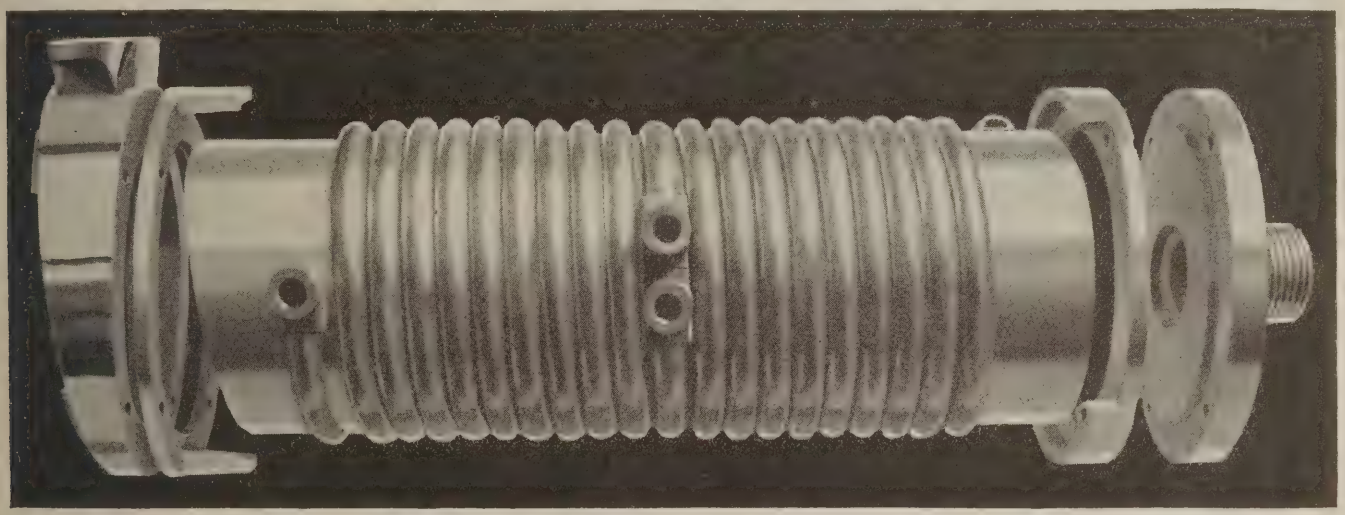
This type of freezer is comparatively new, but wherever we have put in installations of this character during the last year, our customers are satisfied, and some of the most enthusiastic boosters we have.

In this type of machine liquid ammonia is injected into the jacket of the freezing cylinder, from the bottom through a quarter inch pipe. As this ammonia acquires heat from the contents of the cylinder, it is transformed into a gas. This gas is carried back to the compressor and from there to the condenser, where it is reduced to a liquid form.

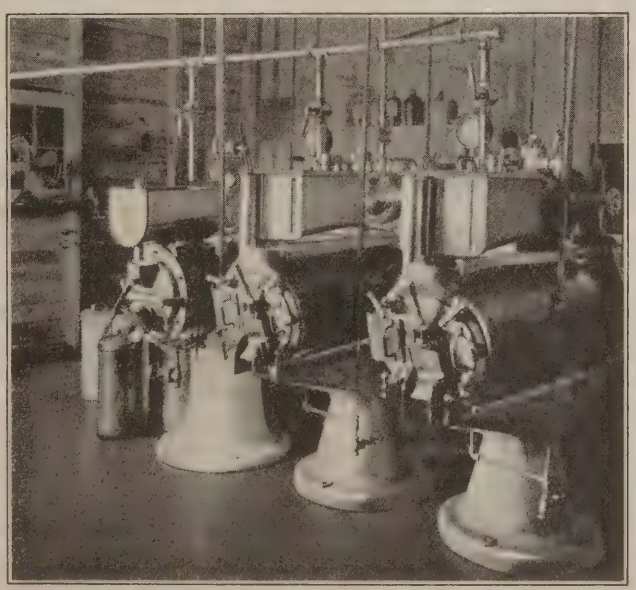
This system does away entirely with all brine connections, brine box construction, etc. In theory it is truly the most ideal ice cream equipment a man could have. In practice is proven the correctness of the theory.

With direct ammonia expansion freezers of the latter type, you secure each of every advantage of the brine machines, and at the same time have certain advantages that the other machines do not have.

A recent example of this classification is the Durkin Ice Cream Plant at Waukegan, Ill. They operated two of them throughout the season.



Cylinder of Progress Horizontal Brine Freezer.



Durkin Ice Cream Co., Waukegan, Ill.

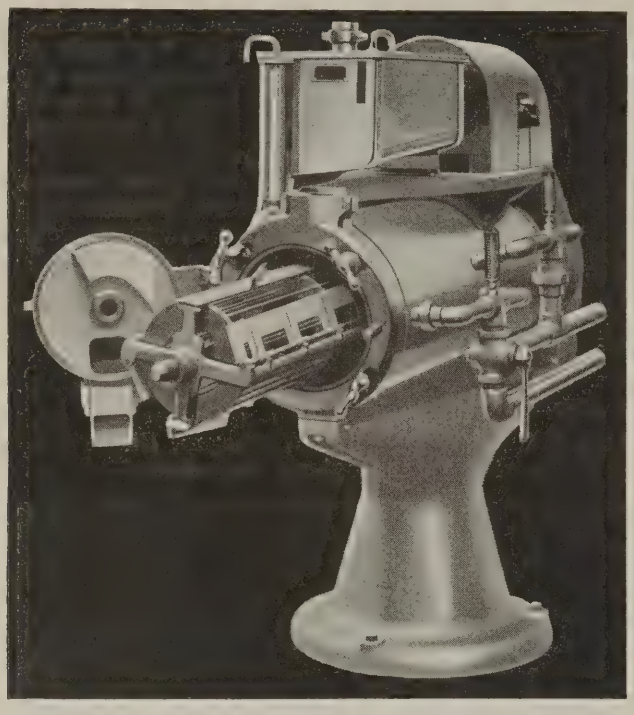
General Information.

Never has the ice cream industry had a better or more profitable year than the one just closing. They have been selling ice cream on a declining cost market, and besides this, they have had a long, hot season in all parts of the country.

Ice cream is undoubtedly a seasonable product, although recent years has seemed to tend to a general consumption. I believe that if statistics were collected together, it would doubtless show a large increase in the consumption of ice cream in the off season months. But, perhaps the increase in consumption in the seasonable months would show about the same percentage of increase.

Realizing this condition, it is of special advantage to any man in the ice cream business, to use great care

and splendid judgment in making his selection of freezers, as well as the other equipment. He must have equipment of sufficient capacity to handle business in the good season, and at the same time be careful not to arrange for an overhead expense which will cripple his efforts in the off season. It is overhead expense in the off season, which always produces the greatest hardship any manufacturer has to contend with. You should plan to avoid it as much as you can.



Progress Horizontal Ice Cream Freezer Door Open, Dasher Part Way Out to Show Construction.

This circumstance offers a special inducement in favor of two of the types of freezers mentioned above. We refer to the vertical machines which cost little money, and direct ammonia machines which reduce the amount of money needed for accessories.



WORK ON NEW QUARTERS FOR KREAM OF KREAM ICE CREAM PROGRESSES.

Work of fitting up the new quarters of the Dryden Corporation, manufacturers of Kream of Kream ice cream at San Pablo avenue and Fortieth St., Alameda, Cal., which will be ready for occupancy by October 1, is progressing rapidly, according to R. J. Dryden, president and general manager of the company.

Within the next two weeks, according to Mr. Dryden, construction will be started on the huge cold storage plant to be part of the equipment of the new factory. All of the ice cream manufacturing and mixing machinery will be located on the ground floor of the new plant. Large loading platform will be located in the rear and on one side of the new plant, the rear platform being used for local automobile and wagon delivery and the side platform for rail transportation, a spur track owned by the company running alongside of the new plant. The offices and storerooms of the company will be located on the second floor of the building. The cold storage plant at the new factory is specially designed to accommodate the standard five gallon containers in which the company ships all of its product.

SPECIAL ADVERTISING TO THE LITTLE FOLKS.

(Concluded from Page 16)

appeal. The artist has used great care to show the characters in such a way that the children will recognize them and the result is a series of pictures that the children like to cut out and paste in scrap books.

Besides running this series in the newspapers a large sized window poster in three colors showing the same pictures and rhymes appears in all the dealers' windows. Later it is planned to show motion pictures to carry out the same idea. It is pretty safe, Printers' Ink concludes, that the children of the South will soon be repeating the Chapin-Sacks rhymes with all the gusto they have had in quoting their old nursery verses, and although the adults are left out of the appeal a few thousand children trying to get their parents to buy the Velvet Kind Ice Cream stand a pretty good chance of making the campaign a success.



Reproduction of a Chapin-Sacks Advertisement.

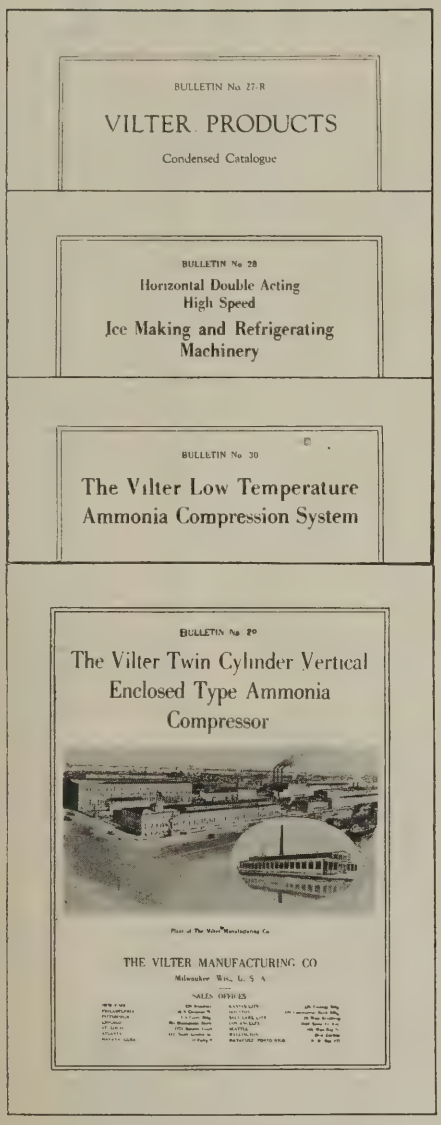
To return for the last time to the editor's "holler for help." He says he wants to have us reap some benefit for ourselves out of this article so he is going to allow us to say a word about our own product, namely, ice cream and dairy equipment. Quite a jump from "Mother Goose" rhymes, you think, but really its no jump at all from the ice cream itself and the Velvet Kind in particular. We'll whisper this: The Chapin-Sacks Corporation have used Manning equipment since long before the war, and when a concern of their prominence uses some of our apparatus we can't help but feel that we've got a product worthy of any ice cream manufacturer's most careful consideration.

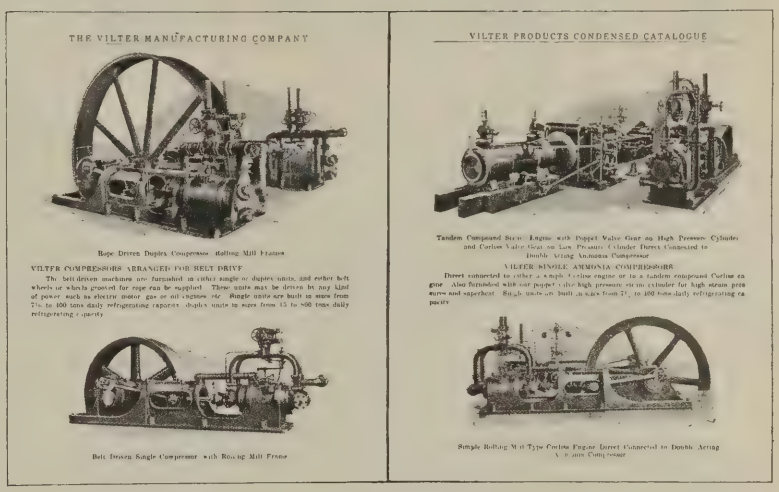


Emphasizing the Merits of "The Velvet Kind."

At any rate we're going to exhibit some Manning Batch Mixers and Can Washers and Dryers at the National Dairy Show, to say nothing of Tubular Milk coolers, Condensed Milk Coolers, a brand new Automatic High Pressure Bottle Washer, a Cream Ripening Pasteurizer, a good line of Sanitary Bottle Delivery Cases and some other equipment that is used extensively throughout the dairy industry and which we believe you ought to see in actual operation. Our headquarters are main entrance spaces 36 to 42, inclusive, and we hope you'll drop in on us and that we'll all have a good time. We thank you.

VILTER BULLETINS





¶ Prepared for you and available on request together with such other information as may be desired.

¶ When in need of equipment whether it be some new material or a complete plant of the largest size, we would urge you to investigate what we have to offer as our extensive experience in this field together with our large well equipped shops enables us to offer the correct equipment for any particular requirements.

Our Representatives and exhibit will be in booth 355 at the coming National Dairy Show

The Vilter Manufacturing Company

830 Clinton Street, Milwaukee, Wisconsin

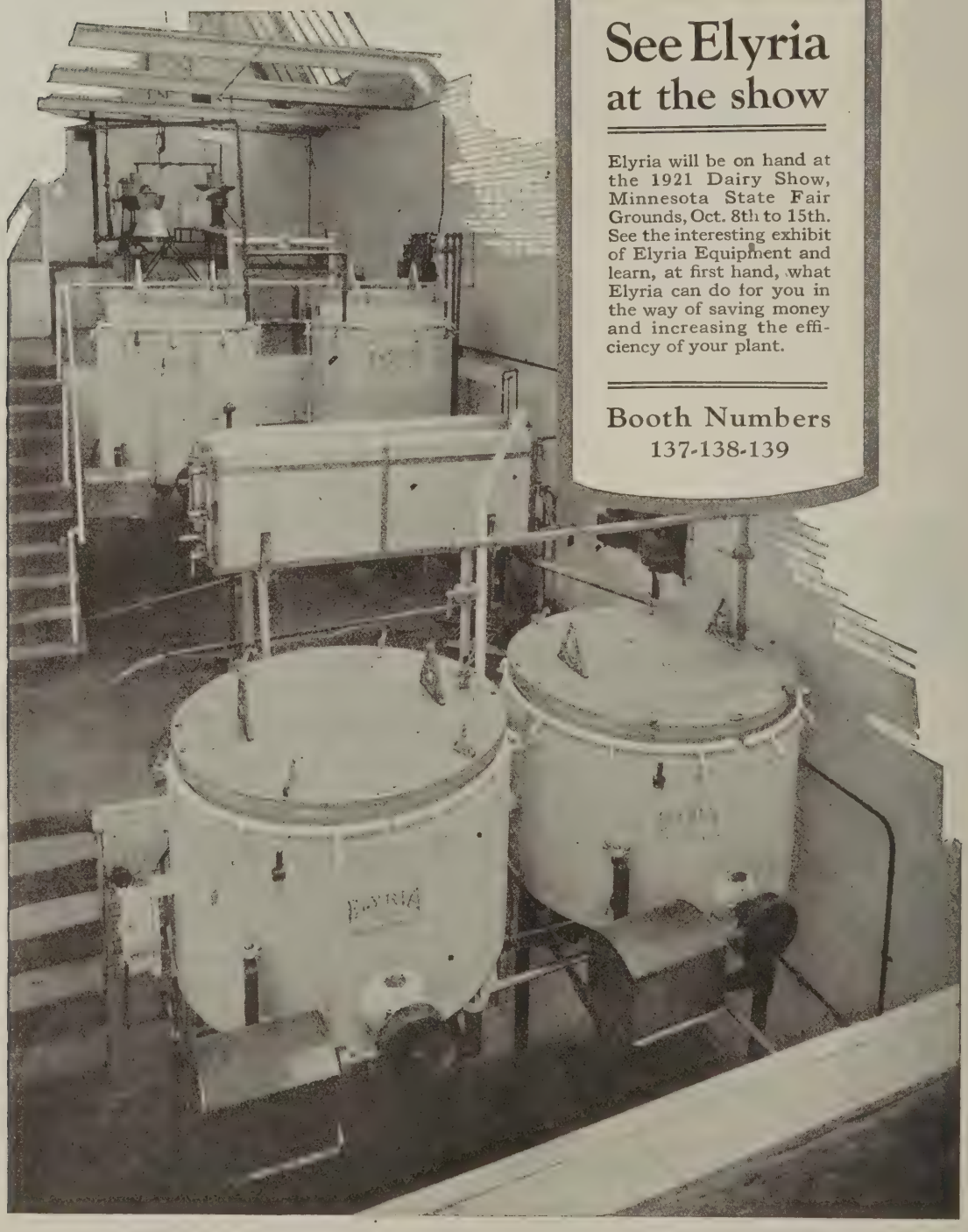
BRANCH OFFICES

New York City 220 Broadway
Chicago, Ill. 731 Monadnock Block
Houston, Texas 419 Commercial Bank Bldg.
St. Louis, Mo. 2723 Bennett Court
Des Moines, Iowa 2700 49th St.
Minneapolis, Minn. 707 Globe Bldg.
Kansas City, Mo. 324 Finance Bldg.

Philadelphia, Pa. Southeast Corner 10th and Chestnut Sts.
Salt Lake City, Utah 28 West Broadway
Los Angeles, Calif. 2650 Santa Fe Ave.
Seattle, Wash. 106 W. Roy St.
Pittsburgh, Pa. 314 Curry Building
New Zealand, Wellington

O'Reilly 9 Havana, Cuba
Mayaquez, P. R. P. O. Box 273
Atlanta, Ga. 112 S. Gordon St.

ELYRIA



See Elyria at the show

Elyria will be on hand at the 1921 Dairy Show, Minnesota State Fair Grounds, Oct. 8th to 15th. See the interesting exhibit of Elyria Equipment and learn, at first hand, what Elyria can do for you in the way of saving money and increasing the efficiency of your plant.

Booth Numbers
137-138-139

SERVICE—NOT JUST EQUIPMENT

GLASS ENAMELED STEEL EQUIPMENT

WHAT do you buy in Glass Enameled Steel Equipment? Efficiency of design and construction; strength and resistance to wear; mechanical perfection—but—over and above all; *you buy profits*, realized through maximum production at minimum cost. Just how Elyria can give you this profit, one of our Sales Engineers will explain—after he has made an inspection of your plant and decided upon the correct units and plant layout to use.

An interesting example of Elyria efficiency is demonstrated by the installation at the plant of the Evansville Pure Milk Company, Evansville, Indiana. Two 500-gallon Elyria Pasteurizers and two 500-gallon Equalizing Tanks are used. Milk is passed through the plant in one continuous system [as illustrated in the picture at the left] and a valuable saving of floor space, time and labor is effected. The plan of operation and the economies realized will be shown to you if you so desire.

You will be interested in having complete information on Elyria Equipment—mixers, storage tanks, weight tanks, pasteurizers etc., for the Milk and Ice Cream Plant. A letter will bring proof of Elyria superiority at once.

ELYRIA ENAMELED PRODUCTS COMPANY
ELYRIA, OHIO

Pittsburgh New York Chicago San Francisco Los Angeles
Canadian Milk Products Company, Toronto

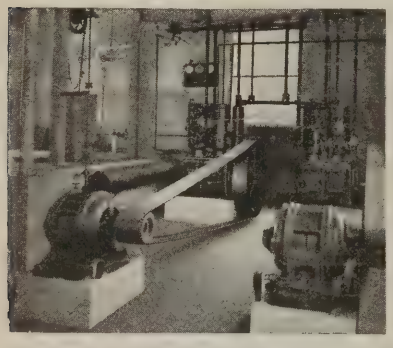
Elyria makes Glass Enameled Truck and Car Tanks, too. If you are interested in this efficient and economical method of milk transportation, we shall be glad to show you how Elyria Equipment will fit into your plans. We have some very valuable and interesting information on the subject.



SERVICE—NOT JUST EQUIPMENT

From Nothing to $100,000

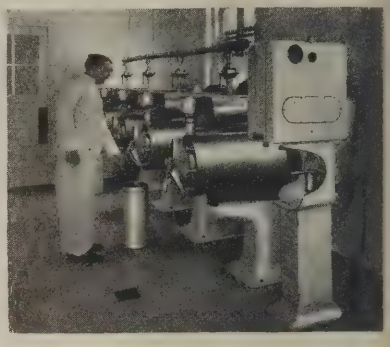
A FEW years ago a young man named Peter Cavallini opened a small confectionery store in Blue Island, a suburb of Chicago. Cavallini's capital was limited indeed, but even if he did lack capital he had qualities which in business were more valuable than money, for he believed in serving his customers to the best of his ability and in supplying them with quality goods. Today he is partner in five other flourishing confectionery stores in company with his brother Dewey, and controls a prosperous wholesale company, a candy factory, and a new completely equipped ice cream plant having a capacity of 600 gallons of ice cream a day, capitalized at $100,000.



View of Two CP 6-Ton Refrigerating Machines With Ice Making Department in Left Background.



Mixing Room Showing Wizard Preparation and Mixing Vat, Alaska Tubular Cooler, Gaulin Homogenizer, and Two Wizard Holding Vats.



Mr. Cavallini and Four Ft. Atkinson Horizontal Freezers.

Although a young man both in years and in experience with American business methods, Mr. Cavallini knew intuitively that nothing would succeed as well as quality goods. Consequently every piece of candy he made and every ice cream soda he served was as good as excellent materials and human skill could make it.

When he decided to make his own ice cream he determined to produce the finest ice cream that money could buy. To do this he realized he must have the finest equipment he could secure. He knew the first cost of such equipment would be somewhat higher than something else that might suffice, but at the same time knew that quality equipment would make it possible to produce the finest goods and furthermore, because of reduced up-keep expense, would be the most economical.

As Mr. Cavallini is a careful, conservative business man, he spent considerable time and money in investigating ice cream plants everywhere. He soon discovered that whenever he found a company producing an unusually excellent ice cream, first class equipment largely predominated.

As a result the Cavallini plant is an up-to-date plant from roof to cellar and, of course, the cream he produces, wins favor wherever tasted. It naturally follows that the demand for Cavallini cream was far greater than the ability to produce it.

The outstanding feature of his equipment, as Mr. Cavallini sees it, is the splendid appearance made by his plant because most of the machines are white vitrified porcelain enameled; the compact arrangement of his machines and the freedom from any defects in machinery. The plant has run like an eight-day clock since it was first opened. Visiting ice cream men have specially complimented him on the compact, ingenious arrangement of his mixing room.

Cavallini purchases pasteurized cream from a neighboring dealer and it is emptied into a Wizard vat on the first floor. From there it is pumped to another vat on the second floor where the mix is prepared in a Wizard vat. From there it is drawn into a Gaulin Homogenizer and the whole mix homogenized under pressure of 3,000 to 3,500 lbs. per square inch, thoroughly pulverizing and emulsifying every atom in the mix. The mix is then pumped over an Alaska tubular cooler and cooled to 30 degrees. From the cooler it goes into two Wizard aging vats and there held for 24 hours. Four vitrified Ft. Atkinson freezers are located on the floor below and the mix is drawn into them from the aging vats by gravity.

Refrigeration for the plant is supplied by two six-ton vertical refrigerating machines. These machines also provide freezing for the ice tank as the Cavallini Ice Cream Co. make their own ice on the premises. The ice is broken in a Victor ice crusher. Dirty packing cans are rinsed, washed and sterilized with a No. 2 Ft. Atkinson can washer. In order to induce the employes to maintain scrupulous cleanliness in the plant, they will be kept supplied with clean, white Duxbak duck clothing. They also plan to use Germ-X liberally for all cleaning purposes in order to keep the plant and utensils in a sterile condition.

THE WISCONSIN ASSOCIATION OF ICE CREAM MANUFACTURERS.

It is certain from remarks heard from the ice cream manufacturers of the state of Wisconsin, that a very large delegation will attend the National Convention of Ice Cream Manufacturers to be held in Minneapolis.

The trip will be a very pleasant one and every manufacturer should attend this convention. Our state is the leading dairy state and should be largely represented.

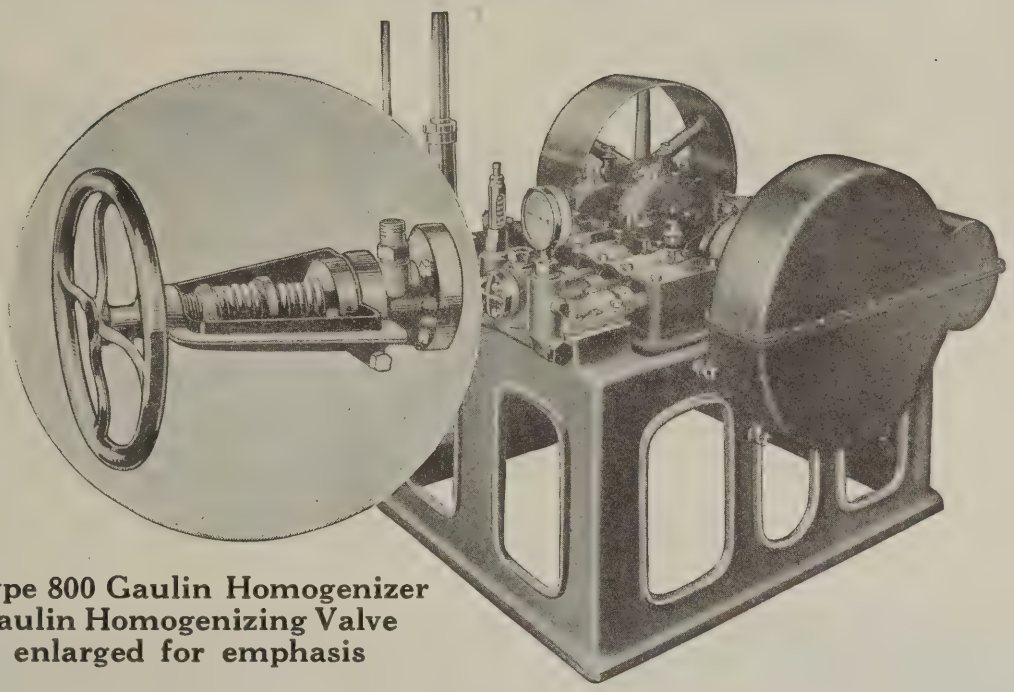
The knowledge gained at this convention will repay each manufacturer for the time spent.

Let's all get together and boost this convention; we owe it to our industry.

D. D. SMITH, President.

Read the letter from L. Manuel Hendeler on page 122 of this issue.

Who Is The Leader
In Your Community?



The Type 800 Gaulin Homogenizer with Gaulin Homogenizing Valve greatly enlarged for emphasis

An ice cream plant owner is in business primarily of course to make money, but most operators aspire as well to establish a reputation of leadership.

Leadership in the ice cream business as well as in the automobile business or department store business is founded on Quality Goods. Once the public realizes that your ice cream is better than the other fellow's, they will give you the bulk of their patronage, even if your cream costs a little more.

In order to make Quality Goods you must have the best equipment possible, and the foremost quality-producing piece of equipment in any ice cream plant is a Gaulin Homogenizer, because it has the Gaulin Spring Homogenizing Valve. This machine enables the owner to turn out a product that is far superior to that obtained from any other machine purporting to do similar work to the Gaulin, as the product is broken up in finer particles and is uniform throughout.

Every part of the Gaulin is hand made by skilled machinists from the finest materials. As a result, the Gaulin Homogenizer does its work quietly, and gives good service for years. Its product cannot be approached for uniformity and smoothness. Don't fail to write NOW for booklet, "The Story of the Homogenizer."

Manufactured by

THE MANTON-GAULIN MFG. CO., Boston, Mass.

Distributed by

THE CREAMERY PACKAGE MFG. COMPANY

CREAMERY MACHINERY
MILK AND CREAM HANDLING MACHINERY
CHEESE MAKING MACHINERY

SALES BRANCHES—(Write to nearest one)

Chicago, Ill., 61-67 W. Kinzie St.
Buffalo, N. Y., 133-137 E. Swan St.
Kansas City, Mo., 1408-10 W. 12th St.
Minneapolis, Minn., 318-20 3d St. N.
Omaha, Neb., 113-15-17 So. 10th St.
Philadelphia, Pa., 1907 Market St.
Portland, Oreg., 6-8 N. Front St.
San Francisco, Cal., 699 Battery St.
Toledo, Ohio, 119 St. Clair St.
Waterloo, Ia., 406-8 Sycamore St.

ICE CREAM MAKING MACHINERY
REFRIGERATING SYSTEMS
DAIRY MACHINERY AND SUPPLIES

Meet Your Jobber and See

The Viscolizer

on display at the

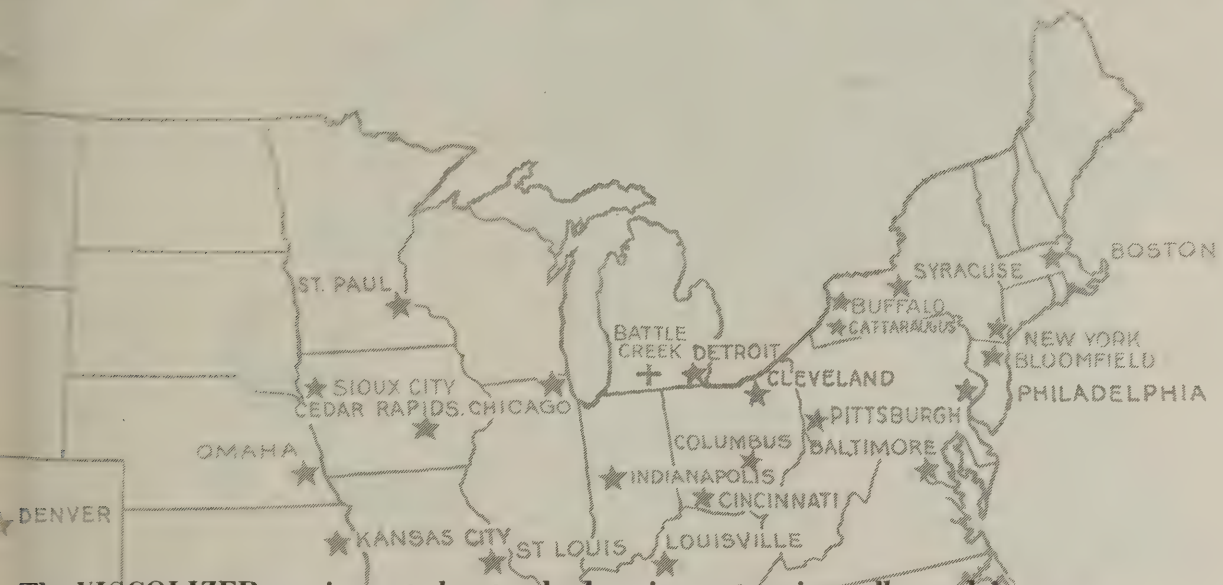
Great National Dairy Show

Minnesota Fair Grounds, Minneapolis, Minn.

October 8th to the 15th, 1921



VISCOLIZER EXHIBIT NAT'L DAIRY SHOW, CHICAGO, 1920



The VISCOLIZER continues to be standard equipment, universally used, in manufacturing plants throughout the United States, primarily because its wonderful performance has given universal satisfaction.

The merits of the Viscolizer have become established facts to those who are well posted. The sturdy construction of the machine frees the users from breakdowns. A very hard and non-scoring viscolite metal is used for the valves.

The option to the buyer of a differential or fixed-orifice valve, or the automatic Pressure Regulating Valve on the Viscolizer, and the fact that the Viscolizer is made in all sizes and to fit all requirements, gives the purchaser an opportunity to select a machine which will ideally fit his requirements.

The manufacturers and distributors back of the Viscolizer have constantly anticipated the demand and have made the Viscolizer of such quality and in such quantities and distributed it in a manner so thorough, that a remarkable price reduction and capacity increase is now possible. These new prices will become effective the opening day of the show and continue throughout.

This price reduction is a master stroke to bring the Viscolizer within the purse range of all. The art in the manufacture of the Viscolizer and the material used is exemplified in the achievements of this machine in behalf of ice cream makers and milk dealers in every dairy section.

It will pay you to hold up that purchase until after you have seen The Viscolizer and hear the new materially reduced prices, at the Dairy Show. Make our booth your headquarters. You are welcome.

UNION STEAM PUMP COMPANY

Battle Creek, Mich.

JOHN W. LADD COMPANY

Detroit, Mich. **Cleveland, Ohio**

CHERRY-BASSETT COMPANY

Baltimore, Md. **Philadelphia, Pa.**

What the National Dairy Council has to Say about Ice Cream

THIS article, with its illustrations, is made up of selections from National Dairy Council literature upon ice cream. It is recommended that you pass it on to your local papers. Help tell the story of ice cream as an all year food. "Ice cream," says the National Dairy Council, "is not a luxury; it is a highly nutritious food."

During the past four years science and necessity have taught us many things about food. Some things we once thought indispensable as food, we have since found wholly unnecessary. Others we thought of only as luxuries, we have found are food necessities.



Ice Cream produces energy and removes that tired feeling

(From the National Dairy Council's New Booklet on Ice Cream.)



Mother knows that Ice Cream makes healthy Children

(From the National Dairy Council's New Booklet on Ice Cream.)

Ice cream a short time ago, was thought of and used only as a luxury, but during the war it was declared by the government to be an essential food. Science and actual experience in both home and hospital have proven it to be a necessary and very nourishing food. The cream and milk from which it is made contain g r o w t h - promoting and health-giving substances absolutely necessary to child growth and the health of all ages.

Ice cream soothes and nourishes the sick back to health and strength, because it is so easily digested and so rich in food value. It strengthens and sustains the healthy of all ages, because it contains this element of food so necessary to health and strength. It puts color in the cheeks of youth and laughter in the eye of age. Eat more of it, ye young and old, because it is a real food, an all-the-year-round food.



Healthy and Beautiful, She Knows the Value of Ice Cream as a Food.
(Illustration From National Dairy Council's New Booklet.)

Ice cream is a food which the public has not yet learned to appreciate. They have considered it a luxury and not a real food. This is an error. Ice cream is a nourishing food, very palatable and high in food value.

It is not necessary to load the stomach with heavy, bulky foods in order to furnish proper nourishment for the body.

Ice cream is a food which is all digestible. During the war it was declared by the government to be an essential and highly nourishing food.

Food experts tell us that one quart of ice cream furnishes as much nourishment for the body as 14 eggs.

Ice cream should be eaten in every household in America. Let a dish of ice cream take the place of some other food, less desirable, less nutritious and more expensive.

It should be considered as part of the meal.

A dish of ice cream every day will mean health, strength and vitality. Remember, it is an all-the-year-round food.

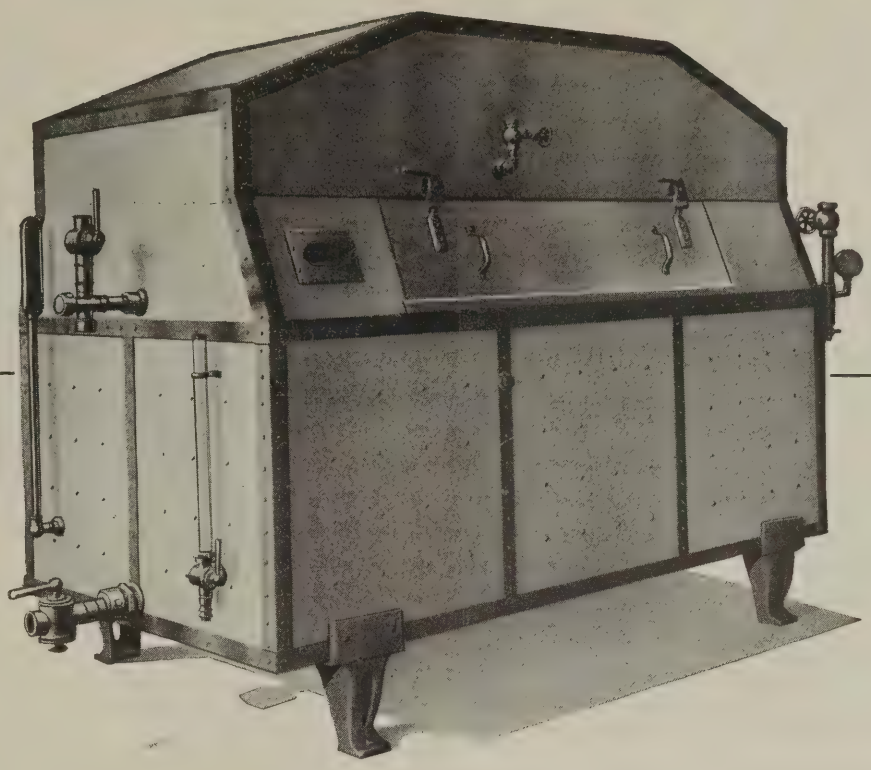
Until recently ice cream was considered a luxury—now it is known as a real food.

No longer is it a treat for Sundays and hot days, but rather a part of the regular food diet. It is just as much a food for winter as for summer.

All of us love good ice cream. Children just can't seem to get enough of it—and really there is no more healthful food for them to eat. It gives them additional energy and strength, so necessary to their growth and health.

Food and nutrition experts pronounce ice cream one of our very best foods. One quart of ice cream is equal in energy food value to 10¾ lbs. tomatoes, or 4½ lbs. peas, or 14 eggs; 3¾ lbs. chicken or 1 2-5 lbs. of beefsteak.

These facts show that ice cream is highly nourishing and economical. Consider in addition its wonderful deliciousness, and there is every reason why



We invite you to call at our Booth No. 156 and 167

National Dairy Show

Minnesota State Fair Grounds

October 8th to 15th

We will exhibit our latest improved Ruff Milk Condensing Evaporator, Model No. 6, 1922 Special, with capacity

Condensing 2700# raw milk, two to one
2025# raw milk, three to one
1800# raw milk, four to one
per hour

The many new features embodied in this new model, its great economy and being able to produce a better flavored ice cream mix and finished condensed milk at a lower cost is well worthy of your time and consideration.

THE CREAM PRODUCTION COMPANY

PORT HURON *B. Trudell & Company, Montreal, Quebec Manufacturer and Jobber for Canada* **MICHIGAN**

people—both young and old—should use it liberally. The United States government has declared ice cream to be an essential food and placed it in the same group as beefsteak, milk, eggs, butter, and other staple articles of the diet. It is one of the most easily digested foods we have, and on that account is rapidly becoming one of the most important foods in the hospital and sick room. Even the weak and exhausted stomachs of those who are very sick can take this delicate and nutritious food without danger or difficulty, and those recovering from sickness are hastened back to health and strength by its use as a food.



A Real Test of Friendship.
(Illustration From National Dairy Council's New Booklet.)

Ice cream is rich in that essential vitamine which makes the difference between a strong, healthy individual and a weak, worn-out one. Without this vitamine children fail to grow and develop normally, and adults are more healthy and efficient when receiving it in their diet.



From the Council's New Booklet on Ice Cream.

Ice cream makes weak children strong, and strong children stronger. You should give them plenty of this delicious and nutritive food.

Ice cream is made from cream, the richest and best portion of milk. Other ingredients used in the preparation of this delicious food are sugar, eggs, flavoring extracts, and sometimes nuts and fruits.

Throughout the entire process of making ice cream it is never touched by human hands.

The manufacturer of this product has become so important that it is now taught in colleges and universities throughout the country.

Manufacturers of ice cream know it is to their advantage to produce a product of the highest quality and therefore pay particular attention to the purity and wholesomeness of their ice cream. They recognize the value of factory inspection, so the public may be assured the very best possible product. They believe in co-operation, and give careful study to ice cream problems and how best to serve the public one of the very best foods on the market.



From the Council's New Booklet on Ice Cream.

Ice cream is a food for all ages. It is refreshing, invigorating, and rebuilds the body and mind. Everybody enjoys good ice cream. It is a real health food.

Eat a dish every day and you will be surprised how good you will feel.

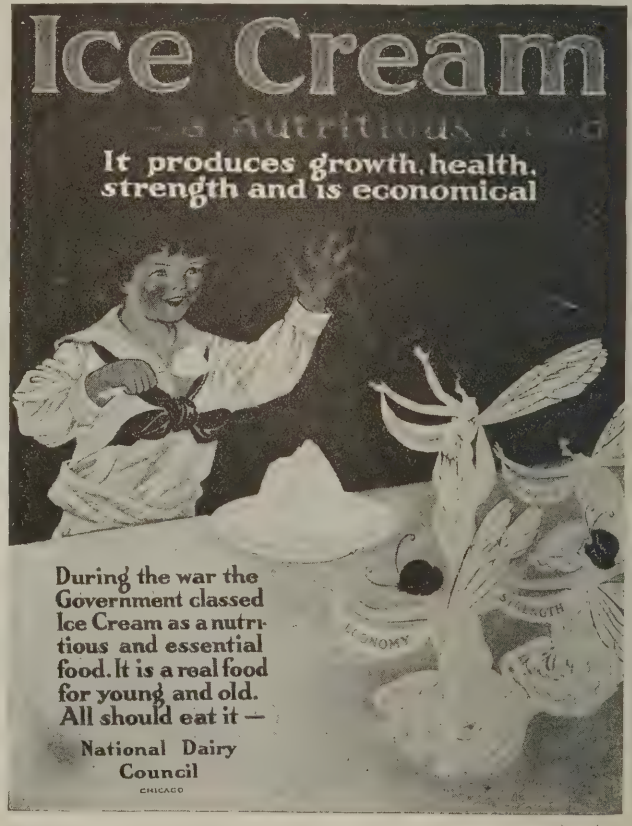
As a food, ice cream ranks among the best; as a dessert it is unexcelled.

Ice cream is the one food that combines—in a most unusual manner—rare palatability and high food value.

Ice cream is the children's delight. It tastes good and is good.

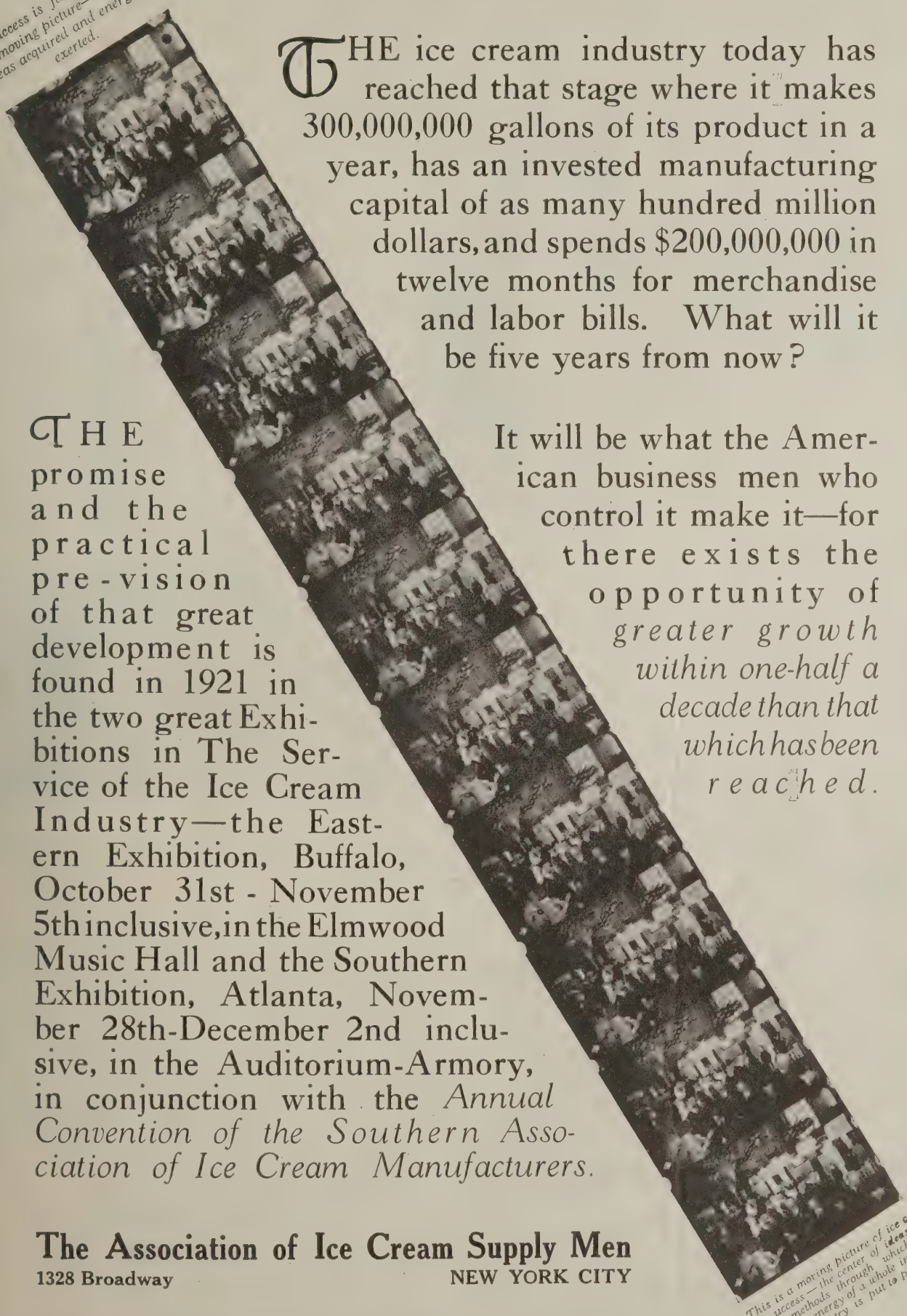
Ice Cream Hanger.

Most attractively done in beautiful colors. Symbolizing the growth, health and strength-giving qualities of ice cream. Emphasizing the fact that ice cream is not a delicacy or a dessert—but a nutritious food, indorsed by the United States government.



The National Dairy Council Beautiful Ice Cream Hanger.

It gets the message across in a big way.



THE ice cream industry today has reached that stage where it makes 300,000,000 gallons of its product in a year, has an invested manufacturing capital of as many hundred million dollars, and spends $200,000,000 in twelve months for merchandise and labor bills. What will it be five years from now?

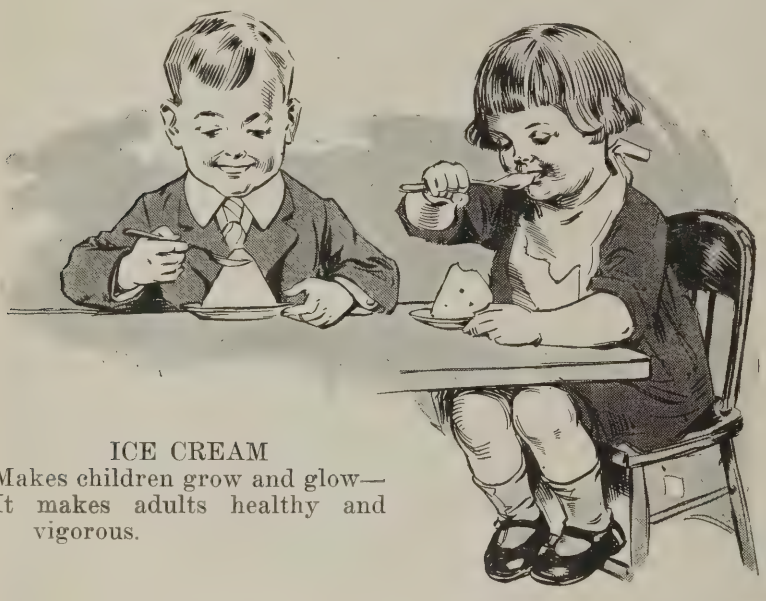
It will be what the American business men who control it make it—for there exists the opportunity of *greater growth within one-half a decade than that which has been reached.*

THE promise and the practical pre-vision of that great development is found in 1921 in the two great Exhibitions in The Service of the Ice Cream Industry—the Eastern Exhibition, Buffalo, October 31st - November 5th inclusive, in the Elmwood Music Hall and the Southern Exhibition, Atlanta, November 28th-December 2nd inclusive, in the Auditorium-Armory, in conjunction with the *Annual Convention of the Southern Association of Ice Cream Manufacturers.*

The Association of Ice Cream Supply Men
1328 Broadway **NEW YORK CITY**

This is a moving picture of ice cream success—the center of ideas and methods through which the energy of a whole industry is put to profit.

Nothing is more appetizing, palatable and delicious and yet no dish is more strengthening and nourishing. It appeals to young and old alike and erroneously has long been looked upon only as a dessert—perhaps there is a reason for this for there is nothing more gratifying to "top off" a meal. The real worth of ice cream has never been considered. It is more than a dessert—it is a real food—not a luxury, and should be used liberally



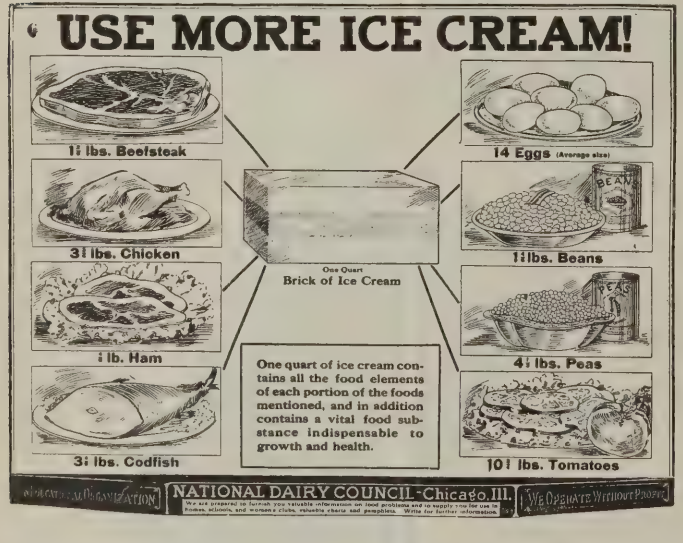
ICE CREAM
Makes children grow and glow—
It makes adults healthy and vigorous.

This Cut Taken From the National Dairy Council's Recipe Book.

by all members of the family. It is easily and readily digested and furnishes the body with real nourishment at a lower price than beefsteak, eggs, canned peas or tomatoes, or chicken and many other foods.

Ice cream is rich in butterfat, which contains that vital food substance absolutely necessary to the growth of a child and the health of an adult.

Ice cream should not be considered as an after-dish, it is a part of the meal. It will take the place of other foods in the meal, less appetizing and not as economical.



Ice cream is an all year round food. At least a dish every day will mean greater health, strength and vitality because it is a real food.

Through the courtesy of the Chicago Association of Ice Cream Manufacturers the National Dairy Council was given at the recent Pageant of Progress space to put on a display to tell the story of ice cream. The Council selected for its theme the very handsome poster, "Use More Ice Cream," which has been so effectively used by many dealers this last year. The illustration shows the chart poster in miniature.

The poster was then visualized by the use of wax figures of two children and by paper mache for similes of the various foods. Hundreds of thousands of people saw this display and got an almost instantaneous "eye-ful" of the real food value of ice cream. This is a display which can be duplicated in your own town and the Council will gladly be of service to you if you wish to put it on in some display window in your city. Photograph herewith will readily suggest to you the beauty and attractiveness of the display.

A word should be said here about the Council's latest booklet on ice cream. This is an eight-page booklet brief, forceful, beautifully printed in several colors. Just big enough to be read in only a few minutes. In this article have been shown a number of illustrations taken from the book and we have freely quoted also. That you may get a better idea we present on the next page a photograph showing in a measure only the beauty of the cover design for the back. Now imagine this in the natural colors of the foods, the children with the glow of health upon their cheeks and you will see something which very likely you will want



your customers also to see. This booklet is already having a wide distribution. If you haven't seen it, write the National Dairy Council for a sample copy.

⚜

ANNOUNCEMENT.

Mr. Frank X. Sommers, manager of the Mojonnier Bros. Co., Milwaukee plant begs to announce that he has no interest or holding whatsoever in the new firm of Sommers & Sons' Company, foundrymen, and sheet metal workers, 270 Lapham St., Milwaukee.

Mr. Sommers' whole interest is with the Mojonnier Bros. Company and he is very busy tuning out high grade Vacuum Pans that are making a record for themselves and the company all over the country.

MOJONNIER BROS. CO.

⚜

NEW ENGLAND ASSOCIATION HOLDS MONTHLY MEETING.

We are advised by Secretary G. W. Kenison that at the May meeting of the New England Association of Ice Cream Manufacturers it was decided to hold monthly meetings throughout the year, on the second Thursday of each month. We have asked Secretary Kenison to keep us advised of the doings.

THE GLACIFER DRY PACKER



Patented 20 qt. Packer

Price $16.50
Quantity lots $16.00

BY Order of The Interstate Commerce Commission the GLACIFER 20 quart DRY PACKER is to be billed by the American Railway Express Co. at 75% of its gross weight.

Gross weight Glacifer	**20 qt. Packer**		**90 lbs.**
Billing "	"	**20 qt.** "	**67** "
" "	**Iced**	**20 qt.** "	**115** "
Difference in weight in favor Glacifer			**48 lbs.**

A Saving in Express Charges by using the GLACIFER DRY PACKER within a radius of 100 miles of from 24c to 50c per Packer.

A Seperate Saving in Factory Cost Estimated at 3c to 10c per gallon.

A Packer built to withstand years of hard service. Keeps Ice Cream in a state of perfect preservation for 15 to 30 hours due to the Glacifer Patented Principal of Refrigeration.

(Note Discs Above Packing Can In Photograph)

Sample Packer will be sent to any Ice Cream Manufacturer or Dealer using Artificial Refrigeration on Application to the Company, it being understood that it will either be returned or paid for within 30 days.

THE GLACIFER COMPANY

102 MERRIMAC ST. BOSTON, MASS.

HOW NORDHEM HELPS THE DEALER.

We are indebted to the Ivan B. Nordhem Co., New York City., for the loan of the accompanying cuts illustrating the various suggestions for helping the dealer "call" is irresistible. Window display advertising always commands attention and the suggestion to take home a brick of ice cream can be made in numerous ways in connection with an attractive window display.

The right kind of a window display gets the attention of the passerby whether on foot or in a passing vehicle. An attractive store window display is one of the things which characterize a progressive merchant. The manufacturer who co-operates with his dealer to the extent of furnishing materials and suggestions for a pretty window display earns and receives the appreciation of the dealer. There are many retailers who would like to show progressiveness, but don't know how to go about it to put on a campaign to arouse the comments of the buying public. The wise manufacturer helps them when he can.

"You tell 'em we want some more."

A suggestion for a bill board advertisement which commands instant attention and favorable consideration. Up-to-date ice cream manufacturers are using this modern means of creating a greater demand for ice cream in general and for their brand of ice cream in particular.

The large creameries and milk plants the country over have spent many thousands of dollars in creating a consumer demand for their products. What has been done in those branches of the business can be done and is being done in the ice cream business.

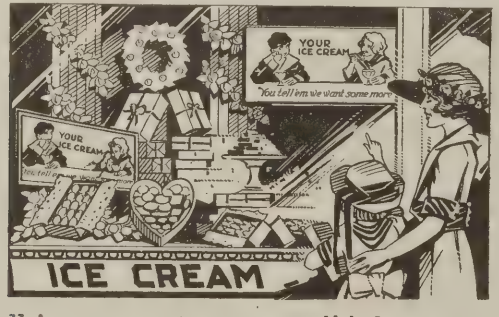


A frame into which varnished full-color posters for dealers' store may be inserted. These are easily changed so that an entire series of beautiful advertising posters may be displayed.



* * *

Two suggestions for a window display which feature the same striking copy as appears on the billboards.



"You tell 'em we want some more" is brought to the attention of the public in so many effective ways that the



The last suggestion in the folder from which we selected these cuts is for the manufacturer to back up his other advertising with liberal space in the local newspaper, an advertising medium of unquestionable value to the manufacturer who seeks to increase local demand.

Diamond-F
Protective Papers
For Ice Cream and Candy Makers
Glassine
Greaseproof
Vegetable Parchment
Parchmoid
Made by
Diamond State Fibre Company
BRIDGEPORT (near Philadelphia) PENNA.

Why Not Install A
Sterling Enclosed
ICE MACHINE
Proven to be one of the best after thirty years of Successful Installations. Let one of our real Engineers lay out your Milk or Ice Cream Plant and in the most economical way.
The Erecting Engineers Co., Inc.
Ice Making and Refrigerating Engineers
9 So. Clinton St., Chicago, Ill.



A H BARBER, President

A.H. GOODHUE, Secy. & Treas

A. H. BARBER CREAMERY SUPPLY Co.

300-306 W. AUSTIN AVENUE,
COR FRANKLIN ST

CREAMERY MACHINERY.
CHEESE FACTORY APPLIANCES,
MILK DEALERS SPECIALTIES.
DAIRY SUPPLIES

TELEPHONE FRANKLIN 554.
PRIVATE EXCHANGE ALL DEPARTMENTS

BOILERS, ENGINES, PUMPS,
REFRIGERATING MACHINERY.
ICE CREAM MACHINERY,
B-L-K COW MILKERS.

CHICAGO, ILL.

September 10th, 1921.

TO OUR TRADE IN THE NORTHWEST

Gentlemen:

It is a pleasure to announce to our friends and customers in the Northwest the opening of our Twin City branch, 2490-94 University Ave., St. Paul.

Through this branch we will be able to give our patrons in the big Northwest dairy country prompt, efficient delivery service and through our show rooms will make it possible for buyers to personally select their equipment and supplies. We have ample warehouse capacity and will carry substantial stocks.

We wish to express to the dairy people of the Northwest our appreciation of the steadily increasing volume of business which has made this additional service necessary and possible.

Cordially yours,

A. H. Barber Creamery Supply Company,

AHB/T

A H Barber

President.

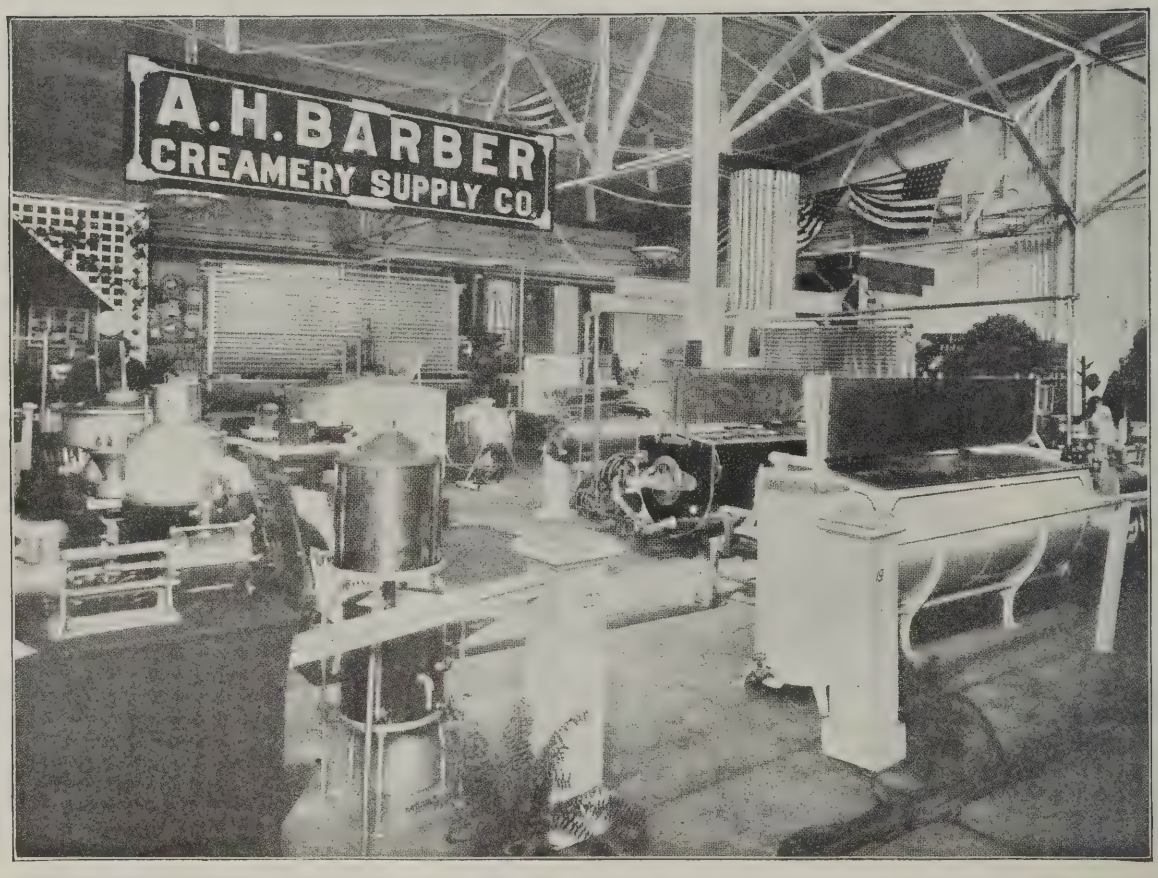


TWIN CITY BRANCH—IN THE MIDWAY DISTRICT—ST. PAUL, MINN.
2490-2494 UNIVERSITY AVENUE



THIS map roughly outlines the territory to be served by the Twin City Branch of the A. H. Barber Creamery Supply Company. Orders may be sent either to St. Paul or to Chicago.

Our location is in the Midway district, equi-distant from the centers of Minneapolis and St. Paul, and on the main highway between the cities. Visitors to the Twin Cities are cordially invited to call upon us.



A Truly Representative Exhibit at the National Dairy Show

You can sort out the week's real news by hours of laborious reading of the daily newspapers—or you can get it in 30 minutes from the Literary Digest, boiled down, all of the riff-raff and hodge-podge eliminated.

The Barber Display is the "Literary Digest" of the National Dairy Show exhibits, *because the Barber line embodies the best of the products made by hundreds of manufacturers.*

Not only does it truly reflect the growth of the industry, but it greatly simplifies the selection of dairy equipment and supplies. Out of many years of practical experience, and a knowledge of dairy equipment that no individual buyer could acquire in a lifetime, we have selected *for you* those products which we have found best suited to the needs of our patrons.

We look forward with pleasure to meeting a host of our old friends and making the acquaintance of new ones.

You are cordially invited to use our space in any way you can for the convenience and comfort of yourself and your friends.

A. H. BARBER CREAMERY SUPPLY CO.

CHICAGO ILLINOIS

Twin City Branch in the Midway District—2490 University Ave., St. Paul, Minn.

Kansas Association of Ice Cream Manufacturers

A Review of the "Review" by L. R. Manley, President and B. T. Perkins, Secretary

THE following letter is a message to all members of the Kansas Association of Ice Cream Manufacturers which we received from Mr. L. R. Manley, President of the Association, and B. T. Perkins, Secretary:

To All Members:

We are rapidly coming down the last half of the 1921 season and while it is still warm, cool spells and cool nights will be in evidence in the near future. We will then review the season's business. It is hoping that all will have a fat bank account to divide into dividends or for profits. From the reports given out by different members of the Kansas Jack Rabbits it seems as though the Kansas manufacturers have all been busy and prospering, as we have made it a point to inquire of these said Jack Rabbits about the business welfares of our fellow manufacturers.

The July issue of The Ice Cream Review contains several items of interest, and after looking through this hurriedly, wish to call attention to several different items which interest us. Will say that all other items are of interest, but there are a few which I mention:

On page 28, part of the proceedings of the Iowa State Convention, is the report of the committee on the unfair practice. These are things practiced every day, why cannot the Kansas Association members each adopt these resolutions as their code? There is no use thinking that we are putting something over on the other fellow. While you are doing your unfair practice he is also doing his. Let us all come out of it and be open and fair and show by our hands just what we are doing. Iowa is setting a good example which is worthy of our adoption.

On page 34, Boost the National Dairy Show. Now fellows, read this over, let it have a place in your consideration. Another article on the same page in regard to a new revenue tax bill by Congressman Kellar of Minnesota. Read this over several times and study it and pass your judgment. After reading it the second time, we think it a good bill and worthy of support.

On page 42, (Caught With the Goods). We hardly think any of the Kansas manufacturers would be guilty of an act similar to this, but would have the interest of the dairy industry more at heart, and also the production of a pure, healthful, wholesome ice cream, that is ice cream, as per the meaning of the Kansas law. Let's try and make a better product, which can only be accomplished where we use pure milk integerites.

Following are a few paragraphs furnished by Dairy Commissioner Jones:

Each week I get the United States market report concerning the butter situation. I am quoting to you from this: "'Undergraduates continue very scarce.' 'A great deal of cream has gone into the manufacture of sweet butter which has been taken by the ice cream trade. Much of this cream would have, at other times, appeared on the markets as undergrade salt butter.' I feel it is time to call a halt to this and any information which you can get out to the ice cream manufacturers stating that the law requires pure, sweet, dairy products and that they must discontinue using butter made from poor cream, will be of help. In some cases the flavor of this poor butter shows up in the ice cream. I find that the best ice cream made in the state is made from sweet cream and using additional milk solids or using good butter. The ice cream manufacturers wanted a good ice cream law and I think that we have one. I wanted this law passed and I feel that they should look at it in the right way and not try to make a cheap product and a poor product by using poor butter."

We are sure that all the Review readers appreciate all the letters by Professor Baer. Professor Baer is certainly doing his part in setting a standard for good ice cream. "Our hats are off to you, Professor, and we are with you whenever we can be of assistance."

On page 58. Now you may guess that these fellows received a good Impression of United States Food Diet. But, say, boy, what would they have done if it had been ice cream made in Kansas or Missouri, especially Kansas, which is real ice cream. Professor Baer says that Kansas has the best ice cream law in the Union, and we all recognize him as authority, so therefore, we have to make the best ice cream in the Union for we all comply with the law.

On page 66, (Successful Farming) should visit Kansas and find that our trains are like the Kansas people (not that slow) for we are in the front of the procession and moving too fast to have that kind of a joke even be considered as befitted to Kansas.

On page 70. Now, fellows, here is real reading and food for thought, to be assimilated and digested, then make the decision and all necessary arrangements to

WHERE MASTER MINDS WILL GATHER

Topeka, Kans., Sept. 1, 1921.

The Ice Cream Review:

In Minneapolis, Minn., from Oct. 8th to 15th, will be gathered the master minds of the dairy industry. Men who are experts representing every phase of one of the greatest industries, will be there, an industry that produces, manufactures and distributes a product that contributes to the welfare of practically every man, woman and child in these United States.

It is an honor to be associated with an industry of such vital importance. It is unfortunate that more of us do not realize the importance of the National Dairy Show and the meetings of our different associations.

The Dairy Show places before the men of our industry and the public, an opportunity to gain knowledge of untold value. In view of this, let every person that can possibly do so arrange to attend what we believe will be the greatest and best exhibition of all that is best in connection with the producing and manufacturing of our dairy products.

Let every member of our national and state association see to it that this, our coming Dairy Show and its allied activities, be the best yet. The time of the show coming as it does at the end of the season's rush, offers an opportunity of combining a vacation trip along with the more serious work of the Dairy Show and convention.

L. R. MANLEY, President.
The Kansas Assoc. of Ice Cream Mnfrs.

meet your fellow manufacturers in Minnesota, October 10. The National Association of Ice Cream Manufacturers meets at Hotel Radisson, October 10, 11, 12, then we will have several days to visit the Dairy Show before returning home happy and well pleased with our short visit, as this will surely be one of the very few trips where you can take your wife or your future wife and combine business with pleasure and be happy with both. You will enjoy a few days rest in the cool north after our long prosperous summer. Let's have a large enough attendance to secure a special from Kansas City. If not enough for special train will have special Pullman. The secretary of the National Association writes in part:

Every forward-looking ice cream manufacturer in the country to-day owes it to himself and his business to attend this Convention. He needs the stimulation that the Convention will supply in ample measure; the interchange of ideas, the discussion; the close personal contact with his fellow manufacturers. Bear in mind, too! Every representative ice cream manufacturer owes it to his industry to contribute the results of his experience and intelligent thought towards the solution of many problems that have to be solved in the industry.

Attention! Instructions regarding reduced rate: When you purchase your railroad ticket buy a regular one-way ticket to the convention, and insist on a Convention Certificate. It must be understood that reduced fare is contingent on an attendance of not less than 350 members of the organization, or dependent members of their families, at the meeting holding regular issued certificates from ticket agent at starting point showing payment of normal one-way tariff fare of no less than 67 cents on going trip.

When the required 350 certificates are presented same will be validated by Special Agent and will entitle the holder of a certificate to a return ticket via the same route as going journey at one-half the regular fare."

Come on, now, let's go. Kansas can surely furnish enough to get a special Pullman. It will only require 125 fares to secure a special train, or about 15 to 20 fares to secure a special Pullman. As it is hardly likely anyone will care to go and return by Chicago. Let's hear from you and we will get busy at once.

Your secretary will be glad to gather and give you any information possible.

The meeting place of our next Kansas Convention will be at Kansas City about December 15 and 16. You will be given more definite information later.

The larger per cent, and nearly all of the members have paid their 1921 dues. If you are one having not paid, please do so at once, as our next General Letter will not be sent to those in arrears. No Kansas or Missouri manufacturer can afford not to be a member of the Kansas Association of Ice Cream Manufacturers for the amount of dues, as you will all admit that we are working for a good cause and our Association has made wonderful progress in helping each and everyone in this cause. Let's all do our part to put the Kansas Association at the top of the list, and this can only be done by the united effort of all the manufacturers.

Here's hoping to meet you at Kansas City when we board the Special for the greatest Dairy Show, the greatest Ice Cream Convention, and to show the greatest per cent of attendance of any other State Association.

B. T. PERKINS,
Secretary.

L. R. MANLEY, President.

SAD DEATH OF ARTHUR A. WOODBURY.

The untimely death of Arthur A. Woodbury will leave a gap in the sales force of S. Gumpert & Co., Brooklyn, N. Y., which will be hard to fill. For twenty years he represented this firm.

His body was found floating in a creek near Erie, Pa., August 23rd.

The burial was held from his home, 249 Baton St., Waltham, Mass., Thursday, August 25th.

Mr. Woodbury was a member of the Association of Ice Cream Supply Men, and the following message of condolence in the name of the Association was sent to the widow:

"Mrs. A. A. Woodbury,
249 Baton Street,
Waltham, Mass.

Dear Madam: The Association of Ice Cream Supply Men, composed of business men from many states, to the men of which your husband has been known for many years, expresses to you its deep regret in the loss of your husband and its profound sympathy with you in your realization of the tragic untimeliness of that loss."



THE NORTH CAROLINA ICE CREAM MANUFACTURERS' ASSOCIATION.

After a thorough canvas of the members and directors, it has been almost unanimously decided to hold our annual convention in connection with the convention of the Southern Ice Cream Manufacturers' Association in Atlanta, Ga., from November 28th to December 1st, with headquarters at the Ansley Hotel.

Mr. J. W. Clopton, Secretary of the Southern Association, informs the writer that they expect to put on one of the best conventions ever pulled off in the South, and from all indications it will be well worth the trip.

Every progressive ice cream manufacturer owes it to himself and his business to attend, and the writer hopes our Association will make a good showing with "Present" opposite every name on the list of the members of the North Carolina Ice Cream Manufacturers' Association, from "Buttercup" to "Waverly Ice Cream."

A convention of this kind will not only enable you to get in touch with the most modern ideas and experiments affecting the industry, but there will be a wonderful time for all, not the least of which will be the sights of Atlanta, one of the largest and most progressive cities of the South.

Let's make arrangements to go — **November 28 to December 1.**

"Convention-ally" yours, and more anon,

A. E. DIXON, Secretary.



STILL ANOTHER CLAIMS THE HONOR.

Next time you eat ice cream, consider the debt you owe to Sambo Jackson, negro pastry chef in a New York tavern, who gave the world its first dish of ice cream 105 years ago this month.

For years, Sambo had a monopoly on the manufacture of ice cream, because he kept his process a closely guarded secret. All that is definitely known about his discovery is that it was an accident.

It might not be a bad idea to erect a monument somewhere to Sambo. And, while about it, surround his black marble statue with effigies of the men who gave us artificial ice, lemonade, refrigerators and fans.

More Money In Every Sale

There's more *profit for you* when you sell ice cream out of an ECONOMY CABINET—because it costs you less for icing. Then it costs less in the first place and wears longer than most other cabinets, so it saves you money all the time.

"THE ECONOMY"

Ice Cream Cabinet

is fast taking the place of more expensive styles because it appeals to careful dealers. Made in mahogany and other finishes and coated with waterproof varnish. Insulation is finely graded granulated cork, protected by waterproof felt. Picture shows an Economy Metal Lined Cabinet. Made in from one to four compartments, 12 to 20 quarts. Ask about "Economy" Packing Tubs.



Write or wire for catalog and prices. Prompt shipment if you order at once.

HOMER MFG. CO.

HOMER CITY
P E N N A .

"Helping Mr. Skinner Out"

By GEORGE F. KROHA, Advertising Manager, The Pfaudler Co.

IT IS a noticeable fact that the greatest things in life often receive comparatively the least attention. The ministerial profession, the professor and his kin labor on at nominal pay. Many artists and inventors live only to be exploited by some more shrewd and crafty clansmen—and so it goes.

The dairy industry in a sense, has been one of these. Milkmen in the past have led a rather disjointed existence—plenty of competition and very little co-operation. Even where state associations were formed the effectiveness of the co-operative spirit began to dwindle as soon as the question of taxation for this, that or the other thing was raised. The attitude of the dairyman was that the benefits derived were not worth the fees. He lets go of his money to see it spent by someone else, and doubt immediately rises in his mind. Yet, some of the greatest successes have been founded on co-operation.

For example, as pointed out in an interesting story in "System" for September, J. H. Leighton, of San Francisco, built a successful chain of business, which had for investors, his employees. By carrying the profit-sharing plan farther than was common in the average case, he not only managed to get more work from his employees, but in turn made more money himself. He was able to get as much work from 65 per cent of his workers under the salary-bonus system as he could from the original 100 per cent, working on a straight salary basis, and more than that the work was better done and the relationship established between employees far more cordial. Waste was entirely eliminated because the practicing of economy meant additional profits to the employee. The greatest and most convincing evidence of the success of the entire plan was the fact that six months after it was put into operation the net earnings of the company had increased between 40 and 50 per cent over and above the cost of the bonus. Leighton was willing to take a chance on the other fellow, and in doing so, worked eventually to his own advantage.

I do not mean to say that there is no co-operative spirit in the dairy trade, but rather that the fullest possibilities of this spirit have not been realized. I have often wondered why the Californian, and, in fact, most of the far Westerners, have been so susceptible to co-operation, whereas, the average Easterner seems averse. For further results, just look at the California Fruit Growers' Exchange — Walnut Growers — Raisin Growers — Prune and Apricot Associations, and so on. Their advertising has become familiar to all Americans and a great many foreigners — and that this advertising has paid, can pretty conclusively be estimated by a comparative reference to the annual sales of these industries during the last few years. This is just the type of publicity which our own National Dairy Council is trying to put across.

Furthermore, all the really big successes these days seem to be advertising successes—Coco-Cola, Multigraph, Victrola, Colgate's, Fleischmann's, etc.

How else can you expect to reach millions of people? You certainly can't call on them all.

In your own home town you will note that there is one ice cream manufacturer who dominates all the others, and you are pretty sure to see his name on billboards more often than that of the other fellow. Let him disregard the value of this publicity and he will soon sink back into second place. But this is merely the competitive angle — take the other angle, which is true co-operation; that is, the attempt to get people to eat more ice cream, through general publicity.

The National Dairy Council has issued quite a number of booklets, pamphlets and other literature, giving statistics and figures to show the nutritive value of milk. This is the real selling point.

The Fleischmann Company, Northwestern Yeast, Page and Shaw Chocolates, and others, have been giving quite a bit of attention to the subject of "vitamines," pointing out the greater necessity of this food element in our present mode of living. The dairy industry through co-operative national publicity could make just as strong an appeal to grown-ups as well as children on the effectiveness of "taking home a brick of ice cream every day."

There are other selling angles than nutrition, of course. "Purity" (which implies nutrition) is a common one; the variety of brands sold, and the exquisiteness of their preparation, or the service that goes with them, is another. But these are points which invite one to drop into the ice cream parlor or restaurant and taste a bit of ice cream. These appeal to the instinct of enjoyment or luxury. They continue to keep ice cream strictly a confection and do not push to the uttermost its possibilities as a food.

NEW ENGLAND ASSOCIATION OF ICE CREAM MANUFACTURERS.

New Haven, Conn., Sept. 1, 1921.

The Ice Cream Review:

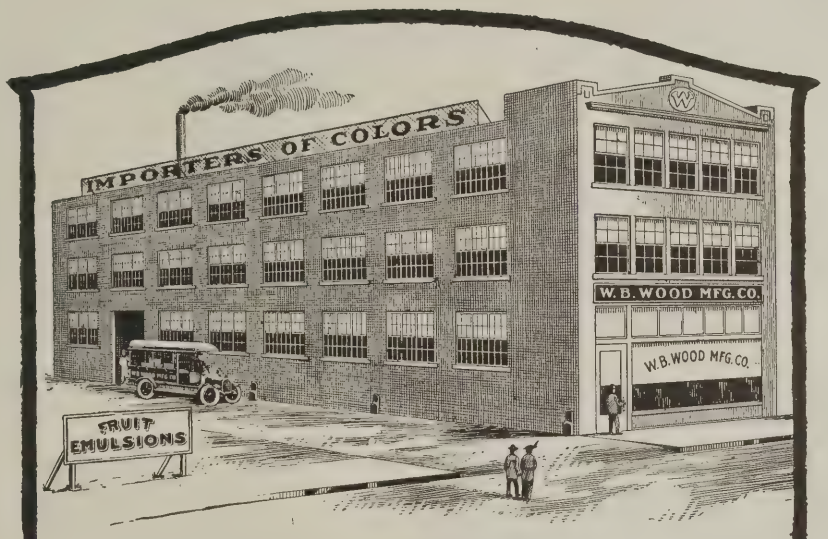
Every ice cream manufacturer who is now a member of the Ice Cream Manufacturers' Association must agree that the benefits he has received from the national association has been a most wonderful factor in helping him to increase his business to the proportions that it now has attained.

I am practically one of the pioneer members of the National Association, and I have never missed a convention, only when difficult business problems confronted me at the convention time, or illness caused me to remain away, and I have never come home from a convention without feeling that the benefits I had received from meeting the wonderful aggregation of enthusiastic and successful ice cream manufacturers did not fill me with enthusiasm and make me fully believe that I was connected with one of the greatest industries in this great United States.

If every ice cream manufacturer in this country would attend our convention and put into operation in their business the many great things that are given to them at these convention meetings, we would certainly make our industry still greater than it is.

I hope that this convention will be the greatest event in the history of the National Ice Cream Association, and I believe it will. I firmly believe that any ice cream manufacturer who does not avail himself of the opportunity of attending the convention is not doing himself or his business justice.

JOHN SEMON, President.



The Home of
High-Grade Extracts

CORRESPONDENCE SOLICITED
WRITE FOR PRICE LIST.

COLORS,~~~~~
EXTRACTS,~~~~
VANILLAS,~~~~
FRUIT FLAVORS,
FRUIT EMULSIONS

GUMS,~~~~~~~
GELATINE,~~~
CREAM POWDERS,
COCOA,~~~~~~
CLEANSING POWDER

W. B. WOOD MFG. CO.
Manufacturing Chemists
ST. LOUIS, MO.

A national campaign to popularize the eating of ice cream cannot be conducted in a hit-or-miss fashion—it must appeal to more than the instinct of luxury in the public. It should show in its advertising by means of facts just as impressive as those used by the yeast companies, the actual food value obtained from the regular eating of ice cream.

Selling these days devolves itself into making new appeals. The dairy industry can make just as good use of the health appeal as have the yeast companies.

The efforts of Mr. Skinner and his colleagues in their attempt to co-ordinate the dairy industry are certainly remarkable and he certainly has the well-wishes of everyone at the Pfaudler Co.

Time will unquestionably bring about this co-ordination of effort, but why wait for time? Matters can be hurried along considerably by getting behind the proposition and pushing. There seems to be in some quarters too much tendency to place more than the burden of such a campaign onto the supply man.

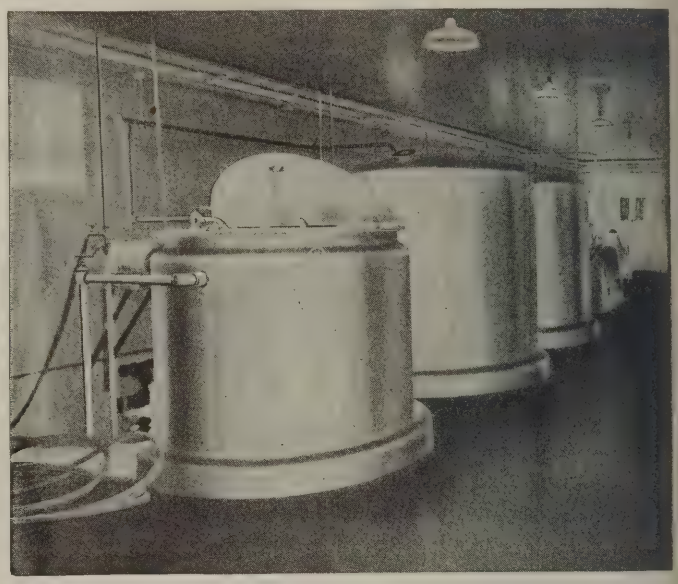


Partial View of Pfaudler Glass Lined Mixing Tanks at the Plant of the Carroll Ice Cream Co., Chicago.

I am sure that the average supply man is more than doing his share. This is a matter which affects the whole dairy trade, and the success of the project will work as much good to the man who operates one horse and a wagon as to the concern operating a fleet of ten or twenty motor trucks. Therefore, the responsibility is equally his.

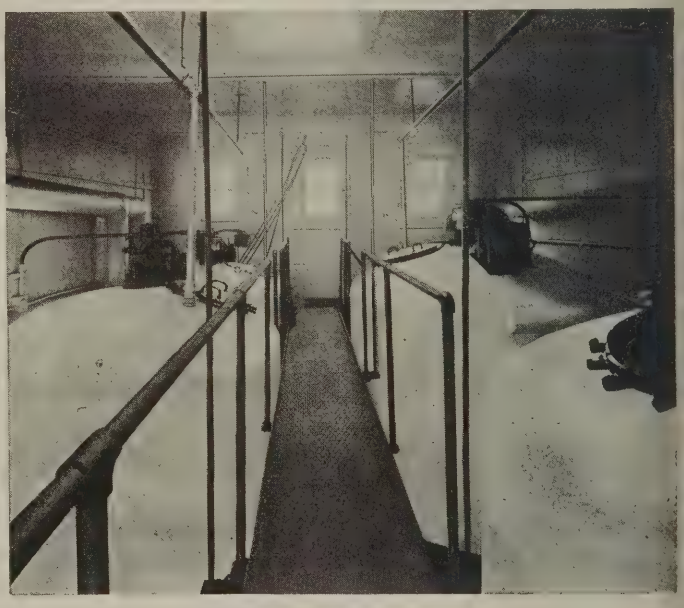
The first step which will definitely indicate your active desire to support and promote the collective welfare of the dairy industry will be your Associate Membership in the National Dairy Association. The cost of this is only $5 per year and with it you receive ten general admission tickets to the National Dairy Show. That this worth $5 I think you will agree.

The Pfaudler Co. will be on hand at the Dairy Show this year as usual, exhibiting some of the equipment about which we have been talking in our recent advertising in this paper. The Pfaudler Pasteurizer about which we have spoken so much will be there, and we will have plenty of salesmen to take your orders, or if you are not fully decided, to tell of the merits of pasteurizing in glass-lined equipment. In any case, don't feel that we are going to try coercion



Pfaudler Glass Lined Aging and Standardizing Tanks at the Plant of the Hagemeister Products Co., Green Bay, Wis.

in selling anything to you—you will be welcome at our booth any time, and especially are you privileged to hang your hat on our costumer and test the luxuriousness of our willow furniture.



View of Battery of Pfaudler Glass Lined Storage Tanks at the National Ice Cream Co. Plant, Oakland, Calif.

Let's help Mr. Skinner and the National Dairy Council put over the best show that has yet been undertaken. "Tell your friends and neighbors you are going to the World's Greatest Dairy Show."

Ward's
ORANGE-CRUSH
LEMON-CRUSH
and
LIME-CRUSH

Ice Cream Flavors
that pay you best profits

For particulars write Orange-Crush Company, 314-324 W. Superior Street, Chicago, Ill.



ICE CREAM BRICK CUTTERS
and CABINETS

Write for Circular and Prices

C. E. PHENICIE
111 East 34th Street TACOMA, WASH.



OUR 26 BEST ANSWERS TO ANY PUMP QUESTION

John W. Ladd Company.....Detroit
Bessire & Co.....Atlanta, Indianapolis, Louisville
Gowing-Dietrich Company...Syracuse, New York
Wright-Ziegler Company....Boston, Massachusetts
Dairymens Sup. & Con. Co.....Pittsburgh, Pa.
Oakes & Burger.....Cattaraugus, New York
R. G. Wright & Company.....Buffalo, New York
Alberta Dairy Sup. Ltd.....Edmonton, Canada
DeLaval Company, Ltd.....Peterboro, Ontario
W. A. Drummond & Co.....Toronto, Canada
Baker, Hamilton & Pacific Co.....San Francisco
A. H. Barber Cmy. Sup. Co.....Chicago
Beatrice Creamery Company.....Denver, Colorado
Cherry-Bassett Company.....Baltimore
Blanke Mfg. & Supply Co.....St. Louis
J. G. Cherry Company...Cedar Rapids and St. Paul
Dairy Machinery Co., Inc.....Seattle, Washington
Enterprise Dairy & Cmy. Sup. Co.....
.....Cincinnati and Columbus
Huey & Philp Hdwe. Co.....Dallas, Texas
Kennedy & Parsons.....Omaha and Sioux City
N. A. Kennedy Supply Co.....Kansas City, Mo.
Meyer Dairy Equipment Co.....St. Louis
Mojonnier Brothers Co.....Chicago
Monroe & Crisell .....Portland, Oregon
C. E. Rogers .....Detroit
O. J. Weber Co.....Los Angeles, California

VISCOLIZERS TOO!

Our Opportunity

By W. R. McEWEN, Advertising Manager, J. G. Cherry Company

We, who are of that multitude which comprises the personnel of the dairy industry in the central and northwest like to think of ourselves as "live wires." But are we? When our chance to be of real service to our chosen profession comes, how do we measure up?

If you and I are not sold through and through on the tremendous importance of the dairy industry, let's get out of it right now. If not, the vast majority of us surely are truly in earnest in our desire to see dairying raised to its proper plane and established as the underlying motive for all farming in our community—NOW is the time to get busy and prove it!



W. R. McEWEN

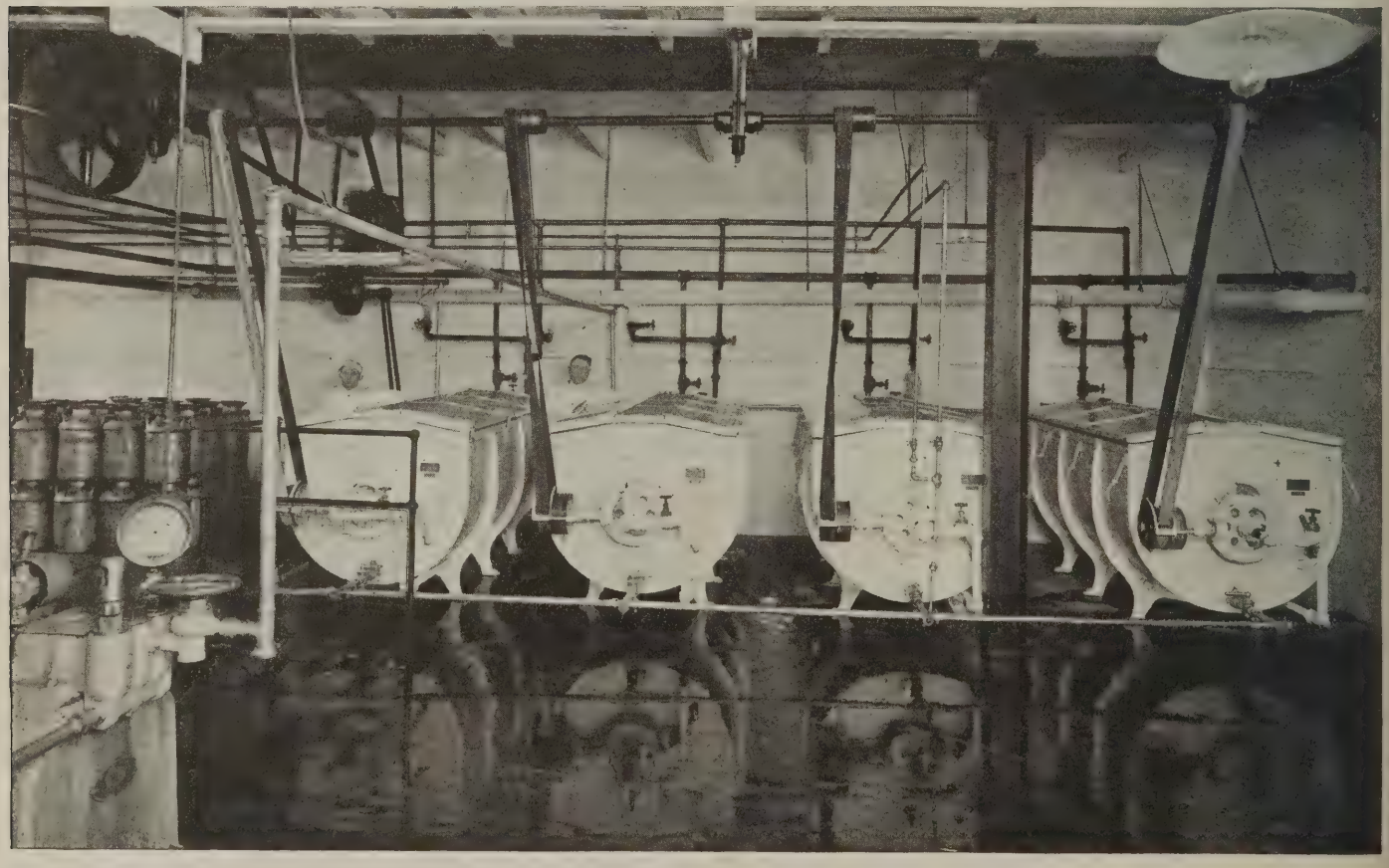
From October 8th to 15th inclusive the eyes of all the dairy industry will be focused on the State Fair grounds at St. Paul. From every state in the Union and from abroad men will travel by the hundreds and thousands to secure a more intimate knowledge of what constitutes dairying in all its many phases. Everything science has thus far evolved will be on display. Think what that means! The possibilities of the show will be on hand with an educational exhibit that will cost at least $25,000.

Will you and I help reflect the vision our government has caught as regards dairying or shall we sit back with an attitude of indifference, and let folks all about us remain at home, uninformed, when just a little prodding on our part might awaken them to the overwhelming desire to go and see for themselves what is doing rather than to get it second-handed through their friends and the meager reports in the farm papers?

Community conscience — we hear and read so much about it these days. It only means arousing enthusiasm deeper, more honest pride in putting the best foot forward—getting home folks to not only think, but act in unison, inspiring them until nothing short of the best will satisfy.

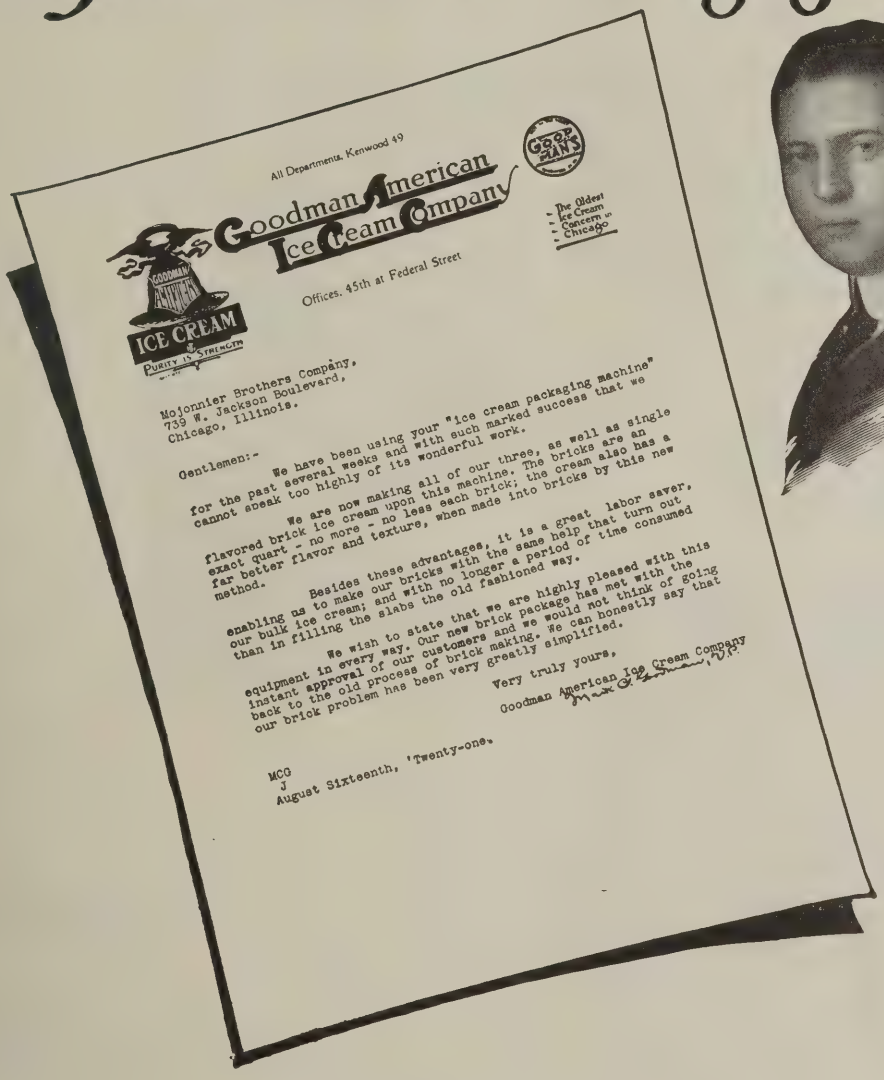
The ideals of the central and northwest are bound to set a new pace in dairyland. If every one of the thousands of owners and managers of the ice cream plants in this vast territory put their shoulders to the wheel for the next few weeks, and push hard, harder than they have ever pushed before, can you imagine the effect? The attendance at the show will be double that of any previous year and there will be just that many more better boosters for the dairy industry than we had before.

The stage is all set for by far the most comprehensive National Dairy Show this country or the world has ever seen. We who live in the territory that is so close to the center of this great event run the danger of letting its closeness dim our eyes to a realization of the



The Four 500-Gallon Steel Body Cherry Aging or Ripening Vats Used in the Plant of the Furnas Ice Cream Co., Indianapolis, Ind., and Which They Advise Are Giving Them Excellent Satisfaction.

Progressive Ice Cream Men
and the
Mojonnier Ice Cream Packaging Machine



All Departments, Kenwood 49

Goodman American Ice Cream Company

The Oldest Ice Cream Concern in Chicago

Offices, 45th at Federal Street

Mojonnier Brothers Company,
739 W. Jackson Boulevard,
Chicago, Illinois.

Gentlemen:-

We have been using your "ice cream packaging machine" for the past several weeks and with such marked success that we cannot speak too highly of its wonderful work.

We are now making all of our three, as well as single flavored brick ice cream upon this machine. The bricks are an exact quart - no more - no less each brick; the cream also has a far better flavor and texture, when made into bricks by this new method.

Besides these advantages, it is a great labor saver, enabling us to make our bricks with the same help that turn out our bulk ice cream; and with no longer a period of time consumed than in filling the slabs the old fashioned way.

We wish to state that we are highly pleased with this equipment in every way. Our new brick package has met with the instant approval of our customers and we would not think of going back to the old process of brick making. We can honestly say that our brick problem has been very greatly simplified.

Very truly yours,

Goodman American Ice Cream Company

MCG
J
August Sixteenth, 'Twenty-one.



It requires—"No longer a period of time than in filling the slabs the old fashioned way."

Write for Descriptive Circular

Mojonnier Bros. Co.

MILK ENGINEERS

739 W. Jackson Boul. Chicago

Sales Branches: NEW YORK ATLANTA COLUMBUS ST. LOUIS SEATTLE

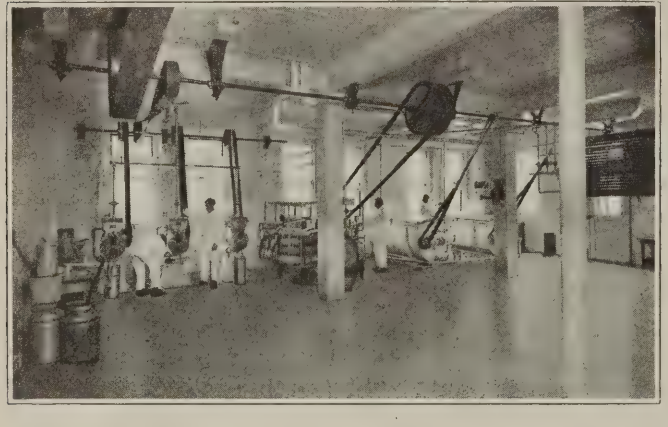
magnitude of the affair. It should be our particular business to rouse every one with whom we come in contact out of their apathy. We are going to awaken our producers to what is about to take place. We are not



Cherry Equipment in the Tiffons Product Co., Long Island City, N. Y.

going to stop at the producers—we are going to tell our communities about the show. We are going to follow out the teachings of psychology by thinking and talking Dairy Show from now until October 8th.

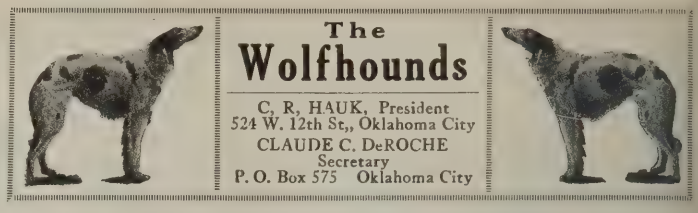
The management not only promises—they guarantee—a magnificent spectacle in every sense of the word.



Cherry Freezers in Arctic Ice and Coal Co., Greensboro, N. C.

Let's show them we appreciate the time and expense they have incurred to boost our business by going ourselves and being directly responsible for the attendance of many, many others.

Are we "live wires?" Do we appreciate what has been done for us? The attendance during the show will decide!



WOLF HOUNDS, READ THIS.

December 12th, 13th and 14th, at Oklahoma City, the most instructive convention ever held by the Oklahoma Association of Ice Cream Manufacturers will take place, also a rip snorting meeting of the (now famous) Wolf Hounds on the same dates. Come prepared for the biggest time of your young lives. Bring your wife and daughters, too, as OUR good Chief of Police, Mr. Glitsch, has promised the writer that the city will be free from Hi-Jackers, and professional gamblers, this is some big promise, boys, but the writer is sure the Chief will keep his word. So come on, boys, African golf can be played here during our big convention, (this should sound good to Jim Nelson, Cutner, Peale, Will Carpenter, Hanks, and the rest of the regulars, also C. R. H.)



C. R. HAUK and SON

I almost forgot the one big item. A couple of weeks ago the writer was called to the phone at midnight, from some place in Texas by a sheriff, who said they had a party locked up in jail for bootlegging, said they had the goods on them, although they could not say positively that it was booze (straight). I, of course, knowing that Hanks was in Texas thought it sure was he, but when they described the party as having rather a RED nose, my thoughts naturally turned to our wet nurse, Pennybacker. Well, imagine my surprise, when the sheriff said the prisoner's name was Kline, that He claimed he was only taking some sample extracts to mix with the mash for Hugh Harrington's cows on his farm up in the Ozarks. (Oh, what a milk shake Kline and Harrington are going to have for the convention in Oklahoma City in December). Anyway they turned the prisoner loose, but kept his samples. Believe me, boys, I slept well after getting over that telephone call. However, as all is well that ends well, here is hoping that all will be healthy and free to attend the Oklahoma convention in December.

Mrs. Hauk and the little Wolf Hounds send regards, with the writer, to all.

C. R. HAUK, President.

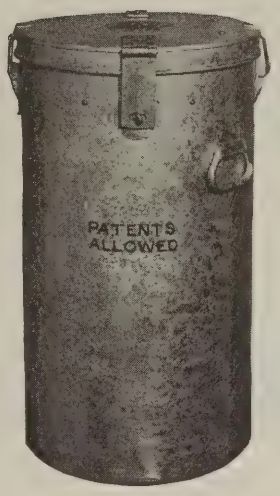
KANSAS TO MEET DECEMBER 15 AND 16.

The Kansas Association of Ice Cream Manufacturers will hold their annual convention at Kansas City, Mo., December 15 and 16, 1921. The Kansas boys have commandered the services of the Kansas Jack Rabbits and are going to make this the biggest convention of the convention season. When you are posting up dates in your memorandum book, don't forget Kansas and promise yourself that you will be there.

If you are tired of your business, don't worry over it. Advertise it for sale in The Ice Cream Review Want Department.

Saves 10c a Gallon

That is the saving a shipper just reports who uses the



D-C IceLess Express Container

Well hardened ice cream will keep in perfect condition in these containers for 12 hours. We guarantee that, and on the basis of the most trying conditions. In a fairly cool place, 24 hours without ice and still in perfect condition, is nothing extraordinary for ice cream in the D-C Iceless Express Container.

What Would it Save for You?

Their light weight gains a remarkable reduction in express charges. Saves ice, salt, tubs and the labor of packing.



D-C Refrigerating Cover

Converts D-C Shipping container into a cabinet. A practical, inexpensive device that serves a good many opportunities for savings and extending business.

Let us send you prices on these containers. We will also show you some practical ways in which they help to develop business.

Decy IceLess Express Container Co.

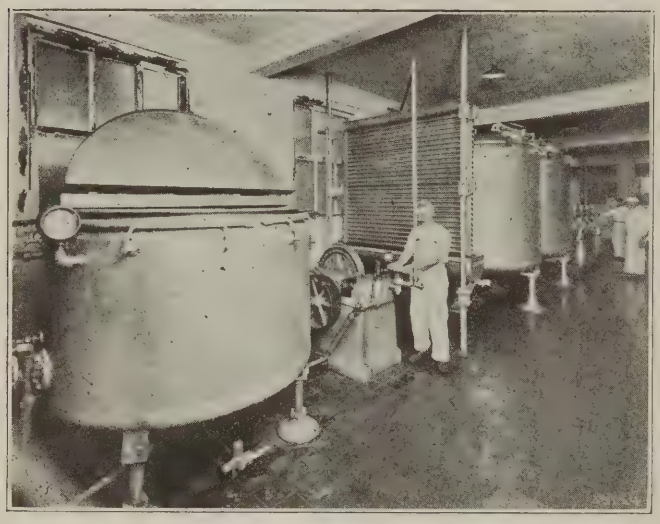
Incorporated

TIMES BUILDING Room 1001 NEW YORK, N.Y.

Elyria at Minneapolis

By B. L. HARTZ, Dairy Economy Engineer, Elyria Enameled Products Company

ONE more year of active endeavor has swiftly passed since the "World's Largest One-Piece Glass-Enameled Tank" was hauled through the streets of Chicago to come to "parade rest" at the National Dairy Show. Since then it has moved on to accomplish its mission in one of the country's big condensing factories. We are about to celebrate another anniversary of accomplishment as represented by this great exhibit from factory and farm. During the years this company has been represented, it has made many warm friends at the show. We look forward with a great deal of pleasure to seeing them again this year at Minneapolis.



Hayes Ice Cream Co., Minneapolis, Minn., Elyria Equipped.



Elyria Equipment in the Kemps Ice Cream Co., Minneapolis, Minn.

The Elyria Enameled Products Co. is glad to contribute its co-operation and active support to this exhibition, which has done so much toward developing the dairy industry. Here the dairy world is brought up to date each year; here information is available on any subject pertaining to this vast industry, either through pamphlets and literature from representatives of exhibitors or very often, as it happens, from the originators themselves. It is the intermingling of thought and idea, the opportunity for seeing and hearing that makes it all so interesting and valuable to the dairyman, milk plant operator, breeder, farmer, and manufacturer, all of whom are vitally concerned in each other's success. Only through the co-operation of these interests has it been possible to develop a dairy show of national scope and surround it with an atmosphere that has brought to bear such tremendous influence in establishing standards of dairy practice, uniformly throughout the country.

Elyria's contribution will consist of a Standard open 500-gallon pasteurizer and an automobile truck tank of latest design. There are such a number of operating installations in and about Minneapolis that our exhibit will cover not only the show, but practically all of the dairy plants in the city. Besides this, the Elyria product will be shown in the Jensen booth fitted up with the suspended coil and assembled with their well-known mechanical skill. The Toledo Scale Co. will have as one exhibit, an Elyria tank attached to suspension scale, the combination making a very useful and durable weighing unit.

We have arranged through the courtesy of our customers in the city to allow visitors the privilege of inspecting Elyria equipment in operation. This kind consideration has been extended by such firms as the Cloverleaf Creamery Co., the Crown Milk Co., the Crescent Creamery Co., J. H. Hayes & Sons., Ives Ice Cream Co., Kemps Ice Cream Co., Metropolitan Milk Co., Quaker Creamery Co., and in St. Paul, Armour's Oleomargarine plant, which is completely equipped with Elyria units, as well as the Crescent Creamery Co., where several large storage tanks are in service.

The Hayes Ice Cream Co. have a compact layout which has many good features to recommend it. This is a one-floor installation with a peak capacity of 2,000 gallons frozen cream per day. The installation occupies a very modest amount of working floor space, dimensions approximating 10x45 feet. From the mixer and pasteurizer, cream is forced under pressure through the viscolizer, over cooler into storage tanks. Two men in this room can handle all the work of operation in making the mix, freezing and placing

(Continued on Page 94)

OHIO ICE CREAM MANUFACTURERS ASSOCIATION.

Canton, O., Sept. 1, 1921.

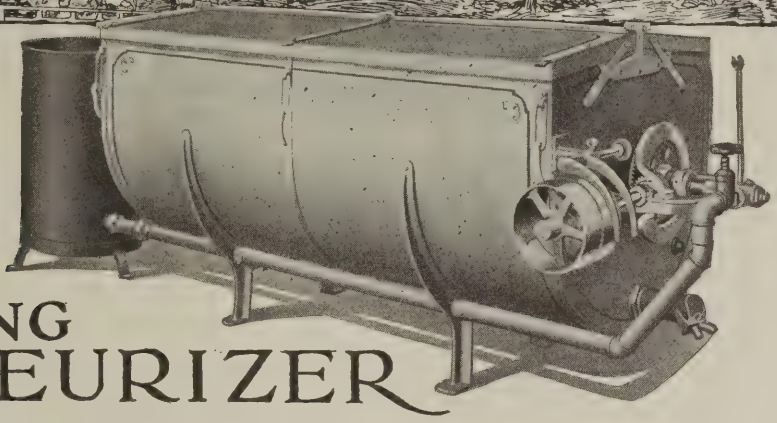
The Ice Cream Review:

This year, above all others, it is highly necessary that all men engaged in the ice cream business attend the National Dairy Show and Ice Cream Convention.

These are the times of reconstruction. Many situations must be met that hitherto have never existed. The more men we meet, and the more we discuss the angles that are coming up daily, the better will we be in position to master our difficulties.

L. J. NOAKER, President,
Ohio Ice Cream Mnfrs. Assoc.





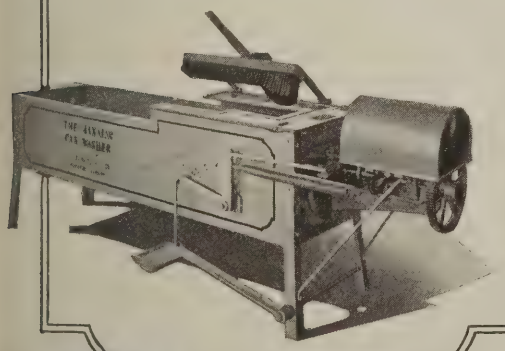
CREAM RIPENING PASTEURIZER

For low first cost, saving in space, power, time and labor, no system of pasteurization can equal the Manning. This cream ripening Pasteurizer is one of the most popular items in the famous line of

MANNING EQUIPMENT

MANNING CAN WASHER

for milk and ice cream cans eliminates the uncertainty of hand work and insures absolutely clean cans—inside and outside—at a minimum cost. Easy on the cans, too. Made in both wood and steel body. Cut shows steel body with direct connected motor. Send for our Can Washer catalog. The low cost will surprise you.



The Manning coil, with double inlet and outlet, together with the feed pipe of same capacity cut in half the time required for heating and cooling. This saving in time is a real item in any milk plant.

With low first cost, economical upkeep and great efficiency the Manning represents the last word in the batch system of pasteurization.

Write us for catalog and name of dealer near you

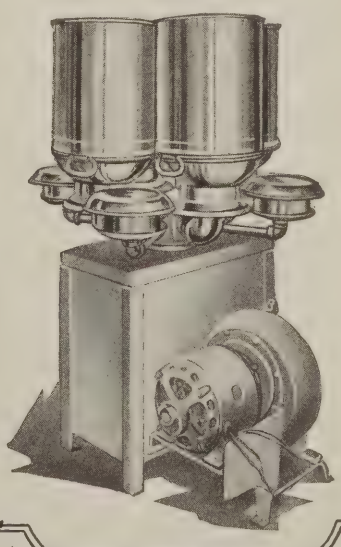
Manning Manufacturing Co.
Rutland, Vermont

MANNING CAN DRIER

Meet the public demand for a cleaner, better product by drying all your cans. It's the only way to be sure of low bacteria content and prevent rust.

The Manning Drier operates like clock work—dries four cans and four covers at once. Handles any size of milk or ice cream cans.

Write us today for our Can Drier catalog





This Year's Convention will be Greatest Ever Held

By O. S. JORDAN, President, The Association of Ice Cream Supply Men

THE convention of the National Association of Ice Cream Manufacturers this year should be—and will be—the greatest such convention ever held. Great conventions like great industries come only as a reward of hard, constructive work, done well. The ice cream industry today has reached the most widely successful period of its history. It is a peculiarly national industry, as American as Bunker Hill, or the Monroe Doctrine, an industry built on a product of American origin, developed by American persistence, vision and aggressiveness.

To the extent that this great American industry has reached the maximum development the 1921 convention of the national association will represent a maximum in national conventions. To no one can this give greater gratification than to the nationally organized supply men. They have wished the national association well for years and to the limit of their power have worked unceasingly for its development. This year the 100 members of the Supply Men's Association and the 500 members of its Salesmen's Club have helped to spread the word of the convention throughout every state. Our headquarters in New York has done its best to further the enthusiasm that has existed for the meeting. And many an ice cream manufacturer has had the merits of membership in the national association faithfully and earnestly portrayed to him by supply men, in their regular visits. The supply men have been, are today and always will be the staunchest friends of national co-ordination in and for the ice cream industry.

No one today doubts that the same American persistence, vision and aggressiveness that has brought the ice cream industry to its present stage will bring the industry and its national convention of the future to a success that will transcend the present as the present does the past. It is the comforting thought of every man who has the interests of the industry at heart to realize that the hard constructive work that will result in the great convention in Minneapolis this year will not and cannot cease with the dispersing of the delegates there in October. It is the law of progress—and also the nature of the onward-pushing American business men who have made the industry what it is today—that that work will go on increasingly constructive, increasingly broad-visioned and increasingly well done.

And then, as now — in all of the other fifty-one weeks of the year as well as the convention week—the National Association and the industry it represents will find that thorough friendship and support attends them from the Association of Ice Cream Supply Men.

ARKANSAS ICE CREAM MANUFACTURERS' ASSOCIATION.

Stuttgart, Ark., Sept. 1, 1921.

The Ice Cream Review:

It is an old saying that "You can tell what a man knows by the company he keeps." This will hold true when the coming National Convention of Ice Cream Manufacturers and National Dairy Show will be held in the Twin Cities of Minnesota.

Every live ice cream manufacturer will be there, every man that is alive to his opportunity will be found there, every man, young or old, who wants to get out of his rut should be found there and everybody who wants to broaden his vision in order to serve his customers better will be found there.

Let us all put our shoulders to the wheel. Let us make this a big convention and a big show by being present. Everybody will know you by the kind of company you keep during the week of October 8th to 15th.

G. A. MEYERS, Secretary,
Arkansas Ice Cream Mnfrs. Assn.

ELYRIA AT MINNEAPOLIS.

(Continued from Page 92)

cream in hardening room, as well as that necessary for keeping equipment clean and sanitary.

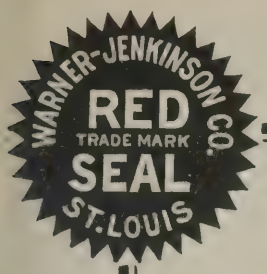
The Kemps Ice Cream Co. is one of the large manufacturers in Minneapolis using Elyria tanks for storing and aging of mix. The insert on the right shows three 1,500-gallon tanks installed over the hardening rooms in such manner as to conserve space and obtain maximum capacity from a plant which had originally been designed for a gravity system. Practically the same scheme of operation is still used. The mixing and homogenizing is done on a terrace floor directly back of and above the storage tanks so that cream is pumped into the tanks and from there flows by gravity into freezer.

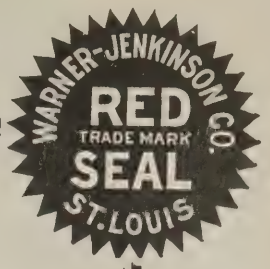
The Ives Ice Cream Co., another large manufacturer in Minneapolis, is equipped with four 1,500-gallon storage tanks, two 500-gallon mixers and pasteurizers, and a 250-gallon receiving unit. This plant has made use of every available inch of floor space by installing Elyria tanks and has practically doubled its capacity in this department.

For those attending the Dairy Show interested in the city retail milk business and equipment for same, we offer the Metropolitan Milk Co.'s installation which consists of 1000-gallon units arranged in the receiving room as storage tanks to take care of surplus milk during certain periods of operation. These tanks are hooked up with brine for the purpose of cooling so that milk may be held for long intervals at low temperature.

Other installations made in and about Minneapolis and St. Paul are open to your inspection and investigation. We will be glad to show you through.

MEET us at the National Dairy Show, Minnesota State Fair Grounds (Twin Cities) October 8 to 15, 1921





WARNER-JENKINSON CO.

ST. LOUIS

Manufacturers of Ice Cream Makers' Supplies and Certified Food Colors

They come and they go, but PURITY ICE CREAM POWDER holds fast. You can't get away from it; when you want a good reliable cream stabilizer you have to use Purity Powder. Should any difficulty be experienced when homogenizing by the mix becoming too thick, simply replace Purity by Red Seal Special Homo-Powder.

Ice Cream makers looking for quick and certain action in the Ripening tank use RED SEAL RIPENER. One ounce of Ripener to every fifty pounds of mix does the work. Just throw the "Ripener" in the holding tank and then stir it in.

RED SEAL GIANT VANILLA makes new friends every day. No one who uses Giant wants to try anything else.

RED SEAL COLORS. All shades.

LIQUID, PASTE, POWDER. Satisfaction guaranteed.

RED SEAL TRUE FRUIT FLAVORS. Ideal for ice cream.

ST. LOUIS

WARNER-JENKINSON CO.





Two Hundred in a Group for Purer, Better Ice Cream

By W. PAUL HEATH of Heathmade Carbonated Products Co., Chicago, Illinois

We are enthusiastic about the National Dairy Show as well as the getting together of the ice cream manufacturers of the United States at the annual convention of the National Association of Ice Cream Manufacturers.

Why, indeed, should we not be enthusiastic about them? Each year there is brought together at the National Dairy Show the best thought and practice pertaining to the world's most important industry. Every year ushers in the multiplicity of progressive and far-reaching ideas that benefits the dairy industry in all its branches. The progressive dairy man wants to get these in order to keep in step with modern progress. Every wide-awake man in the dairy industry seeks these new ideas as persistently as the growing plant seeks the light; and as unerringly as the magnetic needle seeks the pole.



W. PAUL HEATH

The importance of the ice cream industry is best indicated by the fact that this year the American people will spend approximately $700,000,000 for ice cream. Inasmuch as the ice cream industry in the United States is only about a half a century old, ice cream manufacturers are properly proud of this achievement, but they should not be satisfied. Ice cream consumption today is hopelessly inadequate; when we consider that the average consumption per capita is only one dish every six days, we know that this consumption can and will treble.

It will be trebled through effective publicity just as certainly as the slogan—"Have you had your iron today?"—has materially increased the per capita consumption of raisins.

The American people do not know how surprisingly good ice cream is as a food. They do not know how punctiliously careful the ice cream manufacturer is to make it as clean and pure as possible.

Approximately two hundred ice cream and butter manufacturers in the United States and Canada have formed a group pledged to make purer, cleaner and better dairy products by heeding the Department of Agriculture's admonition that air is a disastrous ingredient, and incorporating within the food mass a pure gaseous ingredient instead of a contaminated one.

It was just as certain that the more progressive ice cream and butter manufacturers should form a super-quality group, as it was certain that certain clothing manufacturers should make a higher class of clothes than their fellow-men or that certain shoe manufacturers should seek to make a more satisfactory and higher grade shoe.



An Outdoor Advertisement by Geo. C. Mansfield Co., Milwaukee, Emphasizing the Merits of Carbonated Ice Cream.

Our exhibit will be headquarters for this quality group; a place where they can gather and exchange experiences in their merchandising of cleaner dairy products at a higher price.

* * *

The Heathmade Carbonation Process is now in use by some of the most progressive ice cream manufacturers in the United States. Enormous advertising campaigns, featuring the Heathmade process are being conducted by the Hazelwood Co. of Spokane, The Hydrox Co. of Chicago, and the Boedeker Manufacturing Co. of Dallas. The latter advertises: "There's as much difference between carbonated and ordinary ice cream as there is between a carbonated ice cream soda and one made with plain water."

ASSOCIATION OF ICE CREAM MANUFACTURERS OF PENNSYLVANIA.

Office of the Secretary.

York, Pa., Sept. 1, 1921.

The Ice Cream Review:

We ice cream manufacturers have long ago realized the importance of a National Association of Ice Cream Manufacturers.

Therefore, we should show our appreciation of the efforts of our officers by lending our support not merely by paying our dues promptly, but by attending the conventions.

The knowledge gained by hearing the discussions and the close personal contact with our fellow manufacturers and the many little round table talks during the convention are worth a lot and we owe it to ourselves and our business to be there.

I cannot too strongly urge every ice cream manufacturer to attend the national convention and I particularly appeal to the members of the Pennsylvania Association to be present in Minneapolis October 10th, 11th and 12th.

J. W. NEUMAN,
Secretary.

J. B. ANDREWS, President
H. F. WILDE, Manager



Albemarle Creamery Co.

Butter and Ice Cream Manufacturers

706-709 Brown Street

Charlottesville, Va.,

NOTICE!

THIS is one of the many ice cream manufacturers who lets "the picture tell the story."

You, too, should let the picture convey the fact that you sell ice cream.

See the other side for details.

TEMPTING pictures will create more desire for your product than mere words or any arrangement of type!

The picture tells the story. It conveys your business to the reader at a glance. Its attractiveness commands attention and the thorough reading of your letter which you strive for. It creates desire for your product, and makes the reader "sit up and take notice".

You can have this idea incorporated into ***your*** letterhead,—printed in four colors with your firm name and wording along the line of this sample and on the same grade of stock at prices that will interest you.

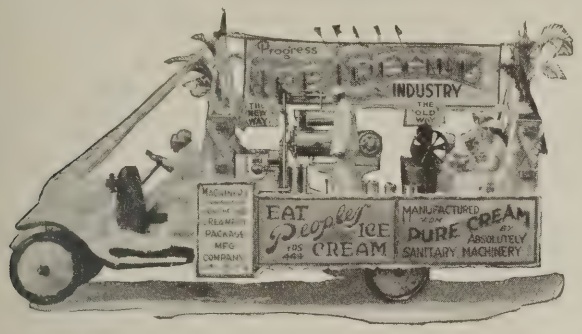
Only one ice cream manufacturer in each city can secure the use of this distinctive design. You may need a supply before long. Here is your opportunity for something different.

Write for prices.

THE OLSEN PUBLISHING CO.
210 SYCAMORE STREET
MILWAUKEE, WIS.

FLOAT WITH CP EQUIPMENT WINS FIRST PRIZE.

The merchants and manufacturers in the southwest side of Chicago staged a beautiful parade and carnival in connection with Chicago's wonderful Pageant of Progress. Hundreds of gorgeously decorated floats, representing every conceivable branch of industry participated. It is a matter of pardonable pride with The Creamery Package Mfg. Company that the float of the Peoples' Fuel and Supply Company, which pictured "The Old and New Method of Ice Cream Making," captured first prize, for this float contained a



Ft. Atkinson Horizontal Freezer and a Wizard Pasteurizing Vat properly connected. Of course, the flock of pretty girls engaged in wrapping brick ice cream during the parade, helped to land the honors.

President E. Klinenberg, of the Peoples' Fuel and Supply Company, was complimented by William Hale Thompson, mayor of Chicago, on the unusual and artistic manner in which he pictured a manufacturing industry, and was especially invited to show the truck in other district parades and particularly in the grand parade through the down town district.

Mr. Klinenberg who conceived the idea for the float and personally supervised its decoration, kindly credited the splendid appearance of the CP White Vitrified Enamel Equipment with a share in landing the prize.

HOLLY GROWS REMINISCENT.

Secretary A. P. Holly, of the Indiana Manufacturers of Dairy Products, in his periodical letter to members turns back the pages of history to say:

"A hundred years ago, Indiana was a wilderness. Indians fished the streams and lakes, hunted the forests, smoked the Pipe of Peace in their wigwams and held unchallenged sway. But gradually pioneers came from the direction of the rising sun and trouble started.

The Journal of the Black Creek School Master records the following incident on his trip towards the Wabash Valley:

'About noon we reached Cicero Creek and encamped for dinner at an unextinguished camp fire, where some persons had stayed the previous night. They had killed a deer, dressed and cooked what they needed of it, and with a commendable regard for the comfort of their fellow travellers through the wilderness, they had salted and baked one side of the ribs of the deer previous to leaving, and turned the other side to the fire to be properly cooked for the next emigrants who might chance to pass that way. We were the lucky travellers who found it, done brown.'

Some of the early settlers were a rough-and-tumble lot, but they knew how to MAKE PROGRESS in their business of advancing civilization. Business in Indiana in 1824 was not much different, after all, from business in Indiana to-day."

Speed Up
Your Brick Cutting Dept. with a "New Era"

Cuts standard ice cream slabs from moulds into quarts, pints or any size desired, as fast as the operator can release the ice cream from the moulds.

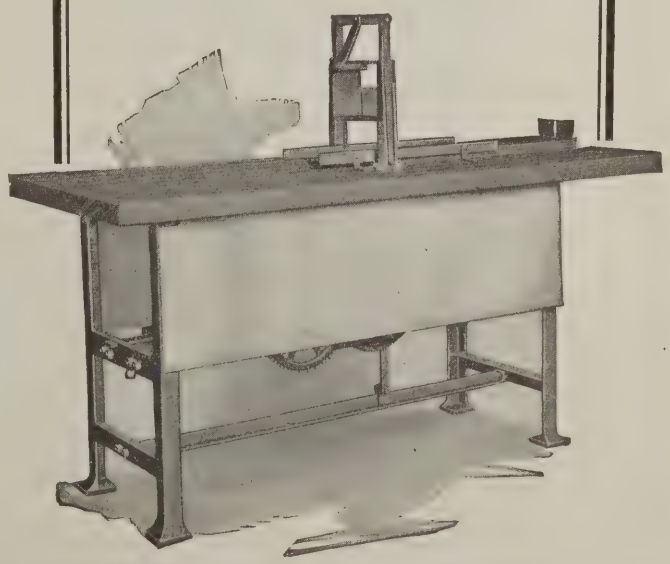
Absolutely Uniform

and unfailingly accurate is the "New Era" Ice Cream Brick Cutter. It's simplicity, speed and accuracy.

Reduces Costs

Our circulars tell all about this simple, practical machine. Get one.

The New Era Company
146 Merritt St. Oshkosh, Wis.



Controlling Combustion on Basis of CO^2 Alone Unsatisfactory

Falls Far Short of Attaining the Best Possible Results. By F. C. HARGER

FURNACE efficiency should be considered separately from boiler efficiency, and the master key to the proper testing of furnace efficiency is continuous gas analysis, which not only measures the excess air present at all times, but **also promptly detects and measures the presence of combustible gases in the flue whenever they appear.**

What Savings are Possible.

When coal is burned in a boiler furnace under ordinary conditions, an average of about 65 per cent of the heat generated is used to make steam, 25 per cent goes up the chimney, and the balance is lost through radiation and in the ashes. How important it is to hold the chimney losses down to a minimum be-

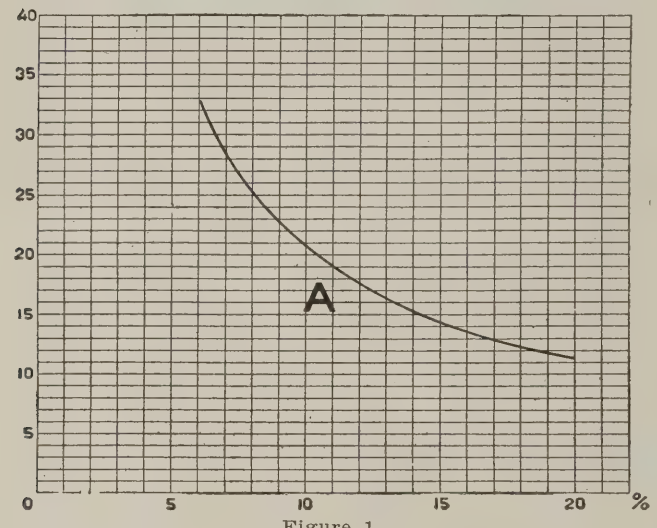


Figure 1.

comes evident when we consider that every decrease in chimney losses results in a proportionate saving of heat available for steam making.

To produce steam representing 1000 units of energy it is necessary, on the 65 per cent efficiency basis above described, to consume approximately 1,538 units of energy as it comes in the fuel. Now, suppose the chimney losses are reduced from 25 per cent to 15 per cent, which is not unusual, and that the 10 per cent thus saved are turned into useful energy, making this 75 per cent of that supplied in the fuel. Then, to produce 1000 units of useful energy requires only 1333 units of energy as supplied in the fuel. The difference between 1,538 and 1,333 is 205, and this is nearly 15½ per cent of 1,333, the fuel actually required to carry the load under the more economical conditions. In other words, the saving in fuel represents 15½ per cent of what is necessary under the more efficient operating conditions.

Kinds of Chimney Losses and Their Relative Importance.

Heat is lost up the chimney in two distinct forms, namely, the sensible heat of the entire volume of flue gasses, and the heat represented by the chemical energy in unconsumed combustible gases. The amount of the sensible heat is a function of the temperature

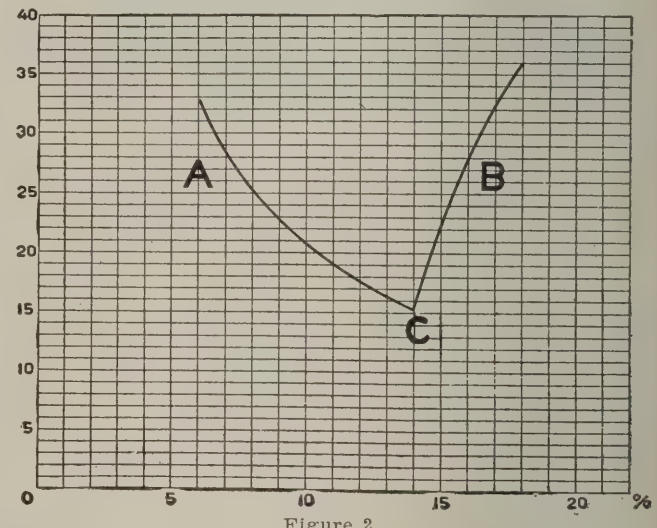


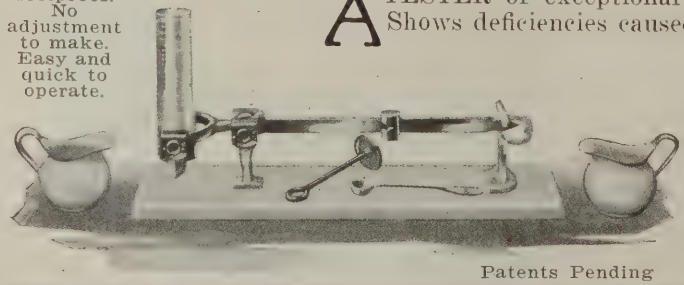
Figure 2.

and the volume of the flue gases. The amount of heat lost in the form of chemical energy is a function of the heat of combustion of the unconsumed combustible gases and their volume. The loss of heat represented by a certain percentage of unburned combustible gases in the chimney is much greater than the loss of heat due to excess air represented by an equivalent percentage of CO^2.

To completely burn fuel, a surplus of air is always necessary over what would be theoretically correct. The amount of this surplus varies constantly, depending upon the many different factors that influence com-

Petersen Ice Cream Gain Indicator

Absolutely foolproof. No adjustment to make. Easy and quick to operate.



Patents Pending

A TESTER of exceptional value as a means of checking freezer efficiency. Shows deficiencies caused by improper refrigeration or handling of mix.

Controls Over-run

The durability, simplicity and reasonable price of Petersen's Ice Cream Gain Indicator entitles it to a place in every ice cream plant. Write—

Coster-Petersen Co.

2531-33 HOMER STREET
CHICAGO, ILL.

FLAVOR YOUR ICE CREAM WITH

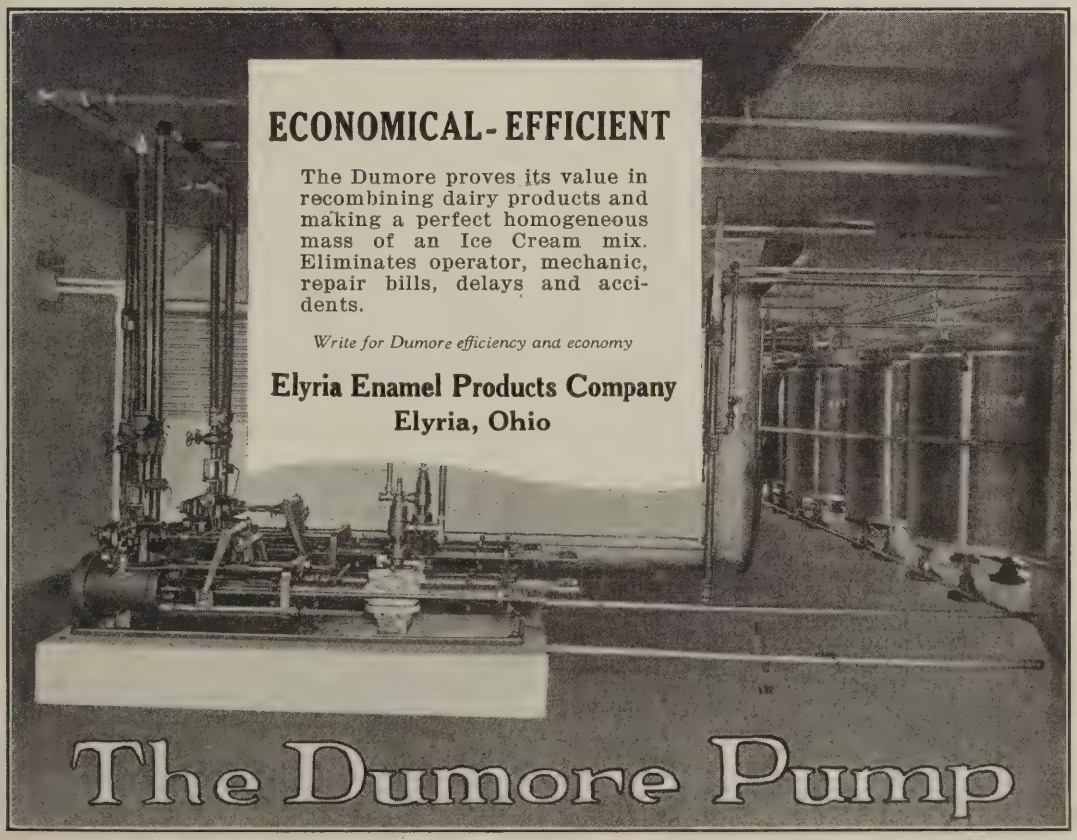
Cremilla

"CREMILLA" is better, smoother, creamier and of richer flavor than the finest grade of pure vanilla; and it's more economical.

"CREMILLA" is so concentrated as to make it the best flavor to use with homogenized cream; one-third to one-half oz. flavors perfectly 10 gallons of cream (one to one and a half pints for 500 gallons.)

Trial gallon by express on request. After fair trial, if you don't like it, send back what's left and pay us nothing.

National Fruit Flavor Co.
NEW ORLEANS, U. S. A.



bustion. However, maximum efficiency under practical conditions is attained when there is just enough surplus air to make complete combustion possible, that is, combustion without the escape of combustible gases up the stack. It is that point where a reduction in the air supply results in incomplete combustion, and an increase in the air supply results in an unnecessary waste of energy through the carrying away of sensible heat by excess volumes of flue gases.

An idea of the magnitude of the fuel losses due to the escape up the stack of combustible gases when the air supply is unsufficient as compared to the losses due to the presence of excess air may be gained by a comparison of the curves in Figs. 1 and 2. In Fig. 1 we have a curve showing the fuel losses which take place with varying percentages of CO_2 (varying inversely with the excess air supply) in the flue gases, **providing** there are no combustible gasses present. However, combustible gases (CO, CH_4 and H_2) are bound to begin to form at some point as the percentage of CO_2 is increased (air supply decreased) and, as mentioned before, losses due to the formation of these combustible gases are far greater in proportion to their volume than losses indicated by equivalent proportions of CO_2. This is graphically illustrated in Fig. 2, where the portion CB in the curve represents fuel heat losses that develop beyond the point C where combustible gases begin to form as the percentage of CO_2 is still further increased by reducing the air supply.

The point C is **the critical point.** It is the point where combustion takes place with the greatest economy in fuel consumption. It varies not only in different furnaces, but varies constantly in the same furnace.

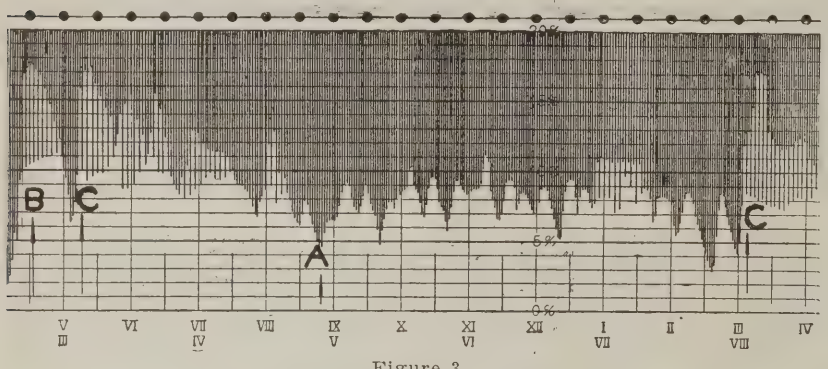


Figure 3.

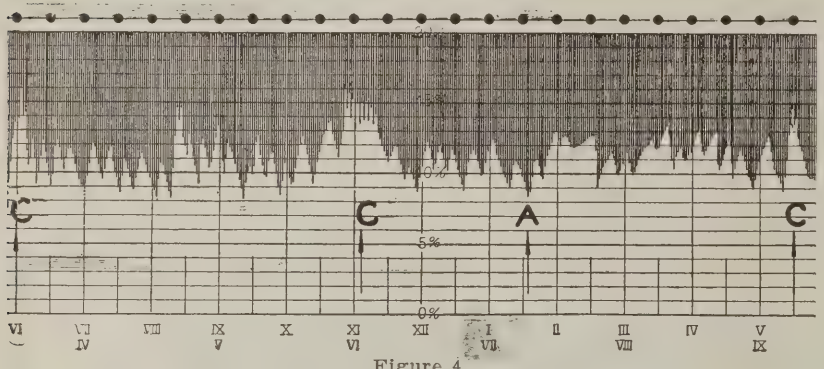


Figure 4.

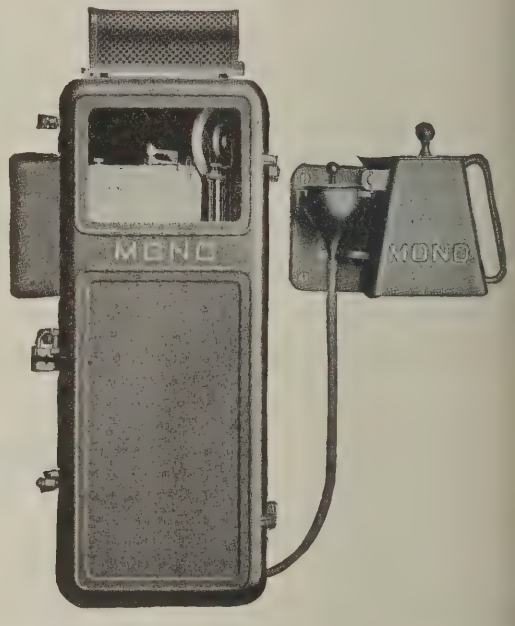


Figure 5.

The curves shown were plotted from generally accepted average values. On that basis, the following comparisons are interesting. Let us assume that when CO_2 is 14 per cent, combustion is taking place under conditions of maximum efficiency in the furnace. The unavoidable loss under these conditions is 15.3 per cent of the total fuel used. Let us assume that only 1 per cent of combustible gases forms for every per cent increase in CO_2 beyond this point. Taking into account the heating value of these combustible gases, calculations show that when the percentage of CO_2 reaches

SOUTHERN TINNING COMPANY
Johnson City Tennessee
RETINNERS

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"WE MAKE NEW ONES OUT OF OLD ONES"

Michael's Mexican
The Original
Vanilla Powder
With and without the Bean Showing

For a delicate and delicious Mexican Vanilla flavor, which brings out the butter fat flavor instead of hiding it.

QUALITY PAYS!

Michael's Mexican
The Original
Vanilla Powder
With and without the Bean Showing

Will not freeze out as it is scientifically prepared for use by commercial ice cream manufacturers.

Remember October 31st to November 5th
See Our Display—Booths 66, 67, 90, 91,
Supply Men's Eastern Exposition in Buffalo.

MEMBER THE ASSOCIATION OF ICE CREAM SUPPLY MEN

DAVID MICHAEL & CO.
INCORPORATED
MILLERS AND MANUFACTURING CHEMISTS
GUMS AND FLAVORING EXTRACTS
RIDGE AVE., GREEN & CLAY STS.
PHILADELPHIA

MEMBER THE ASSOCIATION OF ICE CREAM SUPPLY MEN

DO IT THE PHILADELPHIA WAY

"DOC" Solves the Fly Problem

Dear Doc:

The flies have been an awful pest this year, and if you know any remedy that will drive them out of my plant and keep them out, I'll be your booster for life. What would you suggest?

Chas. Paddock.

Dear Mr. Paddock:

I suppose you have screens up. If not, that comes first. Then make a solution of Germ-X, two ounces of Germ-X to one gallon of water, and spray your ceilings, walls and floor about twice a week. Remove any refuse piles from near your plant. Then you'll discover that most of the flies will hunt up some other victim.

Don't forget either that spoiled products will be prevented if you run a Germ-X solution through your entire system after each cleaning. Run it through as if it were so much milk or cream, and run it cold.

Yours for Sanitation,
DR. GERM-X.



Tell your Friends and Neighbors you are going to the World's Greatest Dairy Show, Minnesota Fair Grounds, October 8th to 15th.

General Distributors

The Creamery Package Mfg. Company

Chicago, Ill., 61-67 W. Kinzie St.
Buffalo, N. Y., 133-137 E. Swan St.
Kansas City, Mo., 1408-10 W. 12th St.
Minneapolis, Minn., 318-20 3d St. N.
Omaha, Neb., 113-15-17 So. 10th St.

SALES BRANCHES (Write to Nearest One)

Philadelphia, Pa., 1907 Market St.
Portland, Ore., 6-8 N. Front St.
San Francisco, Cal., 699 Battery St.
Toledo, Ohio, 119 St. Clair St.
Waterloo, Ia., 406-8 Sycamore St.

15, the fuel loss is 22 per cent, and when the percentage of CO_2 has reached 16, the percentage of fuel loss becomes 28.

What CO_2, CO, CH_4 and H_2 in the Flue Gases Tell About Combustion.

Many power plant engineers consider it foolish to place much confidence in CO_2 readings, and make it a general rule never to allow the CO_2 present to exceed 10 to 12 per cent. Others put it as low as 8 to 10 per cent. Under these conditions, there is likely to be a great waste of fuel due to the avoidable escape of sensible heat up the chimney. In contrast with these there are authorities who claim there is no danger of having combustible gases escape unconsumed before CO_2 reaches a point above 15 per cent.

The fact of the matter is, combustible gases may appear with any percentage of CO_2, and depending on CO_2 records alone is therefore decidedly misleading and illusory. It is quite possible to have large volumes of combustible gases, (CO, CH_4 and H_2) present simultaneously with a low percentage of CO_2 as well as a high percentage of CO_2. For example, if the fire in one part of the furnace is very thick or dirty, CO would be generated in that part and escape unburned because not enough air would be going through. If, at the same time, there is an air hole in another part, air would rush through there unused. Under these conditions CO would be found present at the same time that the record would indicate excess air by a low CO_2 reading.

The percentage of CO_2 for economical combustion may vary considerably from time to time in the same furnace with the rate of combustion, method of firing, thickness of the fire bed, distribution and character of the fuel, draft, formation of ashes, dirt and clinkers, and many other influences which are subject to irregular variations, and which have a decided effect upon the completeness and efficiency of combustion with any given air supply.

Generally speaking, low CO_2 indicates excess air, but may also indicate that the air is poorly mixed, giving rise to a simultaneous formation of CO. It is therefore not desirable to attempt to secure a high percentage of CO_2 by cutting down the draft alone. A high percentage of CO_2 can be obtained with practically any draft, so long as it has the proper relation to the fuel bed resistance.

On the other hand, the losses due to the formation of combustible gases which are allowed to escape up the chimney without being burned are frequently much greater than the losses due to excess volumes of air, because it is quite possible to reach a very high percentage of CO_2 while simultaneously producing large volumes of combustible gases (CO, CH_4 and H_2).

Insufficient air supply is the most general cause of the presence of CO in the stack. CO may, however, be present due to the poor design of the furnaces, improper methods of firing, the coal being of a character not adapted to the equipment with which it is burned, poor mixing of the combustible gases with the air and low furnace temperature, which causes gases to be cooled below the ignition point before combustion is complete.

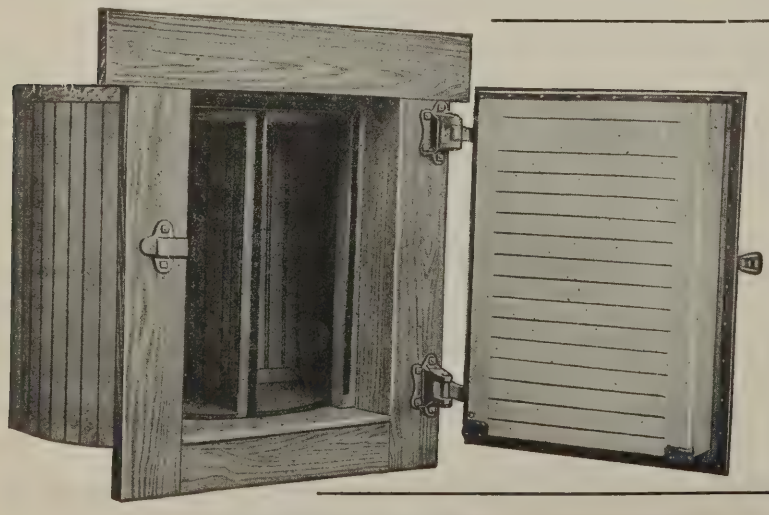
Occasional snap tests for CO with hand instruments to check up the CO_2 recorder have therefore proven entirely deficient in properly controlling combustion. Recording CO_2 alone has never, under any condition, given results even approaching the possibilities of economical combustion, and it is positively known that the maximum economy in fuel consumption cannot be realized by any of the old fashioned methods.

Facts About Combustion in a Furnace not Generally Recognized.

The oxygen used in the process of combustion in a furnace comes from two sources, namely, the primary and the secondary air supply. The primary air supply is that which flows through the combustible material in the fire bed. The secondary air supply is that which is admitted to the combustion chamber above the fire through holes in the fire bed, the fire doors, through leaks in the boiler settings, etc. It supplies the free oxygen necessary to oxidize the combustible gases generated in the fire bed.

The Bureau of Mines has conducted exhaustive experiments to determine what actually happens when coal is burned in a furnace. It was discovered with one fuel, that when the fuel bed is over 4 inches thick, and free from air holes, a furnace without secondary air acts very much like a gas producer. In a fuel bed 12 inches thick, where no secondary air was supplied, practically all the oxygen was consumed 4½ inches from the bottom of the fire. At this point CO_2 reached 14 per cent and combustible gases registered 10 per cent. About 26 per cent of the gases leaving the top of the fire were combustible gases, while the percentage of CO_2 was reduced to 7. Le Chatelier states that CO_2 generally reaches a maximum at a height in the fuel bed ten times the diameter of the coal pieces. From this point on reduction of CO_2 takes place.

The combustion of coal in an ordinary boiler fur-



JAMISONS'

"NOEQUAL" REVOLVING DOOR

is making can-passing easier in Ice Cream Plants and Creameries everywhere.

It passes Ice Cream and Milk Cans back and forth without loss of temperature—and requires but one person to operate when fitted with unloading device.

Standard 5-Gallon sizes in stock.

Send for Catalog No. 10 and Prices

Jamison Cold Storage Door Co.

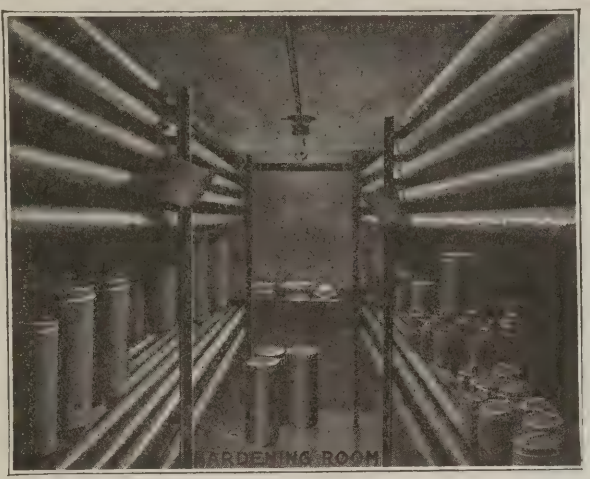
Formerly
Jones Cold Store Door Co.
HAGERSTOWN MARYLAND, U. S. A.

"STERLING" REFRIGERATION

for CREAMERIES DAIRIES AND ICE CREAM PLANTS

STERLING IN NAME

With a little freezing tank for Ice Making will place you independent of outside sources—make you the profit you are paying the ICE MAKER



STERLING IN QUALITY

Descriptive matter on request. A salesman is near you to figure on your requirements. A word will bring him to you.

UNITED IRON WORKS, Inc., Kansas City, Missouri

Exchange Bank Bldg. ST. PAUL, MINN.

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EVANSVILLE, INDIANA

513 United Bank Bldg. SIOUX CITY, IOWA

We have a representative near you.

ESTABLISHED 1868

Milligan & Higgins Gelatine Company

222-224 Front Street, New York

GELATINES

For Ice Cream Use

THE ASSOCIATION OF ICE CREAM SUPPLY MEN — MEMBER

Time has Proved the Purity, Quality, Uniformity of our product

nace thus takes place in two stages. In the first stage, the fuel bed acts as a gas producer, producing CO and other combustible gases in large volumes. In the second stage these combustible gases are mixed with the secondary air and the carbon in the CO and other combustible gases is oxidized to CO^2, and the hydrogen combines with oxygen to form water vapor.

Contrary to the generally prevailing impression, the volume of the secondary air required to burn coal in a furnace is greater than the volume of the primary air. If the coal were all carbon, the volume of the secondary air required under ideal conditions would be the same as the volume of the primary air. In the first stage of combustion the reaction would be $2C + O^2 = 2\ CO$. In the second stage it would be $2\ CO + O^2 = 2\ CO^2$. In other words, the volume of air required to convert the carbon into CO in the primary stage is the same as the volume of air required to burn the CO into CO^2 in the secondary stage. However, there are other gases than CO which come off in the first stage of burning coal. To burn these additional gases, secondary air is required. Inefficient mixing of the combustible gases in the combustion chamber with the secondary air supply gives rise to still further demands for excess secondary air, that complete combustion may take place. How much secondary air is required depends on the furnace design, kind of stoker, method of firing, kind of fuel, etc.

Nobody can tell anything about the volume of the secondary air, where it all comes from, how much enters through the various known channels, or what its proportion to the total air supply is. It is generally recognized, however, that the one safe rule is to keep it at the least possible minimum necessary to insure complete combustion of combustible gases. This can only be done by a constant watch for the appearance of combustible gases in the flue, while holding the percentage of CO^2 at the maximum point which can be maintained without the appearance of such combustible gases.

Holes, ashes clinkers, or dirt in the fire, thickness of the fuel bed, draft, length of time of opening of fire doors and regulation of dampers,—all cause wide and irregular fluctuations in the amount of secondary air admitted. While the amount of this secondary air has such a decided and important effect on the economical combustion of the combustible gases which are formed in the fire bed, it is a most bewildering and hopeless task for the fireman to attempt to control it scientifically, or to form any conclusions, or to make estimates based on direct observation regarding the proportion or amounts of this secondary air entering at any time. To achieve efficient furnace results, same clear, simple means should therefore be provided for telling him just how much excess air is present at all times, and to give him prompt warning of the appearance of combustible gases in the chimney. Such means act as a guide for the fireman, enabling him to intelligently regulate his fires and to manipulate to the best advantage the controllable elements which determine the admission of excess air to the combustion chamber.

The best method of firing a particular furnace, and regulating the air draft and dampers, can only be determined by trying various ways and means and carefully watching the results recorded from the analysis and recording of both CO^2 and combustible gases. Only through such a procedure can the fireman learn by experience what must be done, and what must be avoided to give the maximum percentage of CO^2 at all times without the loss of combustible gases up the flue. Without such a continuous and complete record of both CO^2 and combustible gases, or with a record of CO^2 only, he is working blindly in the dark, and can tell nothing about the results of his various efforts towards attaining higher combustion efficiency.

Correct mixing of the air and the volatile combustible products of the furnace is a matter of greatest importance, and represents one of the most difficult problems of design the combustion engineer has to contend with in his efforts to cut down the amount of excess air necessary to insure complete combustion and to reduce the possibilities of having unconsumed combustible gases escape up the chimney. Stratification, having the process of mixing take place too slowly, or premature cooling of the mixture below the ignition point—all lead to waste.

How nearly combustion in practice can reach the ideal is well represented in certain boiler plants where blast furnace gas is the fuel. By means of a multiplicity of interspersed small air and gas orifices such a thorough, intimate mixture of the fuel and air is obtained that the percentage of excess air necessary to insure complete combustion has been practically reduced to zero. On the other hand, it is not at all uncommon to find in small coal burning boiler plants where hand firing is used, that the CO^2 in the flue gas analysis registers as low as 4 per cent, showing the presence of 420 per cent excess air.

In a paper by Ambrose N. Diehl on "Modern Methods of Burning Blast Furnace Gas Under Stoves and Boilers", the following statement appears: "In view of the fact that 1 per cent of CO in flue gas containing 18 per cent of CO^2, adds approximately 6.5 per cent to

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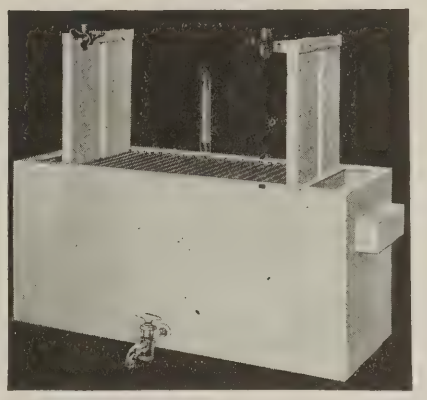
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the losses, and a proportionate larger amount in more dilute gases, it becomes apparent that a high degree of accuracy in the CO determination is very desirable. For this reason, efficiencies based on analyses of a CO_2 recorder are not dependable." He states further that constant gas analysis and intelligent supervision are the principal factors in obtaining continuous good efficiency and control without changes in equipment. Similar statements hold good where coal is the fuel.

Essentials in the Attainment of Maximum Economy in Combustion Control.

Only by continuously recording the percentage of CO_2 as an indicator of the amount of excess air present, and also detecting and clearly recording the presence of combustible gases (CO, CH_4 and H_2) immediately they are present, can effective combustion control be established. By no other means is it possible to avoid unnecessary loss at all times in the combustion of fuel, either due to an excess supply of air or through the loss of combustible gases up the chimney.

Graphic records of such a combination of simultaneous gas analyses, considered in conjunction with other records and the various functions in boiler room operation, not only point the way toward improving combustion in a given furnace, but are also an indispensible guide when, to improve combustion, alterations or reconstruction of a furnace are considered. At such times, the grate, combustion space, baffles, arches, wing walls, dampers, settings, chimney or mechanical draft, etc., all come under consideration.

Recently an instrument has been perfected and placed on the market, which not only accurately analyzes and records the percentages of CO_2 present at all times in flue gases, but also promptly detects and clearly records on one and the same chart the presence and the approximate proportion of combustible gases whenever they appear.

Mr. Olof Rodhe, chief engineer of the Mono Corporations, states that his experience with a great many plants, both in America and Europe, has conclusively proven that "economical combustion is possible only when combustion control is based on records indicating not only excess air, but also the presence of combustible gases due to an insufficient supply of air. Combustion control on the basis of CO_2 alone, with an occasional snap reading of CO is not effective. Only by simultaneously and continuously analyzing and recording the percentages of both CO_2 and combustible gases present in the flue at all times can the maximum economies be attained in fuel consumption." These requirements have been successfully met by the new Duplex Mono Gas Analyzing Instrument of which Mr. Rodhe is the inventor.

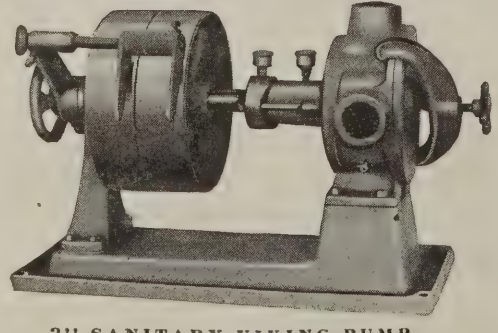
One of the prime purposes of the Duplex Mono is to detect the presence of combustible gases in the flue immediately upon their appearance, and to record accurately the percentage of CO_2 present **at that particular time.** It is so sensitive and accurate in the performance of this function, that it will unfailingly detect and record with the least possible delay the presence of even such minute fractions as one-tenth of one per cent of combustible gases in the products of combustion. Even this slight proportion is clearly recorded on the chart, so its presence is easily detectible by the operator at a glance. The presence of combustible gases once established, the accurate determination of their actual percentages is not of any importance. The instrument indicates approximately the degree in which they appear, and that is sufficient for the guidance of the fireman. The actual percentage present is rarely less than two-thirds, or more than equal to the amount recorded on the chart.

Even where the old conditions were considered as most favorable, the installation of these instruments has repeatedly demonstrated that incomplete combustion was prevalent to a far more serious degree in modern boiler plants before the new method of control was adopted, than was ever suspected.

Fig. 3 represents a diagram made by one of these new double-recording instruments. The lower contour of the diagram accurately represents the percentages of CO_2 present at all times. The lighter areas in the diagram indicate the presence of combustible gases (CO, CH_4 and H_2). The proportion of combustible gases present is roughly indicated by the height of the lighter areas at any particular time.

Looking closer at this diagram, it will be seen that at the point C fartherest to the left, combustible gases began to form when the percent of CO_2 was 10, and the amount of combustible gases formed increased rapidly, as the percentage of CO_2 increased to 11 per cent, only to vanish again when the percent of CO_2 was again reduced to 10 per cent. At point C to the right, combustible gases begin to form again, this time, however, when CO_2 is only 8½ per cent. This shows that between 4:30 in the morning and 3 o'clock in the afternoon, changes have taken place in the furnace conditions such that while combustible gases began to form when CO_2 was 10 per cent early in the morning they began to form when CO_2 was only 8½ per cent in the afternoon. Should the operator keep CO_2 at 10 per cent all day long. It is evident that serious losses

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might take place as in this case between 3 and 4 o'clock in the afternoon, as indicated in the right hand part of the diagram. That is what happens when the maximum allowable CO^2 is determined for an indefinite period by a snap CO test.

Diagram 3, which we have just discussed, shows the condition found in a boiler plant at the time the instrument was first connected, and the furnace was operated on the old principle. Certain changes were made in the furnace, the nature of the fuel and the method of firing, with the result that conditions as illustrated in diagram 4 were obtained. In this diagram it is seen that CO^2 could be carried to a point as high as 13 per cent without the formation of CO. In other words, the critical point was raised several points higher on the diagram, the reduction in air supply without formation of combustible gases resulting in a saving of 20 per cent in fuel. With such a record always before him, the operator is always in a position to follow closely any variations in the positions of the critical point and knows immediately when combustible gases begin to escape unburned up the chimney. Where the dark contour goes below the critical point, too much air is supplied, or there is improper distribution of air. Where, on the other hand, the dark contour rises above the critical point, that is, the point where light areas begin to show, the supply of air is insufficient.

General Characteristics of the New Combustion Control Instrument.

The apparatus (see Fig. 5) is driven by water pressure of about 10 pounds per square inch. Before entering the instrument, the gas samples from the flue are pulled through a filtering system, which removes all traces of soot and dirt. They are then drawn into and forced through the apparatus by a mercury piston. There are no mechanical valves, such functions as these ordinarily fulfill being performed by various kinds of mercury seals, traps, etc.

Samples of gas are forced alternately through two routes; one leading directly through a caustic potash tank where CO^2 is absorbed, and the other first through an electrically heated furnace wherein the combustible gases are oxidized to CO^2 and H^2O, and then through the caustic potash tank. Samples that are forced through the caustic potash tank give the readings for CO^2. Those that are first forced through the electrically heated furnace and then through the caustic potash tank, give readings of CO^2 plus combustible gases. The difference between any two successive readings is proportional to the amount of the combustible gases present at the time the analyses are made.

In the electrically heated furnace, the oxygen necessary to oxidize the combustible gases, CO, CH^4 and H^2 to form CO^2 (which is later absorbed in the caustic potash tank) and water (which is condensed) is usually taken from the air which is almost invariably present in flue gases, even when combustible gases are present. When such free oxygen is not available, oxygen is taken from copper oxide provided in the furnace for that purpose. The copper oxide, however, probably seldom acts as anything but a catalytic agent and need never be renewed.

Should any of the copper oxide be reduced to plain copper to oxidize combustible gases in the process of anaysis, it is reoxidized by oxygen present in the flue gas samples passing through the electric furnace later.

To diminish the lag between the time when the gas leaves the flue and the analysis is recorded on the chart, small communicating tubes are used. The lag between the time that the sample is taken from the flue to the time that it is recorded by the instrument is about 3 minutes where the distance between the instrument and the point where the flue is tapped is about 60 feet and the instrument is making about 40 analysis per hour.

These instruments are made to produce records covering a range of either 20, 25 or 40 per cent, according to the purpose for which they are intended. The 20 per cent range is the most common. A range shifter can be provided so that the position of the range is adjustable, that is, the 20 per cent range, for example, can be set between 0 and 20, 5 and 25 per cent, 10 and 30 per cent, or between any other limits at the will of the operator.

The recording pen, when at its highest position, comes into contact with an ink container having a two weeks supply of ink. The ink in the pen is automatically replenished every time it returns to the high point on the chart.

The apparatus is practically dustproof and requires only a slight amount of attention, which consists in winding the clock once a week, replacing the caustic potash solution two or three times a month, replenishing the ink supply twice a month, and putting in new rolls of paper once every two months.

Accuracy of Records and Their Value.

The readings indicating the presence of combustible gases are exaggerated, if anything, by the Duplex Mono. This is quite an advantage in a danger signal. The losses due to the appearance of combustible gases

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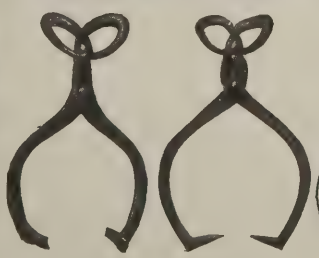
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are much greater than the savings due to an equivalent increase in CO^2 as registered on the chart, and an exaggerated record of their presence on the chart has a favorable effect on the fireman. Since it is aimed never to have combustible gases present at any time anyhow, there would be no object in having exact records of the percentage present where they do appear. An approximate, and preferably an exaggerated record, is all that is necessary, and this is the kind of record made by this instrument.

Why the records of percentage of combustible gases are not exact, is explained in the following paragraphs. The discussion of these phenomona is, however, of little practical importance, since the object of prime importance is to detect and record combustible gases as soon as they are found and to know exactly what the percentage of CO^2 is at that time. While the degree in which combustible gases are present need be known only approximately, the percentage of CO^2, on the other hand, should be accurately known at all times and particularly at the time combustible gases begin to appear, so the fireman may always know how high he may carry this percentage of CO^2 under the best conditions without running into the danger of generating combustible gases, and how near he is to this point when combustible gases appear at other times, so he may handle his furnace accordingly.

Where CO, CH^4 and H^2 are oxidized through the addition of oxygen taken from the copper oxide in the electric furnace, the volume of the flue gases is not affected by their passage through the apparatus other than by the removal of these gases. The re-actions are as follows:

$$2CO + 2CuO = Cu^2 + 2CO^2$$
$$2H^2 + 2CuO = 2H^2O + Cu^2$$
$$CH^4 + 4CuO = CO^2 + 2H^2O + 2Cu^2$$

After leaving the electric furnace, the H^2O is condensed, and the CO^2 is absorbed in the caustic potash solution. The records of combustible made by the instrument under these conditions are therefore in exact conformity with the proportions of these gases removed. A large excess of copper oxide is always carried in the furnace, so that the apparatus can run a long time analyzing great quantities of combustible gases continuously without running short of exygen, should no free oxygen be available in the flue gases for extended periods.

When, in the process of oxidizing CO, the oxygen is supplied by air present in the flue gas sample, the chemical re-action is as follows:

$$2CO + O^2 = 2CO^2$$

Two volumes of carbon monoxide combine with one volume of oxygen to form two volumes of carbon dioxide, which is later absorbed in the caustic potash solution. Since three volumes of gas are thus removed to record two volumes of CO, the actual volume of CO present is, under these conditions, only two-thirds of what the record shows.

When CH^4 is oxidized with free oxygen from the air present in the flue gases, the re-action is as follows:

$$CH^4 + 2O^2 = CO^2 + 2H^2O$$

One volume of CH^4 plus two volumes of oxygen produces water, which is condensed, and one volume of CO^2 which is later absorbed in the caustic potash tank. In other words, three volumes of gas are removed from the sample for each volume of CH^4. Under these conditions, the percentage of CH^4 present is just one-third of that recorded by the instrument.

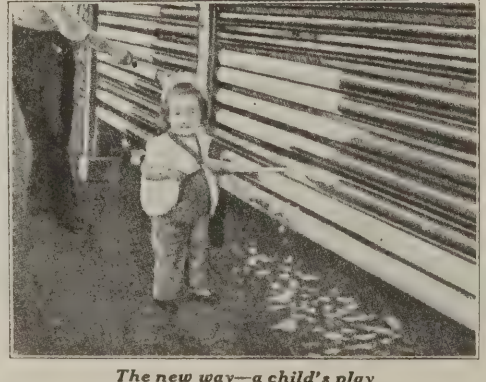
When hydrogen is oxidized through the addition of oxygen in the air, the following chemical reaction takes place:

$$2H^2 + O^2 = 2H^2O$$

The water is condensed and removed in liquid form. Three volumes of gas (2 of hydrogen and 1 of oxygen) are thus removed for every two volumes of hydrogen present. Consequently, the amount of hydrogen actually present is under these conditions but two-thirds of what the instrument indicates.

Sufficient free oxygen is almost invariably present in the flue gases to oxidize the combustible gases there without resort to the oxygen supplied by the copper oxide. Even in the rare instances where this is not the case, many years of experience and innumerable tests in plants of every description under all kinds of conditions have conclusively demonstrated that the readings of the instrument are never affected by the removal of free oxygen from the gas samples to re-oxidize Cu to CuO for more than one or two analyses after the combustible gas has disappeared from the products of combustion, and the increase in the length of the lighter areas which record combustible gases on the chart resulting from the absorption of oxygen from the flue gases is therefore negligible. The copper probably has more of a catalytic action, and incidentally forms a reserve supply of oxygen to draw on in emergency only.

What is of prime importance is the **immediate detection** and **recording** of combustible gases the instant they appear, and an accurate record of the CO^2 present at that particular time, and at all other times as well.



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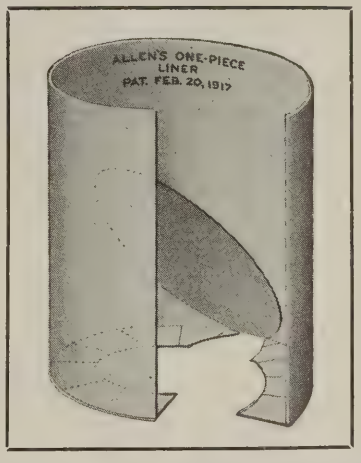
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The slight lag which might appear at rare intervals in recording the time when combustible gases cease to appear does not matter.

The CO_2 records of the machine are invariably accurate. This makes possible the accurate determination of the critical point at any time under any conditions. The critical point, C, as mentioned before, is the highest percentage of CO_2 that can be reached in a given furnace without having combustible gases begin to appear. The higher it can be raised, the more economical is the process of combustion. Knowing its maximum from the clear and accurate records of the instrument, the fireman can always tell the degree to which he is approaching ideal conditions. Should combustible gases appear at a point below the critical point, he knows that his dampers, fire doors, or the fire itself needs immediate attention, which experience soon teaches him to give to the best advantage.

The plant executive is given a permanent record which gives him the data necessary to compute the degree of efficiency attained in the firing of the furnaces, and offers him every opportunity to intelligently appreciate the efforts of the firemen. It enables him to give valuable suggestions and advice and to cooperate with the boiler room force most effectively towards promoting fuel economy.



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It is stated that Alexander the Great was very fond of iced beverages. At the courts of France and Italy in early times, wines and fruit juices were cooled with ice and served. It is reported that Marco Polo brought recipes for water, ice and milk ice from Japan in the thirteenth century. Charles the First of England was served with ice at a banquet, the ice being made by a French cook, named de Mireo, and the King was so pleased with the dish that he pensioned the cook with twenty pounds a year on the condition that he would not make ice for anyone else. As time went on, others among our forefathers began the freezing of wines and fruit juices and then of milk and cream.

Ice cream is said to have been first introduced in the city of Washington by Mrs. Alexander Hamilton at a dinner attended by George Washington. The first ice cream advertisement on record is one that appeared in the "Post Boy" of New York City, January 8, 1786, at which time ice cream sold readily at one dollar per quart.

So far as known, Jacob Fussell, a milk dealer in Baltimore, Md., was the first man to enter into the wholesale ice cream business. He took it up early in the nineteenth century, in order to utilize his surplus cream.

In about the year 1890, the ice cream business commenced to make rapid strides and it has grown continuously since that time, until today over two hundred million gallons of ice cream are consumed annually.

Ice cream as a food is being recognized more and more for its nutritious value. Food is any substance taken into and used in the body for the purpose of building new tissues and repairing the old and for supplying the body with heat and energy. The best foods are those which produce the best physiological results with the least amount of waste. They must be hygienic, digestible, palatable, furnish the nutrients (proteids, carbohydrates, fats and minerals) necessary for the developments of the human body are present in such proportions as to render ice cream most serviceable as a food. These food constituents are present in ice cream in such form as to make them easily digestible.—Viroqua, Wis. Senator.



BANKER TURNS ICE CREAM MAKER.

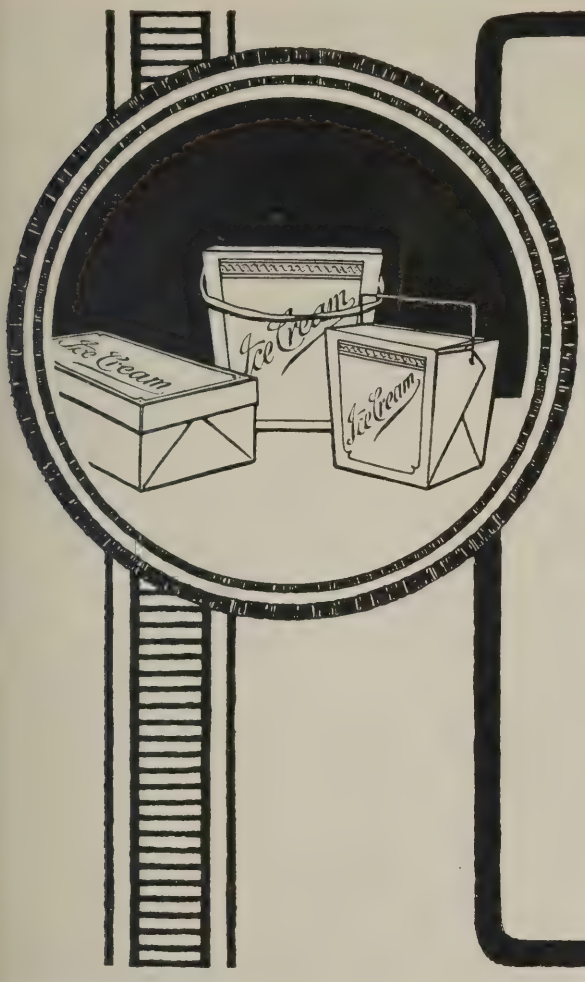
Many ice cream makers no doubt hope to be able to become bankers some day, but here is a banker who would rather be an ice cream maker. Mr. Charlton Karns, Knoxville, Tenn., has been interested in a local bank, also in the Racy Ice Cream Co., of Knoxville. Reports are to the effect that Mr. Karns has disposed of his banking interests and will devote his whole time and attention to the ice cream business.

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Wisconsin Association of Ice Cream Manufacturers

Proceedings of the Sixth Annual Convention, Milwaukee, Wis.

(Concluded from August issue)

A few years ago we knew of no measure upon which we might count to indicate the physical well-being of a child, but the studies of scientists have lately shown us that a child's weight in relation to his height, in the first place, and then to his age, is a very definite indication of his physical development. With a scale and a measuring rod it has, therefore, been possible to valuate, as it were, the health product of the homes and schools of the country. The result of these tests has shown us how widespread is the menace of under-nourishment among our children and the necessity of grappling with the problem with every means at our command.

The term "nutrition" has been largely associated in our minds with food, but we have now learned to speak of nutrition as indicating the whole physical welfare of the child. Formerly we were satisfied to apologize for the skinny or puny child by putting the burden for his condition on his ancestors, declaring that little John "takes after his Grandfather Williams, who was always thin," or by explaining that "Mary is just like her Aunt Jane, who never could put on any weight." This is certainly not a fair deal, either for the child or the ancestors, because no one can tell definitely whether a child is intended by nature or Providence to take after thin Grandfather Jones or fat Grandmother Smith. Thinness is not due to heredity, not to predestination nor to a decree of Providence, not to original sin, but to causes quite within the control of the parents and their medical advisers. The problem is distinctly up to the parents. They must find out, in the first place, whether or not there are physical defects which may be hampering the child's development; secondly, whether he is being properly fed with energy and growth building foods; and, finally, whether his home and school program are such as to promote health, as well as develop the child mentally. Do not imagine, as so many people do, that I am speaking only of the under-nourishment of city children. By actual count there is more malnutrition among children living in the rural sections than in our large cities, though to convince our country neighbors of this is one of the hardest things we have to do, when these facts are urged. The reply is always made that of course such children are all right because they live in the country where there is plenty of milk, cream and butter. Yes, but who gets these rich gifts? Not the children always. This reminds me of a story I heard recently. The women of a rural community were starting hot school lunches for the children in a little country school. Different mothers took turns furnishing the milk or cocoa and the one hot dish. One noon there was no milk for the children to drink and one little child brought a note from her mother—the wife of the most prosperous farmer in the county—which said "We need it all for our calves."

Some one has said that if a farmer were raising his children to be sold by the pound, he would feed them as scientifically as he does his cattle, and would keep for his children some of the vegetables and milk which are sent to city markets to help nourish the children there. Do you think the average farmer would be satisfied to dismiss from his mind the condition of any of the animals on his farm with the explanation that the "little pig is thin because he is growing so fast," or "the calf is not putting on weight because it takes after its father?"

Dr. William R. P. Emerson, of Boston, has given us the reasons for malnourishment as the result of his twelve years' work in Boston. The program he recommends to bring these children up to normal health and vitality is about as follows:

1. A complete physical examination by a competent physician, in the presence of the parents.
2. The remedy of physical defects found, i. e., diseased tonsils or adenoids removed; teeth treated; eye strain relieved, etc.
3. The usual three meals a day, eaten very slowly, consisting of milk, butter, bread, cereals, vegetables, fruits, some sweets, and little meat; no tea, coffee or Coco-Cola.
4. Two extra lunches at 10:30 and 3:30 of milk and crackers or bread and butter. Never give sweets between meals, as they impair the appetite.
5. A rest period of one hour in the morning, and another of half an hour in the afternoon—lying flat; ten hours' sleep at night, all with windows wide open.
6. School hours shortened, or given up entirely if need be until health is gained; outside classes and clubs omitted.
7. No vigorous exercise until weight is normal but plenty of play time out of doors.
8. No nervous excitement—few parties, "movies", picnics, until the habit of weight gaining is established.
9. Children should have at least one regular bowel movement a day, preferably just after breakfast, and should be taught great respect for all their body functions.

This program has been adopted, so far as possible, in the health work done by the Elizabeth McCormick Memorial Fund, and the results of the work in Chicago have been most gratifying.

The Elizabeth McCormick Memorial Fund feels convinced that the school is the logical place for these classes, since health is the fundamental of all education, though up to the present time it has been almost an unknown quantity in the school curriculum. It has also been shown clearly that the success of the nutrition class depends not only on the personality and teaching ability of the nutrition worker, but on the successful co-operation of the homes and schools for the benefits are faulty and should not be tolerated in an enlightened, civilized nation like our own. The child holds all the promise of the future in his hands, and it is only if we teach him to build well that we shall have a sound nation to carry forward the traditions and ideals which the builders of our Republic have passed on as a sacred inheritance to us.

In conclusion let me say—do not be afraid to urge the promotion of a health program in connection with the marketing of your product. It will bring results! Above all things, however, see that the product each one of you furnishes is absolutely pure and one which you can with a clear conscience recommend for children. People who adulterate dairy products in any way seem to me particularly vicious as betraying the confidence of the public in a food which is absolutely essential to the life of the human race. It is a part of your responsibility as dealing with one form of this indispensable product, to see that you guarantee its purity to the mothers and children who have confidence in what you have to sell, and who should not be be-

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trayed. Perhaps you think we cannot mix business with sentiment, but I myself believe that part of the business success of America is due to the vision and ideals behind it, and to the fact that some of the leaders in commercial life have not been afraid to consider human welfare as good business."

* * *

SOME EXPERIENCES AT SECTIONAL MEETINGS.

By Mr. F. W. Holmes, Manteno, Illinois.

Mr. Chairman, and Gentlemen of the Wisconsin Convention: I hardly think it necessary for me to say very much in regard to my experiences at these meetings. I presume everything is all right in Wisconsin, but two years ago it was not so in Illinois. Someone has wisely said, "If you have a good thought, use it," and in the fall of 1913 I was conferring with the manager of one of our plants in Kankakee, and he thought that the cost of raw materials was coming so close to the selling price that it was narrowing down to almost nothing, as far as margin was concerned, and we felt something must be done, but what could we do as an individual concern? Then I thought of this saying, "If you have a good thought, do let it go." The great inventor, Edison, has spent a great deal of time on some of his inventions. The phonograph took him eight years. If we have a good thought we want to use it, send it up. In the ice cream business this work is largely a work of self-preservation as far as the manufacturers are concerned, but at the same time there are others. The great Salvation Army Booth wished to cable a message over to his workers from London and he didn't know what to say that would express his meaning. Finally he simmered it down to the one word, "Others." So I say in our work we want to be mindful of the other fellow.

In 1913, after thinking that matter over, what could we do? There was nothing individual we could do, but we must have co-operation. I conferred by letter with two of the other manufacturers down state in Illinois and I asked them if they would be willing to be one of three to send out a letter to the various manufacturers calling a meeting to see if we could do something about this situation. Immediately I got replies back, "We are with you." We gathered together near the city of Bloomington, the first sectional meeting that has ever been held in Illinois. I think it has been said of me I originated the sectional meeting. If that is the fact I am very glad it was my privilege to do that.

In coming together at that meeting in September, 1913, we had the manufacturers from Central Illinois and they were apparently all afraid of each other. The man that sat next to the other fellow didn't say much, he was afraid he might get next to his price or mix or some of his buying products. There was that feeling we must keep apart, but the chairmanship was wished on me unexpectedly and I saw there was just one thing to do and that was to have a good old fashioned Methodist meeting. Mr. Stewart got up and told us his competitors were there, and likewise we got them on their feet, and I want to tell you it did them good. They got up and told the conditions they had in their city. From Peoria and Quincy, everybody was testifying as to what the conditions were in their city, and they would like to see them better. We had an attorney present at that time so we didn't violate the Sherman Act, and there was no combine in that meeting. I am glad to say in less than fifteen days after that we were getting a little better price for our ice cream down there in Central Illinois.

I was elected president of the Illinois Association and Mr. Loewenstein and I made out, with the assistance of some of the other manufacturers, cost bulletins. If you haven't a cost bulletin and can see where you can find out what it is costing for delivery and for sugar and your raw products, get it, and if it isn't possible for you to get it yourself, get some auditing company to work it out for you, and I will say this for you, as well as for myself that you can't have anything in your factory more necessary. Mr. Loewenstein and myself went as a pair of twins down through the central part of Illinois drumming the industry just like Mr. Loewenstein, Mr. John Knobbe and Mr. Cunningham have done locally. It was a little hard to get men to these meetings, but when they saw what was in it they began to come and down through Central Illinois it has been a wonderful help. We held the meetings in Peoria; we talked matters over then and there and it helped the industry.

I remember one meeting we had in Central Illinois, Centralia, we had a meeting there a few days ago. I was not there myself, but Mr. Loewenstein tells me they had a splendid good meeting. At that meeting we had one manufacturer that had been pointed out to us in that city, he wasn't going to come to that meeting, and Mr. John Newman, who was then Health Commissioner of the State of Illinois. Mr. Loewenstein and myself went to see him, but he wouldn't come. He knew how he wanted to run his business. During the following summer they had an epidemic in southern Illinois. They began cutting the prices, and they began robbing the quality. Some of the manufacturers profited by that meeting, but many of them

WISCONSIN ASSOCIATION OF ICE CREAM MANUFACTURERS.

Madison, Wis., Sept. 1, 1921.

The Ice Cream Review:

Every ice cream manufacturer, creameryman and everyone interested in the dairy industry, should attend the National Dairy Show at Minneapolis in October as it will be of great educational value to all. I believe that the members of the Wisconsin Association of Ice Cream Manufacturers cannot afford to miss the convention of the National Association of Ice Cream Manufacturers, which will be held at the same time.

They have come to realize that their state and national conventions are the places where they can meet and exchange views and get the latest ideas from the most progressive people in their line. Personally I feel that every manufacturer will be well repaid by attending.

F. E. CAUGHEY, Secretary.
Wis. Assoc. of Ice Cream Mnfrs.

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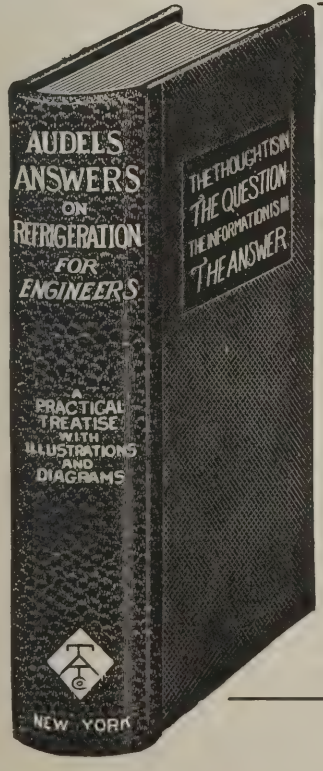
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did not. During that summer Mr. Newman put some of his inspectors down there and Dr. Kline, who was State Analyst, aided them and they went all over Southern Illinois and got samples of what those fellows were making. The butterfat and sanitation was way below what it should be, and some of those fellows got calls to square themselves on the carpet. Some of them began to get very nervous and they came to Chicago, but in the meantime one very hot day in August that I speak of, we went out to see this man who wouldn't come to the meetings. We wired Mr. Loewenstein to be there, to be there Sunday afternoon to hold a meeting. He went down there, and our Secretary spoke to them very emphatically, and I want to say to you, Southern Illinois has given the ice cream men throughout that part of the state better co-operation than ever before. We are keeping up these meetings

I have in mind four competitors that bordered on the west of us. We are largely in Eastern Illinois, Champaign is one of our cities, Kankakee and two other minor points, but we are over against the Indiana line. I want to say to you in the years gone by nobody could make as cheap ice cream as Indiana could, but they finally learned of some of our co-operation and they began to invite some of our workers to go over there and see if we could assist. One of your speakers here yesterday afternoon I think spoke of the splendid condition they have over there. Mr. Harvey is the secretary over the milk, butter and ice cream departments, and they have three heads now. It was my privilege to go over with Mr. Loewenstein when they instituted that. Their condition over there is very much better than what it used to be, and they have been selling their product very close to Illinois.

What I have to say is largely with down state and up state conditions, not of the large cities. We are fortunate in Illinois, especially the central part, that the large manufacturers in Chicago do not ship very much ice cream. It is largely left to the down state people.

I also recall a meeting in northern Illinois. It seemed rather hard to get a meeting up there. There was a condition there that especially affected about five manufacturers and we had been trying very hard. There seemed to be one or two manufacturers that were established in a certain idea and we couldn't prevail upon them to change. Finally I said, we will adjourn this meeting, but before we adjourn it I am going to make a last appeal to those five men, if they will take their places around the table and settle this matter themselves. I asked the principal manufacturers if they would do that and they all said they would. They sat down to the table and while we were putting on our coats these men got through and they said they had adjusted the matter. We have to be tactful; we have to be careful how we go at these men. I recall an instance at a certain point. We had some splendid customers there during the war, and they were large consumers of ice cream, and at that time I think we were getting somewhere about 90 cents, the early part of the war. One of our very best customers said, "I am buying my ice cream for less money." It was being shipped from nearly a hundred miles away, over in Indiana. We let the matter rest. We knew who the shipper was. They had never solicited the business, but some traveling man had been around there Four years ago, I think it was, I was in the city of Columbus, Ohio, and I says, "I am shipping some ice cream over near you." And he said, "I don't know how it happened we got the customer, but we didn't solicit him." I said, "You got him not so much on the service, because you only have one train a day, we have six or seven, and as far as quality is concerned I think we are making equally as good a product as yourself," and he didn't deny that. "As far as value is concerned I believe our value is equally as good as yours, but price! Some way we get the idea we are educated to price rather than value that goes along with the service." I said, "Of course it is up to you. You have cut the price in order to get that business or the dealer would never have gone over there. What do you think about it, Mr. K.? The gentleman is gone now. He says, "I believe your side has some merit to it." I told him "we would not go into your district and cut your prices." I said, "I believe there is honor enough about us in Illinois, we would not do that." I said, "All right, if you care to write me about the matter." A few days after he wrote me. However, his partner was at that convention, the National Dairy Show, and he met me and said, "You would stop our branching out." I said, "No, you can ship to the ends of the earth, but what would it profit a man if he sold 100 gallons of ice cream and made no money." Mr. K. wrote me a few days after, "There is merit to what you said. We have abandoned the field." In Southern Illinois those men have been loyal to the sectional meetings and they would not cut a price under our price unless they let us know, that is the kind of co-operation we have in Central Illinois.

Indiana, as I said before, is coming up very much, and at our border line we have adjusted matters so that prices are about the same. Last spring everybody was up against it as far as sugar was concerned, and we were all in hot water about the early part of April. Some were fortunate in securing some of the cheaper sugar, but some had to go to the limit. As a manufacturer and as an individual I got to thinking over the matter and I said something must be done. Nothing had been done up to that time. I went to Chicago to confer with Mr. Loewenstein—he was in Washington on the express matter at that time—and we arranged a meeting in Peoria along the latter part of April, and the Illinois chairman, George Thompson of Chicago, asked me to act as chairman, and in that meeting we got the testimony of every man present in regard to the conditions in his locality, and as I said before, we made no combine as far as prices were concerned, but automatically inside of ten days after that we had to advance our prices in order to get things in shape so we could have a living profit.

Last fall, in September, I got a wire from Indiana, one of the manufacturers there, asking me if I could come over and help them in the city of Logansport. At that time we were busy and I thought I would be unable to go, then I felt otherwise and wired them I would try and go. I got together a lot of data that would apply to the conditions and what it meant to lower the value of your product. New Jersey had a great experience in regard to poor ice cream and how the output declined very much until something had to be done and they found it was the low grade that destroyed the business. We went over there to Indiana and we held a meeting and we had a splendid attendance, but the idea of some of those manufacturers was they could buy sugar a lot lower and they could get the price. We were fortunate enough to stay the decline in the prices and there was some of our lively boys at that meeting. I tell you men we have got to be honest. I believe that the dollar in the hands of the ice cream men here is an honest dollar. It reads, "In God we trust," and we ought to support that inscription. Those fellows over there thought if they could get the price they could increase

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the consumption. Somebody gave us this. If I cut the price 10 cents and I am selling 100 gallons of ice cream, how much more have I got to sell to even my sales? Ten gallons. One hundred gallons of ice cream and he had an earning of 30 cents, that would be $30, but if he cuts the price 10 cents he has to increase it 50 per cent. In this, boys, figure on a reasonable margin. I know in Wisconsin here you have a very marked condition with the very low price of your raw product of the milk and cream and those things, while in Central Illinois prices are apparently quite normal at this time, milk is running from 3¼ to 3½ a hundred. We are, perhaps, more of an agricultural country than you are up here, and our farmers down there can do something else than produce milk, and therefore in building up an industry we feel we must pay them a price to warrant their continuing in its production.

If I have said anything at this time to help you I am very glad of it. We have held two sectional meetings in Illinois, one at Centralia, and one at Litchfield. We have held several conferences. When your secretary and your officers call for a meeting, whether it be in Green Bay or Fond du Lac, or where it is, I say to you men go and grow. I thank you. (Applause).

FOURTH SESSION.

Friday Afternoon, 1:30 O'clock.

Meeting called to order by President Smith.

Chairman: The first number on the program this afternoon is "First Impressions of Beginners in the Ice Cream Business," by Mr. Karl Mory, of the Mory Ice Cream Co., Appleton, Wis.

First Impressions of Beginners in the Ice Cream Industry.

By Karl B. Mory, Appleton.

I have been asked to say a few words about the first impressions of beginners in the ice cream industry.

Most of you know that this is our first season in the ice cream business and this places us in a position to view its various activities in probably a little different light than you, who have been in the business a number of years. And the one thing that we think stands out head and shoulders above all other questions, is a lack of proper organization among the ice cream manufacturers of the state of Wisconsin.

By this I do not mean to cast reflections on our present organization. It is a fine thing but it doesn't go far enough. We get together only once a year, and after a fine time for two days we all go home and do not see each other for another year. If you stop to realize, gentlemen, we are just about the most poorly organized industry in the state. And there is no excuse for it. Wisconsin isn't so large that we can't all get together once a month and talk business conditions over in an intelligent manner, instead of groping around in the dark the way we are now doing. Why even the buttermakers meet once a month and, are you going to be forced to take your hat off to them as a more intelligent body of business men than yourself? But that is just exactly what you will have to do.

I even know of one instance where the heads of two competing firms in a city of not over 30,000 population did not even know each other and they had been engaged in business there three years. Do you suppose that conditions like these promote the welfare of the ice cream industry? They most certainly do not.

Take our own business, for example. As maltsters and grain dealers we belong to the National Association and also to the State Association. The National Association maintained an office in Chicago under a very brilliant lawyer and we had a meeting there every month, and these meetings were attended by about 99 percent of all the malsters east of the Rocky Mountains. Now do you suppose these men would go to all the expense and time to come from distances as far as New York if they weren't dead certain that they were benefitted by these meetings? And I might further say that our business was never better than when these meetings were faithfully attended. And on top of all this we had our Wisconsin Association which met here in Milwaukee once a month. Surely the ice cream manufacturers could arrange their affairs so that they might devote one day out of a month to bettering conditions of their own industry.

My suggestion would be to open a small office in Milwaukee. I believe Milwaukee woud be the logical location for this office because it is more conveniently located for all of the manufacturers than any other city. The expense would be very small. All we would need would be one room under some capable man. We wouldn't require the services of a high salaried attorney at this time. But what I want to see done is to get the manufacturers working together instead of everybody pulling in a different direction.

With an organization such as I have outlined innumerable things could be accomplished. A credit

HE BEGAN WITH A HORSE, TUB AND A FREEZER.

L. Manuel Hendler is president of the Hendler Creamery Co. of Baltimore. He is also President of the Association of Ice Cream Manufacturers of Maryland. The advice of a man who has become prominent in the business world, through his own efforts, is worthy of serious consideration. Mr. Handler expresses his views in the following words:

"Have your letter of the 27th and while it goes without saying I have always urged every ice cream manufacturer to attend shows and conventions, yet of course you can understand Maryland is one of the smaller states and we really only have one large city to draw on. Besides the conventions this year will be so far from base I doubt whether we are going to have very many out of Maryland to attend. The larger fellows follow the conventions wherever they go, but because of the Supply Men's conventions near by the smaller men can very easily attend them.

"I started in the ice cream business just the same as a good many other large manufacturers, with one horse and one little tub and freezer and had I not attended the conventions, heard the men who know, speak, and gathered in the information I could by attending the shows, I probably would be working at one tub and can today.

"The money any man spends attending a convention he usually makes up on the first fifteen minutes at the show. With all the knowledge I have in the ice cream business I never go to a convention without coming back feeling repaid over and over again. In fact, being a large manufacturer the saving today is far greater than if my business were smaller. I feel fully convinced that every ice cream manufacturer should attend the ice cream shows and conventions and I can't understand why anyone should need any coaxing."

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Bisque Ice Cream	An imitation of the real Walnut or Shelbark with a nutty flavor. Served to social and banquets as a special. Working sample for 40-qt. freeze, 60 cents.
Perfecto *(Trade-Mark)*	A tested smoother of special value in the making of smoothe and tough Ice Cream. Never fails to give satisfaction.
Concretes	Orange and Lemon Concretes are made from the finest fruits that grow in Northern Sicily.
Extracts *(Non-Alcoholic)*	36 different kinds of fruit extracts. Special blends of Vanilla.
Colors	Certified colors of all shades, highly concentrated.

ACME EXTRACT & CHEMICAL WORKS

Extracts HANOVER, PENNA. *Colors*

ESTABLISHED 1879

Gelatine is the most efficient of all stabilizers for Ice Cream

WHITTEN'S GELATINES Are Standard

Guaranteed to Comply with all National and State Pure Food Laws

STRENGTH, PURITY AND UNIFORMITY GUARANTEED

MANUFACTURED BY

J. O. WHITTEN COMPANY

Main Office and Works

Woolworth Bldg.
NEW YORK CITY

Winchester, Mass.

20 E. Jackson Boulevard
CHICAGO, ILL.

bureau could be established, the cabinet question could be thrashed out and settled, and I might say right here that I honestly believe that within the next year or so you will see this practice abolished. The brewers were up against the same thing. When money was rolling in like water they thought nothing of setting a man up in business and giving him all his fixtures, but when competition became keener and dividends smaller they cut it out mighty quickly. And another thing this office could do would be to help work out the tub problem. I am just going to say a few words about the return of tubs and then I am finished.

The tub problem is no doubt a time worn subject with you. But nothing really seems to have been accomplished to make this service any better than it was five years or six years ago. Take our own example for instance. We had efficiency experts install in our plant what is considered one of the best tub record systems, but it doesn't work out entirely successfully.

Once a week our file clerk runs through the records and mails out cards requesting the dealer to return the tubs which we have charged to him. The dealer probably replies that he has sent the tub back but we never received it. We can't call him a liar and tell him that he has got the tub, because maybe he has sent it back and it is probably lying back of the depot or somewhere else and for the efficiency of our system we lose a dealer.

I have heard some people suggest a deposit on every tub, but I do not believe this would work out entirely satisfactory unless every ice cream dealer in the state did it and they ALL will NOT do it.

The brewers were up against this proposition at one time and they overcame it by all charging a deposit on kegs and cases, but there are fewer breweries than ice cream factories and that helped them put it across.

Take our own business for example. At one time we never charged for the sacks we shipped our malt in, and as we were selling well over a million bushels a year, we kept the bag factories running nights supplying the demand for sacks. Then the malsters woke up and charged the sacks up to the brewers and the trouble was over.

But as I said before, unless this is unanimous it never would work out on ice cream tubs.

Most all of you have salesmen out on the road with instructions to send back all of your tubs he sees lying around. But your salesman gets his salary for the business he sends in and not on the empties he finds, so do you imagine for one minute that he is going to run the risk of losing a customer by calling him down for not cleaning his cans and returning them promptly? I should say not.

My suggestion in this matter is for our association to hire a man six months during the rush season. Give him a Ford and let him do nothing but travel around the state and chase back empties. Keeping in touch at all times with our office at Milwaukee.

And I would go a step further. The state law clearly defines that all cans shall be cleaned and returned 72 hours after being empty. State Dairy Commissioner George J. Weigle has always shown himself to be very much interested in bettering conditions of the ice cream industry, and we could assist him very much by getting after the dealers ourselves. He could deputize our man without pay from the state, which would give him the necessary authority to wake up a few of the dealers. I feel sure Mr. Weigle would be more than glad to cooperate with us and would probably pick us out a very capable man.

I have figured out the cost of putting this man on the road and it would be approximately $100 a month. $200 salary and $200 a month expense to include all motor upkeep. The last list of state manufacturers showed a membership of 40, which would be $10 apiece per month. Not even the cost of two packers lying around somewhere. Isn't it worth that much to you gentlemen to know that someone is out chasing up your empties all of the time? Two men would be much more effective and that would only cost us $20 apiece. Or if you should prefer to prorate the expense, pay it the same as you do your dues in the National Association, according to gallonage.

There is just one other thing in which we are not quite up to the minute, and I refer to the National Ice Cream Association rather than ourselves, and that is cooperative and educational advertising. The same as the California fruit growers are doing, the can manufacturers and I have noticed that the coffee merchants of the United States have also recently joined this ever-widening circle with the slogan "Coffee—the Universal Drink." Why not "Ice Cream—the National Dish?"

The Wisconsin state association should go strongly on record endorsing a move of this nature and take it up with the national association at once.

I trust, gentlemen, that I have not taken up too much of your valuable time, but I do hope that before you return home you will make arrangements to meet here once every month.

I thank you. (Applause.)

Chairman: The next number on the program is "Let's Get Together," by C. W. Wright of the Sturtevant, Wright & Wagner, Beloit.

Mr. Wright: I don't think it is much use for me to talk after Mr. Mory's talk. Mr. Holmes is a regular get-together man—that is his business. That is the reason why Mr. Holmes can talk, doesn't have to read his paper. Mr. Holmes especially and Mr. Mory, too, their talks were on actually getting together of the ice cream man. I think I can show you why you are going to get together. I am going to make this statement, you are actually going to get together if you want to or not. I am going to give you some history, that is one reason why I have to read it, because I never was any good at remembering history.

* * *

LET'S GET TOGETHER.

By Mr. C. E. Wright, Beloit.

When our President, Mr. Smith, wrote and asked me to take this subject, "Let's Get Together," I nearly had a stroke of apoplexy for two reasons. The first and greatest one being—whatever put the idea into his head that I could appear on a program at all, and the second one—why pick on me to settle something that has taken several hours of our time at every ice cream manufacturers' convention we ever attended.

You all know how hard it used to be to get all of you together in a meeting even when you were privileged to sit far apart and not speak to your competitor. I think the reason must have been because you thought you knew so many secrets about ice cream that you dared not speak to him for fear you might divulge something that would cause him to make good ice cream too. And of course at that time there was only one man who could make real good ice cream—that was you. But you did finally come fully determined to keep your mouth shut and your ears open, for you had discovered that there were a few careless or shiftless people who were actually eating the other fellow's cream. And then one day at a friend's home, YOU ate some of it, and would you believe it, there was something about it that you would give a dollar to know just what he did to get that particular taste. So you came to see if he might accidentally disclose something. Now I am going to tell you why I think you came.



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The installation of a **BAKER SPECIAL** Mechanical Refrigeration System would be the most important improvement you could make.

You would save the jobbers' profits if you buy a BAKER SYSTEM—We sell direct from the factory, and through our factory branch offices; hence, when you buy a **BAKER SYSTEM** you save the money that would go to the middlemen if you bought some other make of refrigeration equipment.

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Write today for prices and particulars

CROWN FRUIT & EXTRACT CO., Inc.

418-420 WEST BROADWAY

New York City, N. Y.

I know you are going to be disappointed in some respects when I finish because I am not going to tell you all the details of my little plan of getting the price of ice cream just as high as the traffic will stand and every manufacturer sticking together and maintaining that price. Of the oft cussed and discussed problem of furnishing ice cream cabinets, and of the method for everybody to use, to compel every dealer to pay promptly and return all your tubs next day.

Longfellow said: "Great is the art of beginning, but greater the art is of ending," so I am going to try to show you the art of beginning and leave the greater art for you to work out.

Let us go back to ancient history and see how people used to live by themselves and what the results were. The Canaanites occupied part of the territory which is now Palestine. The Philistines were on the west coast of Palestine. The Syrians were to the north and the Egyptians were to the southwest. Now Palestine is about one-third as large as Wisconsin and Egypt at that time was only a narrow strip along the Nile. Babylon and Persia together were about as large as Palestine and Egypt, which altogether might be a little larger than the state of Wisconsin. This virtually comprised the whole world. Yet the people were farther apart than they are today.

Each country had its own religion, language and customs and knew practically nothing about its neighbors and cared nothing except to conquer them. There was no intercourse between these nations except when they were at war. About this time a class of people who were descendants of Abraham and slaves to the Egyptians were freed by God, through Moses, and were led through the wilderness to the land of Canaan, and there began the first united people of the east.

This was about 1200 B. C., but this union was of short duration for it only lasted some 300 years. Then the Persians ruled the east until the Greeks and Romans conquered and ruled the entire country for centuries, which necessitated a mixing of customs and beliefs and drew the people nearer together. Each succeeding war, of which there were many, up to the 17th century, did its own part in getting people closer together, by the process of invading and settling in the invaded country and intermarrying with the inhabitants, thereby weaving a net that in time was sure to enmesh the entire world.

But there were old beliefs and customs that were not conducive to freedom, so later the Pilgrims came to America, where they thought they might worship their own way and live to themselves, but their very landing seemed to be the birth of a new and undreamed of freedom and unity of people.

We now find that the get-together idea was more pronounced in America than in any other part of the world, and we shall try to find out if it is worth while.

The Revolutionary War made it absolutely necessary that all people, regardless of religion or political belief, get their heads and hearts together to protect this unity of purpose and new idea of brotherly love from the old tyranny and one man idea. They did the job in fine style, and the result was the getting together of the thirteen colonies and the writing of the Constitution of the United States, which event will not be equalled until we sign some kind of a League of Nations.

What happened now that everyone was pulling together and had time enough to work for the betterment of mankind? Travel was slow. It was nearly impossible to do any business more than a few miles away. People in one colony had no means of knowing how those in another lived, but now the steam engine was developing, newspapers began to circulate, the telegraph began to flash news around and drew the people closer. Gold was discovered in California, and then the east and west mixed. The staid old easterner met the impetuous westerner and the energetic, liberty loving, central states man was the result.

But there was an undercurrent running through this stream of life that was not as it should be. There was a drifting apart of the north and south due to a practice that in the very nature of things was doomed. There were some men who thought each section of our Union could live by itself, but Abe Lincoln was here, and it is good for the human race that there is always a Lincoln when one is so badly needed. Men laid down their lives to hold the Union together, and that opened up another great epoch in the history of co-operation.

Electricity now began to do its share of getting people closer together and then came the thing that if Longfellow could have foreseen, he never would have made Hiawatha say:

"Face to face we speak together
But we can not speak when absent;
Can not send our voices from us
To the friends that dwell afar off."

After our own country succeeded in patching up the differences of the Civil War and had held the Union together, Spain made an attempt to enslave the Cubans, and again that brotherly feeling that had been growing for ages asserted itself and we stepped in and put a protecting arm around the Cubans and showed Spain her place, and at the same time, made a better friend of her.

While we were doing this, we tightened the bonds of friendship between the north and south because our boys fought together and lived together and discovered that they were all very much alike. After each war there seems to be a new effort made to help each other, and to invent new labor saving devices, and new ways of serving the people better.

Among other things the wonder of wonders—the automobile that actually eliminates distance and makes our neighborhood a hundred miles across instead of

"BERT" WILL BE THERE.

Tacoma, Wash., Sept. 1, 1921.

The Ice Cream Review:

There are so many good things that may be said for the National Dairy Show as an educational feature to those who are interested in any branch of the industry, that we feel sure anyone who does not make an attempt to visit the Twin Cities in October of this year will miss a splendid opportunity to become acquainted with the latest and best machinery and methods in the dairy industry.

The benefits to be derived by attending the sessions of the National Association of Ice Cream Manufacturers, the International Milk Dealers and others which will be held during the Dairy Show, are well known and appreciated by those who have attended in years past, and they in turn have induced others to join these associations who are doing so much to improve conditions amongst manufacturers.

With the excellent facilities and the central location we hope to see the 1921 Dairy Show on the Minnesota State Fair grounds the greatest yet held, and trust every manufacturer who can possibly do so will make a genuine effort to be there.

BERT H. WALKER, Secretary.
Pacific Assoc. of Ice Cream Mnfrs.

First in the Field—Still Going Strong

Dunn's Celebrated Ice Cream Gelatines

Guaranteed to comply with all State and National food law requirements.

TRIED, TESTED and PROVEN

When you want a stabilizer that never fails you, it's gelatine

THOMAS W. DUNN COMPANY

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Glascote

White Glascote is the standard of quality and service in

THIS means not only the latest thing in glass lined tanks but the most modern and efficient design in performing equipment. It means saving to you in floor space, labor and time. It means sanitation and cleanliness.

A word from you will bring a list of Glascote users, including some of the largest ice cream plants in the United States who are well satisfied with our equipment.

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one. Then in quick succession the phonograph, the movie, the airplane.

Our present method of feeding the world. We don't eat the things native to Wisconsin alone, but we eat of everything in the world. We have cultivated our tastes until we like some of the things that pleases the South Sea Islander, and he eats our canned goods and meats. The salmon fisher likes our cheese and butter, while we eat his fish. We trade our wheat and corn for the southern man's rice, so even our tastes are becoming uniform. The people of other countries are wearing our clothes, and some of our women are almost wearing theirs; so we will soon be dressing alike.

The most outstanding example of what people can do by getting together has just been demonstrated by the great war. Germany thought the people of the United States were too busy getting money to notice what she was doing, but she seemed to forget all of our great organizations. We had no ships and no experience in building them, but we had Chas. Schwab, the man who knew steel and how to handle the great steel industry. We had no guns or ammunition, but our great, well organized manufacturing plants were making them over night. Our food industries were organized to such an extent that all our government officials had to do was to call a meeting in Washington and say we must have food. How can we get it? The milk canner said we will get you milk. The meat packers said we will get you meat. The farmer and his wife and daughter went out and raised the stuff, and we all did without bread, sugar and many other things to help out. We got together. Then we had a great number of religious, civic, and fraternal organizations which were supposed to be living just for themselves.

The Red Cross was willing, as usual, but how could they ever handle this job? They did it because every club and every individual laid aside their work or their play, and jumped in and went to work for them.

The Salvation Army was on our city streets every night and we passed them by with a casual glance, but when our country needed them, they were ready, but what could they do? They were very poor. The great order of Elks was not noted for its religious fervor, but when they did their bit, the Salvation Army had the needed money. That was quite a getting together. The Y. M. C. A. was having a struggle of its own for existence, but when the call came they said "here are we, send us," and we sent them with millions of dollars.

The K. C.'s had their huts along side and the two organizations did for our boys what no one else could have done.

While we who stayed at home were doing our work of paying the way, what effect did it have on us? Clubs and fraternities and individuals who were strangers, and sometimes enemies, are now woven together in one great fellowship, and all together we stamped out in a few short months what the Kaiser had been building for forty years.

He had the most wonderful machine that was ever built, but it lacked that co-operation of our thousands of little bands that could get together when the time arrived. We are now together and he is sawing wood alone. And still we have discovered that we need even Germany in our great plan of commercial life.

Since foreign nations have been unable to buy our goods on account of credit, we have become overstocked with goods and workers so we see more and more the need of getting together, and just now during the depression we must go through, it needs clear thinking and sound judgment.

Now as we have traveled around the world and have been drawing nearer home to our own family of ice cream manufacturers, and found that when we say "Let's get together," which is "Let us get together," we find who "us" means. It means the human race, but let us think now for a few minutes of the particular people with whom we are vitally interested regarding the manufacture and sale of ice cream.

We have worked backward so far in this paper so we may as well finish that way, and consider the consumer first. He has been educated to eat ice cream by having it forced upon him, but now you have him in the habit, he is going to demand some things of you. You taught him and now you must be taught by him. He was not so particular about his cream until he learned that all was not ice cream that was cold. He soon discovered that some of it was being made in filthy cellars and backrooms, while some was coming from modern, sanitary factories. Now the consumer can not tell by looking at ice cream, or tasting it, what kind of a place it was made in and as he had his own work to attend to, you could not expect him to go from factory to factory on a tour of inspection each time he wanted to eat some. So he did what you are doing in other lines, having your law makers make laws and hiring some good executives to see that they are obeyed. You will find the consumer a mighty good party to get together with. He will do you a lot of good, and pay you a fair price if you give him the kind of service he desires. And why shouldn't you do that? Have you taken into account just who he is? He is not the fellow over in the other part of town, but the consumer of your goods is your best friend, your next door neighbor. Your wife and children and yourself. Don't you think enough of yourself to make the finest ice cream possible, and to use the best and cleanest ingredients that money can buy? Your customer is also the man who milks the cow. He is eating lots of ice cream to-day and he is entitled to the best you can produce in exchange for the best milk he can furnish you. He is entitled to fair pay for what he does. If he should lay down on his job, where would you be? You would have to go back to making some of the old 4th of July cream that always did the maker so much damage that it took him another year to make the people forget it. Now-a-days most manufacturers figure the 4th is a good day to put out mighty good stuff, if for advertising purposes only, and people eat so much then that it is a good plan to start creating an appetite so they will buy regularly. It is not the rush days that make you your money. Your expenses are too high on those days; it is your regular trade that pays you. That is the reason for the week end specials, they help sell regular cream the next week. So much for the consumer.

There is another fellow you must not forget. Having just referred to the pure food officials, they are another very important body of men with whom we should be in close touch at all times. We used to look upon state food of officials and inspectors as an unnecessary evil imposed upon us, but times has changed our viewpoint in that respect. Food officials are our protectors. They are the men who our consumers have hired to look after their interests, but on account of their daily contact with the business they are a very valuable aid to us as they are supposed to know what the consumer wants and to be able to give us ideas on plant equipment as it pertains to sanitation. They are not responsible for the laws, but are just responsible for their enforcement. So if we have laws that we do not think are right or just, it is up to us to get together with these men and try to convince them so they will take the matter direct to the



This "projection" on back prevents tag from slipping out

No Trouble Checking Returned Tubs

WITH

"TAG-BAKS"

1—Not just an appliance for ice cream tubs but a complete, practical working system that accurately checks up tub returns, shipments and orders.

2—Shows just what dealers hold an excess of tubs.

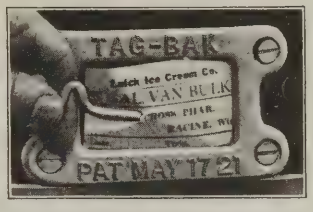
3—Eliminates unnecessary correspondence and telephone calls.

4—Avoids controversies with dealers and holds their trade.

This type for old tubs already equipped with handles



Tags slip in easily



Only a sharp pointed tool deliberately inserted can remove tag



Combination Tag-Bak for new tubs

TAG-BAK

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To Make Better Ice Cream Use "Atlas" Flavors

We Guarantee the High Quality and Purity of "Atlas" Genuine Fruit Extracts, Pure Vanilla Extracts, Vanilla Compounds and Emulsions.

Before placing your next order, let us send you a trial quantity

Manufactured by

H. KOHNSTAMM & CO.

NEW YORK 83-93 Park Place

Established 1851

CHICAGO 11-13 E. Illinois St.

law makers. You will nearly always find these men conscientious and ready to lend a helping hand if you show any inclination to do your part in this little home coming.

The ice cream supply man. You possibly wonder why you should bother much about him, he will come anyway. Don't be too sure you don't need him. He is in a legitimate business and is just another spoke in the wheel of progress. He is not living for just what he can squeeze out of you, but is ever ready to listen to your ideas and suggestions and improve his goods so they will better meet your requirements. He travels continually and brings you more new thoughts and tells you more of what your brothers in business are doing than any man you meet. If it were not for him you would not know whether there were any better supplies than those you had always used or not. There would be no improvement in that line. You may not want his goods, but you owe it to him to treat him with all due respect. It costs you nothing and you might be surprised some time to know how much good came out of it. The closer you keep to him, possibly the better prices you will get, any way, treat him like a gentleman for I think the traveling fraternity has as big a percentage of gentlemen in their midst as any other business on earth. (I ought to be able to buy pretty cheaply this year after saying that, don't you think?)

The business man along the street is another factor in your business you should not neglect. He is your brother in many ways. He can readily understand your problems and is a tremendous power in the community, so you should be very close to him. We used to think his business always sailed along nicely and he had no problems to speak of, but since the war work has made us work by his side, we have learned to know him, and we have been surprised to find that he had some things to do that were harder than we ourselves had.

The Rotary and Kiwanis Clubs are both great institutions to bring the business men together and they are only one more step in this great movement. They exist for service to mankind. Don't forget the little child who wants to look around your plant. If you are too busy to pay much attention to some salesman, to one of your business associates, or one of your rich customers, you had better get busier when some little boy or girl begins to ask questions and proceed to entertain them to the best of your ability, because if you offend or slight them you may as well slight their whole family, and half the school.

The next man in line with whom we must work hand in hand is the retailer. We hear a lot about him just now, but we must remember that he is not the only man who has taken war profits. Now here is a place where we can get in regular "Get Together" work. If we will put our problems up to this man and he will freely tell us his troubles, we might all work to better advantage. I don't mean for you to give him all the equipment he needs to run his place and pay his rent, or buy him a new suit of clothes occasionally, nor do I mean for him to tie himself up to you in such a way that he cannot buy cream of anyone but you. He has the right to buy the kind of goods that suits his trade, but how do you know what kind of goods the trade wants unless you listen to him, and how does he know what he is getting unless he will let you show him. I think if the average retailer knew more about our plant, our source of supply, our manufacturing problems and all of the little troubles we run up against, and we knew more of his, we would eliminate a lot of the petty grievances that arise between us. He would make a greater effort to return our tubs, pay our statement more promptly and get his orders to us on time oftener, and in many ways help to facilitate our service. We, in turn, knowing the demand made upon the retailer, by his particular customers, would be in a better position to help him. Why not have meetings with our retailers and talk such matters over? It would create a friendly feeling and show that we were really interested in him as a man, and not merely as a place to sell our goods. We have been hashing over this question at all our conventions: Is the retailer not charging too much for his cream with the result that it is curtailing its consumption? Now if we could get together with him and thrash out this matter, we might find some remedy. We might be able to convince him that he should cut down on his margins and increase his sales more than enough to make up the difference. If we did nothing more than settle the matter in our own minds, it would be time well spent. We might also convince him that when our price goes down to him, it is time for him to reduce too, unless he could show us some reason for not doing so. We might also prove to some of the shiftless ones that tubs, cans and cabinets cost lots of money, and they should be well taken care of. There are many things in common for us to talk over, and I think we might better our service, reduce our costs, and save a lot of our worries by just getting together.

Now I have arrived at a place where it is absolutely necessary for a "Get together" meeting, whether it is done in a regularly called meeting or only in spirit I will leave with you, but it must be done somehow. It is being done in your plant to a large degree. This I know to be true, or you would not have the plant and the business you enjoy. It is your employes and yourself. It is true you were about discouraged last year trying to get men to work with you but you got through it by changing men until some one did stick with you, and you owe those men something. You paid them their wages and sometimes big ones, but you owe them something besides money. You owe them your lasting friendship and good will, better working conditions, the best possible schools and social conditions, and in fact your continued effort to make their lives as easy and pleasant as possible.

Your ice cream maker and yourself must pull together or your cream will not sell. Your salesman must be in the ring or his efforts will be in vain. What would your maker do if the engineer should run his machinery when and how he pleased? What if your office girl gave the packer an order and he tore it up, or even if he packed it and the delivery man did not care where he took it? You probably do not stop to think that there was so much co-operation in your plant. Your people are not working for your money, they are living this life in the way God intended they should. They are interested in your place. They even say "our factory" when they go home to their family, just as if they were a partner in your business. They are just as necessary to your good ice cream as you are. You may have worked out the plan of your business and the receipt for your goods, but the chances are you did not. Did you not get some good ideas from some one of your employes at some time or other? Did you ever hatch up some pet scheme that you was sure would make you a lot of money and then have some fellow in your factory suggest some reason that it would not work and make you feel foolish because you ever thought of it? Did you ever run a factory absolutely by yourself, with all your own ideas

and get away with it? If you ever did, you are worth a lot more money to some big corporation than you are now earning at your own business. If you thought you had a corner on all the good points of your ice cream or on your factory lay out, go home and forget it, and ask the poorest man you have on the job if he has any suggestions to make and he is liable to make you ashamed of yourself by telling you something you should have thought of long ago. Get together with your employes, if you have not manhood enough in you to do it for the good of civilization, do it to make money, for it will do the trick.

At the close I want to say there is little use for me to talk about getting together with your competitors. That is what we are all here for. Not to fix prices, not to say you shall do this, or that, but to see if we cannot understand one another better; for the very fact that we do know each other better, and realize that the other fellow is a pretty nice square fellow after all, will solve most of our squabbles as we meet in competition. In fact there will be no squabbles to settle, for when we hear from our trade what the other fellow said about us or have it tipped off on the quiet all the wonderful things he is going to do for his, or our trade, we will learn to take it with a grain of salt, and as we go into the new year, let us all **remember** the mistakes **we** made and forget the short coming of our neighbors, and set out to live right and help everyone with whom we come in contact to do likewise.

Ice cream makers of Wisconsin,
Grandest State in all the Union,
At this annual State Convention
We have met to hold communion
With each other on the subject
Of the art of ice cream making,
Each one giving, each one taking.

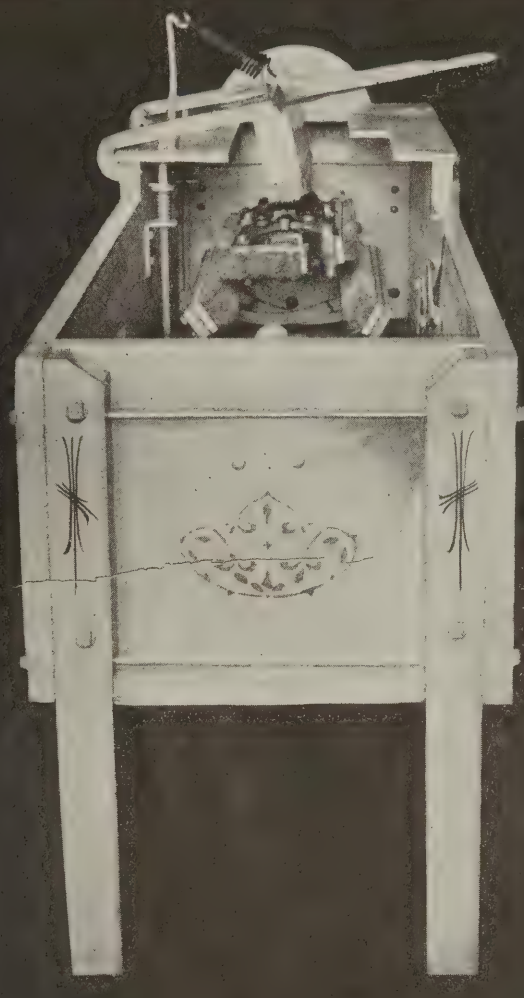
Why not let us get together?
Help in sorrow, share each pleasure
In our work or in our play time;
Live our lives in fullest measure,
Thus create that kindly feeling
That all storms of Life shall weather,
We can make the world more happy
If we'll only get together. E. K. W.

(Great applause.)

Chairman: This ends our program with the exception of our business meeting, which will be held in this room, for members only.

The Badger Flyers are to meet immediately after this meeting in the same room that they met in yesterday afternoon.

Our business meeting is for manufacturers of ice cream only.



STEAMBOAT LINE ADVERTISES BUFFALO CONVENTION.

Our good friend, H. W. Black, of Lakewood, Ohio, sends us an illustrated folder issued by the Cleveland & Buffalo Transit Co., in which they print an appeal to ice cream manufacturers and ice cream supply men to attend the Eastern Regional Exposition in Buffalo, October 31 to November 5.

Mr. Black says: "It isn't bad advertising for the Supply Men's Association, when a first-class transportation line recognizes them to the extent of advertising their convention this way."

REDWOOD provides durable milk plant equipment

What one user says of Redwood tanks

"We have used Redwood tanks and vats for heating buttermilk and skim-milk to a hundred and sixty degrees for ten years. Have two Redwood tanks in use six years condensing exhaust from engines, very often water near boiling."

Changed to Redwood for cheese factory equipment

"When we started in business manufacturing cheese factory equipment, vats, presses, etc., we used ————————. Although we did not have any complaints, outside of its being so heavy to handle, we thought it best to change to Redwood, which we found to be very durable. We have never had a complaint of Redwood rotting, and know of no better wood to use in a business like ours."

Advertises Redwood ice cream cabinets

"Made of Redwood because it is the best non-conductor of heat and resists rot or decay, alkalies, acids and moisture. Keeps ice cream hard. Saves ice," says one refrigerator manufacturer.

Why you should specify REDWOOD

Redwood is light in weight.

It resists the action of acids and alkali solutions.

Properly dried it neither shrinks, warps nor swells.

It is highly resistant to the passage of heat and moisture.

It can be given any finish from a light rose to a dark mahogany.

Holds paint and varnish well.

Write our Chicago office for Booklet 3 Redwood Manufactured Products.

The Pacific Lumber Co. OF ILLINOIS REDWOOD

REG U.S. PAT OFF

2082 McCormick Building, Chicago
New York City, N. Y. Kansas City, Mo.

THE PACIFIC LUMBER CO.
San Francisco, Calif. Los Angeles, Calif.

Export Company
A. F. THANE & CO.
233 Broadway, New York City **311 California Street, San Francisco**

The largest manufacturers and distributors of California Redwood
Members of the California Redwood Association



PROF. BAER'S INQUIRY DEPARTMENT

Dear Sir:—We are getting only about 75 per cent overrun and we want to know why. Is it in our mix, or is it in the machinery? The following is our mix: 14 cans sweet pasteurized cream, 20 per cent; 5 cans No. 0 condensed milk; 2 cans whole milk; 300 pounds sugar; 12 pounds gelatine.

What is the test of the finished product?

Yours truly, H. M. P.

Reply: I have analyzed your ice cream mix as stated and you will find the calculations given below:

Table No. 1.

Ingredients	Fat	Serum Solids	Total Solids
14 cans or			
1148 lbs. 20% cream	229.6	164.47	394.0
5 cans, or			
475 lbs. condensed skim	....	128.25	128.25
2 cans, or			
170 lbs. whole milk 4%	6.8	14.50	21.30
300 lbs. sugar	....	.....	285.00
12 lbs. gelatine	....	.....	11.40
2105 lbs. mix	236.4	307.22	839.95
Per cent	11.2	14.59	39.9

Per cent sugar 14.25.

The table shows that your product will test about 11 per cent butterfat and nearly 40 per cent solids, the per cent of sugar being better than 14 per cent. You are working with a formula containing too high a per cent of total solids to get a satisfactory overrun unless you change the usual routine for handling the mix and running your machinery.

I am afraid that you are also going to have trouble with crystallization of your ice cream mix, due to the use of a large amount of condensed milk. I believe that if you will reduce the amount of sugar to about 13 per cent and reduce the amount of condensed skim milk so that the serum solids will not be over 11 or 12 per cent, you will not have this difficulty with your overrun. Your 40 per cent solids mixed could easily stand better than 100 per cent overrun compared with an ordinary 33 per cent solids mixed.

I suggest that if you are not able to work your formula over according to the suggestions stated above you write to me again and I will assist you in any way I can.

* * *

Dear Sir:—Kindly advise us what is the best coloring to use in ice cream to make it a little more yellow or richer looking. Thanking you, we beg to remain,

Respectfully yours, F. I. C. CO.

Reply: The usual color used to color ice cream is the ordinary cheese coloring, which you can secure from practically any dairy supply house.

* * *

Dear Sir:—Have you any data relative to the proper packing of ice cream, both as to quantity and packing as regards the amount of salt to be used in different size tubs? We are having some complaints about our cream becoming soft and ruined, but upon inspection as it leaves our packing room for shipment, it is perfectly hard. We cannot understand these complaints and are just wondering whether others are having the same trouble or not. Could there be anything in the

To The Man Who Uses Refrigerating Machinery

Here is Something Designed to Help You Cut Out Trouble and Cut Down Overhead

Excessive ammonia pressure is at the root of most of your ice machine ills. The *Monogram* PRESSURE CONTROL shuts down the compressor before pressure even thinks of getting dangerous.

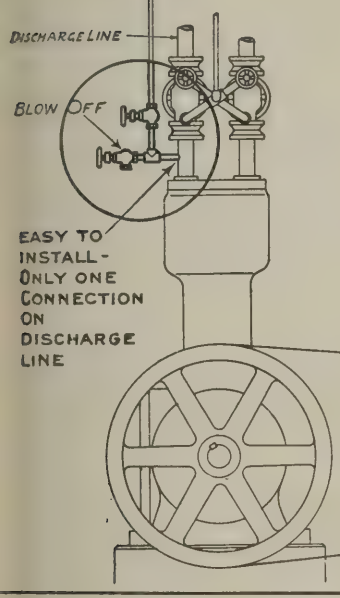
It will eliminate 90% of your refrigerating plant troubles.

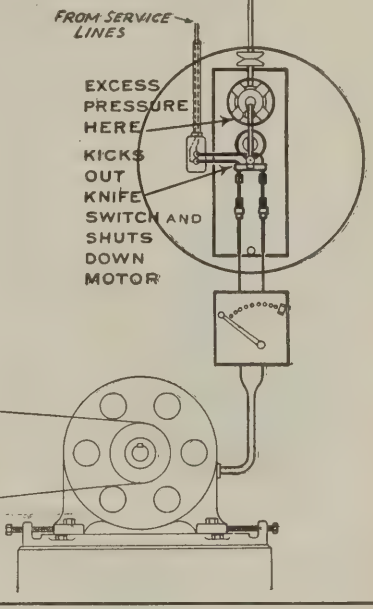
A positive, mechanical, safeguard which is worth more to you than it cost as soon as it is installed.

Manufactured for twelve years.

Sold under an absolute guarantee.

Bulletin 18-3 tells the whole story. It's free. Write for it.





The Refrigerating Specialties Co.

9 S. Clinton St. Chicago, Ill.

ingredients of the cream that would cause it to act in this manner? Very truly yours

C. I. C. CO.

Reply: The trouble which you described regarding the softening of your ice cream when it reaches your dealers is something which I have not run across in my correspondence with hundreds of factories. If the cream leaves your hardening room when it is packed for shipment in a good solid condition there is no reason why it should become soft in shipment if you use the proper method in packing it.

It is possible that your dealers do not take care of the packer when the shipment arrives and expects the cream to stay hard and firm without extra icing and salting. It is also possible that your mix is not quite right, in that you do not use enough filler to keep the cream in good shape under average shipping conditions. I shall be glad to analyze your mix for you in this respect.

* * *

Dear Sir:—We would like to have your opinion regarding the proper temperature for pasteurizing mix composed of butter, whole milk, milk powder, sugar and gelatine; also state at what temperature and pressure should the mix be run through the viscolizer.

Yours truly, C. R.

Reply: The best temperature for pasteurization is 145 degrees and the mix should be held there for at least thirty minutes.

It may then be cooled to 120 degrees before passing through the viscolizer, the constant pressure as heavy as the machine will carry. I do not know what viscolizer you have and cannot give you the exact pressure at which you should operate this machine. You undoubtedly have a set of rules with the machine, or you can write direct to the manufacturer and obtain this information.

* * *

Reply to F. C. B.: I am glad to state that I believe we have in Oklahoma and Kansas an ideal law relative to the legal standards for ice cream. The law in Oklahoma requires that ice cream test at least 10 per cent butterfat and should have a total solid content of 32.5 per cent. The Kansas law is a little more specific and better than ours in providing 10 per cent butter fat and 20 per cent total milk solids. This means that when only 10 per cent butter fat is used additional milk solids must be provided by using condensed milk or milk powder thus giving the same amount of milk solids as a 14 per cent ice cream without additional serum solids.

I suggest that you write to the State Dairy Commissioner, State Board of Agriculture, Oklahoma City, Oklahoma, and to the Dairy Commissioner at Manhattan, Kansas, College of Agriculture, who will be glad to send you some printed matter regarding the laws of Oklahoma and Kansas.

* * *

Dear Sir:—I would like to have you answer me a few questions. What formula or what percentages would you use to make the best ice cream, regardless of cost? We are using about 9 to 9½ per cent fat, 10

The Public Knows Mapleine

Specialize on **Mapleine Ice Cream** and take advantage of Mapleine's popularity as a home flavoring.

Practically every fourth family is a constant user of Mapleine and all good grocers sell it.

Mapleine



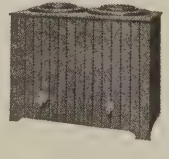
puts into ice cream the flavor of maple itself. It will not freeze out and holds true no matter how long the ice cream is stored.

Call your product **Mapleine Ice Cream** and it will find ready sale with customers who know and appreciate the unsurpassed flavor of Mapleine.

Order of your supply man or write us.

Crescent Manufacturing Co.
SEATTLE WASHINGTON

Cabinets for 1922



It is not too early to study the merits of

Schroeder Perfection Cabinets

The satisfactory service they are giving is their strongest recommendation to you.

Come to the Dairy Show.

"Insulation is the thing"

JOHN SCHROEDER LUMBER CO.

"A Dozen Cabinets or a Dozen Carloads"

WALNUT ST. --- MILWAUKEE, WIS.

to 10½ per cent milk serum, 33 to 33½ total solid We use fresh stock and high price vanilla and frui but somehow we have not been able to create a d mand for our cream. We use Sharples Emulser an run it 16000 revolutions per minute. We age 12 to 2 hours and get about 75 per cent overrun.

I notice you advise about 11 to 12 per cent suga whereas another authority advises 14 to 15 per cen We find that if we increase our serum solids and d crease our sugar we get sandy cream. A. M. B.

Reply: Our experimental work over the period o four years seems to indicate that an ice cream co taining 10 per cent butterfat and about 10 per cen milk serum solids making a total of 33 to 34 per cen solids, makes the most satisfactory ice cream from a points of view. This product is properly balanced fo butterfat and protein and should not contain over 1 per cent sugar. If 14 or 15 per cent sugar is used th product is again over-balanced in carbohydrates, and from the standpoint of a balanced food, coul not be considered as good. You easily realize tha various authorities have different opinions on this sub ject. I believe, however, that my opinion on this ma ter, based on careful experiments made through series of years under actual commercial conditions i probably as near correct as it can be. Further investi gations along this line will undoubtedly bring out som new opinions.

* * *

Dear Sir:—Will you please write and tell us hov to make sherbet in the following flavors: lemon, ba nana, pineapple, strawberry and cherry?

Cordially, S. I. C. CO.

Reply: Sherbet can be divided into three classes first, milk sherbet; second, a water ice, and third, modified sherbet containing some milk. We have ha very fine success with sherbet when proportioned a follows:

Formula No. 1—Milk Sherbet.

57 lbs. sweet skim milk or 52 lbs. water and 5 lbs. of skim milk powder.
18 lbs. sugar.
4 ounces gelatine.

Formula No. 2—Water Ice.

58 lbs. water.
20 lbs. sugar.
6 ounces gelatine.

Formula No. 3—Modified Sherbet.

Half milk and half water instead of skim milk given i Formula No. 1.

These three formulas above suggest the basic mix to which of course must be added the lemon juice and the fruit. One quart of lemon juice and about 100 c.c of a saturated solution of acetic acid is correct to add to the above mixes. This lemon juice and acid as wel as the fruit must not be added until the sherbet is al most frozen in the freezer. For the purpose of making pineapple sherbet or strawberry from one quart to one and one-half quarts of good concentrated crushed frui is added at the same time that the lemon juice is added

In addition to these fruits we use sufficient amount of true fruit flavor to bring out the color of the sher bet made. It is of course necessary to add a little color in making a banana sherbet. The acid and lemon juice must be reduced, as this kind of a sherbet does not want to be as strongly acid. The bananas should be chopped fine and added to the sherbet along with a little banana flavor.

Lemon sherbet will require more pure lemon juice than the other sherbets along with some lemon ex-

ract crush. Many factories do not use any lemon uice, but depend entirely upon the saturated acetic or the acid in the sherbet. This only cheapens the product and is not nearly as satisfactory as the lemon uice.

The most important part of making a sherbet after he mix tests correctly, is to freeze it properly. Perhaps more sherbets are ruined by improper freezing han by just not having them made right. Too much overrun gives a snowy, tasteless product regardless of the mix used. In order to keep the overrun down he mix should have a temperature of about 35 degrees before freezing. A brine should pass through he freezer and be at a temperature of from 0 to 5 degrees. The freezing should be done rather rapidly nd the sherbet frozen quite stiff so as to prevent the ugar, acid and fruit from settling to the bottom of he can.

The hardening room should be at a temperature of to 10 degrees below, so as to harden the sherbet as uickly as possible and kept there until sent out. If he product gets too foamy or the overrun too high t is best to leave it in the freezer and freeze it stiffer o as to get rid of some of the air until the sherbet as a solid, granular appearance.

I shall be glad to hear from you after you have ried out these sherbets.

* * *

Dear Sir:—I am enclosing two formulas of ice ream mixes which we have been using, and kindly equest your criticism of them. The figures used in omputing weights and percentages are taken from Mr. Washburn's tables in the April number of The Review.

We aim to have our mix contain about 12 per cent utterfat. The total solids seem high, so we can probbly cut down on the sugar content somewhat. What overrun could we obtain with these mixes and still btain an A-1 product?

Our plant is located in the country and the cream nd milk used are obtained directly from the producrs, so we find these constituents are the most conenient to use, as well as being the most economical, uality considered. We pasteurize and homogenize ur mix after which it is held in the coolers for 48 to 2 hours before freezing.

Will you please suggest three formulas made of he ingredients we are now using, i. e., cream, milk, nd evaporated milk, but in the proper amounts necesary to contain 10, 12 and 14 per cent butterfat, and aving the correct percentages of serum solids and ugar.

Is there any method which one who is not a chemst may use to determine the serum solids contained n a mix, other than by use of apparatus made especialy for this purpose.

Our plant is putting out from 250 to 400 gallons daily at present using two Miller horizontal 40 quart freezers. What is an average hourly output for a freezer of this type? Yours very truly, E. G. R.

Reply: I have analyzed your two mixes and you will find my figures given below in Tables No. 1 and 2. You will note that the total solids of both of these mixes are a little high, which is due to a high per ent of sugar. When ice cream tests 12 per cent butterfat or over it is hardly necessary to use more than he 12 per cent sugar. I prefer to recommend making ice cream with less sugar and a little more milk erum solids.



STYLE No. 4

Reliability

Reliability is the foundation of the success and prestige of Grand Rapids Cabinets.

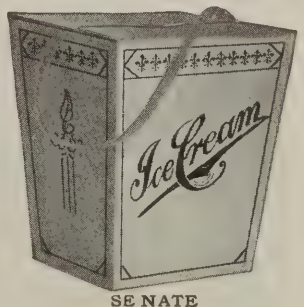
An unswerving devotion to high manufacturing standards has won and held a reputation for reliability for Grand Rapids Ice Cream Cabinets.

Avoid experiments with ice cream cabinets of obscure origin and little reputation. A Grand Rapids Ice Cream Cabinet is a known quantity with a long record of efficient service.

Grand Rapids Cabinet Co.

Successors to CHOCOLATE COOLER CO.
GRAND RAPIDS, MICH.
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33 So. Charles St., Baltimore, M. D. 1106 Arch St., Philadelphia, Pa.
North Western Sales Office and Warehouse, A. C. BLACK
515 Lumber Exchange Building, Minneapolis, Minn.

ICE CREAM PACKAGES of DISTINCTION



MANUFACTURED BY SENATE

Ferguson-Lander Mfg. Co.

1733-1737 W. Austin Avenue
CHICAGO



PAILS in Three Styles
SENATE—EASY CLOSING
JACK FROST
Tape and wire handles

BRICK BOXES
in all styles
Plain or Paraffined

This
"CHICAGO" CAN LINER
has many features you should investigate
Send for samples and prices



THE TEXAS BARREL COMPANY manufactures the most durable Ice Cream Tub on the market. Sizes in half gallon and up.

Our 29 inch five gallon tub prevents cream from melting at the top. A cream saver.

Specially prepared bottom so constructed as to withstand extremely rough treatment.

CABINET TUBS SPECIALTY

Can make immediate delivery—Write for prices

Texas Barrel Company

HOUSTON, TEXAS



An Unusual Service

Quality: Every one to whom we have shipped re-tinned and re-built cans, etc., come back with more business, stating we do exactly the kind of work they have always wanted.

Promptness: Customers tell us we make prompter shipments than any other concern—quick delivery is a special feature with us,

Dependability: You will experience, when having "MANITOWOC" on the job, a dependable re-tinning and re-building service that covers every detail, assuring you absolute satisfaction.

Satisfaction Guaranteed

Our guarantee to you is backed by the most modern re-tinning and re-building plant in the country—by the most expert workmen—careful selection of material and rigid inspection and by an organization of high standing with the Dairy Industry.

"Quality First and Always" Is Our Motto

MANITOWOC PLATING WORKS

Electro Platers, Tin Platers and Galvanizers
Tinning a Specialty

MANITOWOC - - WISCONSIN

Table No. 1. Your Mix No. 2.

Ingredients	Fat	Serum Solids	Total Solids
587.1 lbs. cream, 25%...	146.7	39.19	185.89
386.4 lbs. milk, 40%....	15.5	33.02	48.52
311.25 lbs. evap. milk....	27.1	62.25	89.35
7.50 lbs. gelatine	....	.....	7.12
224.0 lbs. sugar	....	.....	212.80
1516.25 lbs.	189.3	134.46	543.68
Per cent	12.4	8.80	35.80

Table No. 2.. Your Mix No. 1.

Ingredients	Fat	Serum Solids	Total Solids
672.0 lbs. cream, 25%....	168.0	44.86	212.86..
300.0 lbs. milk, 40%....	12.0	25.64	37.64
311.25 lbs. evap. milk...	27.1	62.25	89.35
7.5 lbs. gelatine	....	.....	7.12
224.0 lbs. sugar	....	.....	212.80
1514.75 lbs.	201.10	132.75	559.77
Per cent	13.77	8.70	36.80

You could very easily improve your mix No. 1 by reducing the sugar to 13 per cent and increasing the serum solids to 9.5 per cent. Similarly your mix No. 2 could, in my opinion, be improved by using less sugar and more serum solids. I would hardly recommend using larger amounts of evaporated milk in your case but rather to use skim milk powder.

I am returning your own analysis of your mix No. 1 and 2 and you will notice I have indicated a correction in your total solids of the cream in your mix No. 1. I am also giving below, under tables Nos. A. B and C, three suggestions for 10, 12 and 14 per cent mixes:

Mix No. A—10% Fat.

Ingredients	Fat	Serum Solids	Total Solids
14.0 lbs. sugar	....	.....	13.30
1.0 lb. gelatine and flavor 12 oz. gelatine.	....	.....	.75
20.0 lbs. evap, milk, 8% fat	1.74	4.00	5.74
27.0 lbs. 25% cream....	6.75	1.80	8.55
38.0 lbs. 4% milk.....	1.52	3.26	4.78
100.0 lbs.	10.01	9.06	33.12

Mix No. B—12% Fat.

Ingredients	Fat	Serum Solids	Total Solids
13.0 lbs. sugar	....	.....	12.35
1.0 lb. gelatine and flavor	....	.....	.75
20.0 lbs. evap. milk, 87%	1.74	4.0	5.74
36.0 lbs. 25% cream.....	9.00	2.41	11.41
30.0 lbs. 4% milk.....	1.20	2.57	3.77
100.0 lbs.	11.94	8.98	34.02

Mix No. C—14% Fat.

Ingredients	Fat	Serum Solids	Total Solids
12.0 lbs. sugar	....	.....	11.40
1.0 lb. gelatine and flavor	....	.....	.75
20.0 lbs. evap. milk.....	1.74	4.00	5.74
46.0 lbs. 25% cream.....	11.50	3.07	14.57
21.1 lbs. 4% milk.....	.84	1.80	2.64
100.0 lbs.	14.08	8.87	35.10

Regarding the method of determining the serum solids in a mix no simple test can be used for making this determination. The Mojonnier Tester and the ordinary apparatus for butter moisture tests determines only the total solids. The serium solids may be calculated differently. For instance, if the mix contains 10 per cent butterfat, 12 per cent sugar and 1 per cent gelatine, and as a total solids of 34 per cent, the serum solids would be the difference between 24 and the total of the butterfat, sugar and corresponding solids or in this case it would be 11 per cent.

Dear Sir:—I am a subscriber to The Review, and I see you are willing to co-operate. I am trying to make an ice cream with the proper ratio between butterfat and solids not fat. In figuring my solids, I use gum and sugar as total solids, skim milk powder as .98 per cent solid, skim milk as .09 solids. The following is my formula:

	B. Fat	S. N. F.	T. S.
.5 lb. vanilla	....	.....	.....
.5 lb. gum	....	.....	.50
13.0 lbs. sugar	....	.....	13.00
1.0 lb. skim milk powder.	....	.98	.98
85.0 lbs. 16.5% cream....	14.025	6.387	20.412
	14.025	7.37	34.89

My fat costs me .42 cents per pound and skim milk powder .19 cents per pound. Can you suggest a change in my formula that will make as good a cream for less money, of a better cream for the same money? I would rather make it better than cheaper. I see that some makers of ice cream pasteurize their mix. How long should a mix stand after pasteurizing before it should be frozen? What is gained by pasteurizing? In making my mix I use raw sweet cream, emulsion, and raw milk. What might I gain if I pasteurized my mix and held it for thirty-six or forty-eight hours at a temperature of thity-five to forty degrees? Yours truly, W. C. F.

Reply: I have looked over your formula and there is nothing wrong with the calculations, as you have made them, except in one instance, where you stated that you figured skim milk .09 per cent solids. I presume, however, that you are doing this right and use 9 per cent solids.

I notice that you are using 14 per cent butterfat, while your state law only required 8 per cent. I presume that most of you competitors are using 8 per cent fat. I suggest that if you decide to cut the per cent of butterfat you add one pound of skim milk powder for every pound of butterfat you reduce. I believe you would have a much better balanced ice cream if you used 10 per cent butterfat and 10 per cent milk serum solids which would make a total of 20 per cent milk solids.

Pasteurization of the ice cream mix is a very essential part of processing an ice cream mix. It is necessary from the standpoint of health, and also enables the ice cream factory to control the freezing, overrun, and the physical make-up of the ice cream. When an ice cream mix is pasteurized, heating to 145 degrees and holding it at that temperature for thirty minutes it is necessary to cool the mix and then hold it to a temperature of 40 to 45 degrees for at least twenty-four hours before freezing. Many factories hold it forty-eight hours, which is better if you have the storage room for doing this.

I shall be very glad to hear from you again as to what results you get in case you decide to change your system of handling your mix.

MEET us at the National Dairy Show, Minnesota State Fair Grounds (Twin Cities) October 8 to 15, 1921

Nafis Automatic Acidity Test

For Testing the Acidity of Ice Cream Mix, Milk, Cream or Whey

ACCURATE CONVENIENT SIMPLE

for Ice Cream Plants, Cream Grading, Creameries, Cheese Factories, Condensing Plants and Dairy Schools.

Our INDICATOR and NEUTRALIZER are put up in convenient form and can be sent by parcel post for a few cents.

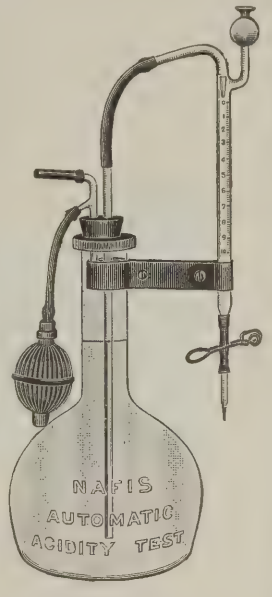
Our CONCENTRATED NEUTRALIZER is prepared in our laboratory with the same degree of accuracy that characterizes NAFIS GLASSWARE. The small bottle is sufficient to make a half gallon of solution, thus avoiding transportation charges on large bottles and water.

Complete test includes one bottle of each solution.

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Manufacturers of Scientific Glass Apparatus for Testing Milk and Its Products.
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Visit Our Exhibit at the National Dairy Show.

Announcement

SWEET BUTTER
FOR
HOMOGENIZING

We have established an eastern agency for some of the best Western Creameries who specialize in unsalted butter for ice cream purposes.

We always have it on hand ready for prompt shipment, or can ship you car lots direct from the Creameries we represent.

For regular quotations please mail us your business card.

THOMAS J. MAY CO.
6 HARRISON STREET
NEW YORK

Tell Your Friends and Neighbors You Are Going To The WORLD'S GREATEST DAIRY SHOW, MINNESOTA STATE FAIR GROUNDS, October 8-15

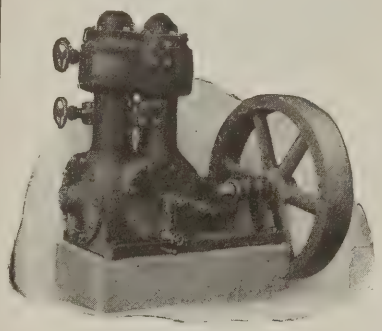
Do ONE THING Well

That's the "York" Maxim

We are Refrigeration Specialists—not Jacks of all Trades.

Why not consult us about your problems?

The experience of over 13000 users is yours for the asking.



YORK

The

Ultimate Ice Machine

Westerlin & Campbell Company

CHICAGO, ILL.

J. G. HAMMERSCHLAG, *Wisconsin Manager*

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Cork Insulation

Indispensable for the economic operation of the

Ice Cream Plant

and the preservation of its

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THE FEDERAL ASBESTOS CO., Milwaukee, Wis.

Mention The Ice Cream Review

NATIONAL ORDER OF WHITE CAPS





Address all communications to
W. W. WREN
Secretary
Fort Worth, Texas

BRICK ICE CREAM FOR SALE HERE!

This advertisement appears in many grocery stores in the state of Wisconsin, and while the idea of selling ice cream through grocers may not be new, nevertheless, it is not practiced around the haunts of the "Jack Rabbit" and "White Caps", and to these valued exponents of good ideas I invite attention:

Doesn't this suggest an opportunity to help increase the business of our customers? Don't you believe that wider distribution means more "boosters" and more ice cream sales? Isn't it logical to think of ice cream—a food—being sold in food stores?

Who is in better position than the grocer to impress upon the housewife that ice cream is a food, and to suggest it as such for dessert, when soliciting her grocery order?

I believe the wide-awake groceryman would welcome the opportunity to handle a quick selling, profitable article, such as ice cream, and if it is brought to the attention of the ice cream manufacturer I'm sure they can make capital of it.

Let's mention it to them!

Another idea was suggested in a recent editorial in The Ice Cream Review. The writer was criticising the soft ice cream as served in a Milwaukee cafeteria, and wondered why the proprietor did not serve individual slices put up in boxes made expressly for that purpose.

All the cafeteria man needed was someone to tell him of this method and say that nearly every ice cream man would gladly furnish him ice cream put up in neat packages all ready to serve. He probably would have quickly made the change.

There are many cafeterias to which this idea would appeal, and as long as we have dedicated ourselves to be boosters for ice cream, why not mention it at our next meal? (I realize that there are few "peddlers" who eat in cafeterias while travelling on an expense account, but they may do so occasionally, while in their home city.)

Ask for ice cream every place you eat, and if it is not served except for Sunday dinners, as in some places, ask the proprietor if he knows that nearly all his guests are now in the habit of eating ice cream every day, and not only on Sundays and holidays as in "days gone by."

Before closing I will relate a conversation witnessed between Mr. Johns, of the M B Ise Kream Company of Waco, and "Old Reliable" (?) a negro "utility man."

It seems that the negro had been told to do something and had reported that it had been done. It developed later that he was not telling the truth and Mr. Johns called him to task.

Mr. Johns: "Reliable, why did you tell me while out in the engine room that you had finished that job? You know you were lying."

Reliable: "Well sah, Mistah Johns, those machin-

ery was makin' so much noise I jus' couldn't hear what ah was sayin'. Yessah, Mistah Johns, Yessah, I'm on mah way right now."

If you do not believe this, ask Fred Peale.

KARL R. ZIMMER.



FRIDAY NIGHT.

There's a lot of things about this world
That I'd change over night,
If they'd give me the job and say,
"Now fix her so she's right."
I'd shanghai crabby buyers,
And I'd burn the bum hotels—
I'd raise my salary every day
And I'd live high, like the "swells".

I'd make my trips in Packards—
I'd wear diamonds night and day.
There aren't many things I'd let alone
If they'd let me have my way.
There's just one thing I wouldn't touch
There's one thing they made right
They did a good job—that's no kid—
When they gave us Friday night.

On Friday night I hit the grit
And end my weekly roam—
The 8:10 out of Logansport
Takes me back to the kids and home.
I'd "can" the 8:10 crew and all—
I'd tell the "con" to fly his kite
But I'd keep the same old calendar
And thank the Lord for Friday night.

—The Salt Seller.



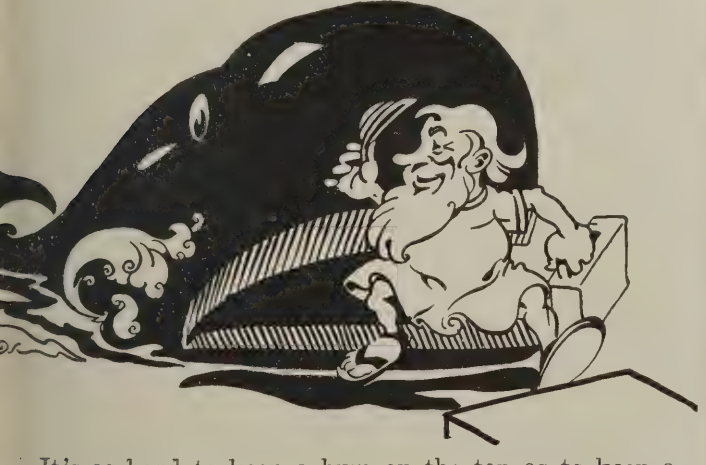
JONAH SAID, "I'M OFF YOU FOR LIFE, YOU POOR FISH."

You can't keep a good man down.

Jonah and a jelly-fish found themselves in the basement of a whale.

Jonah took the first elevator going up—the jelly-fish stayed there.

That's a common story.



It's as hard to keep a bum on the top as to keep a good man down.

Everybody has a back-bone with his head at one end, and at the other—a place to sit down.

Some guys use one end most—some use the other.

Anybody can tell which end the guy uses by his pay check—heads he wins, tails he loses.—From an "Every Store" folder issued by the Ivan B. Nordhem Co., N. Y.

MAGNETIZE ICE CREAM

With a Mysterious, Alluring, Delightfully Tempting Flavor and Fruity Taste that will draw customers as a magnet draws steel.

"What is it?" "Isn't it fine!" Yes, these and similar exclamations you will invariably hear, yet so supremely delicious is it customers always insist on more.

That's the kind of flavor and fruity taste you'll get by adding to your ice cream.

Blanke-Baer Honey Fruit Salad

Think what it would mean to you to ask thousands of customers their first choice of fruit, and flavors, and then offer those same customers a combination of a dozen or more of those first choice fruits and flavors, made into a **Supremely Delicious Ice Cream.**

That's Honey Fruit Salad—that's the tempting flavor and fruity taste that'll win customers and hold them—that'll overcome selling difficulties and gladden your heart.

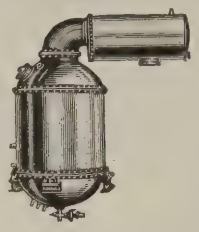
Put up in gallon cans, 10 gal. kegs, ½ bbls. and bbls.

Don't lose time or wait for sample. Order TODAY a case (6 gal. cans) of this heavenly mixture. You'll be surprised at wonderful results and low cost.

Blanke-Baer Extract & Preserving Co.
3230 South Kings Highway
ST. LOUIS, MO.

Condensary and Dairy Equipment Manufacturers Since 1878

Vacuum Pans any Size to meet your requirements.



Jacketed and Plain Hot Wells

Jacketed and Plain Kettles.

Rusted Milk and Ice Cream Cans retinned and repaired. Can life renewed with a heavy plating of Straits Tin.

All Types of Ice Cream Freezers Repaired.

Our Steel Department fabricates specially designed or standard Tanks, Truck Bodies and Tanks and Smoke Stacks any size.

Inquiries invited

ALOIS, AUFRICHTIG COPPER & SHEET IRON MFG. CO.

Service—Efficiency—Economy

Third & Lombard Sts. St. Louis, Mo.

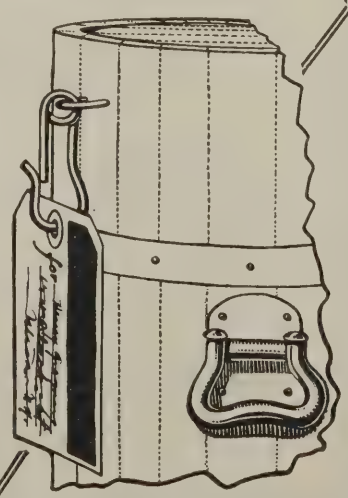
TAG HOOKS
Save Dollars

Why use expensive, untidy, time-losing strings or wires while tagging your tubs or pails of ice cream?

SNAP 'EM ON

and use our rust-proof tag hooks.

SAVE TIME—Figure the cost of strings or wires. Then think of the value of a man's time while tying the tags on your tubs.



CAN'T RUST

Our new type of hooks are made of SPECIAL SPRING BRASS. They sell at $1 95 per hundred, including staples. Besides a 10 per cent discount in lots of a thousand or more. Samples on request.

DALY BROS.

SCHENECTADY N. Y.

WASHINGTON—MAINE

News From Far and Near

CALIFORNIA—FLORIDA

Roanoke, Ala.—An ice cream factory has been added to the bottling plant of G. T. Anglin of Roanoke.

Mobile, Ala.—The installation of a complete ice cream plant on South Francis and Royal Streets has just been completed by Messrs. Albright and Wood. H. C. Hollister is in charge.

Osceola, Ia.—Fred Davis will open a creamery and ice cream factory here.

Aledo, Ill.—The Zales S. McGinnis Co. has been taken over by Clyde Sinclair, manager of the Sinclair Co. of Galesbulg, Ill., manufacturers of ice cream.

Decatur, Ill.—The American Ice Cream Co. is planning the erection of a new building for an ice cream plant.

Gibson City, Ill.—L. Frith has leased half of the Nobel Bros. seed warehouse on State St. and will start an ice cream factory. The new concern is known as the Frith Ice Cream Co.

Kokomo. Ind.—The Quality Ice Cream Co. has established a plant at 111 East Madison St. Its officers are: E. C. Rowe, president; W. H. Coughlin, vice president; G. A. Brown, secretary-treasurer, and H. Heady, general manager. The company purchased the business and good will of the Grocers Dairy Products Co. Plans are under way to double the size of the plant.

Belmar, N. J.—The Hildebrecht Ice Cream Co., has just completed the erection of a service station adjoining the Casino Ice Company plant.

Camden, N. J.—The Crescent Ice Cream Company, 507-9-11 Main St., has been incorporated at $125,000, by Emmons G. Elzey, Horace G. Elzey and Frank W. Elzey of Camden, and has taken over the business of the Excelsior Ice Cream Co., 507 Main St. The Manufacturing Distributing Company 314 Market Street, has been incorporated at $125,000 to manufacture confectionery and ice cream.

Coffeyville, Kans.—Under an order issued by Referee in Bankruptcy, C. E. Cory, at Fort Scott, a dividend of ten per cent will be paid all creditors of Brooks Ice Cream and Creamery Co., which applied for a receivership here last October. November fourth was fixed as date for closing up estate.

Shreveport, La.—The organization of an extensive dairy, creamery and ice cream business is in progress by the Northeastern Louisiana Milk and Cream Co. comprised of West Carrol and Richland county farmers and business men, and a few farmers of the northeastern part of Ouachita county.

Holland, Mich.—Announcement is made of the purchase, on July 8th, by the Arctic Ice Cream Co., of Detroit, of the Wagnaar-Hamm Cream Co., Ninth St., this city.

Lansing, Mich.—Hunter Dairy Co. have gone into the ice cream manufacturing business.

Minneapolis, Minn.—A plan to erect a building this fall for the manufacture of ice cream to supply the retail druggists of Minneapolis for their retail trade, is under way, according to George A. Ball, proprietor of the Ball Pharmacy Co. ,1942 Hennepin Ave.

Vicksburg, Miss.—S. N. Sutton of the National Ice Cream Co., announces that he will install an ice making refrigeration plant this fall.

Kansas City, Mo.—Plant of the Excelsior Ice Cream Cone Co. burned down July 4.

Kansas City, Mo.—The Peerless Ice Cream Co. has opened up a new factory at 319-21-23-25 East 31st St.

Mexico, Mo.—Hassen Bros., of Mexico, have completed plans for the erection of an up-to-date creamery and ice cream factory on lot across street from Orpheum Theater. Plant is capable of manufacturing 500 gallons of ice cream daily.

Springfield, Mo.—A $250,000 creamery will be established in Springfield by members of the Southwest Missouri farm clubs.

Sedalia, Mo.—The Tullis Ice Cream company filed articles of association in the county recorder's office recently. Capital $200,000. W. V. Tullis, J. W. Bagby, and M. Hall, incorporators.

Excelsior Springs, Mo.—Arthur Vail, who has been employed by the Excelsior Springs Ice Cream and Milk Co., has taken over the milk business of the concern and will be in charge of same from this date.

St. Louis, Mo.—Grafeman McIntosh Ice Cream Co., chartered with capital stock of $10,000. E. D. Ruth, Jr., 102 N. 8th St., St. Louis, Mo., is interested.

Bryan, O.—Essi and Khourig have installed a York refrigerating machine in their ice cream plant.

Coshocton, O.—The Supreme Ice Cream Co. will build a new cement block building 50x75 feet, two stories, for their ice cream plant, and will then add new equipment consisting of viscolizer or homogenizer, pasteurizer, ten-ton refrigerating outfit and other necessary outfit.

Coshocton, O.—Connor Bros. Ic eCream Co. will make some improvements in their plant for next season.

Defiance, O.—The Defiance Ice Cream Co. reports that their ice cream business is so large that they will be obliged to enlarge their cold storage room and add more space to their plant to take care of their business next season.

Findlay, O.—The Findlay Dairy Co. is reported as doing a fine ice cream business. Sam Gill from Toledo, O., has taken the management of their ice cream department and he knows how to make the cream that can please the public.

Galion, O.—Paul Wilson has opened up a new ice cream plant and is reported as doing fine. In the fall he will move into his own building and will then install refrigeration machine and storage room. Mr. Hubely is the ice cream maker. The local boys are all glad to know that Mr. Hubley is back in the business at Galion.

Loudonville, O.—Wm. Gretzinger, of Loudonville, O., has put in an ice cream plant and also a refrigeration outfit.

Massillon, O.—Davis Bros. have built a new concrete building for their ice cream business.

Newark, O.—J. V. Mast has added a new ice cream freezer and enlarged his cold storage room in his ice cream plant.

Muskogee, Okla.—Muskogee Ice Cream Co. chartered with capital of $50,000 by C. P. Gotwals, C. E. Shannon, Mrs. L. F. Austin.

Pawhuska, Okla.—Pawhuska's new $10,000 ice cream plant has opened for business. It has capacity of 400 gallons. The owners are W. M. Gibson and W. D. Lamb of Wagoner.

Ord, Nebr.—Lester Bly is making preparations to start a new ice cream factory at Ord.

Connellsville, Pa.—The Yough Crystal ice plant has been purchased by F. C. Rose and A. L. Rose, owners of the Rose Ice Cream Co. They will convert it into a modern ice cream plant.

Charleroi, Pa.—The Wagner Ice Cream Co., is planning on building an ice plant this fall, according to announcement by one of the officers.

Glenside, Pa.—The Penn Ice Cream Co., a newly organized concern has just entered the field here. The proprietor are Messrs. Justice and Hardy.

Lancaster—The Lancaster Sanitary Milk Co. are making a large extension to their present plant. Additional property has been acquired and the McCormick Co., Inc., are planning a three-story reinforced concrete building that will contain the ice cream plant proper, power plant and ice manufacturing department, all separate from their present building.

Philadelphia, Pa.—The Colonial Ice Cream Company has purchased the plant of the Scott-Powell Company, 48th street and Westminster Avenue.

Scranton, Pa.—Smith & Clark Co., receiving bids for the construction of their new three-story and basement, 60x100-ft. ice cream plant, to be located at Wyoming & Poplar streets. Plans prepared by the McCormick Co., Inc., Pittsburgh and New York City.

Stroudsburg, Pa.—Taylor & Dreher, ice cream manufacturers, it is reported, will build a new plant this fall.

Wilkes-Barre, Pa.—M. F. Fadden & Sons, Inc., Scranton, Pa., will abandon the present sub-station at Wilkes-Barre and erect a new ice cream plant at Kingston, Pa., across the river from Scranton. The building as planned by the McCormick Co., Inc., will be 60x90 feet, two stories and half basement, located at Wyoming Ave. and Lehigh Valley railroad.

Memphis, Tenn.—The Dixie Ice Cream Company, with a capitalization of $100,000 has been organized by Wm. P. Metcalf, a Memphis attorney. The company announces plans for erecting a modern ice cream and dairy products plant at Union Avenue and the Southern Railway tracks, to have a capacity of 500,000 gallons annually.

Houston, Tex. — The United Food Products Co., 307 Washington Ave., has just lately engaged in the manufacture of rice ice cream.

Terrell, Tex.—The Frick Ice Cream Co. of Corsicana, is opening a branch plant at Terrell. It will be in charge of R. H. Bennett of Ada, Okla.

Fairmont, W. Va.—A certificate of incorporation of the Robinson Ice Cream Co., has been filed with the secretary of state. The capital stock is $10,000 and the incorporators are: Frank R. Braham, F. Braham, H. J. Ross, W. J. Boydston and Charles Holland.

IT ALWAYS PAYS To Retin Milk and Ice Cream Cans

There is no need of repeating about the excellence of our work and service.

Twelve years of experience and the best equipped tin-plating plant, assures quality and service.

Write for new price list

Alois Aufrichtig Copper & Sheet Iron Mfg. Co.

Third & Lombard Sts. St. Louis, Mo.

True Fruit Extracts

FAMOUS BRAND QUALITY

POSSESSING the true, fine and delicate aroma of fresh fruit Practicable for all flavoring purposes —especially fine for chocolate creams, jelly work, fountain syrups, ice creams, frappes, ices, soft drinks. carbonated and uncarbonated beverages, etc.

FINISHED PRODUCTS CAN BE LABELLED AND CALLED TRUE FRUIT

STRAWBERRY
RASPBERRY
BLACKBERRY
PINEAPPLE
PEACH
CURRANT
APRICOT
CHERRY
GRAPE
LOGANBERRY

$8.00 per gallon

$1.25 per pint

DISCOUNT ON 6 GAL. CASES ONE KIND OR ASSORTED

Manufactured by

Downey-Turnquist & Co.

Manufacturing Chemists and Importers

537 No. Dearborn St. CHICAGO, ILL.

BACK THEIR FAITH BY THEIR DEEDS.

No one who witnessed the great exhibit staged by The Creamery Package Mfg. Company at the 1920 National Dairy Show can doubt that that company is a firm believer in the value of the show to the dairy industry. This faith is emphasized when they take all the space the show management would allot them for the 1921 show—a space comprising some 5544 sq. ft.

The company announces that their 1921 exhibit will surpass all of their previous exhibits as regards beautiful appearance, variety of machines exhibited and assortment of new equipment which will make its first appearance at the 1921 Show.

The extra efforts which The Creamery Package Mfg. Company will extend for the 1921 National Dairy Show are inspired by the confidence they have that the forthcoming show is going to be the most wonderful exposition the dairy industry has thus far staged. The great Northwest is unquestionably a huge new Empire of Dairyland; the businessmen of the Northwest are behind the show to a man and will undoubtedly give visitors the time of their lives, and the many conventions to be held during the show by dairy interests, as well as the varied attractions of the show itself will certainly result in the greatest attendance that the National Dairy Show has thus far secured.

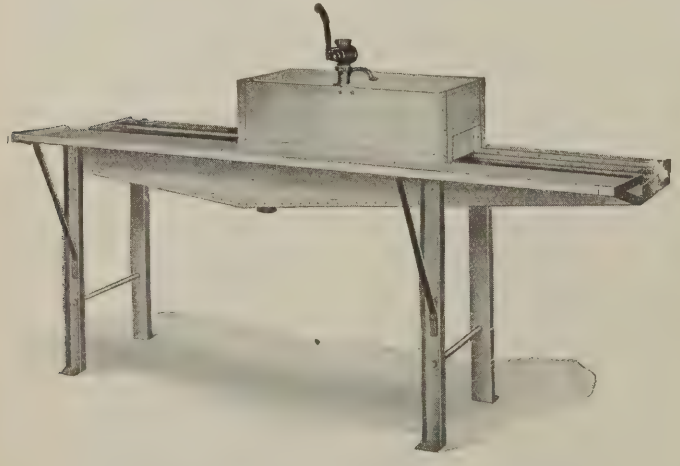


The Large Creamery Package Exhibit at the 1920 National Dairy Show.

A NEW MACHINE AT THE DAIRY SHOW.

One of the latest machines on the market for the ice cream manufacturer is The Luick Ice Cream Brick Mold Releaser, manufactured by The Creamery Package Mfg. Company. This machine was designed by a leading ice cream manufacturer to handle ice cream bricks in a more sanitary manner and to deliver a brick from the mold in better shape.

No power is required to operate The Luick Ice Cream Brick Mold Releaser. The use of this machine avoids the necessity of dipping molds in tanks or tubs of water which soon become dirty and insanitary. The Releaser delivers the brick from the mold in a solid brick instead of one that is soft and mushy on the sides.



The Luick Ice Cream Brick Mold Releaser.

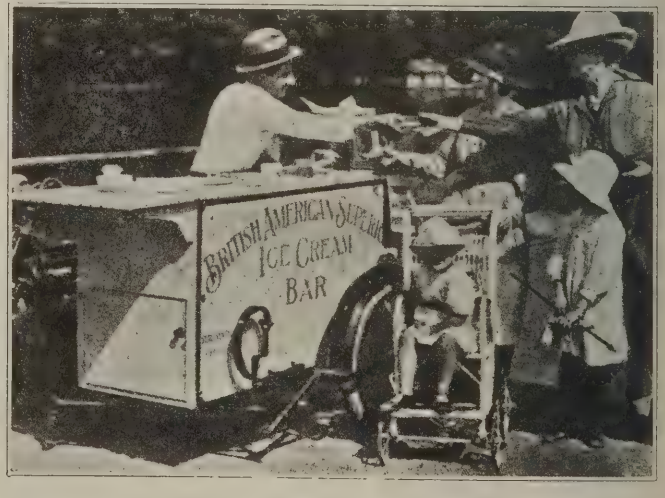
The Luick Ice Cream Brick Mold Releaser is built entirely of metal and is heavily galvanized. It is simple in construction. It has a catch pan which can be connected to floor drain or sewer, also has steel workshelf with space on each end for draining the molds after thhe brick is removed. Nothing to get out of order and will last indefinitely.

The mold is placed in the machine and first receives a spray of cold, clear, fresh water which thoroughly washes off the dirt from the outside of the mold. Then every part of the mold is sprayed with hot water. The operator simply turns a quick-operating whistle valve for one or two seconds prior to releasing the brick. The machine can either be connected to hot and cold water supply respectively or to steam and hot water connections.

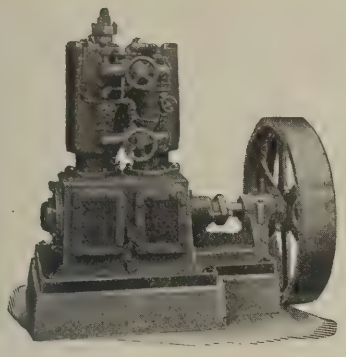
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MEETING AN URGENT DEMAND.

The hot dry weather which England has been experiencing has been more than welcome to the vendors



of ice cream. Here is one of the trade who has risen to the occasion by mounting his stall on a motor-cycle side-car. He is to be seen at a popular Thames resort. —Clipped from London Times.

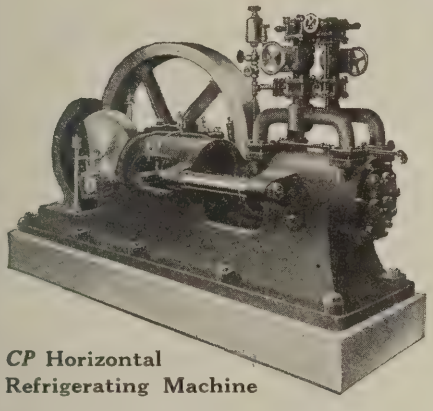


CP Vertical
Refrigerating Machine

Pays for Itself in 3 Years

Then Pays Dividends!

ALTHOUGH the greatest benefits that accrue from a ***CP*** Refrigerating System to its owner are the freedom from dependence on the ice man, the convenience of the system, the steady, dry temperature and the cleanliness of the ***CP*** System, it is a fact that will be vouched for by any owner of a ***CP*** System, that the savings it effects by eliminating the ice bill alone will pay completely for the outfit in three years or less. From that time on your expenses for refrigeration will be the smallest single expense you have.

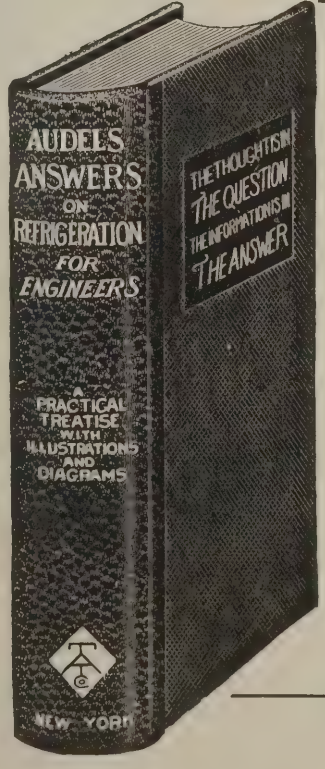


CP Horizontal
Refrigerating Machine

CP Refrigerating Systems are made Vertical or Horizontal as desired in a complete variety of sizes ranging from 3-4 ton up. ***CP*** Refrigeration machines have several features which make them peculiarly well suited to the refrigeration of dairy products which are fully explained in booklet, "The Story of Refrigeration." Its yours for the asking. Send for it.

The Creamery Package Mfg. Company

Chicago, 61-67 W. Kinzie Street
Buffalo, N. Y., 133-137 E. Swan Street
Kansas City, Mo., 1408-10 W. 12th St.
Minneapolis, 318-20 Third St. N.
Omaha, 113-15-17 S. Tenth Street
Philadelphia, 1907 Market Street
Portland, Ore., 6 & 8 N. Front St.
San Francisco, 699 Battery Street
Toledo, Ohio, 119 St. Clair Street
Waterloo, Ia., 406-8 Sycamore St.



GET THIS

Expert Refrigeration Knowledge

for $2.00

AUDELS ANSWERS ON REFRIGERATION will tell you in plain language all about the theory, construction, care and operation of an ice or refrigerating plant of any type or capacity.

It is a complete analysis of the subjects; an easy guide for study; a ready reference.

The subjects are arranged in the convenient form of "Answers," thus giving in plain language information for successfully and economically operating a plant.

It gives the latest improvements in established applications on refrigeration; the practical handling of the machines and apparatus together with useful and valuable data regarding the manufacture of ice; and the preservation of food products.

The 250 illustrations and descriptive diagrams (of which nearly 100 are full page) are explicit, and a valuable aid to a full comprehension of the science of refrigeration; contains 700 pages, durably bound in half leather, delivered to any address, PRICE..... **$2.00**

OLSEN PUBLISHING COMPANY
210 Sycamore Street
MILWAUKEE WISCONSIN

Monthly Powdered Milk Market Report for August, 1921

By Bureau of Markets and Crop Estimates, United States Department of Agriculture.
Prices Paid for Raw Material Delivered During August, 1921, F. O. B. Factory.

Geographic Sections	Whole Milk			Buttermilk per gallon	Skimmilk per cwt
	Price per CWT	Butterfat Basis	Allowance 0.1 p. c. fat		
New England	1.57	3.5	4.0	...	...
Middle Atlantic	1.65—1.90	3.5	3—5	...	...
South Atlantic	....	...	...	...	...
E. North Central	1.40—1.75	3.5	4—4.5	...	.25
W. North Central	1.80—2.30	3.5	3.0	½—4-5	.20
South Central	....	...	...	...	...
Northwestern	1.43	3.5	4.0	...	...
Southwestern	1.58—1.85	3.5—4.0	...	...	...

Manufacturers' Wholesale Selling Prices during August.

The wholesale prices given below are based on reports of manufacturers covering actual sales made to jobbers, wholesale grocers, and similar buyers on basis of cash or short time credit with freight included to distributing point in each section.

Prices in the column headed "Range of Prices" are the highest and lowest reported by all firms. Those given under "Bulk of Sales" are the highest and lowest reported by different firms as the "bulk of sales" prices.

Geographic Sections		Whole Milk Powder		Skim Milk Powder		Buttermilk Dried	
		Range of Prices	Bulk of Sales Prices Fresh Goods	Range of Prices	Bulk of Sales Prices Fresh Goods	Range of Prices	Bulk of Sales Prices Fresh Goods
N. E.	Case	.....	..	23–25	25	...	9.5
	Bulk	28–30	28	8–13	10–13	3½–12½	12.5
M. A.	Case	.....	..	23–25	25	6¾–8	...
	Bulk	22–30	27–28	5½–13	10–13	6½–12½	8.3
S. A.	Case	.....	..	10½–25	10½–25	...	...
	Bulk	28–30	28–30	9½–13	10–13	10.6–12½	11.5
E. N. C.	Case	42–62	..	10½–25	11–25	...	10
	Bulk	28–42	28–30	7–13	10–13	5.8–13½	8–9.2
W.N.C.	Case	.....	..	10½–25	10½–25	...	10
	Bulk	28–30	28–30	8–13	8–13	3½–13½	5.5–8.8
S. C.	Case	.....	..	11–25	11–25	...	...
	Bulk	28–30	28–30	8–13	9½–13	6½–12½	10
N. W.	Case	.....	..	.....	.....	...	10½
	Bulk	28–35	28–31	5–14	7–14	.063–12½	9
S. W.	Case	.....	40	.....	26	...	...
	Bulk	28–35	28–35	6–14	9–14	6½–7¼	6½–7¼

NOTE—Bulk goods includes that sold in barrels and drums. Case goods includes that sold in tin containers.

NOTE–Skimmilk powder for export trade was reported at 11½ to 12½c per lb., f. a. s. Atlantic seaboard and 13c per lb., f. a. s. Pacific seaboard.

New England (1)—Maine, New Hampshire, Vermont, Massachusetts, Rhode Island and Connecticut. Middle Atlantic (2)—New York, New Jersey, Pennsylvania. South Atlantic (3)—Delaware, Maryland, Dist. of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia and Florida. East North Central (4) Ohio, Indiana, Illinois, Michigan and Wisconsin. West North Central (5)—Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska and Kansas. South Central (6)—Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, Oklahoma and Arkansas. Northwestern (7)—Montana, Wyoming, Idaho, Washington and Oregon. Southwestern (8)—Colorado, New Mexico, Arizona, Nevada, Utah and California.

(Continued on Page 146)

PLEASE MENTION THE ICE CREAM REVIEW WHEN WRITING TO ADVERTISERS

Condensed and Evaporated Milk Market Report

By Bureau of Markets and Crop Estimates, U. S. Department of Agriculture.

Manufacturers Wholesale Selling Prices of Condensed and Evaporated Milk (August)

The wholesale prices given below are based on reports made by manufacturers covering actual sales of condensed and evaporated milk to jobbers, wholesale grocers and similar buyers, delivered at manufacturers' distributing points on basis of cash or short time credit. Foreign prices are given as F. O. B., or F. A. S., points of export in section in which sales were made.

Geographic Sections	Sweetened Condensed, Bulk, Per Cwt. Unskimmed	Sweetened Condensed, Bulk, Per Cwt. Skimmed	Unsweetened Evaporated, Bulk Per Cwt. Unskimmed	Unsweetened Evaporated, Bulk Per Cwt. Skimmed
New England—				
Range	9.00—11.07	4.38—7.50	.....	4.00—4.25
Average	10.52	5.78	.....	4.13
Mid. Atlantic—				
Range	11.00—11.07	4.85—7.50	7.00—12.00	2.47—7.00
Average	11.02	5.83	9.00	3.92
So. Atlantic—				
Range	11.00—11.06	5.00—7.50	.....	1.92—4.00
Average	11.02	6.06	10.27	3.26
E. N. Central—				
Range	9.00—11.50	5.00—8.00	6.50—9.00	2.50—7.15
Average	10.42	6.20	7.77	4.59
W. N. Central—				
Range	8.50—11.50	6.00—7.50	7.45—8.33	.....
Average	10.52	6.77	7.89	3.88
So. Central—				
Range	11.00—11.07	6.00—7.50	.....	.....
Average	11.02	6.69	.....	.....
No. Western—				
Range	11.00—11.07	6.56—7.50	.....	4.50—5.38
Average	11.04	7.03	.....	4.91
So. Western—				
Range	11.00—11.07	6.56—7.50	.....	.....
Average	11.04	7.03	.....	.....
United States—				
Range	8.50—11.50	4.38—8.00	6.50—12.00	1.92—7.15
Average	10.72	6.20	8.39	4.22

New England—Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, Middle Atlantic—New York, New Jersey, Pennsylvania. South Atlantic—Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida. East North Central — Ohio, Indiana, Illinois, Michigan, Wisconsin. West North Central—Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas. South Central—Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, Oklahoma, Arkansas. North Western—Montana, Wyoming, Idaho, Washington, Oregon. South Western—Colorado, New Mexico, Arizona, Utah, Nevada, California.

MANUFACTURERS UNSOLD STOCKS OF CONDENSED AND EVAPORATED MILK

Includes all stocks held by manufacturers which were not sold or under contract for delivery on unfilled orders.

Commodity	Total Unsold Stocks Aug. 1, 1921		Comparison of Unsold Stocks For Same Firms Reporting			% Inc. or Dec.
	Firms	Pounds	Firms	July 1, 1921 Pounds	Aug. 1, 1921 Pounds	Aug. 1, 1921 over Aug. 1, 1920
Condensed Case Goods	15	21,587,631	14	28,576,513	21,572,805	— 39
Condensed Bulk Goods	43	24,475,757	41	20,480,956	24,465,822	+220
Evaporated Case Goods	34	68,657,804	32	124,077,742	67,488,716	+ 34
Evaporated Bulk Goods	26	719,393	22	1,012,286	699,323	— 21
Total	..	115,440,585	..	174,147,497	114,226,666	+ 21

UNFILLED ORDERS FOR CONDENSED AND EVAPORATED MILK

Includes the amounts of each commodity for which orders have been received by manufacturers whose orders were in excess of their unsold stocks.

Commodity	Total Unfilled Orders Aug. 1, 1921		Comparison of Unfilled Orders For Same Firms Reporting			% Inc. or Dec.
	Firms	Pounds	Firms	July 1, 1921 Pounds	Aug. 1, 1921 Pounds	Aug. 1, 1921 over Aug. 1, 1920
Condensed Case Goods	2	425,000	2	460,000	425,000	— 95
Condensed Bulk Goods	2	14,000	..	.....	.....	....
Evaporated Case Goods	15	10,025,268	10	2,341,724	8,717,832	+ 63
Evaporated Bulk Goods	1	.....	..	.....	.....	—100
Total	..	10,464,268	..	2,801,724	9,142,832	— 30

Tell Your Friends and Neighbors You Are Going To The WORLD'S GREATEST DAIRY SHOW, MINNESOTA STATE FAIR GROUNDS, October 8-15

MONTHLY POWDERED MILK MARKET REPORT.

(Concluded from Page 144)

Manufacturers' Total Stocks of Powdered Milk.

Includes all stocks held by manufacturers reporting whether manufactured by them or purchased from others; whether on their own premises; in storage; or in transit (unsold) for warehouse consignment; and whether sold or contracted for sale but not delivered.

TABLE I.

Total Stocks of Powdered Milk Products.

Commodity	Code	Pounds Aug. 1, 1921	Pounds Aug. 1, 1920
Whole Milk Powder	Case	303,194	381,144
	Bulk	578,183	548,949
Skim Milk Powder	Case	175,781	157,308
	Bulk	8,710,365	7,263,971
Park Skim Milk Powder	Case	.....	.....
	Bulk	373,391	33
Cream Powder	Case	.....	.....
	Bulk	38,604	85,428
Dried Buttermilk	Case	70,000	0
	Bulk	2,646,800	1,062,264

Manufacturers' Unsold Stocks of Powdered Milk.*

Includes that portion of stocks reported in Table 1, not covered by current sales or future delivery contracts.

TABLE II.

NOTE—Bulk goods includes that sold in barrels and drums. Case goods includes that sold in tin containers.

Unsold Stocks of Powdered Milk Products.

Commodity	Code	Pounds Aug. 1, 1921	Pounds Aug. 1, 1920
Whole Milk Powder	Case	303,194	.....
	Bulk	335,583	6,000
Skim Milk Powder	Case	103,787	.....
	Bulk	4,621,143	2,341,779
Part Skim Milk Powder	Case	.....	.....
	Bulk	213,391	0
Cream Powder	Case	.....	.....
	Bulk	30,004	.....
Dried Buttermilk	Case	55,000	0
	Bulk	1,854,645	625,522

*Do not include stocks of one large firm included last month.

EXPORTS OF POWDERED MILK FROM THE UNITED STATES DURING JULY, 1921.

Total exports, July, 1921	716,363 pounds
Total exports, July, 1920	110,589 pounds
Jan.-July, Incl., 1921	3,452,132 pounds
Jan.-July, Incl., 1920	2,150,672 pounds

EXPORTS OF CONDENSED AND EVAPORATED MILK FROM THE UNITED STATES.

	Condensed Lbs.	Evaporated Lbs.
July, 1921	5,726,791	11,610,857
July, 1920	21,823,131	5,845,518
Jan.-July, Incl., 1921	55,103,448	93,556,704
Jan.-July, Incl., 1920	200,599,663	106,851,336

Let US Do YOUR PRINTING

Mailing Folders Circulars Magazines and House Organs
Business Cards Convention Proceedings Letterheads
Catalogues Bill Heads Statements Envelopes

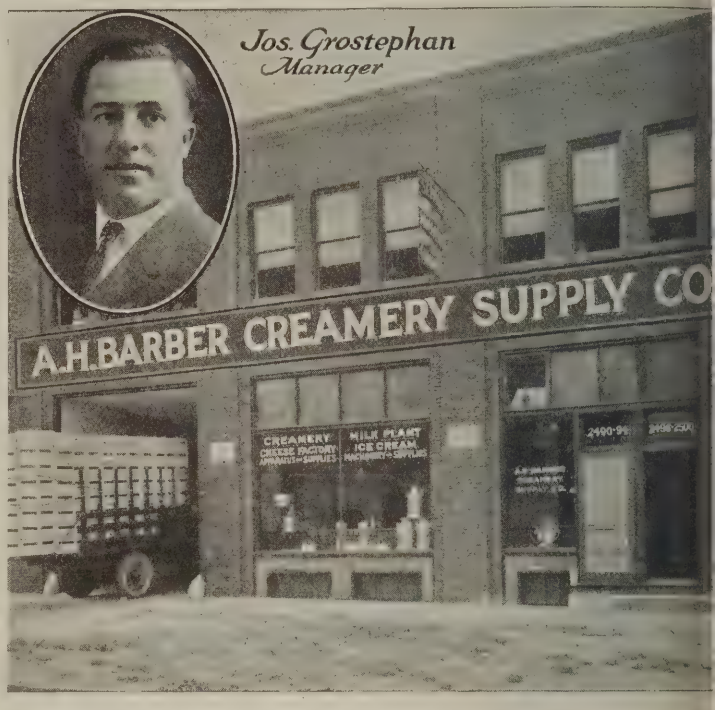
High grade work at reasonable prices. Send us a sample of what you want and we will quote you prices.

THE OLSEN PUBLISHING CO., 210 Sycamore St., Milwaukee

A. H. BARBER CREAMERY SUPPLY COMPANY ESTABLISHES TWIN CITY BRANCH.

It will be good news to the hundreds of concerns in Minnesota and the Northwest, who for many years have depended upon the A. H. Barber Creamery Supply Company for their equipment and supplies, that this well known establishment has opened a Twin City branch.

This represents a real service to Barber patrons, because the new branch will have ample warehouse capacity and will carry a substantial stock of equip-



ment and supplies for prompt delivery, at lower delivery costs.

The A. H. Barber Creamery Supply Co. has enjoyed a large business in the Northwest for many years—a business that has grown to greater proportions during the past few years under the capable management of Jos. Grostephan, who is the manager of the new branch office and will have a corps of capable assistants with him.

The Twin City office is centrally located at 2490-2494 University Ave., St. Paul—in the Midway District, equi-distant from the centers of the two cities. University Ave. is the main highway, both for street car and automobile traffic, between Minneapolis and St. Paul—very convenient to hte business center of either city. Visitors to Minneapolis and St. Paul are cordially invited to visit the Barber offices and wareroom.

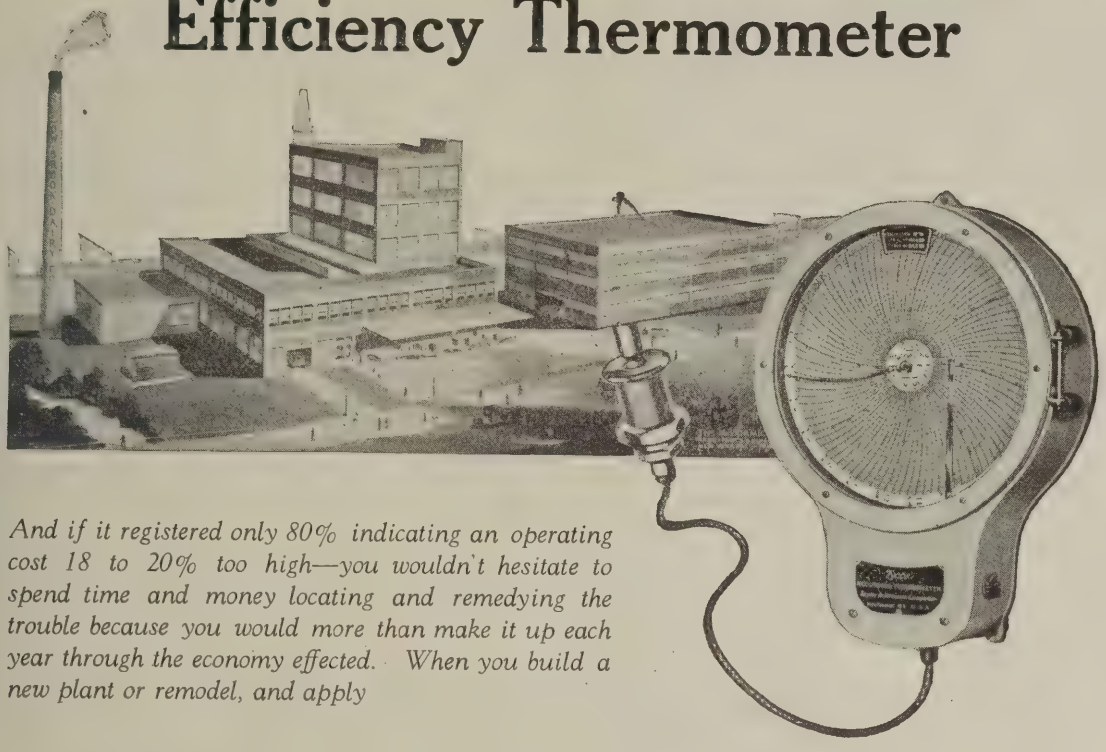
A DISCRIMINTING SPIDER.

When Mark Twain was doing journalistic work in San Francisco, a subscriber wrote and said he had found a spider in his paper, and he wanted to know whether this was good luck or bad.

Mark Twain answered in the correspondent's column. He said:

"Old Subscriber: Finding a spider in your paper was neither good luck nor bad luck for you. The spider was merely looking over the paper to see what merchant is not advertising, so that he can go to that man's establishment, spin a web across the door, and lead a life of undisturbed peace forever after."—Philadelphia Bulletin.

If Your Plant Were Attached to an Efficiency Thermometer



And if it registered only 80% indicating an operating cost 18 to 20% too high—you wouldn't hesitate to spend time and money locating and remedying the trouble because you would more than make it up each year through the economy effected. When you build a new plant or remodel, and apply

McCormick ARCHITECTURAL AND ENGINEERING *Service*

you are taking the maximum precaution against building deficiencies into your plant which are bound to run operating costs up and hold production volume down.

It is a highly-developed and skilfully applied service which concentrates intensively upon your own peculiar conditions and problems and leaves nothing to speculation or chance.

Our long experience of successfully solving ice cream and dairy plant problems is an important element of McCormick Service which should be considered. It is a well known fact that efficiency in McCORMICK SERVICE plants registers high and that the cost of the service is more than made up each year by the numerous construction and operative economies effected by its application.

It may be to your advantage to confer with us before going ahead with your work. There's no obligation whatever in discussing your problems with us, either by mail or personal conference.

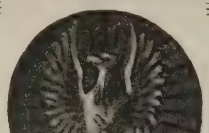
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Century Building

The McCormick Company, Inc.
Architects and Engineers for the Ice Cream Industry

NEW YORK CITY
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Construction Executed by Your Own Contractor Under the Direction of Our Visiting Superintendents

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Address all
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Cincinnati, Ohio

THIS YEAR'S A TEN-SPOT FOR CHRIS.

I have attended every dairy show for the past ten years and would not miss one for ten times what it costs me to attend, and anyone connected with the dairy industry cannot and should not fail to be there, that is, if they want to keep up with the improved machinery and the up-to-the-minute methods.

This year the National Ice Cream Manufacturers' Association is also going to hold their convention at St. Paul, where a good many pointers can be gathered up, as some of the largest manufacturers will be there. If you go there and do not get what you want, you can blame no one but yourself, as there will be booths full of everything used, no matter in what branch of the dairy industry you are interested.

You should certainly give your support to these firms, for, if they had not spent their time and money, you would still make ice cream and handle dairy products in the old and expensive way. Even if you don't need a thing, go there and support these shows. Who can tell,—you may see something that will save you many dollars in operating your business for 1922. Get your competitors to attend also, as the old saying—"The More the Merrier"—and the better the show will be. CHRIS. T. HOLLINGER.

* * *

SIDEBOTTOM, JR., PICKS A BRIDE.

Have been through the sunny South this past month and find that while most of the ice cream men are complaining regarding business conditions, that actually they are doing a good business, although not to the same volume as last year. August will show a poor month on account of the abundance of low priced fruit which materially reduced the consumption of ice cream. However, everything looks healthy and the writer finds a great deal of enthusiasm regarding the Southern Association Convention in Atlanta, the end of November, in connection with the exhibition conducted by the Association of Ice Cream Supply Men.

From indications it would seem that the Dixie Flyers are spreading the news, and incidentally we are hearing awful good reports from the North Carolina Association. We expect they will join with us.

The president of the Dixie Flyers has been in the Texas territory and he advises that the indications there are that many of the ice cream manufacturers will journey to Atlanta and join with us and we surely will welcome them if they come.

We just heard that W. M. Sidebottom, Jr., of the Sidebottom Ice Cream Co., of Nashville, has tied a knot with his tongue that he cannot undo with his teeth. The Dixie Flyers extend to Mr. Sidebottom and the bride their congratulations.

J. W. Clopton, Secretary of the Southern Ice Cream Association, is one of these busy-bodies who find time to run his ice cream plant, the secretary's work, and also a quantity of civic work, and yet he doesn't really kick when the boys take up his time telling him about what is going on in the South. J. W. is sure some worker.

J. J. S.

A BOND GUARANTEE.

Mr. A. E. Dixon, vice-president and general manager of the Carolina Ice Cream Company, Fayetteville, N. C., during working hours, and secretary of the North Carolina Association of Ice Cream Manufacturers when he ought to be sleeping, tells us that he is meeting with success in a plan for guaranteeing the quality of the cream by the manufacturer.

He furnishes the retailer with a bond guarantee setting forth certain facts relative to the product, and assumes all responsibility for its quality. Mr. Nixon reports that the plan has "fulfilled our expectations."

"COME ON, BOYS."

When the leaves start to fall and the mornings
get cool,
And the kids begin dreading to go back to school,
Then you'll hear a faint whisper stir in the
fall air,
Of the conventions east, in the west, everywhere.

All the ice cream men begin to perk up their
ears,
Forget all their worries, their troubles and fears,
Go buy a new suit, a new hat and a tie,
Pack up the old bag, kiss the family "good-bye."

Off to the convention in that western state—
Let us hope that the dog-gone old train won't
be late—
There we'll hear of the latest inventions and
things:
How to sell cream by tons; tie up bricks without strings.

All of the proceedings are so interesting
(And gee, don't you tell, but that ain't everything);
There's the good looking ladies who visit the
show,
And a spread that is fit for the nobles, I know.

A trip through the city, on the "go" without rest,
The Ice Cream Men's Convention's a howling
success.
Home with clear, broadened vision, the problems all solved,
Thrice paid for the time and the money involved.

* * *

Am I going? You bet! Why, I'd not miss the
treat
For a new Cadillac with a gold covered seat.
Gee whiz, look at that clock; train time's coming round,
Here, give me my hat—I am "Convention"
bound.

—By "Poetess Laureate" of the North Carolina Ice Cream Mnfrs. Assn.

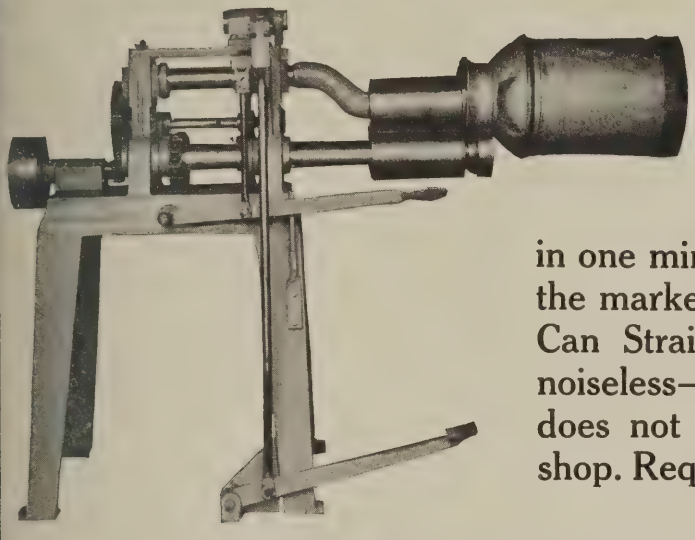
DEATH OF MRS. FRANK B. STUART.

The Dixie Flyers all extend their condolences to Mr. Frank B. Stuart, of the Sani-Seal Ice Cream Co., Knoxville, Tenn. Mrs. Stuart died on July 29th, and the many friends of Mr. Stuart express sympathy for him in his sorrow.

Tell us what you want, or what you have that you don't want, and we'll fix up a little Ad. for you and insert it in the next issue of The Ice Cream Review. You just stay at home and wait for results. You'll soon have your hands full.

Save Your Cans with a "WACHO"

Can Straightener



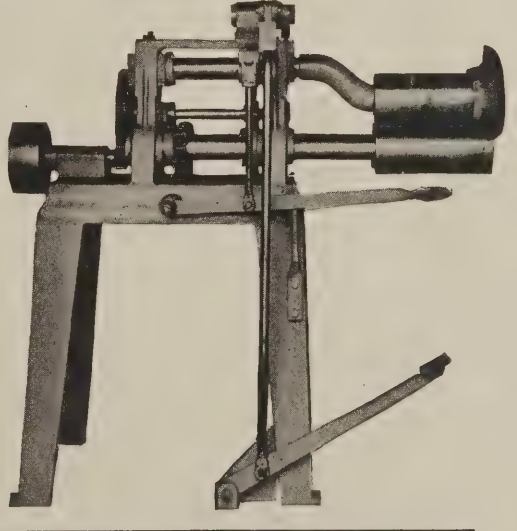
Does the work at an your own plant at an insignificant cost per can. Cans completely straightened in one minute. There is no other machine on the market that does the work of the "Wacho" Can Straightener. Its process is simple and noiseless—a practical little rolling mill that does not make your plant a miniature boiler shop. Requires only one horsepower to operate.

The First Hundred Cans Straightened Pay for the Machine

Straight cans hold full measure—Can be kept cleaner—Last longer—Make washing easier —Prolong the life of brushes on your can washer—Easier to repair—Straight cans with tight-fitting covers avoid loss of milk by splashing.

See this machine in operation at the National Dairy Show, October 8-15th —Booths 301-302

Full Operating Details and Prices on Request — Write



Manitowoc Plating Works

Manufacturer "Wacho" Can Straightening Machine

Rebuilding, Retinning and Manufacturing of Ice Cream Cans, Milk Cans and Special Dairy Supplies

Years of Satisfactory Tinning Service to the Dairy Trade

MANITOWOC WISCONSIN

Our Retinning Service is Complete

Despite the fact that you have been disappointed in the past on retinning work, and are of the opinion that it is neither economical nor practical, we are confident "MANITOWOC" Retinning and Rebuilding will make you an "enthusiastic believer" just as it has others. Just one trial order will convince and convert you.

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Secy., C. J. W. SMITH
c/o Creamery Package
Mfg. Co., Detroit.

BOOSTERS.

The Hunter Dairy Company, Lansing, Mich., has discontinued their ice cream department in the city of Lansing, and will operate the milk business from the farm.

John A. Davis, manager of the Michigan Ice Cream Company of Lansing, Michigan, is taking an extended vacation.

The Freeman Dairy Company, of Flint, Michigan, suffered considerable loss by fire in their horse barn. The horses were all saved but the hay on an upper floor was destroyed.

The Wilson Ice Cream Company of Port Huron, refrigeration department to include ice making. Leroy Wilson is the manager of the company.

Carlisle Ice Cream Co., Port Huron, Michigan, will erect a new building for next season. The plans have been drawn for a modern two story plant.

The Parker Dairy Company of Saginaw, Mich., is adding a butter department to the ice cream and milk business. The company has bought a new churn and pasteurizer. They expect to be operating by Sept. 15.

The Connor Ice Cream Company, of Owosso, Mich., is installing refrigeration and storage departments in the Imlay City, Mich., creamery, to handle ice cream from the main factory at Owosso, for re-shipment.

The Milk Producers' Company of Battle Creek, Mich., has installed a new separator to take care of an unusual over-supply of milk in that territory.

Michigan is surely well supplied with auto bus and truck lines for passenger and freight business. Whether this proves to be a permanent transportation system remains to be seen. Lines out of Detroit to suburban towns include to points such as Mt. Clemens, Pontiac, Ypsilanti and Ann Arbor, competing with electric interurban lines. The freight truck line gives hourly service and the passenger auto line gives service each two hours. They are now operating between Detroit and Lansing and Grand Rapids, making all towns on the Pere Marquette railroad.

The next convention of the Michigan Allied Dairy Association at Saginaw, Michigan, which will probably be February 14-17, 1922, will be held in the auditorium and it is expected to have a large machinery and supply exhibit, also, an exhibit of some 25 head of cattle, demonstrations and milking tests. The committee promises "The Biggest Show Ever in Michigan." Boosters get in line and secure space reservations early. Mr. H. D. Wendt, Director Bureau of Dairying in Michigan Department of Agriculture, and also Secretary of the Michigan Allied Dairymen's Association, is in charge. His address is Room 376, Capitol National Bank Building, Lansing, Michigan.

BOOSTER ROOTER.

Both Mr. and Mrs. E. C. Robbin of Marion, O., hav passed away. Their death occurred about six weeks apart They were in the ice cream and confectionery business.

Joe Dumit, Upper Sandusky, O., has installed a new soda fountain in his retail store.

The Michigan Allied Dairy Association held their quarterly meeting at Bay City, Mich., on the 18th of August. In connection with a picnic dinner at the beach, games were played and a good time was had by all.

The Michigan Allied Dairy Association will hold their next convention and show of exhibits at Saginaw, Mich., on February 14-17, 1922, in the Municipal Auditorium building.

The Dairy Products Co., Bucyrus, O., is building a new brick addition to their plant.

The Ashland Sanitary Co., Ashland, O., will soon let the contract for a new two-story brick building for their dairy and ice cream business.

The Dickson Creamery Co., of Mansfield, O., has purchased the Electropure Dairy Plant from the receiver. They will, no doubt, make it go as they are financed to do so. Mr. Swaney will be manager for the new company.

Floyd Schulenberg, Lima, O., died Wednesday morning, August 10th, after a few days' illness. He was employed by the White Mountain Dairy Co. as a freezer man and was well liked by all and will be sadly missed.

Joe. Huhn of Van Wert, O., will install a new soda fountain in his retail store and will also install an emulsor. He will soon move into his new location.

Warren S. Gravett has been appointed receiver for the Quilling Brock Co., Piqua, O., who operated a creamery and ice plant here.

The Standard Creamery Co. of Van Wert, O., has purchased an emulsor and will install same at once.

Chas. Hankish, Bluffton, O., will add improvements to his plant next season.

Fishers Purity Dairy Co., Wapakoneta, O., is building a new addition to the plant.

A new firm known as Brown & Gleason are manufacturing ice cream.

The B. & B. Ice Cream Co. of Piqua, O., report a good business this season.

Hughes Dairy Co., of Bowling Green, O., has started the new ice plant and will now be able to take care of the business in good shape. They will soon start to build a new addition for the ice cream department, also a new room for bottling milk. They have bought an emulsifier.

Ravenna Milk & Ice Co., Ravenna, O., are doing a fine business and the public is well pleased with their ice cream and ices. This firm is making the best which can be made and using the best that money can buy.—C. J. Y.

FIGURE IT ALL IN.

The business executive who is considering the purchase of electric trucks for delivery purposes, in comparing horse-delivery costs with electric delivery costs, must figure in everything if he is going to do justice to himself and to the electric.

Here are the items of expense in maintaining a horse-delivery system, as compiled by one who has given a great deal of study to the question:

The investment in land, in stables, wagon sheds, harness rooms, hay loft, etc.

The investment in horses, wagons and harness, taking into consideration that the average life of horses in delivery services is 5 years (only 4 years in very big cities).

The interest on investment and the up-keep and depreciation on the buildings.

The replacement cost of horses.

The up-keep and depreciation on wagons, harness, etc.

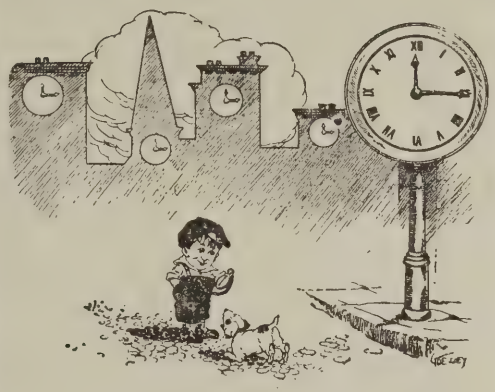
The number of days the horse is sick or resting.

The number of miles he can and cannot travel.

The loads he can and cannot haul.

The cost of feed, bedding, shoeing and care (for the horse eats and has to be looked after whether he works or not).

The number of extra horses required to take care of the extreme heat of summer and blizzards of winter, sickness.



NOW'S the time a lot of plant operators should realize that by barking about the bargains in used equipment they have stored at their plants they can wake up a good many buyers thru our "Want Department."

Two cents a word—fifteen cents extra for blind address

The Olsen Publishing Company
210 Sycamore Street Milwaukee, Wis.

Printers and Publishers to the Dairy Industry

Thanks

SOMETIMES during the rush of the busy season we overlook items of importance, calling them "details"—

The enthusiastic reception and general use of the "Survitor" offered to you in the midst of the season prompts this word of appreciation.

Certainly the ice cream manufacturers were not slow to recognize in the "Survitor" a legitmate sales promoting idea of considerable value.

Henry W.

The Daigger Corporation

859 N. Franklin Street

CHICAGO, U.S.A.

WHO CAN HELP?

We have received the following letter from a reader who is looking for help in solving a manufacturing problem. Who can tell him what the trouble is? Please write us. Here is the problem:

Editor, Ice Cream Review:

Gentlemen: Having tried for some time to get some information without success, we are writing direct to you in the hope that you can refer this letter to some firm, capable of answering it correctly. While the writer is not exactly a novice in the ice cream business, having a couple of college degrees and several years' experience in different plants, so far we have been unable to successfully cope with this situation.

Our mix contains 10 per cent butterfat and 35 per cent total solids, with .7 per cent gelatine and 12 per cent sugar. It is pasteurized and the whole mix run through the emulsor, cooled to below 50 degrees, and aged over night. After freezing, the cream is poured into five gallon cans and hardened in large boxes with ice and salt, as we have not yet got in refrigeration. We find the cream—over half of it—to be "icy," that is, having formed long, thin crystals, especially around the edges of the can for about two inches toward the center. In addition to this, once in a while there is a can in which the sugar seems to have run to the bottom, forming a syrupy mass which becomes very hard and icy, and which occupies about three or four inches in the bottom of the can. These are our only troubles with the cream, and even when icy it has a good, smooth, creamy taste, is not granular, sandy, watery or in other ways off quality. We have gone thoroughly into the proportions of the mix, and are positive that nothing is wrong up to time of hardening, as it is thoroughly mixed and emulsified, also freezer is working properly. We have bene of the opinion that too slow or too fast hardening, due to ununiformity of hardening with ice, is the cause, also fact that cream often becomes soft during day while waiting for ice, etc., and is then repacked and rehardened. However, after doing our best to rectify such conditions, we are still having the same trouble, and we are very anxious to straighten things out. We have written and consulted several salesmen supposed to be "experts" in such matters, without avail, receiving almost exactly opposite suggestions in many cases. If you can give us any help in this connection we will appreciate the favor greatly.

Thanking you in advance for anything you can do for us, we are, Yours very truly,

——— ICE CREAM CO.

ELECTRIC WELD PICNIC SEPT. 10.

About a thousand employes and friends of the John Wood Manufacturing Co., Conshohocken, Pa., attended the annual picnic of the company at Augustine Beach, on the Delaware Bay. Transportation was furnished by the John Wood Co., the river steamer Thomas Clyde, having been engaged for their own use for that day. A picture and story of the picnic will appear in the October number.

WEST VIRGINIA MEETING NOV. 21-22.

C. F. Jamison, Secretary of the West Virginia Association of Ice Cream Manufacturers, reports to The Ice Cream Review that the next annual convention of the Association will be held November 21 and 22, at Wheeling.

If women were as susceptible to flattery as men they would all go crazy, because they get so much of it.

AN IMPORTANT DECISION.

An important decision has been handed down by the Inter-State Commerce Commission affecting express charges on ice cream shipments. In a complaint submitted by a manufacturer of dry containers, the Inter-State Commerce Commission was asked to require the American Railway Express Company to make certain changes in basing their charges for express shipments.

In this complaint it was shown that ice cream is now shipped almost exclusively in tubs, pails or barrels, packed in ice. In computing express charges on ice cream thus packed, a deduction of 25 per cent of the estimated gross weight is made. Where shipments of ice cream are made in dry containers, the charges are assessed on the actual weight. The complaint alleged that because of this difference in the methods of determining the charges, the manufacturer and shipper of the dry container are subjected to the payment of rates which are unreasonable and discriminatory.

"The Inter-State Commerce Commission was asked to require the express company to establish a billing weight on the dry container and dry contents in proportion with the billing on the wet container and wet contents. In its decision, the Commission, requires that the express company shall change their practice on or before November 12, 1921, and "thereafter to abstain from its practice of billing shipments of ice cream in five gallon dry containers at actual weight, while contemporaneously billing shipments of ice cream in five gallon wet containers at an estimated or billing weight less than actual weight."

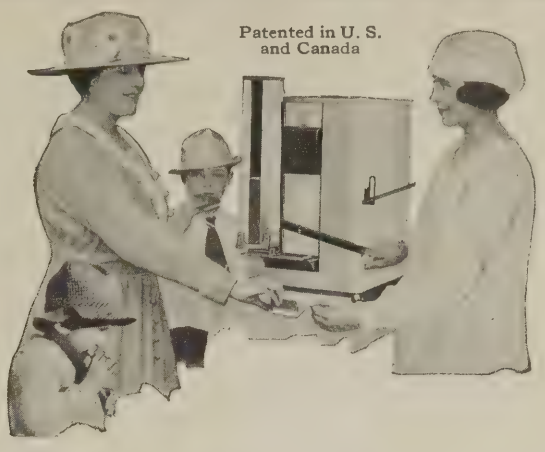
The Express Company will be required to base its charges on shipments of ice cream in five gallon dry containers on a weight "which shall not be a greater percent of the actual weight of such shipments than the estimated or billing weight now applied to shipments of ice cream in five gallon wet containers is of the actual weight of the shipments in wet containers, that is, an estimated or billing weight equal to 75 per cent of the gross actual weight of such shipments in dry containers."

STATE WIDE ADVERTISING.

This organization is greatly interested in the campaign to advertise dairy products in Indiana this coming fall and winter, beginning the middle of September. The Extension Department of Purdue is engineering the proposition and Mr. John Wann is in charge. Mr. Wann is a capable young man and will inspire your confidence. A portion of the Creamery License Fund was voted by the Creamery License Board for the purpose of financing the scheme. All organizations in the various counties, such as the Rotary, Kiwanis, Lions, Optimists, Civic, Educational, etc., will lend their assistance. Lectures in the schools and before various other bodies are a part of the scheme; window displays and other kinds of publicity. It is not easy to estimate the value of such an advertising campaign. Many cities and towns will have this opportunity of asssting in this campaign to educate the public as to the value of dairy products.

A. P. HOLLY,
Gen. Sec'y Indiana Manufacturers of Dairy Products.

The reason why so many brides blush is because in their innermost consciousness they feel ashamed of having married such a silly man.



Serve the Crowds

THE "SANISCO" WAY

Speed, accuracy, uniformity, service—these are the underlying principles on which the "Sanisco" Ice Cream Sandwich Machine is constructed. Every stroke on the lever of the "Sanisco" delivers a uniform slice of ice cream on a wafer. No loss of ice cream thru excess service or exposure. One operator with a "Sanisco" can do the work of 3 hand dippers.

50 Sanisco Machines Served the Crowds at the 1921 Wisconsin State Fair.

The ice cream sandwich appeals to both young and old. It eliminates the objection older folks have to "lapping" cones.

See the Sanisco Serve the Crowds at the National Dairy Show.

Let us tell you of some unique ways in which many Sanisco users employ this speedy ice cream server. Prices on request.

SANISCO CO. MILWAUKEE WISCONSIN



A Crowd Around a Sanisco Booth at the Wisconsin State Fair

The New Boedeker Plant in Dallas

ONE of the finest and most up-to-date ice cream plants in the southern states has recently been established by the Doedeker Manufacturing Co. at Dallas, Texas. This plant is the culmination of the ambitions of F. W. Boedeker, one of the first commercial ice cream manufacturers in Texas. Mr. Boedeker died last year leaving the business under the management of his son, George L. Boedeker.

The home of the Doedeker business is now housed in a two-story fire proof reinforced concrete building with brick facing and glazed Terra Cotta trimmings. The plant is located in the heart of the business and transportation section of the city, on the west side of South Ervay street. The use of a large amount of plate glass, gives the new plant a very pleasing appearance, together with plenty of light and ventilation.

The plant is located on the corner of Ervay street and Pocohontas, the main entrance being on Ervay. The office is a room 25x50 feet, and is located directly at the right of the entrance. In this space is located the general and private offices of the officers and the sales department.

At the left of the entrance is the power room. A battery of three 10x10 in. and one 7½x7½ in. York Enclosed Type Compressors, furnished by the York Engineering & Supply Company of Dallas, Texas, are located in this room. These compressors furnish all the refrigeration necessary for the freezing and hardening of the ice cream, and an ample supply of packing ice. Each of these machines is driven by an individual electric motor, which are cross connected so that any, or all of them may be operated on any unit of the plant. Three of these compressors have a capacity sufficient to take care of the present needs of the plant, one of them being reserved for emergency use. Ample space is provided in the power room for the addition of more equipment.

The boiler room is located under one corner of the power room in the basement. A well nearby furnishes water, the temperature of it, being about 65 degrees Fahrenheit. The freezing room is located directly in the rear of the office. White tile and white enamel tile cover the floor and walls of this department, respectively, the tiling on the walls being of a height of 5 feet; over this the wall is of Portland cement plaster. This is smooth and permits a very thorough washing of the entire room. This room is 22x33 feet in size and plenty of light is furnished by five large prism glass windows in the Pocohontas St. side.

The ceilings of all the rooms on the first floor are 22 feet high and are provided with 45 Luxifer prism glass transoms, each 3½x7 feet. These run the entire length of the room and side of the building. The rear of the building is provided with nineteen similar transoms. These provide a perfectly daylight plant. No artificial lights are used whatever, except in the refrigerating rooms.

The Boedeker plant is equipped with four Continental Direct Expansion Ammonia Freezers, with a

PULL, PUSH AND PROSPER!

Pittsburg, Kans., Sept. 1, 1921.

The Ice Cream Review:

It is my estimation, attending our national or state conventions, is advanced schooling for the ice cream manufacturer.

The day and age is now present when we cannot live by ourselves alone. Here is where we meet and learn from the leaders by mingling with them and our attendance helps to put us in the front rank or further to the front. Let's be with the leaders and help lead, not followers and be led.

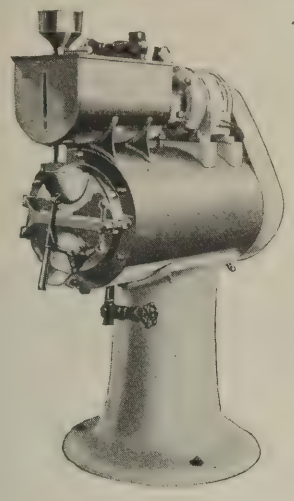
By grasping new ideas and fitting them to our own needs and conditions in whatever way that they will do us the most good, may be the means of putting you on a line of advanced system which will be your line of success.

Let's pull, push and prosper through co-operation. We cannot co-operate by staying at home.

B. T. PERKINS, Secretary,
Kansas Assn. of Ice Cream Mnfrs.



Ample Space for Loading and Truck Storage.



ORIGINAL
CONTINENTAL
DIRECT EXPANSION
FREEZER

To be on exhibition at
National Dairy Show

The CONTINENTAL Way

ECONOMY should now be the principal thought of the ice cream manufacturer.

WASTE should be eliminated to keep pace with other readjustments.

OUR SYSTEM of freezing ice cream is the most economical as we use less refrigeration. This saves power.

OUR FREEZERS are ready to operate when the compressor starts. This saves time.

DIRECT EXPANSION means that the ammonia is expanded directly into the expansion chamber of the freezer with no intermediate losses. This means elimination of all auxiliary equipment. Hence saving in first cost.

General Office
111 W. Monroe Street
CHICAGO

Continental Machinery Co.

Factory
FT. MADISON
IOWA

THE YORK enclosed type machines in the Boedecker Mfg. Company's plant, Dallas, Texas, illustrated in this number were furnished by—

York Engineering & Supply Company

2201 Texas Avenue, Houston, Texas

(with branch offices under the same name at Dallas, Texas, New Orleans, La.)

Southern Representatives of

YORK MANUFACTURING COMPANY

YORK, PA.

Largest builders of Ice Making and Refrigerating Machinery (these products built exclusively)

capacity of fifty quarts per hour. The tile floor under these freezers is raised ten inches, allowing the operator to empty them without stooping over. A Mojonnier Over Run Controller is part of the equipment of the freezing room as well as carbonic gas tanks with each freezer. This is part of the Heath Carbonated Process. All Boedeker ice cream is frozen with carbonated gas.

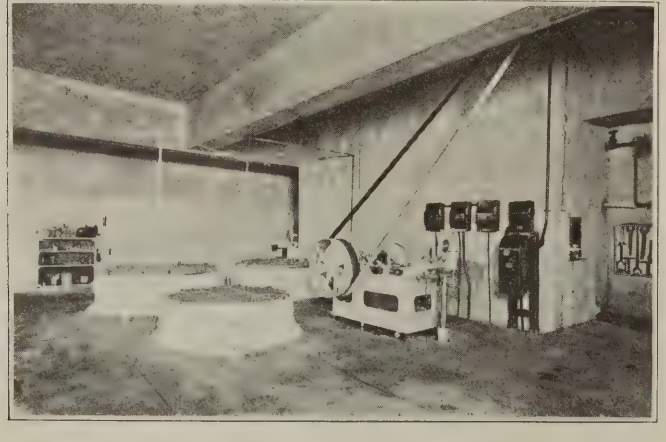
Ample water and steam connections are provided in the freezing room for the cleaning and sterilizing



The New House of Boedeker.

of machines. The mix gravitates from the holding tanks on the second floor directly to the freezer.

There are two hardening rooms. One arranged especially for brick ice cream and the other for bulk. These rooms open directly in the freezing room. Refrigeration is provided by the Direct Expansion Still Air system. Each room has a capacity of approximately 4,000 gallons of ice cream. The hardening rooms are so arranged that the intake is in the front directly opposite the freezer and the outlet cabinets



Homogenizing and Storage Room.

are in the rear, opening directly in to the shipping room.

In the center of the building is located the shipping room; this occupies about 50x75 feet. The building has a loading dock 75 feet long and is provided with an ice crusher in the center of the platform and is fed from the vault above. The ice gravitates through four 18-inch chutes to the delivery trucks, or to the platform, as desired. In this way the icing is done in about half the time required under the old system.

In one end of the shipping room is the special brick machine and wrapping room. At the other end is the can washing department. Here every can is thoroughly washed, rinsed and thoroughly sterilized with live steam.

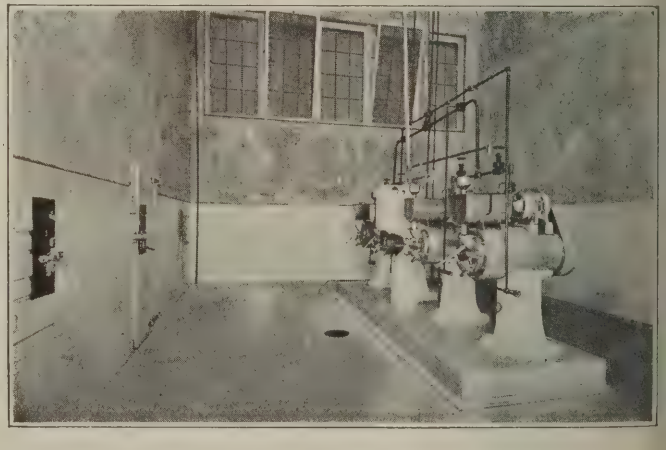
Fifty feet of the rear of the first floor is lowered to provide a driveway approximately 50x75 feet. Plenty of room is provided here for the trucks to turn for loading at the dock. Also for night storage of all delivery equipment.



Office and Sales Department.

The electric elevator is located at the north end of the shipping room within a few feet of the dock. This is used for the elevation of all raw material to the second floor.

The second floor of the building contains the mixing room. This is 28x50 feet in size. Plenty of light in this room is provided, the entire one side being a row of large windows. A Pfaudler 500-gallon glass lined mixing vat and pasteurizer is part of the equipment, also two 1000-gallon Pfaudler glass lined holding vats. Homogenization is done with a 400-gallon



Freezing Room, Equipped With Four Continental Freezers.

Progress Homogenizer. A Mojonnier testing apparatus is part of of the mixing room. This being in one corner. A storage room for milk and cream and other supplies, opens directly into the mixing room.

The ice tank on the second floor has a capacity of five tons daily; space in this room has been reserved for another tank of the same size in case an expansion of the business is required. A large dry storage room is provided for tubs, cans, cabinets and other supplies. Locker rooms, shower baths, etc., are also located on the second floor. Th Boedeker plant was opened on



STOUT

Schroeder Perfection Cabinets

Insulation Is The Thing **upon which complete satisfaction depends**

Insulation is the outstanding quality of "perfection" in Stout-Schroeder Perfection Cabinets. It's the heart of Stout-Schroeder designing and workmanship—every detail conforms to this requirement and adds to its fulfillment.

Stout-Schroeder Perfection Tub Lined Cabinets

are insulated with fine regranulated cork, packed by our special process—it's the method of packing that really effects the "complete" insulation.



Our Standard 1200 Line

is the most serviceable for general use and is our "big volume" seller. Regularly finished in Golden Oak. Either "Tub" or "Metal" lined construction.

Stout-Schroeder Perfection Metal Lined Cabinets

are insulated with pure cork board "baked" to confine the air in the cells—it's the "baked-in air in the cells that conserves the "perfect" insulation values in the cork board.



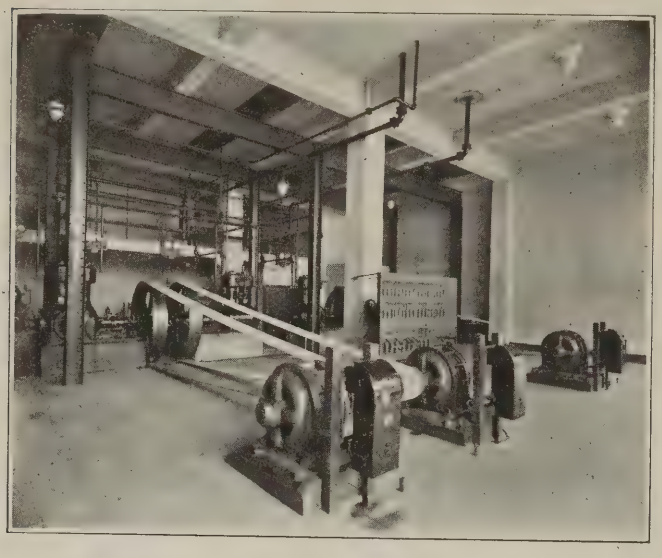
The "Panel" (smooth surface) 600 Line

to meet the demands of trade to match other fixtures. Regularly finished in Mahogany—but other finishes will be furnished as specified. Either "Tub" or "Metal" lined construction.

Write Us Now For
Our Special Fall 1922 Delivery Proposition

The Stout Crate Co. Dept. R 373 BROADWAY **Milwaukee, Wis.**

July 7th, and it was a grand opening. George L. Boedeker, like a regular White Cap, provided the plant with a splendid initiation. One thousand of



York Ice Makers With Individual Motors.

Dallas' people have come to see one of the newest and finest plants in the South, in operation.

C. C. WINSLER OF LAWRENCE, KANS., HAS EXCITING EXPERIENCE WITH ROBBERS.

According to newspaper accounts C. C. Winsler, one of the proprietors of the Kaw Valley Creamery, manufacturers of ice cream and other dairy products, Lawrence, Kans., had an experience that he does not wish repeated:

Mr. Winsler had gone to the creamery to get a supply of cream for a customer. When he entered he noticed that a pilot light in front of the refrigerating room had been removed, and on going into the room, there was evidence of some disturbance of packages that had been left intact. He went into the refrigerating room to get ice with which to pack the cream, and as he came out he was walking backward, pulling the ice along the floor.

"I thought I saw the door move as I got close to it," said Mr. Winsler. "I looked up again and saw a revolver pointed in my direction. I made a grab for it with both hands and deflected the direction as the gun went off. Then another man told my assailant to beat me up. They struck me several times. I do not know what they used. It all happened quickly, but I noted that they were two white men, one tall and one short, and that they had handkerchiefs tied across the lower part of their faces. I was not wholly unconscious at any time, but do not know how the men got out."

When the robbers were gone Mr. Winsler got to the telephone, and called the police station. The officers scoured the neighborhood after they had heard the details, but were unable to locate a single clue.

Mr. Winsler was struck several times about the head; he remembers being hit four times. There were several bad cuts, and stitches were required for some of the wounds. He had left his watch at home when he started for the creamery, and as he fell when struck he fell on the pocket that contained his pocketbook. The only thing the robbers got from him was a bunch of keys. The creamery was not robbed.

The bullet from the revolver which was fired at Mr. Winsler was found in the wall of one of the creamery rooms the next morning. It was 32 caliber.

With this attempt on the creamery the plant has been burned twice, and robber efforts have been made three times.

THE INFLUENCE OF THE NATIONAL DAIRY SHOW.

On the Improvement of the Quality of Dairy Products, by A. H. Barber, President, A. H. Barber Creamery Supply Company, Chicago.

It is the writer's belief, that one of the out-standing benefits of the National Dairy Show has been the service which the show has rendered in aiding in the advancement that has been made in better quality, with the consequent stimulation in sales which has resulted.

It works in this way: for instance, an ice cream manufacturer visits the Dairy Show and National Convention. Upon leaving home he is quite self-satisfied with his own plant. He has had a successful season; has a substantial balance in the bank besides the outside investments that he has made.

Upon attending the sessions of the convention, he learns of greater successes made by other men because of better methods, better systems, better equipment. He visits the interesting machinery displays at the Dairy Show and immediately the imperfections of his own plant are visualized to him. Improved devices for can washing and drying, improved methods of handling mix and freezing are exhibited, and he realizes, as never before, the importance of improved epuipment in his plant.

As a result, he buys and improves his plant, improves his quality and thereby stimulates the consumption of ice cream in his town. No town has ever reached the limit of per capita consumption. Some towns are very much ahead of others. It is a significant fact that those towns having the greatest per capita consumption also have the honor of turning out the most uniformly high-quality ice cream.

By assembling the best known methods, the best machinery and the best of supplies, the Dairy Show contributes in this way, to no small extent, to the general improvement in quality of dairy products.

CONDENSED AND EVAPORATED MILK MARKET REPORT FOR AUGUST, 1921.

More Confident Tone Features Condensed and Evaporated Milk Markets—By United States Department of Agriculture, Bureau of Markets and Crop Estimates.

Markets for condensed and evaporated milk seem to have taken on a little more confident tone the past month. Conditions are still far from what manufacturers generally consider satisfactory, and here and there are individual firms who report no improvement, but the general feeling is apparently better, temporarily at least. Statistical reports received from manufacturers bear evidence of the fact that the situation has improved somewhat and that there has apparently been a healthier movement of most classes of goods.

The latest available figures as to total stocks in manufacturers' hands cover August 1, and reveal but a slight decrease under July 1. On July 1, however, the comparison with the previous month showed an increase in

Impruv-Mix

is a guaranteed pure-food product, made in paste form —containing 75% solids—completely soluble.

It may be used in a cold mix or may be added during pasteurization.

W. P. ABEL,
Manufacturer



Manufacturers, who bought IMPRUV-MIX, when first introduced at Atlantic City Convention in 1916, are still using this product because of the results (better Ice Cream—increased sales).

IMPRUV-MIX is equally effective when used with ripeners.

Meet Mr. Abel at Booth No. 235, National Dairy Show, Minneapolis, October 8th to 15th.

THE IMPRUV-MIX CO.

403 WEST 24th STREET
NEW YORK, N. Y.



CONDENSED MILK MACHINERY

The Better Kind

We teach you to make condensed milk.

C. E. ROGERS

Builders of Better Condensing Equipment

8731 Witt St. Detroit, Mich.

"Crescent"

Ice Cream Packing Tubs

Made right

Keep tight

Write For Prices

Crescent Tub Manufacturing Co.

Johnson City, Tenn.

WE SPECIALIZE ON

Quality QS BRAND Service

Vanilla Flavors

Concentrated $24.00 Gallon

Regular Strength $4.50 Gallon

Discount on Season Contract

Factory Representatives
For TEXAS and OKLAHOMA

MILLIGAN-HIGGINS GELATINE CO.
Pure Food Gelatine

DAVIS-WATKINS DAIRYMEN'S MFG. CO.
Ice Cream Cans and Equipment

Ice Cream Pails—Liners—Cans—Gelatine in Stock Ft. Worth

Prall-Huff Co., Inc.

Extract Manufacturers

FORT WORTH TEXAS

stocks on hand of about 25 per cent. The later figures are therefore more favorable from the manufacturers' standpoint, although they are partly due to a decreased production and not entirely to a more active movement of goods into trade channels. It will be noted, that on a comparative basis unsold stocks of all classes reported on August 1 were 114,000,000 lbs., as compared with 174,000,000 lbs. on July 1, or a decrease of 60,000,000 lbs., and that unfilled orders increased from 2,800,000 lbs. to 9,100,000 lbs. The movement was most active on evaporated case goods. July reports of evaporated milk exceeded 11,600,000 lbs., over half of which went to the United Kingdom and to Poland. Shipments to Germany dropped materially, but France and Belgium received over 1,200,000 lbs. Exports of condensed milk were some 2,000,000 lbs. less than the previous month and of the total amount approximating 5,700,000 lbs. Poland, with 832,000 lbs., the United Kingdom with 606,000 lbs., and Cuba with over 2,000,000 lbs., were the largest receivers. This total also included some 366,000 lbs. of condensed milk exported to Japan.

August prices paid producers for raw milk were higher in all sections, the average increase amounting to 28c per hundredweight. Greatest increases occurred in the northeastern sections, where it is reported that condensaries are accepting increasing amounts of milk. This is said to be responsible to some extent for a lighter production of cheese in those districts.

Manufacturers' selling prices as reported for July show that the greatest changes occurred in foreign prices. Condensed case goods were increased an average of 18c but evaporated goods were reduced 16c per case. Similar changes were made in domestic prices except for the amounts which averaged only 5c to 6c per case.



LARGE NEW CATALOG COMING FOR MILK DEALERS, ICE CREAM MAKERS AND CREAMERYMEN.

The Davis-Watkins Dairymen's Mfg. Co. announce that they are planning to issue their large New Catalog in book form about the first of January, 1922. In speaking about this a few days ago Mr. W. C. Davis, president of that organization, gave out the following information:

"Yes, we have decided to print it up in book form for the use of our thousands of customers who ought to have the information it contains handy for ready and quick reference.

"Perhaps you don't know it, but our advertising department has been working on this book for all they were worth during the last year. They started with some loose-leaf covers, and the catalog as issued at the time of the National Dairy Show last year. The result is something so good that we felt it ought to be put up in a shape so we could distribute it generally without too great a cost. It is sure to be the best piece of printed matter ever distributed in this line of business.

"It is made up in sections, with the machinery segregated under several classifications. Milk and ice cream cans, along with can washers are in the first section; milk bottle fillers and cappers have the second section; then comes pasteurization, bottle washers, churns, ice cream equipment, etc., in sections which follow. Our present idea is to bind these sections all together in one book; and then print our price sections in a supplement.

"We have no idea just how many copies to print, hence the advance announcement. The pages are all

in type, so it is going to be an easy matter to put them on the printing press and run off the desired quantity. We are anxious that every man who ought to have a copy of this book get his name and address into the hands of our General Advertising Department, Room 1212, 130 North Wells St., Chicago, Ill. This will enable us to make up our mailing list for the books.

"One important feature of this book is the many pictures of the machine, as actually in operation in plants. This is a thing every progressive man is interested in. It is rather difficult for men in our business to take the time to visit other plants, and we are going to make an effort to bring some of the far away plants right under his nose for study. This is very ably handled with photographs. A man in El Paso, Texas, can know just how the large plants in Chicago and New York are doing the same work he has to do in his plant."

It therefore behooves every one who is interested to make application now. Be sure to get your name on this list, for we have every reason to believe you are going to get a real catalog, worth a lot of study and investigation.

JACK RABBITS
ELWIN F. WEIL, Secretary
514 New York Life Bldg.,
Kansas City Missouri



EVAN HAS HIS OWN IDEA OF SNAPS.

Brother Jack Rabbits:—We wrote to several of you for snaps, pictures, of yourselves or your friends. Evan's car was stolen about that time and the poor fellow misinterpreted our request. He has a snap figured out to be something soft, like ice cream at the circus. May be we should have been more explicit and asked for snapshots. Evans has troubles, and he's not too bashful to tell about them either:

"I have a letter on my desk in which you ask me to send along a few snaps. If holding down two other men's jobs besides you own and then riding about ten miles in a street car every morning and evening, instead of driving your own car on account of some joy-riding girls smashing it up for you, is a snap, you may have as many as you want.

"This, however, just refers to my daylight operations. At night I am trying to help take care of a new grand-daughter, and I find this is no particular snap either.

"I note from your letter that you refer to Jim Mulligan. For your information will say that we had the pleasure of having 'Jim' around about us for the last week or ten days, telling us about the wonderful Caramala. Guess, however, that the heat drove him back as I had a letter from him yesterday stating that he is starting for Louisville to take his vacation. We can make it pretty hot for almost anybody down here, but 'Jim' has our invitation to come bock when he is through, and it has cooled off.

Believe that after this piece is duly censored you will have very little left for publication.

E. A. EVANS,
Vice-President, N. A. Kennedy Supply Company."

Charity extended on business principles is not charity at all, but merely a perfunctory performance by which hypocrites hope to fool their creator.

SODA MENUS
Ice Cream Manufacturers—Use Them to Advertise

OUR menus are popular among ice cream manufacturers who give them to druggists and confectioners with the manufacturer's trade-mark or advertising slogan printed on them. This is a sure and inexpensive means of advertising the ice cream manufacturer as the menus come to the attention of the customers of the retailer.

These menus are **especially** for the Soda Fountain. They are not hotel menus nor restaurant menus, but are printed and embossed in colors on the highest grade of stock and reproduced from original drawings for the use of Soda Fountains exclusively.

Samples Free on Request.

THE ALLIS PRESS Kansas City, Mo.
Formerly K. C. Bill of Fare Press.

RE-TINNING MILK AND ICE CREAM CANS
A SPECIALTY
MAKE YOUR CAN SANITARY

Now is the time to have your old cans retinned, all double coated, so do not throw your old cans away, sent us a sample so we can show you what we can do to it.

SANITARY TINNING & MFG. CO.
3757 E. 93rd St., CLEVELAND, O.

Our Pledge

That each lot of Standard Gelatine we ship you, will be of a uniform, high-grade quality. That this well-known characteristic will, at all times, be so dependable as to further enhance your confidence in us. We regard this confidence too valuable a trade asset to jeopardize at any time.

That we hold true to this pledge is best known by our many satisfied customers who order, "same as last."

Standard Gelatine Co.
130 N. Wells Street CHICAGO

Ice Cream King Sees Future Empire of 5,000,000,000 Frozen Gallons

AT LAST an ice cream king—not of manufacture, but of consumption. At least no rival monarch yet has filed a counterclaim before any league of nutritions.

This ruler, by virtue of quantities, of ice cream eaters is Roy Tillinghast, a prominent amateur sportsman of New England and an extensive traveler. His home is in Providence and he is well known in sport circles in a number of states. He is a natural and experienced baseball player who, many professionals have said, could, if he chose, have entered the big leagues shortly after he left Brown university. He is a roller skating polo player, an expert skater and a hockey player. He alternates such sports as these, in proper season, with football and basket ball. He enjoys deep-sea fishing and has made some remarkable catches. He hunts through Rhode Island, the New England states north of there, and in Canada. He is a fine figure of an athlete, quick, alert, finely poised, and deft and sure in movement.



Roy Tillinghast, Ice Cream King.

And, he attributes, at least in some share, this athletic readiness and prowess to his eating a gallon of ice cream every week.

"I began it when I was a small boy," he says. "My father tried to discourage what he considered an inordinate appetite for ice cream by the same tactics with which small boys are cured of the smoking fever—by giving me so much of it that I would never want any more. But, instead of this working as he wished, it only made my appettie stronger, and I now eat ice cream at least three times a day, and often enter a ball game to pitch nine innings, after eating nothing more than two plates of ice cream. I really believe that much of my ability as a sportsman comes from the physical properties I have acquired through a constant use or ice cream.

"As a matter of fact, my average is probably more than a gallon a week, for I know that in the summer I eat possibly a little more of it than in the winter. But I do not at all consider ice cream merely a summer food, and in fact, cannot understand those persons who refuse to eat it in the winter. It is just as much a food winter as summer and to my mind just as palatable a delicacy also."

Roberts Everett, secretary-manager of the Association of Ice Cream Supply Men, who interviewed Mr. Tillinghast recently in New England, asked him: "Do you think that everyone should, or ever will, consume as much ice cream and consume it as regularly as you do?"

"I see no reason why everyone should not," Mr. Tillinghast told him. "It is good for children and adults both. I am convinced that its food properties are unexcelled and everyone knows that nothing could taste better. It will probably be some time before every person appreciates the merits of ice cream as I do, but when all ice cream made is really good ice cream, I believe the entire public may gradually come to like and value it to the extent of eating a gallon a week."

"If the ice cream industry ever realizes such a tremendous future as that," Mr. Everett said, after talking to Mr. Tillinghast, "there is no better time to start than today. Fortunately, most manufacturers are making good ice cream, but to make that good ice cream better or to make it more efficiently and profitably so as to provide each year an increasing margin of expenditure in educating the public taste to the point that Mr. Tillinghast has reached, advantage should be taken of every opportunity to study advanced methods and means of manufacture and distribution, such opportunities as are offered by the exhibitions to be held in Buffalo, Oct. 31 to Nov. 5 inclusive, and in Atlanta, November 28 to Dec. 2, inclusive, this year, in the service of the ice cream industry, in which every phase of manufacturers' needs will be featured, and by the conventions of the national and various state and sectional associations of ice cream manufacturers which will be held throughout the fall and winter."

Concerning the value of these large exhibitions of supplies, equipment and machinery, the two of which for 1921 will soon be held in Buffalo and Atlanta, the Association of Ice Cream Supply Men has received a letter from J. E. Dunn, president fo the Pacific Ice Cream Manufacturers' Association, and a manufacturer known not only in his home city of Portland, Ore., but, through his prominence in the National Association of Ice Cream Manufacturers, to men of the industry throughout the whole country, in which he characterizes the last exhibition of the supply men's association, which was held on the Pacific coast, as doing "more for the uplifting of the ice cream business than any other one factor that has occurred in many years."

"Does the ice cream industry benefit by the exhibitions of the Association of Ice Cream Supply Men?" writes Mr. Dunn in his letter. "Is the opportunity to see and learn all about the new ideas worth the effort required on the part of these men? When we can study the ingredients, machinery, binders and scientific instruction all under one roof, isn't it worth while?

"To have these assembled in a place where we can go to look upon them, where we can have the men who are versed in this business tell us the story of the machinery—the methods, the principles that are involved in the handling of new machines, or extracts or flavor, or

Ice Cream Men!

Here's the Can Truck that fills your needs

Note these features for easy handling, strength and long years of service—

Ball bearing swivel casters at each end. Big, heavy 8-inch main wheels with flat faces to save wear on floors.

Wooden bars cover all bottom rails to fully protect cans from denting.

Rail all around top (optional equipment) forms a handy place to keep the covers.

No slop before washing—well drained after washing. Cans automatically counted.

A sturdy frame built of structural steel, well braced to stand every shock. Top cannot sag. This strong, rust proof, galvanized frame insures years of service.

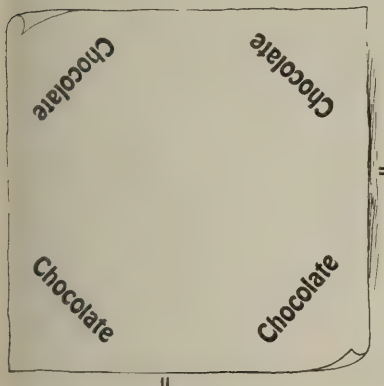


Nutting Ice Cream Can Trucks were first made to order for a big ice cream plant. Compare these specifications with any other can truck on the market, **regardless of price.**

See the Nutting at the National Dairy Show or write us for prices. Ask also for Bulletin E, showing 300 designs of floor trucks for all purposes.

NUTTING TRUCK COMPANY, 1143 Division Street W., Fairbault, Minn.

Floor Truck Specialists for 30 Years



K. V. P. "Indexed" Vegetable Parchment Can Tops

Avoid confusion in your hardening and storage rooms as you would in your office records. Filled cans in storage contain the definite record of a manufacturing process. You can

Systematize Your Hardening Room

with these handy K. V. P. "Indexed" can tops and do away with having employes fumble can covers to establish the identity of their contents.

Combination Sanitary Can Top and Can Label

Made of genuine vegetable parchment in the "World's Model Paper Mill." These K. V. P. "Indexed" can tops are absolutely sanitary. They protect the contents of your cans against contamination and reduce the necessity of washing lids.

Prominently printed on substantial vegetable parchment, these tops are not a flimsy article just for show or effect, but an honestly made, practical, sanitary can cover that is serviceable and supplies a great need at a very nominal cost.—Try Them.

So You May Know the super-excellence of K. V. P. Products, samples will gladly be sent on request.

Send For Them

Kalamazoo Vegetable Parchment Co.

KALAMAZOO, MICH.

Highest Purity



MADE IN AMERICA
For Quality Buyers

You can't forget the satisfaction which unfailingly follows the use of Chalmers Gelatine.

CHALMERS GELATINE
SALES CORP.
RICHMOND VIRGINIA

NO higher standard nor better quality in cream test bottles and glassware can be found than the well known Kimble Brand.

Order from your Jobber or write us direct.

Kimble Glass Company
402 W. Randolph Street
Chicago, Ill.
Factories: Vineland, N. J., Chicago, Ill., New York, N. Y.

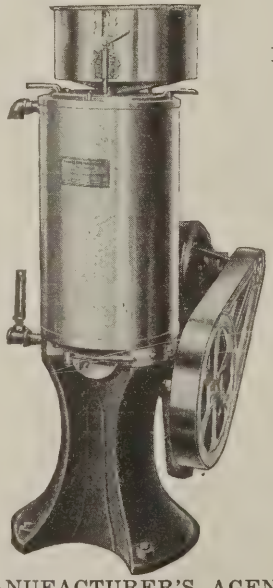
EMERY THOMPSON
VERTICAL FREEZER
with Circulating Brine Base

An Ideal Freezer for Confectioners and Commercial Ice Cream Men

Has a Large Capacity—Requires Little Floor Space

Produces Smoothest Cream of Perfect Consistency

Belt or Motor Drive



Brine Flowing Thru Entire Hollow Bottom Before Circulating Upward Insures Uniform and Economical Freezing

A Specially Designed Brine Box and Pump Can Be Supplied with This Freezer

Write for Catalog and Price

MANUFACTURER'S AGENT
H. SCHLOTTHAUER
Telephone Main 5398
140 W. KINZIE STREET CHICAGO
Horizontal Brine Freezers, Tub Freezers, Can Washers, Cans, Tubs, Tub Covers, Can Liners, Retinning, Breakers, Gelatine, etc.

binder, is an opportunity that should not be missed by any man in the business.

"The Association of Ice Cream Supply Men, with its Seal of Safety, has demonstrated to the satisfaction of every man on the coast the benefit of this remarkable institution. Its value to the trade cannot be estimated in dollars and cents. The good will that it has brought, the educational benefit derived from it, cannot be reckoned in the ordinary way.

"This association should be loyally supported by every ice cream manufacturer. He should look for the Seal of Safety when he is purchasing his goods, because it is the evidence of men who are upbuilding the business in an intelligent manner—men who have the interest of every manufacturer of ice cream at heart. Their Code of Ethics sets this out. These men are the missionaries—telling of the new-found ideas, showing the new machinery, the new methods of sanitation, the new principles of binders, the best of many flavors.

"When they assemble in their magnificent exhibitions, they give the people an opportunity to come, be entertained, and find a dazzling array of facts that have been gathered together, and machinery that has been brought for observation and study. People who come and so obtain first-hand all this information are fortunate indeed, and have this remarkable association to thank for it.

"I for one, want to express my appreciation of the Association of Ice Cream Supply Men for the work they have done in bringing to the Pacific Northwest the greatest educational exhibition that has ever been known, and that has done more for the uplifting of the ice cream business than any other one factor that has occurred in many years, because its presence is felt and will be felt for many years to come.

"Men whose business is a personally-conducted effort, who have been unable or unwilling to leave their places of business to see and learn of the advanced efforts in the industry, came, saw and learned.

"Let us hope that your good institution will continue to go on for the good it does and for the uplift of a great industry."

NORTH DAKOTA ICE CREAM MANUFACTURERS

Do not fail to plan to be on hand when the National Convention of Ice Cream Manufacturers convenes in the Twin Cities October 10th, 11th and 12th. Here is a chance to rub elbows with our competitors and with men who are making a success of their ice cream business. We all have something to learn in our own line of work, and this convention, which is being held in connection with the greatest Dairy Show in the world, is the place to get the information you want first hand.

The time and effort you spend will be worth while, so let's plan to go and take advantage of the good things that have been planned for us by the officers of the association.

Looking forward to the pleasure of being able to shake hands with some of our members at the show in October, I am yours in the interest of the industry,

O. A. AMUNDSON, Secretary,
North Dakota Ice Cream Mnfrs. Assn.

SERIOUSLY INJURED IN BAD AUTO SMASH-UP.

It is with profound regret we learn of the serious injury of W. B. Atteberry, headquarters, Los Angeles, Calif., special western representative for the Hudson Mfg. Co., covering territory west of the Rocky mountains and Texas and Oklahoma. Mr. Atteberry had been to Hayward on Friday, Aug. 19, and was returning to Oakland via auto bus. One story is that a small car passed and cut in so close that to avoid a collision the auto bus ran into an iron telephone post, cutting the bus in two. The other story is that the small car was coming toward the bus and turned around in the middle of the street so close, and that to avoid the car the bus turned and ran into the pole. Mr. Atteberry was the most seriously injured. His shoulder was dislocated and one wrist fractured; his right leg broken between the knee and the thigh, a fractured thigh, the leg having to be ampututed below the knee. His left leg was also bruised and his head was badly scratched. At the time of going to press we learn, besides amputating of the leg, the shoulder has been set, but they have not as yet set the leg where it has been broken because Mr. Atteberry has not had sufficient time to recover from his shock.



W. B. ATTEBERRY

Mr. Atteberry was on his way to meet members of his firm, the Hudson Mfg. Co., at the Dairy Show exhibit, it being his intention to cover the territory on the way ,and in his eagerness to meet his trade he started ten days ahead of schedule time. Those who knew "Bill" Atteberry—this congenial, lovable and friendly fellow—and who have really learned to love him, were shocked when news of the accident first reached them. The flood of telegrams and letters which have reached Mrs. Atteberry and the Hudson Mfg. Co. indicate how much concerned Mr. Atteberry's business friends were over this unfortunate and untimely accident.

The Hudson Mfg. Co. offer this consolation, however, that in spite of the terrible injuries sustained by "Bill," he is recovering, though it will be quite some time, naturally, before he can resume any activity for the Hudson Mfg. Co. Those who witnessed the accident all speak in high terms of the wonderful bravery of Mr. Atteberry. Though seriously injured, and rapidly becoming weak from excessive loss of blood, "Bill" refused any help until all the others in the accident were aided first.

Mr. Gabe S. Wegener, president of the Hudson Mfg. Co., in speaking of the accident, said: "We loved Atteberry not alone as one of our associates, but as a close and dear member of the Hudson family, and the news of this sad accident pulled at the heartstrings. We are glad to report, however, that "Bill" will pull through it all and we are glad that, in spite of all, he is still a member of our family and will continue to be so."

If any of his friends should want to write him a line he can be reached by addressing W. B. Atteberry, care East Bay Sanitarium, Oakland, Calif.



TO THE TRADE.

For some time we have been at great expense experimenting with and developing our method and process of preparing an ice cream mix. Now that this method is finally developed and thoroughly tested and proven commercially, we have taken the necessary steps to protect our method and process by U. S. Letters Patent. We are now prepared to grant licenses for the use of this method and process and to supply and install equipment for carrying out the same. MOJONNIER BROS. CO.



The
Time Tested Tub Cover of Quality

There is no better test for the qualities of a product than time.

During its course a product like the **Quality Tub Cover** goes through a series of experiences and hard knocks that proves the weak spots in make-up, serviceability and cost.

The fact that after six years as users, original buyers of **Quality Tub Covers** send in repeat orders each season for new tub covers, should be proof enough for you to investigate the quality, price and serviceability of Quality Tub Covers.

The Quality Tub Cover comes to you complete with staples, tie strings and your advertisement

Write for Prices Now

The Schott Bros. Co.

"If Made from Canvas, We Make It"

West Salem Ohio

Advertise Delicacy and Food Value of Ice Cream

By M. D. MUNN, President, National Dairy Council

IF WE can credit the casual historian—the making of ice cream in the United States, in a small way, began about 125 years ago and the first ice cream soda was made about forty years ago.

If Dolly Madison, the famous beauty, who presided over the White House during her father's administration, and who is credited with the first serving of ice cream, could today behold the menu that the modern ice cream manufacturer can set forth, of the various varieties of ice cream, she would undoubtedly be dumbfounded; and, if the Detroit druggist, who, in a moment of desperation, added some ice cream to a carbonated drink, could behold the array of sirups, fruits and equipment used by the soda fountain of today, he would be staggered by the display.

Great as has been the progress and development of the ice cream industry, most of it has taken place in the last ten years. Yet the fact remains that the possibilities have hardly been touched and by most not realized.

While the modern means of manufacture, refrigeration and handling of this great product, together with the use of hundreds of delicious flavors, have all contributed toward building a solid ice cream business, above all these are the possibilities of the recent or newer knowledge that ice cream is a real food—a stimulating, body-building, energizing food, worthy of being placed in the front list in the nation's "What to Eat." How few people realize this and how much greater would be the magnitude of the ice cream industry if the rank and file knew this fact. Even many government officials are ignorant of this fact, and, as a result, we had the startling condition, during the war, of one branch of the government imposing a tax on ice cream as a luxury, while another branch of the government was advocating its use as a necessary and essential food.

In the new booklet on ice cream just issued by the National Dairy Council, there is a long list of the different varieties of ice cream. It is put there for a purpose. The public is just beginning to know ice cream. The rank and file do not yet know much more than that it tastes good and there are two kinds, "vanilla" and "chocolate." They know little or nothing as to its real food value.

By reason of this food value of ice cream, it occupies an important position in the activities and educational work of the National Dairy Council.

The volume of milk used in the manufacture of ice cream warrants the closest study of all problems that will increase and encourage its use. It is especially fitted for educational and publicity effort, because of its food value, in addition to its appeal to the taste and palate. How great would be its increased consumption if everyone knew that, in gratifying this natural taste and appeal to the palate, they are at the same time invigorating and stimulating the body.

Hospitals furnish ample evidence of the fact that ice cream restores health and strength to the sick; and scientific research furnishes ample evidence that it strengthens and invigorates the mind and body of the strong, and above all, furnishes a necessary food for the growing child. What a message this is to take to the public, in a constructive and educational way!

The possibilities of cooperative effort in spreading this educational propaganda, by the ice cream industry working with and through the National Dairy Council, are limitless. The Council is, at present, as far as its resources permit, talking the food value of ice cream in the schools, and to the mothers; but, financial support from the ice cream industry would increase this educational work a thousand-fold, all of which would redound to the ice cream manufacturer as well as to human welfare.

Ice cream should be kept in the foreground as a necessary food, and not as a delicious luxury. The public should, and must be brought to know more of, and to more highly appreciate the food value of this very palatable dish. To do this work, and to put this message over, requires, not only an organization, but the sinews with which to enable such an organization to exert its influence to the greatest extent. There must be a continual constructive effort to stimulate confidence in the public as to the value of ice cream, and the stability of its quality. United effort must replace individual effort or at least greatly support it. While some individual ice cream manufacturers are putting forth publicity efforts, some of which is very good and some very bad—mainly due to a difference of vision, or, perhaps—to state it more correctly—due to a vision in the one case, and a lack of vision in the other—one sees advertising of ice cream for what it really is, while, in the same city one sees advertising, the purpose of which is to create confidence in the product of one manufacturer, and to create suspicion as to the product of another. This kind of advertising is not constructive, and tends to bring down on the ice cream industry all sorts of effort for legislative and municipal regulation. I mention this because in the work of the council, in endeavoring to encourage the use of ice cream in the homes, in the workshop and in

POETICALLY SPEAKING.

Shall we gather at Twin Cities
In a week's vacation grand,
Where we'll meet the ice cream makers
Gathered from all o'er the land?

They will come from all directions
To attend the Dairy Show
And to meet in great convention
Makers of ice cream, pure as snow.

Shall we bring our wives and sweethearts,
Just to have a glorious week?
As we rest from season's business,
Thus the cool north we will seek.

There we'll meet and learn new systems
To improve our product grand,
Which is now a food delicious,
Recognized in every land.

They've prepared a splendid program,
And some entertainment great.
If you miss this, you'll be sorry
After it is all too late.

We are coming in a special
Chi-ca-go Great Western train,
Starting at Our Kansas City,
Center of Great U. S. A.

Yes, we are coming to Twin Cities,
We will bring our mascots, too.
Great big fine Kansas Jack Rabbits,
They eat ice cream, pure as snow.

KANSAS ASSOCIATION OF ICE CREAM MANUFACTURERS.

Vanite

THE HYGIENIC CLEANSER

VANITE—The Hygienic Cleanser, renders a profound service to all who use it in the dairy industry.

An Invitation

A generous welcome is extended all visitors to the National Dairy Show and Conventions to make our plant and offices on University Avenue, Minneapolis, their headquarters.

The glad-hand of accommodation and welcome is inseparably attached to the knob of our front door. The minute you grasp it and enter you will find a spirit of "Service" predominating the surroundings and reflected in the quality and purpose of our products.

Come and see us, we will be glad to have you.

PYRAMID OIL COMPANY
ENDURING LUBRICANTS



the hospital, we are frequently asked: "Is it safe to eat all kinds of ice cream?"

The progress and development of the ice cream industry would be much more successful and rapid if everyone was talking and preaching the delicacy and food value of ice cream, and confined their efforts for improved quality and of criticism within the factory and the ice cream organizations.

According to government figures, 260,000,000 gallons of ice cream were manufactured during 1920—an increase of 30,000 gallons over 1919, or an increase of approximately 13 per cent. This output can be increased to one-half billion gallons by constructive and consistent educational effort on behalf of the industry.

Such effort in campaign work on behalf of milk, has shown an increase of over 15 per cent during the past six months, in one hundred cities in the United States.

I am not certain but that it would be easier to increase the consumption of ice cream than it is the consumption of milk. I am quite certain, however, that we should be consuming more than double the amount of ice cream we are, and that this result can be obtained if all ice cream manufacturers will join in a forward movement; by so doing, the industry will not only be helping itself, but will be rendering a service to humanity, as well as to the dairy industry.



ARE YOU GOING TO MINNEAPOLIS?

Yes, we know you are.

Last year we heard a learned man tell us how to "Keep step with the times," and now we are going to give you a few pointers on our own behalf on this subject.

First and foremost, Mr. Ice Cream Manufacturer, the principal way in which you can keep step with the times in your industry is to meet and mingle with your fellow manufacturers, discuss with them problems that may bother you, learn how they solved them and how you may do likewise.

The papers that will be read at this convention will all deal with practical subjects of vital importance to ice cream manufacturers, and they will be presented by men who are fully qualified by experience to handle them.

It has been well said that "A successful man goes to the highest authority," so profit by this idea and at the convention make it a point to meet the men of highest authority in your industry. They will all be there.

A rate of fare and one-half for the round trip, on the certificate plan, has been secured. Dates of sale October 6th to 14th, inclusive. Return limit October 19th. Within a short time the Secretary's office will send out a letter detailing the procedure necessary when buying your ticket, in order to receive the benefit of the reduced rate.

The Ice Cream Manufacturers' De Luxe Special Train will leave Chicago on the C., M. & St. P. Ry. on the morning of Saturday, October 8th. This train will carry parlor cars, observation car, dining cars, and a coach for those not desiring parlor cars. No extra fare will be charged on this train.

The ladies have a special invitation to this convention, and extensive plans for their comfort and entertainment are now being formulated.

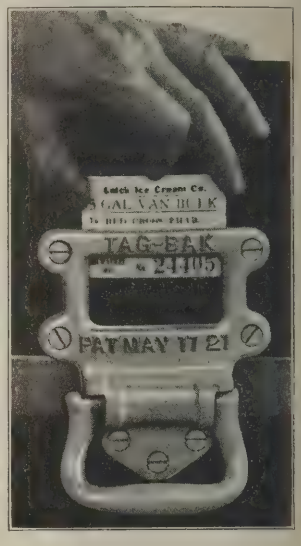
A copy of the completed program will be mailed out within a short time, but meantime a tentative outline is given herewith.

Make a note of the date of the convention. Arrange to attend. You'll enjoy every minute.

N. LOEWENSTEIN, Secretary.

EX-PRESIDENT OF NATIONAL ASSOCIATION TURNS INVENTOR.

The problem of checking back the returned ice cream shipping tubs and giving credit where credit is due has proved such a vexing one that Mr. W. F. Luick, who a few years ago was President of the National Association of Ice Cream Manufacturers, set to work on solving the problem in a way that has proved entirely satisfactory to his extensive ice cream business at Milwaukee, Wis.



The key to the whole problem, as many ice cream manufacturers have learned is the necessity of getting the tub returned with the original shipping tag having the dealers' address and shipping number. Mr. Luick accomplishes this through a unique tag holder. These holders are called "Tag-Baks" and, as their name implies, their purpose is to return the tubs with the tags as originally shipped.

"Tag-Baks" are not just a device for holding the tags, but form a part of a practical system for checking returned tubs, orders and shipments.

"Tag-Baks" are not just a device for holding the tags, but form a part of a practical system for checking returned tubs, orders and shipments.

The illustration shows a combination "Tag-Bak" for use on new tubs, or where broken handles are to be replaced. "Tag-Baks" are also made without the handles for use on old tubs. It is surprising how much trouble so small a thing as a lost tag can make, and the amount of service that can be developed from so simple a device as "Tag-Bak".



THE DAIRY SHOW AND ICE CREAM REVIEW COMBINE TO DISSEMINATE VALUABLE INFORMATION TO THE ICE CREAM MANUFACTURER.

By Elyria Enameled Products Company, Elyria, Ohio. B. E. Newell.

It is our belief that the National Dairy Show and its medium of publicity, the show number of the Ice Cream Review, act in combination, as a valuable means of disseminating information and advice on the latest and most improved processes and equipment of interest in the Dairy Field.

Some people may be inclined to look upon such an event from an advertising standpoint only, but it is our belief that it is a vital, influential factor in raising the standards of the industry and in combining the members of the various organizations into a body which can work inestimable good in furthering the aims of the industry.

It is for this reason that, year after year, we maintain space at the Show and advertise, to larger extent, in the show number of the Ice Cream Review. It is an opportune time to let the trade know what we have to offer in the way of service and equipment.

DAIRY SHOW MESSAGE TO ICE CREAM MEN.

By W. E. Skinner, General Manager, National Dairy Show.

The ice cream manufacturers in deciding to hold their convention in Minneapolis, Minnesota, during the National Dairy Show, October 8th to 15th, at the Minnesota Fair Grounds, builded big and have helped by this act very materially in delivering the big message of the National dairy industry the builders of the Northwest empire were desirous of having delivered to the men who are "carrying on" and making of this northwest country the seat of highest agricultural development in America.

The dairy cow is safely on her throne as the central figure around which successful agriculture revolves in the Mississippi Valley, and a trip through the northwest states of this rich valley is an inspiration to every dairyman privileged to make it. With a high resolve and a clear vision of the possibilities of carving riches out of this country, the farmers build their houses and barns permanently. They all look as though the owners had a firm belief in the eternity of things and their own ability to make the soil yield adequately. The homes are substantial and built for comfort; the barns are commodious and solid looking, intended to care for all farm development and to last forever. Every modern and sanitary device is installed therein and all these men who are operating these farms need is an opportunity to see this dairy industry of ours stacked up in national shape, to get under the better cow and better bull movement and to go on and improve the whole industry.

The strides they have made in dairy products production insures their right appreciation so that the conventions of the various integral parts of the industry and the Show will convey such an inspiration in a week that all of the fairs, and shows and instruction and research work going on in the entire nation could not give in years, and proves the proposition that when we all work together we are a power and an influence. When operating separately we are largely wasting energy.

Now all that remains to be done is for every man and woman interested in putting the ice cream business upon the highest possible plane for proper recognition in this big dairy industry as a whole, to constitute themselves as a committee of one to insure the success of all ice cream activities at their 1921 convention.

I have been privileged to get a glimpse behind the curtain of what is being prepared by the local manufacturers of St. Paul and Minneapolis for the visitors and I say it is great.

Come one! Come all! And let us make a showing of real strength and purpose that will be inspiring to each and all of us.

⚜

INDIANA ASSOCIATION STRONGEST IN ITS HISTORY.

In a bulletin to members, Secretary A. P. Holly, of the Indiana Manufacturers of Dairy Products, says that the membership of the association is the largest it has ever been. We might add that from all appearances it is still going strong.

⚜

The woman who marries a man to reform him would have equal success trying to sweeten rancid butter with cologne.

On Hand

We have always watched our stocks closely, never permitting them to become so low that we could not give immediate attention to your orders. And the trade has learned to appreciate this and depend on it. A good policy for both of us.

N. A. Kennedy Supply Co.

Manufacturers and Jobbers

Kansas City, Missouri — Oklahoma City, Oklahoma

"STAY-ON" TUB COVERS

BEST IN EVERY TEST

SOLD BY ALL DEALERS

CANVAS PRODUCTS CORPORATION

FOND DU LAC, WISCONSIN

SEALRIGHT COMPANY, INC., SAYS, "COME TO THE DAIRY SHOW."

"Yes, siree," and most emphatically so, we believe in the National Dairy Show. We know of no single event in the dairy industry of such great importance to all of us as the Dairy Show. Here is the one big opportunity of the year to "meet up" with the doers, those who make for progressive dairy development.

It would be difficult to imagine how any wide-awake ice cream manufacturer, on the alert for better ideas and for means of making his business a better business, is not going to get full value received by attending the Dairy Show. With the splendid opportunity of rubbing elbows with progressive manufacturers, exchanging ideas, seeing the latest and best in equipment on display and having this new equipment thoroughly explained, surely every ice cream manufacturer will return to his business enthusiastic, stimulated and "full of fight" to make his next year a bigger and more profitable year.

We are strong for the Dairy Show. And we believe every reader of The Ice Cream Review who attends it and visits our booth will be impressed with the fact. Our faith in the Dairy Show and the extent to which we are glad to support it will be best expressed by these two facts: (1) We have taken considerably larger space this year. (2) Our display will be a most impressive one. We shall not attempt to describe it here other than to state it will be very much worth your while to visit it. It will give you some very vivid and striking ideas which you can take home with you and apply in a practical and profitable way in your business.

The "RICHMOND"

CEDAR PACKING TUBS



NEW STANDARD PKG TUB (VA. CEDAR)

Quality and Workmanship Count. In the "RICHMOND" Tubs—we have both. Made of Selected Virginia White Cedar. Heavy galvanized iron hoops—thick staves and stout bottoms. Prices gladly given on all sizes.

RICHMOND CEDAR WORKS

RICHMOND, VA.

SUGGESTIONS WANTED.

To All Members:

You have received a former letter announcing the dates and city for the 1921 convention. In that letter we requested you to send in any suggestions for papers to be presented, and if possible to name some speaker whom you believe would be most competent to present the same.

It is the desire of your program committee to make these meetings both interesting and instructive. This is your convention and your co-operation is both required and requested.

Do you favor formal addresses of general interest to the industry, or would you prefer subjects of interest to manufacturers' problems to be discussed by men in our organization who are qualified to talk on such topics?

As the committee on arrangements will have charge of the local end of the convention, we will advise you later on just what has been done, but, when it comes to the program, don't say, after it is all arranged, you would like to have a certain subject discussed. Now is the time; send in your suggestions to the Secretary and it will receive prompt consideration.

We also wish to call your attention to the National Dairy Show to be held on the Minnesota State Fair Grounds, Oct. 8th to 15th. This will include the convention of National Ice Cream Manufacturers, the International Milk Dealers, and other branches of the dairy industry.

This is a wonderful source of information and instruction, with a royal good time thrown in. The West always sends a good delegation, so let's go and show "the boss"—Mrs. VanderBie Babcock, of St. Paul, chairman of the committee, we will do our part.

In the meantime, don't forget your own convention —Nov.. 14th, 15th and 16th, in Seattle, Wash. It is going to be some meeting, with a probable trip to Vancouver, B. C., as an oasis.

Headquarters: Hotel Washington. Bring your plant men with you.

PACIFIC ICE CREAM MANUFACTURERS' ASSN.
Attest: J. E. Dunn, President.
Bert. H. Walker, Secretary.



HOME PROCESS FOR MAKING SODIUM HYPOCHLORITE.

On another page appears an advertisement by the Electro Chemical Company calling attention to their process of producing sodium hypochlorite for disinfecting purposes. It is claimed that by the use of electrolytic cells it is possible to produce the product at a very low cost. Where electricity can be obtained for two cents per kilowatt and salt at ¾-cent per pound electrolytic hypochlorite of soda can be produced for about one cent per gallon. This should prove of interest to large users whose plants are supplied with electric current.



Those who do not care how they spend their money are generally equally careless in the methods of acquiring it.

* * *

The man who considers it an insult to be dunned is generally blind to the humiliation of confessing that he cannot pay for what he wants, which is really the lesson to be drawn from the request for the credit.

This

"Mark of Merit"

means

Highest Efficiency in Operation.

Maximum Quality of Material and Construction.

⚜⚜⚜

Products of the *Jensen Creamery Machinery Company* are in use in the principal Creameries, Condensaries, Milk Plants, Ice Cream and Powder Plants in the United States.



We can supply the equipment you need.

JENSEN

Write us TODAY of any contemplated changes in plant construction or installations.

The Mark of Merit

Builders of "Equipment of Practical Efficiency"

Jensen Creamery Machinery Company

BLOOMFIELD, N. J. OAKLAND, CALIF.

Southern Representative:
Blanke Mfg. & Supply Co., St. Louis, Mo.

ALLENTOWN, PA., TO GET NEW ICE CREAM PLANT.

The following is extracted from an article appearing in a local Allentown newspaper, relative to the city's newest industry:

"The M. & G. Ice and Ice Cream Company, their factory being located at Tamaqua, with service stations at Allentown, Bloomsburg, Wilkes-Barre, and Scranton, have decided to build a factory at Allentown to take care of their increased businss, to cost approximately $500,000. Plans are now being made by various architects, and the one most adapted will be selected. This will be a modern ice and ice cream factory, and probably the largest of its kind in the State of Pennsylvania. The building will occupy the ground purchased a year ago, 222 feet by 290 feet, located at the northeast corner of Union Boulevard and North Plymouth street, in the Fifteenth Ward of the City of Allentown, along the intended boulevard between Allentown and Bethlehem, and will be 160 feet frontage on Union Boulevard by 160 feet deep, with railroad siding adjoining.

This building will consist of a modern fireproof reinforced concrete and brick building, and will be three stories high. The building will be used exclusively for the manufacture of ice and ice cream, and will also have in conjunction with the factory a garage to store thirty trucks, a truck repair shop, a paint shop, cabinet shop, retinning can shop, and their own sign and advertising shop, and also a tub cooperage shop; or in other words everything used in the manufacture and service of ice cream will be made right under one roof. The plant will be designed with the foremost purpose of cleanliness, and their entire manufacturing process will be in full view of the public to show how M. & G. ice cream is made and where no hand touches the product from the time of its mix until it is delivered to the customer.

The ice cream freezers will be eight in number, and of 400 quart capacity each, which will give an output of 8,000 gallons in a ten-hour day, and working two shifts will manufacture 16,000 gallons a day, or an average yearly output capacity estimated at 29,200,000 gallons, working eight hour days. The hardening rooms will also be located on the same floor. These rooms are used to harden the ice cream after freezing. These rooms will be of heavy insulation and will hold approximately 40,000 gallons of ice cream.

The can washing and sterilizing machines which will be the most modern of their kind, where the can is placed at one end and comes out clean and sterilized at the other end, will be located on the same floor, and will be right in back of the freezing room.

The loading car will be loaded on North Plymouth street, with railroad siding adjoining, with platform capacity provided to load eight trucks at one time. Four mammoth ice crushers surrounding each conveyor will be installed to crush ice for loading these trucks to serve the customers. There will be thirty trucks used in serving Allentown, Bethlehem, Easton, Phillipsburg, Northampton, Catasauqua, Nazareth, Bath, Bangor, Kutztown and territory along into Reading. These trucks are of the A. B. C. type, made in St. Louis, and have special refrigerator bodies, which makes salted ice unnecessary and eliminated salt water from ruining asphalt streets in the town and cities wherever these trucks will serve.

On the second floor the main offices of the company will be located. These will be very large and roomy. There will be a general office, directors' rooms, president's room, sales office, purchasing department, advertising office and private offices for the executive office of the company. The laboratory will be adjoining this, where all ingredients used in the manufacture of ice cream will be tested, the same as tested at the factory at Tamaqua, Pa.

The mixing room on the second floor will have all modern appliances for the clean and sanitary production of the mix. It will be in tile floors and terazza. It will contain two 1000 gallon pasteurizers, two homogenizers, two clarifiers to clean the milk and cream, and four 2000 glass lined cooling vats for the holding of the mix until it is ready to freeze. Large sized elevators will be installed.

The raw cream storage room for the holding of the cream will be placed on the third floor. As all cream and milk in its raw state is bought in carload lots, same will be dropped inside the platform in the building in a large receptacle with pump connections which will pump this cream and milk into the vats on the third floor, eliminating a lot of handling of cans and assuring sanitary conditions.

Two hundred and fifty tons of ice tanks for the manufacture of ice, and two large ice storage rooms will be provided to hold approximately 5000 tons of ice. In addition to this the third floor will be used for the storage of all other raw materials and for the repair and making of cabinets, retinning of cans and laundry for laundry of clothing of the help who will be continually dressed in white, the sign painting department, and also the tub cooperage department.

The basement will have the most modern ice making refrigerator machines of 300 ton capacity also other auxiliary apparatus such as pumps and air compressors, which will be used in pumping the water through the buildings for which artesian wells will be

Some Special "Off Season" Business Opportunities for Progressive Ice Cream Manufacturers

There are always a lot of people demanding "something different" for card parties, dances, banquets and various other social functions. Ice cream novelties fit in where many other novelties fail.

Your ability to furnish a fitting novelty enables you to suggest your specialties for specific social functions.

Innumerable ways are open to the progressive ice cream manufacturer to promote sales through the use of assorted centers, using different designs and coloring to beautify the goods for the Fall and Winter season.

An outfit is inexpensive, offers big possibilities and the different attractive designs and combinations can be changed often.

Full details of outfit on request

C. B. TELLING, 10325 Empire Avenue, CLEVELAND, OHIO

ICE CREAM

The Burdick-Garrison Co.'s "Planned in Advance" Advertising Campaigns Produce Results

Our "Planned in Advance" Advertising Campaigns are not confined to any one feature, but are complete Ice Cream Advertising Campaigns covering every phase of Ice Cream Advertising and Sales Effort. Our "Planned in Advance" Campaign will benefit your business and increase your Dealers' Sales.

A definite follow-up system accompanies our distinctive service returning gratifying results at *Less Cost Per Gallon* of Ice Cream sold than the average amount paid for advertising materials without any service or direction of sales effort.

We will gladly submit a preliminary plan for your consideration. Write us *Today*.

What we have done for others we can do for you.

THE BURDICK-GARRISON COMPANY
INCORPORATED

225 FOURTH AVENUE NEW YORK, U.S.A.

ADVERTISING CAMPAIGNS AND
SALES PROMOTION MATERIALS

SPECIALIZED FOR ICE CREAM MANUFACTURERS AND THE DAIRY INTERESTS

THE NATIONAL DISH

sunk, as M. & G. in all the factories that they build use their own water.

Operations to commence between September 15th and October 1st, and the plant is to be completed on or before March 1st, 1922. Just as soon as plans have been decided on bids will be asked for and work rushed to completion.

History of the M. & G. Company.

The M. & G. Company was organized as a partnership existing between John G. Mealey, the originator of this ice cream business, and John I. Goade, in May, 1919. Ground was broken for their plant at Tamaqua, Pa., May 12, 1919, and completed September 24th, 1919, making ice cream four months and twelve days after ground being broken. The remarkable growth of this company is evidenced by the fact that within less than two years' time the factory at Tamaqua has been overtaxed in the capacity of ice cream making and on January 1, 1921, the company was incorporated, taking in the following directors, to-wit: Carl Bauer, Oscar G. Tallman, John A. Nallin, Fred W. Weaver, Jacob Maurer and Joseph Gorman and J. H. Walker, with the co-operative plan in mind so as to enable them to expand and take on territory demanding the wonderful and superior product. Accordingly after the incorporation they established a service at Bloomsburg, which takes in that territory of twenty-mile radius of the towns of Nesquepeck, Berwich, Shickshinny, Danville, Sunbury and many other hamlets and and towns in that section. Later on, in February, they decided to open Allentown, and have made such remarkable success that the result is that they decided to build this factory here to take care of the increased business. Since having this in mind they are opening Scranton and Wilkes-Barre as one service station, September 1st, which next spring will be two separate service stations, and will take in all the towns in that territory. It is a wonderful achievement and shows good business methods that has made this great expansion possible, and when the plant at Allentown is finished the public in this vicinity will be invited through their dealers to go through this plant, and not only see how M. & G. ice cream is made but have a taste of the superior quality, and they state that they will assure the public that from time to time, as production increases, the service will be improved upon to the remotest territory.



If you are tired of your business, don't worry over it. Advertise it for sale in The Ice Cream Review Want Department.

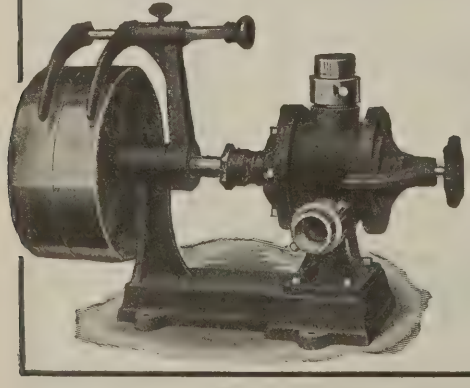
REVOLUTIONIZING OLD ESTABLISHED IDEAS TO COMPLY WITH TWENTIETH CENTURY DEMANDS IN THE WHOLESALE MANUFACTURING OF ICE CREAM.

From time immorial the wholesale manufacturers of ice cream seemed to feel that the ideal type machine for manufacturing their product successfully was represented by what is known as the 40-quart machine; they based their conclusions entirely on the thought that any larger type machine was impractical, owing to the length of time consumed in emptying, which would tend to beat the swell out of the mixture to the detriment of its character and value, which theory was absolutely correct based on the old-fashioned principles of construction, etc., with the result that, as the demands on the ice cream factories developed, in order to accommodate the condition, the ice cream manufacturers naturally had to add additional space, capital, labor, etc., in order to take care of these demands, until a situation developed where a number of the factories have from a dozen to twenty 40-quart machines in a row occupying a space anywhere from 400 to 800 sq. feet, representing considerable investment, and calling for additional labor in order to take care of the many machines while in operation, as well as considerable expense devoted to the repairs and upkeep of such a number of machines, a condition which eventually brought the ice cream manufacturers face to face with the high cost of overhead and demand on space, a fact which demanded considerable amount of study as to the way of overcoming what was developing into an actual loss.

They very nicely adopted the sane method of taking up this condition with some of the reliable machinery manufacturers, who in turn have devoted the resources of their Engineering Department, their Drafting Room, their Shops, and personal experiences and knowledge, with a lavish hand, in an effort to overcome these trying conditions, with the result that the leading manufacturers of ice cream machines are to-day devoting their most earnest attention to developing a type of apparatus which, while constructed on the same general lines as the smaller machines in universal use, are capable of turning out large batches ranging up to more than four times the size of the smaller standard 40-quart, doing it with less cost of power, less labor cost, occupying considerably less floor space, costing considerably less money in proportion, and turning out as good, if not a better product in less time than with the smaller type machines.

The writer while making a personal investigation of this subject amongst a number of the leading manu-

Taber Creamery Pumps



are the most sanitary because they are entirely dissectable. Demand a Taber Pump from your jobber. If he cannot supply you we will sell you direct. Address:

Taber Pump Company
297 Elm Street
BUFFALO, N. Y.

Automatic Cone Machines

with which you can make a better cone, at a less cost, than with any other known device.

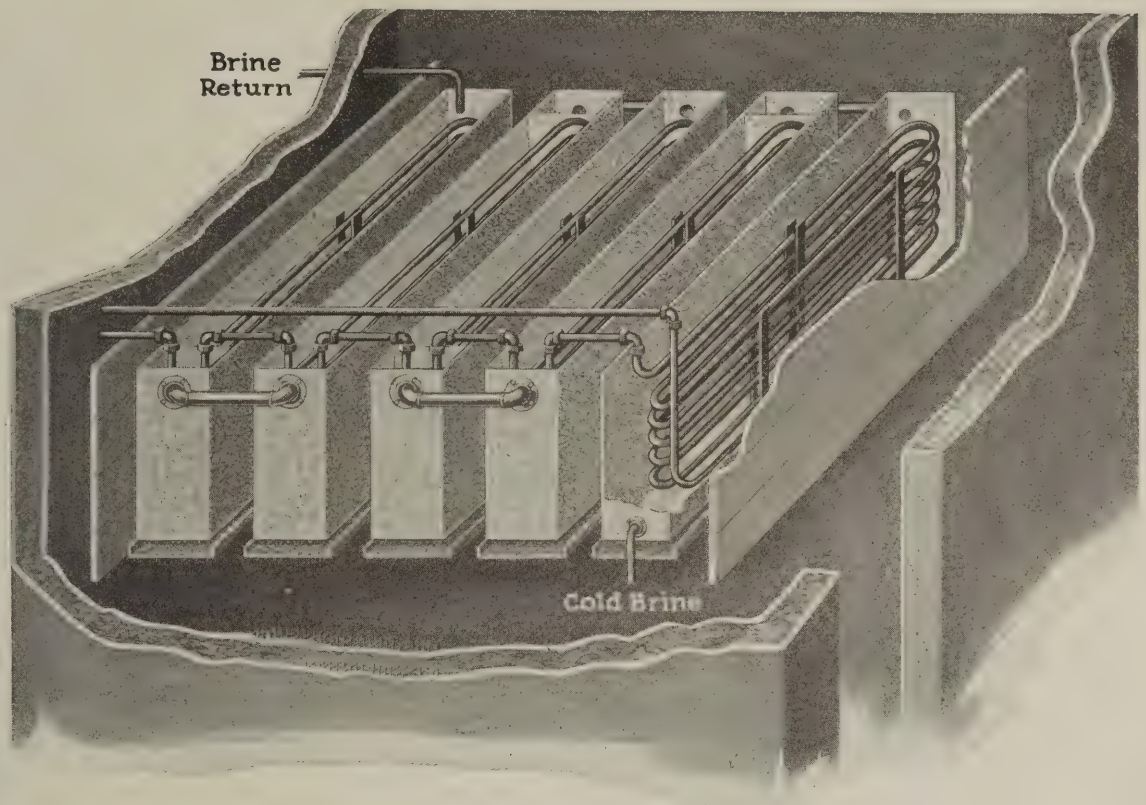
Prepare now for 1921 cone business.

We also have several automatic machines of another make, as good as new, on which will make attractive prices.

Will thank you to write us.

The Cream Cone Machine Co.
CLEVELAND, OHIO

Do you maintain the same temperature in your brine from the start of cooling milk to the finish?



The above illustration shows the X L Refrigerating Co.'s brine storage system for pasteurizing and cooling milk and cream. This system consists of a series of tanks having direct expansion coils submerged in brine.

The tanks are connected from one to the other by large equalizing pipes in such a manner that the coldest brine comes in direct contact with the coldest ammonia, thereby giving you a steady even temperature of cold brine at all times from the discharge tank. Owing to the fact that the warm brine enters where the ammonia is the warmest there is a uniform difference in temperature in each tank between the expansion coils and the brine.

By using the X L system we can guarantee to store 3 to 4 times more temperature than you can get by using the double pipe or shell type brine cooler which is liable to freeze and burst at any time.

Important Facts You Should Know

More than double the refrigeration stored in the brine equal to our combined tanks.
More than double the radiation in your storage cooler after pasteurizing.

Our engineers are at your service at all times; they are experts in this line.

If you contemplate installing any new refrigerating equipment or making any changes, consult us before you buy. We will explain and show you a superior equipment which costs less and has less operating expenses.

THE X L REFRIGERATING COMPANY, Inc.

Builders of Complete Refrigerating Plants

59th and Honore Street **CHICAGO, ILL.**

facturers of ice cream during the past few weeks in an effort to get a clear cut expression from the factory heads, was amazed at the general approval of the new thought "that the larger size machines have come to stay";—they were doing everything that was expected, producing the swell, a smoother product, and, strange as it may appear, do the actual work in about the same time it took to freeze with the smaller apparatus.

During these investigations we found that one of the leading manufacturers of machines proposed to show one of their very large machines at both the National Dairy Show, and the Buffalo Convention as well. This apparatus, as designed, will be practically a "continuous performance machine," the capacity of which will be about twice the quantity of any other machine of its kind yet built, and as this concern is one of the oldest and leading manufacturers of the line, we feel that his assurance of the practicability of such a type machine is a forerunner of its success, which only tends to prove that this revolutionizing of the manufacturing end of the ice cream business apparently is yet in its infancy, and we would suggest to the readers of this article that while at either the Dairy Show or the Buffalo convention that they pay particular attention to the actual developments that have occurred in the manufacturing of these larger type ice cream machines during the past year, all of which has been done with the thought in mind of trying to keep astride of the demands of the 20th century wholesale ice cream trade.—Contributed.



IOWA DAIRY COURSE.

The six month's dairy course offered by the dairy department of Iowa State College will begin this year on September 26th. The fall quarter closes December 22nd. The winter quarter begins on January 2nd and closes March 22nd, 1922. Anyone desiring to take only three months work may register for work in either quarter.

The training acquired in the six month's course together with practical experience, enables the students to fit themselves to manage and operate dairy establishments. Butter, ice cream, and cheese factories and market milk plants all drawn upon the six months' course for men. Some of the students, however, engage in the dairy business for themselves upon completion of their course. A student desiring to enter the six months' course must be at least seventeen years of age, and must have satisfactorily completed the eighth grade of the public schools or its equivalent. Students with some experience may be recommended for positions by the department after one three months' term, but those without previous practical work are required to complete satisfactorily the six months' course before receiving the recommendations of the department. A certificate is granted to those who complete the course satisfactorily and give evidence of having successfully operated a dairy establishment for a period of two years.

Students may enter the six months' course in either the fall or winter quarter. The studies outlined for the two periods are as follows:

Fall Quarter	Credits
Dairy Practice	6
Buttermaking	2
Milk Testing	2
Manufacture of Ice Cream and Ices	2
Dairy Chemistry	2
Dairy Machinery	3
Dairy Cattle, Breeds, and Judging	2
Physical Training (Required)	0
	19

Winter Quarter	
Dairy Practice	6
Buttermaking	1
Cheesemaking	1
Milk Testing	1
Factory Management	2
Judging Dairy Products	1
Market Milk	1
Dairy Bacteriology	2
Dairy Cattle, Feeding and Management	2
Farm Crops Production	2
Physical Training (Required)	0
	19

The ten day short course for experienced operators and managers of dairy plants is given from February 8 to 18, 1922.

For further information, address Dairy Department, Iowa State College, Ames, Iowa.



THE THOMSEN ICE CREAM CO. IN THEIR NEW PLANT.

No. 512 North 15th St. is the new address in St. Joseph, Missouri, of the Thomsen Ice Cream Company. Mr. F. L. Thomsen, president, extends a cordial invitation to friends to call and see their fine new plant.



CHICAGO
NEW YORK
PHILADELPHIA
BUFFALO
ST. LOUIS
MILWAUKEE
LOS ANGELES
SAN FRANCISCO

Clarkson Gelatine Works

Manufacturers of

FOOD GELATINES

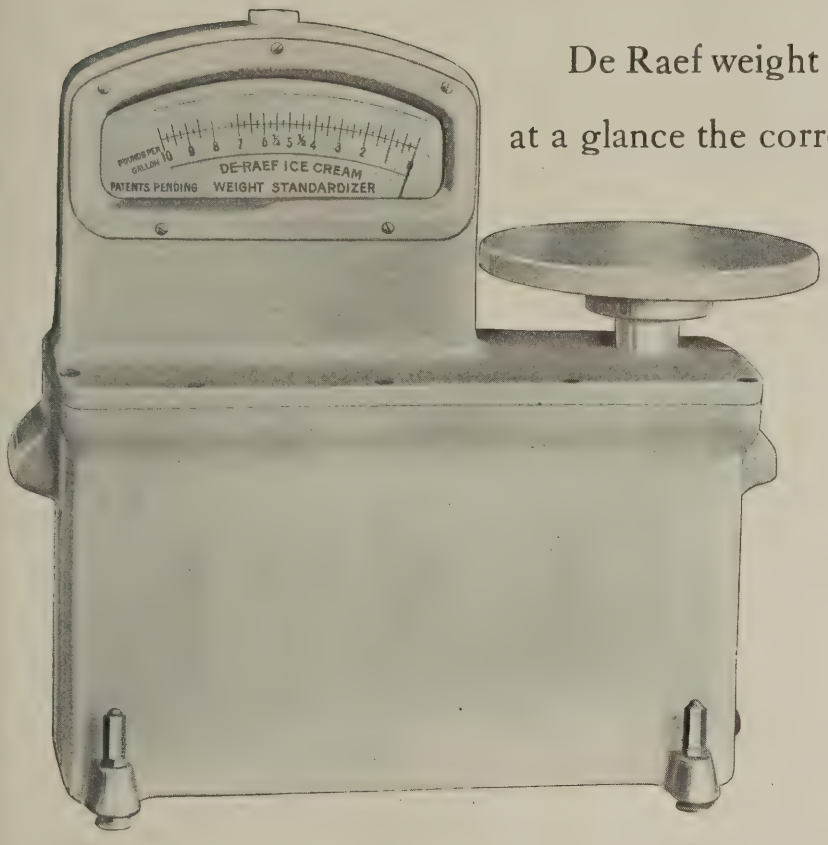
Write Us Regarding Our Supreme Pure Food Gelatine
No Better Stabilizer

Superior in Purity *Odorless and Tastless*
Economical in Price *Uniformity Always*

WE GUARANTEE TO SHOW YOU A SAVING

Standardization of Ice Cream

By Weight Per Unit Volume



De Raef weight standardizer tells you at a glance the correct weight per gallon, while the ice cream is still in the freezer, giving the ice cream maker full control of a standard weight per gallon as well as a given over-run.

No weights—no charts—no counter balances —no telescopic cups — no adjustments — no magnifying glass to read dial—no figuring—always ready for operator—water proof and rust proof.

Works automatically—reading can be made ten feet away—large black figures on white dial. Will give correct weight per gallon of ice cream, regardless of weight per gallon of mix.



De Raef Ice Cream Weight Standardizer circular sent on application to the Ice Cream Department

N. A. KENNEDY SUPPLY COMPANY
KANSAS CITY MISSOURI

MICHIGAN MEN MAKE MERRY AT BAY CITY.

Michigan Association of Creamery Owners and Managers Have As Their Guests Members of the Michigan Allied Dairy Association and Michigan Dairy Boosters.

By F. R. Frary, Secretary.

Thursday morning (Aug. 11) broke with the gray clouds hanging dismally close and a chilly northeaster doing her best to battle old Lake Huron into Saginaw Bay. But it takes more than this to daunt the courage of the Michigan bunch, and as we filed up Center street, from the hotel to the Board of Commerce building, our numbers and the attractiveness of our crowd (he was looking at the ladies then) bewildered the traffic cop to the point of holding up all cross town business awaiting our leisure in marching the three blocks. Old "Sol", too, smiled on us after his early morning bluff had failed.

When Lewie and his crew had completed their last lap in the distribution of fish laden plates, just 142 elbows were keeping time with hay-tedder precision to Charlie Porter's jazz orchestra, which, believe me, was going some.

After the smoke cleared away and the bones were removed, the same said Charlie Porter proceeded to further punish his captors by demanding that they actually sing three closely typewritten pages of home-made doxology, phrenology and bunkology designed with more or less evil intent to apply to local conditions and individuals.

After this very clever (?) stunt, it was discovered that the meeting was without a president, vice-president or even an acting chairman, so upon someone's suggestion, Mr. Seidel was quite appropriately selected to fill the Chair.

Martin's judgment in the past had never been questioned, but on this occasion he weakened and his first act was to call on a personal Bay City friend of his, by the name of O'Toole. Mr. O'Toole made a good fellow of himself all right by occupying the stage for twenty minutes and amusing the crowd by his perfectly natural can't-help-it exhibit of wit and humor. But the next act was the crucial one. O'Toole has two young sons who have been in the professional boxing ring for four years and he climaxed his part of the performance by pulling a four round, honest-to-goodness boxing match. The boys were well matched, and a knock out blow at near the end of the fourth round had the ladies holding their already fluttering hearts.

Strange to say a burly policeman who had stood in the door witnessing the major part of the fight, had been apparently unnoticed until he strutted into the middle of the floor and demanded to know the chairman of the meeting. Someone blurted Seidel's name, wherupon this 250 pounds of "beef" bore down upon our white-faced, quivering Seidel, like a wild buffalo would charge at a sick sheep. The charge was of conducting a prize fight in violation of a city ordinance, and, in spite of demonstrations, friend Seidel was rudely ushered out, the officer all but being mobbed by fury-flamed men and indignant women. A committee of influential men, with C. H. Parker at their head, was quickly organized, and was preparing to speed to the city hall to bail out our disgraced leader when they met in the door the same officer, but with another Seidel. The Seidel that left a few moments before was white with fright, but when he returned dressed in a prisoner's garb, a grin as of satisfaction played across his face. Some men shouted for joy, while others shouted with anger; women wiped their eyes, and, finally, when order was restored, the rest of the program was completed without interruption.

Professor Bouska, in a report of some right recent research work, told of quite valuable findings regarding the acidity of butter. His address was too long and too valuable to attempt to give even the essence of it here, but we shall attempt to send this to our members later in a comprehensive form.

Professor Reed, Professor Anderson, Chas. Hack, Mr. Wendt and others spoke briefly. The Treasurer's and Secretary's reports were read, and the meeting was abandoned.

Mr. Frary is too modest to send us a copy of the songs he mentions in the above report, but we have other means of getting a good thing when we want it. The following were composed by Mr. Frary:

Good Business.

Key of G.

(Tune: "Auld Lang Syne")

Come men around this festive board,
Do honor each to all.
We'll bury hatchet, sheathe the sword
And heed a common call.
And here in friendship's nobler aim
We join our voice and hand
To tell the world in simple strain
That we a unit stand.

True, nectar's cup of sweet revenge
Stands beck'ning on the bar,
And we have quaft it long and oft
But learned to cast it far;
For ere we vent our foolish wrath
On brother, friend or foe,
We'll use the X-ray's searching gaff
Lest we the guilt might show.

We design your new plant to fit or make your present one fitter

A thorough knowledge of ice cream making, together with our wide experience in industrial plants, enables our staff of engineers to design a low cost high efficiency plant for you, or to increase production in your present one. One of our engineers will call on request, without obligation.

CHICAGO
645 N. Michigan Avenue

FRANK D. CHASE, Inc.
ENGINEERS—CHICAGO

ST. LOUIS
Railway Exchange Bldg.

So brothers here we blend our song
In nobler, saner strain,
Admit the goods of being wrong
And bear three-fourths the blame;
For when we've thus admitted fault
We've only done our part
To heal the breach and call the halt
That saves our business heart.

* * *

Key of F.

(Tune: "There's a Long, Long Trail")

There are green, green fields of clover,
There's scent of new mown hay,
And the calves are loudly bleating,
And the chickens lay;
There's the purr of sep-a-rator,
And my dreams all come true,
For I cashed my check today and
We'll get a "flivver," Sue.

I love those green, green fields of clover,
The scent's sweet to my nose.
I love the calves and Rover
And the home's repose.
I love the farm and fields and friendships,
They're the hope of my dreams,
For the cows they pay the mortgage
And the whole world gleams.

* * *

(Tune: "What's the Matter With Father?")

What's the matter with Overton of Allegan?
What's the matter with Kroft and the whole darned gang?
They make up butter and barrel the milk,
They sugar the whey and gloss the silk.
What's the matter with Overton, so spick and span?

They say he's due to be married—this fine young man;
But it hasn't happened yet, and we doubt if he really can,
For he's got three children an' a pony cart,
A Cadillac an' an awful start.
What's the matter with Overton, the president of our clan?



HELP, OR MILLIONS DIE.

There is famine in Russia—one of the most appalling tragedies of want known to history.

According to official reports thirty-five million people are threatened with early starvation.

Out of this tragic misery twenty-five million women and children cry for bread.

We appeal to you to help us save these suffering millions.

Owing to our work of distribution in Russia being carried on through the American Friends' Service Commiteee—a non-political, non-sectarian and non-racial force of humanitarian workers already on the ground and actively engaged in relief service—we are in position to make your gift render quick and effective aid.

Do not wait. Hunger cannot wait. Send your contribution **to-day.**

AMERICAN RELIEF FOR RUSSIAN WOMEN AND CHILDREN,

1400 Westminster Building, Chicago, Ill.

JANE ADAMS, Chairman.

Members of Committee of Fifty-seven: Dr. Frank Billings, Judge Hugo Pam, Hon. Walter L. Fisher, Mrs. Raymond Robins, Rev. Herbert L. Willett, Ex-Gov. Edward F. Dunne, Bishop Charles P. Anderson, Mrs. Julius Rosenwald, Rev. John Timothy Stone, Mrs. Esther Loeb Kohn, Marquis Eaton, Mrs. Emmons Blaine, Judge E. O. Brown, Grace Abbott, Sidney Hillman.

Test Your Milk

USE DAIRYMEN'S TRUE TEST

An Instantaneous, Perfect, Sour Milk or Cream Test

Dairymen's True Test is a chemical preparation showing immediately whether milk or cream is sweet, turning or sour. Saves time, money, guesswork and disputes. Take no chances. A second's work and you are positive.

In the following quantities:

No. TT100. 1 Gallon Can..$2.50 per gal.
No. TT101. 5 Gallon Can.. 2.25 per gal.
No. TT102. 10 Gallon Can.. 2.00 per gal.

DAIRYMEN'S TRUE TEST OUTFIT

consists of 1 gallon of True Test, 13 glass tubes with rack for holding or carrying about, special dipper for dipping the milk or cream and brush for cleaning tubes after completing test.

No. TT103. Complete $5.00
No. TT104. Complete (except 1 gal. True Test) 3.50

Full Directions with each Outfit.

DAIRYMEN'S MFG. & SUPPLY CO.

B. RILEY HAUK, Pres.

403 North Main St. ST. LOUIS, MO.

BUY

D.C.C. Shipping Tubs

These points insure longer life under roughest usage:



1—Staves standard size, 1¼ in. thick, of select Western Cedar.

2—Stanleys drop handles used.

3—18 Gauge Galvanized Hoops.

4—Beer keg type of bottom flush with end of stave. Strongest construction known to cooper's art.

5—The best known Brine Resisting Enamel used throughout.

Save money by dealing direct with Manufacturers. Write for prices.

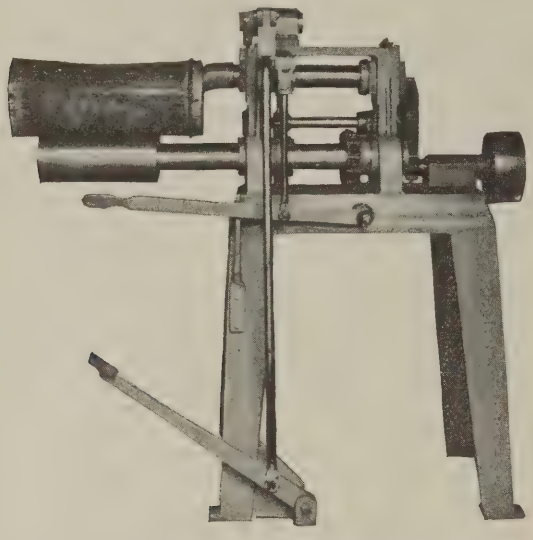
DULUTH COOPERAGE CO.

DULUTH MINNESOTA

THE "WACHO" IS DEVICE FOR STRAIGHTENING CANS.

The "Wacho", a new type of machine, designed for straightening dented cans, has been invented by Walter Wachowitz, president of the Manitowoc Plating Works, Manitowoc, Wis.

This novel and timely machine, which is the result of his ingenuity, it is claimed, means the saving of



thousands of dollars to the manufacturers of ice cream and to the operators of hundreds of dairies throughout the world. The machine is very easily operated and requires no skilled mechanic. It is a comparatively simple device and weighs slightly in excess of 1,000 pounds and is equipped with three 18 inch 80-pound rollers which are operated by a lever. Two of the rollers remain on the outside of the can while the other circles the inside. The machine can be operated upon one and one-half horsepower and moves on high speed gears and sprockets.

Business men of the United States and London, England, have already made Mr. Wachowitz offers for his patent rights.

The advertisement, which concerns this machine, can be found on another page in this issue of The Ice Cream Review.

FRANK J. TOWAR WAS VETERAN IN CREAMERY BUSINESS.

The death of Frank J. Towar, the veteran creamery head of the Towar Creamery Co., of Detroit, Mich., is a great loss to that community, and he will be sadly missed by all who knew him.

Mr. Towar was 68 years old and came to Detroit with his father, Geo. W. Towar, in 1860. His father, at that time, founded the Towar Creamery Co. with which the son was associated and of which he became president and general manager in 1890 at the time of his father's retirement. He kept the active direction of affairs of the company until five years ago.

In 1882 Mr. Towar was married to Mrs. Elizabeth Sherwood Jelly, who survives him. There are three sons, Edgar T. of California, Albert J. and Frank J. Jr., and two daughters, Marion and Margaret, all of Detroit, left to mourn his loss.

Mr. Towar passed away at the Grace Hospital, where he had undergone a minor operation; his death was attributed to shock.

Another New Development in Condensing Pans



Which Increases Capacity 25% Reduces Labor—Easier to Clean—Lower in Cost

OUR new type pan evaporates more milk per pound of steam; it condenses the vapors with less water; it requires less height and can now be erected in most plants without building changes. The milk outlet of the pan is in the bottom close to the side and eliminates the necessity of getting under the pan to draw off the milk.

Another notable feature is the simplicity of cleaning. Both the pan and condenser are cleaned with minimum effort. The sides of the condenser are readily accessible and can be easily kept just as clean as the pan—and with no more effort.

Best for Condensed Milk—Evaporated Milk
Ice Cream Mix — Condensed Buttermilk

Write for full information and prices

We will be represented at the National Dairy Show
Booth 169

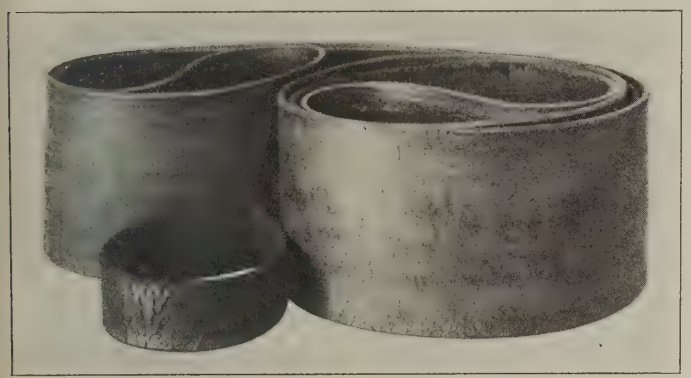
C. E. ROGERS 8731 Witt Street **Detroit, Mich.**

The Care of Leather

From Bulletin No. 1183, by F. P. VEITCH, Chemist in Charge, H. P. HOLMAN and R. W. FREY, Assistant Chemists, Leather and Paper Laboratory, U. S. Department of Agriculture, Washington, D. C.

FOR several years the supply of leather in this country has barely met the demand, even with an annual importation of hides and skins nearly equal to the domestic supply. This condition, due largely to extravagance, to fads, and to neglect, makes it highly important that the American people see to it that their boots and shoes, harness, and machine belts last as long as possible.

As a nation, we buy some 300,000,000 pairs of shoes a year. Our needs could be supplied by 250,000,000 pairs, if they were well cared for and kept in repair. As a rule, harness lasts the farmer far less than ten years. If the right kind of attention were given to its manufacture and use, it should last for 20 years or longer. Belts for driving machinery often become impaired, if not useless, within a few years, even on straight drives. A good leather belt, suited to the work to be done and properly installed, will run for from ten to thirty years.



Result of Lack of Care or Poor Quality of Leather Belting.

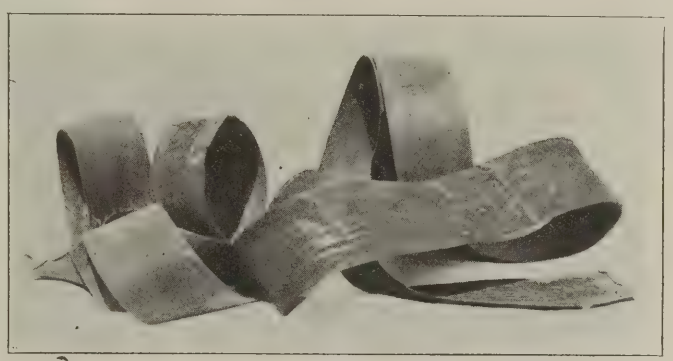
Every pair of shoes, every machine belt, and every piece of harness that is allowed to go to waste or that is not made to yield full service must be needlessly replaced by other leather, thus keeping prices high. Including leather made from imported hides, the leather supply in the United States is large enough to provide every one with an average of two, or even two and one-half pairs of shoes a year and to keep them in repair, as well as to replace all harness and machine belts every ten or 20 years, at reasonable prices. It is doubtful, however, whether the leather-making materials produced in this country, supplemented by those which can be imported, will suffice to meet the demand for three or more pairs of shoes a year for each person, for a new harness every two or five years, and for new machine belts every five or ten years, as is now too frequently the requirement.

The suggestions and directions given in this bulletin, if followed by the public, will go far toward conserving the supply of leather, and materially reduce the individual expenditures for leather goods.

Harness

Harness made of good leather and heavy enough for the work required of it will last for many years if cared for properly. It is more economical to buy harness that is too heavy than to buy that which is too light for the work. With good care, harness of the proper weight and quality will last at least fifteen years, and in many cases harness used on the farm has been in service for twenty-five years or longer. On the other hand, the Department of Agriculture has received many reports, especially from the Southern States, showing that harness lasts only from two to five years. This should not be so. It means that the harness used is too light, is of poor quality, or is not cared for properly.

Selection. Select harness with care. See that it is well made. Make sure especially that the reins, breeching, holdback straps, tugs or traces, belly bands, and yoke straps are sufficiently heavy and strong for the work required. A runaway team cannot be controlled with weak reins, nor will weak tugs and straps stand heavy work.



Effect of Proper Care of Leather Belting.

No portion of the harness should show cracks on the grain side when the leather is sharply bent. New leather that does this is worthless for harness or belts, and old harness or belts showing cracks are deteriorating and will soon fail if subjected to heavy loads. Since strong acids prove injurious to harness leather in time, it is to the purchaser's best interest to buy harness which does not contain such materials. Grease in moderate quantities, up to 20 per cent, protects, preserves, and strengthens harness leathers. More than 25 per cent is not necessary.

Care. Neglect of harness results in injury that greatly lessens its durability. The sewing, which should have been done with strong waxed linen thread, must be kept in good condition. All buckles should remain solidly in place. It is advisable to wash and oil harness frequently.

For washing, use tepid water, a neutral soap, such as castile or white toilet soap, and a sponge or fairly stiff brush. Hardened grease is very conveniently removed by scraping with a dull knife. Rinse in clean, tepid water, and allow the harness to hang in a warm place until it is no longer wet, but still damp. Then oil it and leave it in a warm place for 24 hours before being used. Harness should be oiled or greased while still damp; otherwise, it may take up so much grease that it will pull out of shape or take up sand and grit, which will injure it, as well as spoil its appearance. Harness should never look or feel greasy.

Neat's-foot or castor oil, or a mixture of these with wool grease, is good for driving harness. For heavy harness use a mixture of tallow and cod oil, or neat's-foot oil and tallow, or a mixture of any or all of these with wool grease to make a paste having about the consistency of butter. Apply the grease lightly to driving

Tell Your Friends and Neighbors You Are Going To The WORLD'S GREATEST DAIRY SHOW, MINNESOTA STATE FAIR GROUNDS, October 8-15

The Home of "Vanite"

The Pyramid Oil Co., whose general offices and part of their plant at 2424 University Ave., Minneapolis, is shown in the above picture, has capital stock of one-half million dollars.

At the present time this company operates 80 tank stations throughout the northwest, Minnesota, Wisconsin, Iowa, North Dakota and South Dakota. It also has distributing agencies as far west as Seattle and San Francisco. The plant in Minneapolis has a storage capacity of 300,000 gallons of gasoline and 175,000 gallons of lubricating oils. It is fully equipped for the manufacture of high grade soap and soap products, core oil, greases, auto oils and other lubricating oils.

Recently the Pyramid Oil Co. took over the manufacture of the celebrated polish, Waxit, and they have increased the use of this commodity until it now has a National distribution.

Among the other lines manufactured by this company are Vanite, the great water softener, which is very popular in the dairy industry. Its use is constantly increasing and is endorsed by many leading ice cream factories, milk bottling plants, creameries, cheese factories, etc.

Officers and directors of the company are as follows: W. M. Jacobson, president; Dudley Warner, vice president; G. N. Mitchell, vice president; C. O. Teisberg, secretary; C. E. Ekstrom, treasurer; J. N. Knutson and Chas. J. Hedwall.

Sales Department: G. N. Mitchell, sales manager; F. A. Kortsan, assistant sales manager and advertising manager.



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such preparations may be recommended, avoid them. Their use will hasten the rotting of the leather.

Should any part of your harness break under circumstances that indicate leather of poor quality, you are asked to send about one foot of the broken strap to the Bureau of Chemistry, United States Department of Agriculture, Washington, D. C., with a full and careful statement as to how long you have had the herness, what care you have given it, and the conditions under which it broke.

Driving Belts.

Selection. Belts for driving machinery should be selected with particular care, bearing in mind the character and continuity of the work each is to do. The selection of the proper belt for a given installation involves consideration of load, width, thickness, length, speed, ply, size of pulleys, and horsepower. Ordinarily the competent belt maker's advice as to the proper belt for a given installation should be followed.

It is more economical to use a belt that is too wide than one that is too narrow. If the belt is not suited to the work it gives trouble continually, causing shutdowns of machinery that will quickly cost more in loss of time and wages than many good belts. A belt should always be sufficiently flexible to cling closely to the smallest pulley over which it passes. If it does not, it is not adapted to the work, and, in addition to loss of time due to frequently running off, it may crack on the grain within a short time, thus weakening it as well as causing it to stretch (fig. 1). Furthermore, it will slip on the pulley, thus losing power and becoming heated, which hastens its deterioration. A belt should run slack rather than tight.

Note carefully the condition of the belt when it is new. While it evidently contains grease it is not greasy. It should be flexible and feel firm, mellow, and smooth. An effort should be made to keep the belt as nearly as possible in its original condition. Do not allow it to become hard and harsh. It will run from ten to twenty-five years or longer, provided, of course, it was well made from good material, is adapted to the work, and is kept in good operating condition (fig. 2). Heavy, wide belts last longer than small belts.

Care. Satisfactory service cannot be expected from a belt that is too light or too heavy or otherwise not adapted to the work. Neither can a belt be made to give satisfactory results if it slips, does not run true, is not properly laced, is run too loose or too tight, is subjected to rapidly alternating light and heavy loads, is alternately wet and dry, is run on pulleys that are not true or are too small for the weight and thickness of the belt, or is neglected and allowed to deteriorate for lack of grease. Keep the belt clean and free from excess of grease and belt dressings. Unless frequently wiped off, dust and dirt work into the belt and damage

[1] Castor oil will not mix well with mineral waxes, such as petrolatum or paraffin.

(Concluded on Page 186)

Great Educational Value as Well as Business Opportunities Offered by National Dairy Show

By U. S. Freezer and Machine Corporation

THE big National Dairy Show is, by virtue of its size and scope, one of the most impressive spectacles offered in the course of the business year, as befits one of th largest industries of the land — the dairy business.

The convention of the National Association of Ice Cream Manufacturers, being held at the same time and place that the big National Dairy Show takes place, gives ice cream manufacturers double reason for being there. Tremendous strides have marked the progress of the ice cream industry in the course of the last five years, and it is now one of the most active and progressive in America. The National Dairy Show offers an ideal opportunity for giving expression and showing the results of this wonderful spirit of improvement and expansion.

There is no better opportunity for all those interested — cattlemen, dairymen, jobbers, dealers, manufacturers, restaurant keepers, confectioners, retailers, the general public, and all others interested in dairy products and the epuipment for manufacturing them— to meet on common ground and learn from each other and the numerous displays, what new developments have taken place in the past year. It gives all visitors a chance to grasp, in the course of a few days, educational information covering the whole field, or any special division of it, which it might otherwise take weeks and months, perhaps even years of study, research and traveling to get. Buyers and sellers can transact business under ideal conditions for making comparisons and using good judgment in making all decisions.

The ice cream business has now reached the sound commercial basis of an established industry, and is at present showing an irresistable trend toward huge plants and large scale production. More improvements have been made in the last year in the equipment for manufacturing ice cream than in any other branch of the dairy industry. These are necessary that lower prices for ice cream may be established to stimulate business and help to make ice cream a more and more standard article of food. It is therefore of the utmost importance that ice cream manufacturers expecting to remain successful in the future must keep themselves informed about the new machinery and equipment in their line, that they may the better see to it that their plants are equipped with the most up-to-date labor saving devices, so they can easily meet price competition, fill all orders, and yet not lower the good quality of their product.

The Colonial Ice Cream Company, Philadelphia, have this season ordered altogether nine 160-quart giant freezers. Six have already been installed, and the other three will be added shortly. These machines represent the very latest in ice cream freezer construction, including Hyatt Roller Bearings and the Automatic Batch Control. This company is one of the most progressive in the country, and decided in favor of U. S. Heavy Duty Giant Freezers to replace smaller units only after thorough tests in actual service.

This year the U. S. Freezer and Machine Corporation will exhibit at the Show as in the past, and show at least three of the six- different sizes of freezers they manufacture, namely, the 40-quart Commercial, 60-quart Majestic and the 160-quart Giant. If possible, they will also show either a 50, 100 or 120 quart machine.

In the building of U. S. Heavy Duty Freezers, it has always been sought to produce a machine which is reliable, easy and convenient to handle in every respect, economical in power and saving in space; a machine that will multiply the productivity of labor, and does not require such skilled high priced labor to operate it as is ordinarily necessary. It can be had in any size necessary to fit each manufacturer's conditions from the largest ice cream freezer in the world (the 160-quart U. S. Heavy Duty Giant) to the regular 40-quart Commercial size.

The supreme importance of always turning out the finest texture and the correct overrun in ice cream has always been kept in mind.

The U. S. Freezer was a pioneer in the introduction of the automatic batch control and the hinged cylinder cover, (now standard equipment on all sizes), and it was the first to embody roller bearings. It is unique in its rapid vertical discharge, brine cooling system and control, and chargng arrangement.

Its new method of introducing fruits and flavors, its improvements towards making it easier to inspect the process of freezing, and the new type of automatic batch control and brine regulation are among some of the entirely new features that will be shown at the

(Concluded on Page 186)

PACIFIC ICE CREAM MANUFACTURERS' ASSOCIATION.

Portland, Ore., Sept. 1, 1921.

Ice Cream Review:

I believe it is the duty of every ice cream manufacturer throughout the United States to partake of the different opportunities that are given to study and learn of the problems that are before them.

I am particularly interested in the shows that are put on by the National Association of Ice Cream Supply Men, and I should like very much to see them assembled with the National Association of Ice Cream Manufacturers and other affairs of this kind, so that they would in this way have one central location.

The advantage that we enjoyed from the exhibit of the National Association of Ice Cream Supply Men in this end of the country will last for many years to come.

I believe that too little attention is paid by the men who are engaged in this great industry, to the conventions, which deserve their most earnest consideration and thought, and should have their fullest support. I hope it is the most largely attended convention that has ever been held. I believe it is the most profitable vacation and investment that any man in this industry can give to himself or one of his employees.

Truthfully yours,

J. E. DUNNE, President.

Tell Your Friends and Neighbors You Are Going To The WORLD'S GREATEST DAIRY SHOW, MINNESOTA STATE FAIR GROUNDS, October 8-15

Associations of Ice Cream Manufacturers and Affiliated Bodies

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Secy., N. Loewenstein, 155 No. Clark St., Chicago, Ill.

NATIONAL ASSOCIATION OF ICE CREAM SUPPLY MEN.
Pres.. Oliver S. Jordan, 29 Broadway, New York, N. Y.
Secy., Roberts Everett, 1328 Broadway, New York, N. Y.

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Pres., D. A. Donofris, Phoenix.
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Secy., B. T. Perkins, Pittsburg.

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Secy., N. F. Manning, Watson & Aven, Monroe.

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Secy., J. Z. Davidson, 612 No. Carey St., Baltimore.

MINNESOTA ASSOCIATION OF ICE CREAM MANUFACTURERS.
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Secy., W. M. Paulson, 29th and Colfax Ave., Minneapolis.

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Pres., George A. Bang, St. Louis.
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Secy., D. W. Thomas, 521 Chamber of Com. Bldg., Denver, Colo.

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Secy.. Claude C. DeRoche, Box 575, Oklahoma City, Okla.

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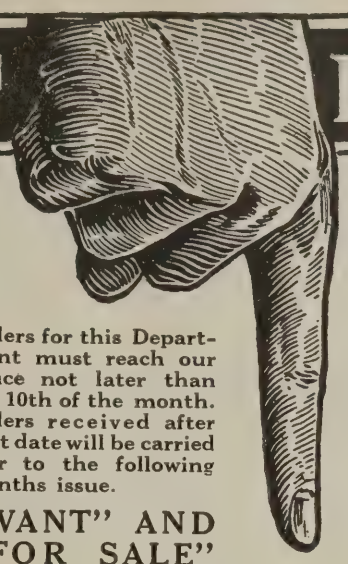
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Secy., T. A. Burke, Hamilton, Ont.

WANT DEPARTMENT



Orders for this Department must reach our Office not later than the 10th of the month. Orders received after that date will be carried over to the following months issue.

"WANT" AND "FOR SALE"

Notices will be published at the rate of 2 cents per word, cash with order. For blind address 15 cents extra.

NOTE: Names and addresses of advertisers using blind address cannot be furnished direct from this office. The advertiser can be reached only by using the key number and addressing your reply care of "The Ice Cream Review."

NOTICE.

The Ice Cream Review disclaims any responsibility for the reliability of parties advertising in the Want and For Sale Department, nor for the truthfulness of statements made in such advertisements. In answering such ads, ask for references if parties are unknown personally, before sending money. Our subscribers are requested to assist us in keeping unreliable parties from advertising by reporting any suspicious dealings to us at once.

HELP WANTED

Superintendent Wanted—Have position open for high class experienced man who is not only an expert ice cream maker and manager, but is also an expert caterer, and who can also qualify for responsible position of Superintendent of large ice cream department, includig fine catering work. City of 500,000 population. Address: R-53, Ice Cream Review. 9-21

SALESMAN WANTED—Who can sell machinery and supplies to creameries, dairies, ice cream makers and poultry dealers, no others need apply. N. A. Kennedy Supply Co., Kansas City, Mo. 9-21

SALESMAN WANTED—For flavoring extract specialties. Familiar with ice cream manufacturers, manufacturing confectioners, bakers, etc., in middle west territory. Salary and expenses. None but men familiar with this trade and territory need apply. Give full particulars to avoid unnecessary correspondence. Address: R-64, Ice Cream Review. 9-21

POSITION WANTED

HIGH GRADE ICE CREAM MAKER, capable all around dairyman, open for engagement. Thirty years' practical experience, expert on testing, standardizing, pasteurizing milk, cream. Thoroughly experienced in all departments inside, and outside work, steam, refrigeration; good mechanic; reliable; best of references. Will guarantee to save and make you money in your plant. Desire position with reliable firm. Address: R-48, Ice Cream Review. 7-21tf

POSITION WANTED—As an ice cream maker, superintendent or manager. Thoroughly competent to turn out first class product. Understand refrigerating machinery, emulcification, standardizing, pasteurizing and testing of ice cream mix. Can come on short notice. Please state salary and particulars in first letter. Address: R-52, Ice Cream Review. 9-21

POSITION WANTED—By an ice cream maker of 16 years' experience, who is capable of taking charge of the manufacturing department of any ice cream plant. Thoroughly understand all modern methods. Married and can furnish the best of references. Address: R-69, Ice Cream Review. 9-21

POSITION WANTED—Thorough knowledge in manufacture of all dairy products. 20 years' experience. Address: Edwin Hauk, 225 E. 55th Place, Chicago, Ill. 9-21

POSITION WANTED—By thoroughly experienced person who understands modern methods of ice cream making as superintendent or ice cream maker. Address: R-68, Ice Cream Review. 9-21

POSITION WANTED—Young man, college graduate, seventeen months' practical experience, at present foreman and assistant manager of ice cream factory, has twelve hundred dollars he desires to invest on profit-sharing basis in progressive ice cream plant or creamery where he may go to work also. Address: R-66, Ice Cream Review. 9-21

POSITION WANTED—As butter or ice cream maker or creamery and ice plant combined. At present foreman in up-to-date creamery. Not afraid of work. Single; age 25. Best of references. Three years present position. Good mechanic, do own repair work. Answering, describe plant and salary expecting to pay. Come twenty days' notice. West preferred. Address: R-57, Ice Cream Review. 9-21

FOR SALE BARGAINS

FOR SALE—Modern, newly equipped ice cream factory. Nearest competitor 70 miles. Just installing viscolizer and tubular cooler. Up to date in every way. Address: R-54, Ice Cream Review. 9-21

FOR SALE—Ice cream plant donig a 45,000 gallon business each year. Capacity 400 gallons per day. Two Miller Brine Freezers; Automatic Refrigerating Machine; 500 large tubs and cans; two trucks and everything necessary to run an up-to-date ice cream plant. Profits were $11,000.00 last year. Will sell right, if taken at once. Address: R-58, Ice Cream Review. 9-21

FOR SALE — One complete small ice cream plant, will sell whole or in part.

Two 200-gal. motor driven Davis-Watkins batch pasteurizers.

One 40-qt. belt driven direct expension freezer.

One 20-qt. belt driven C. & B. brine freezer.

One 5-ton Frick Compressors, together with condensors and coils for same.

One 10-H. P. direct current motor and starter.

One 2½-H. P. direct current motor starter.

One No. 4 Crese ice crusher.

One 1000-lb. milk cooler.

Address: P. O. Box 257, New Orleans, La. 9-21

FOR SALE—Up-to-date Ice Cream Factory in Oklahoma town of 7,000 population with two railroads to ship on; all machinery used one year; $8,000.00 outfit; will sell right if taken at once. Partners can't agree. Address: R-55, Ice Cream Review. 9-21

FOR SALE—A modern ice cream factory located in a good growing Texas town of about 11,000 and with three railroads. Daily average is over 200 gallons. Have $25,000.00 invested. Will sell; worth the money. Bad health reason for selling. Address: R-62, Ice Cream Review. 9-21

FOR SALE—A dairy and ice cream factory. A new plant, and there is room for ice making and cold storage. For further particulars, address: R-70, Ice Cream Review. 9-21

FOR SALE—A real business; small creamery and ice cream plant, in connection with a retail coal and ice business. All in a new concrete building, 32x52 feet, located in a southern Illinois town of 2500 population. Four ways out for shipping. I am an old man; I want to sell. Address: Grayville Coal & Ice Co., Grayville, Ill. 9-21

FOR SALE—Creamery business and equipment, in Pennsylvania city of 50,000. Selling weekly over 1,500 gallons of cream and homogenized ice cream mix. Low rent, good lease. Cash, $8,000. Address: R-67, Ice Cream Review. 9-21

FOR SALE—Three new Cherry model "I" 60-quart freezers; motor driven. Rich Ice Cream Co., Buffalo, N. Y. 3-21tf

MACHINERY AND SUPPLIES AND

BOILERS, NEW AND SECOND HAND—Electric Motors, Engines, Pumps, Pipes and fittings, Valves, Belting, Shafting, Bearings and Pulleys. Money Saving prices. Harris Machinery Co., Minneapolis, Minn. 12-20tf

FOR SALE—Cottage cheese in one, two or five tub lots, shipped date of make. Rock Lake Creamery, Lake Mills, Wis. 1-21tf

FOR SALE—One Cherry ice cream freezer, one ice crusher, one 8 H. P. motor, shaft and pulleys, $500 cash. Address: F. Wenzil, 3037 West 19th St., Chicago, Ill. 9-21

FOR SALE—One 3x2 CP concentrator. Good as new. In use only four months. $1,000 cash, F. O. B. St. Charles. No surplus, reason for selling. St. Charles Dairy Co., St. Charles, Mo. 9-21

FOR SALE—DeLaval No. 1 belt drive emulsor, capacity 200 gallons per hour. In excellent mechanical condition and will guarantee to do work satisfactorily. Price $225.00. The Gassmann Ice Cream Co., Olney, Ill. 9-21

FOR SALE—Perfect sanitary all metal vat, never used. Dual churn, No. 5, used about two months. Strain Bros., Lamar, Colo. 10-21

FOR SALE—3 80-qt. Miller motor drive freezers, equal to new; also all other makes of belt and motor drive freezers; two, three and five hundred gallon vats, 80, 200 and 400 gal. homogenizers; all at very attractive prices. Send for complete list. Philadelphia Retinning Co., North Philadelphia, Pa. 9-21

The Want Department of The Ice Cream Review is a market place for your used machinery; turn it into cash.

FOR SALE—In excellent condition, one 1000-gal. copper tinned Cherry ice cream batch mixer with direct connected A. C. 220-volt, 3-phase, 60-cycle motor. Immediate shipment. Address: Box 250, Elyria, O. 9-21tf

FOR SALE—One four-foot copper pan with two copper forewarmers. Equipment is in excellent condition and is a bargain for anyone who can use this outfit. Oatman Brothers, Inc., Aurora, Ill. 11-21

75-TON MOTOR DRIVEN ice machines, over 1 75-ton York horizontal refrigerating machine, motor driven, and 1 75-ton De La Vergne horizontal ice machine, motor driven, including high side. $18,000 for both machines loaded on cars; hardly been used. Charles S. Jacobowitz, 1382 Niagara St., Buffalo, N. Y. 9-21tf

FOR SALE—One York 35-ton refrigerating machine, 11½x15, steam driven, 16x15; one York 45-ton refrigerating machine, 12½x18, steam driven, 18x18; one Frick 30-ton refrigerating machine, 10½x18, steam driven, 15x18; one Frick 40-ton refrigerating machine, 12x20, steam driven, 18x20; one battery; two 125 H. P. water tube Erie boilers. I. N. Hagan Ice Cream Co., Uniontown, Pa. 10-21

The Olsen Publishing Company

Printers and Publishers

210 Sycamore Street

Milwaukee Wisconsin

FOR SALE—Owing to Camp Grant leaving Rockford, we offer for sale about 100 20-quart, galvanized iron brick cans. Cans are in good condition and we can make you a special low price by addressing: Allen Ice Cream Co., Rockford, Ill. 10-21

FOR SALE—Immediate shipment, ten-ton belted Creamery Package machine, with high side complete. One 8-ton Remmington belt driven refrigerating machine, with high side, complete. One 5-ton Baker refrigerating machine, with high side complete. These machines have been overhauled and are good as new at a very cheap price. W. C. Hardy, 1215 Filbert St., Philadelphia, Pa. 9-21tf

WANTED TO BUY

WANTED—Second hand butter tubs by the hundred or carlots. Address: Rock Lake Cry., Lake Mills, Wis. 1-21tf

WANTED TO BUY—Ice cream factory in Southern Illinois, preferably one doing shipping as well as local business. Describe equipment, location, and give price in replying. Address: R-51, Ice Cream Review. 9-21

WANTED TO BUY—Small ice cream factory in a live town, with good shipping facilities; must be cheap for spot cash. Address: R-64, Ice Cream Review. 9-21

WANTED—Ice cream, dairy and ice plant owners investigate new invention that has proven to be success. Your brine can be cooled down from 10 to 14 degrees colder after it has been used for ice cream freezing, cooling off milk or cream. This machine can be attached to your present refrigeration plant and it will not cost you any additional operating expenses. If you are having any trouble keeping your brine cold or other trouble with refrigeration plant, write me at once. Address: R 65, Ice Cream Review. 9-21tf

WANT TO HEAR from owner having ice cream or other business for sale. State cash price and particulars. John J. Black, Chippewa Falls, Wis. 10-21

GREAT EDUCATIONAL VALUE AS WELL AS BUSINESS OPPORTUNITIES OFFERED BY NATIONAL DAIRY SHOW.

(Continued from page 183)

National Dairy Show for the first time, and represent some of the most striking advances made in the last year in ice cream freezer construction.

We are confident that the Dairy Show of this year will be the same great success that it has been in other years, and that all who attend it will feel that any expense incurred in connection therewith will be money well invested.

THE CARE OF LEATHER.

(Continued from page 182)

it. Never let the belt remain dirty or dusty overnight, nor leave an excess of grease or oil on it.

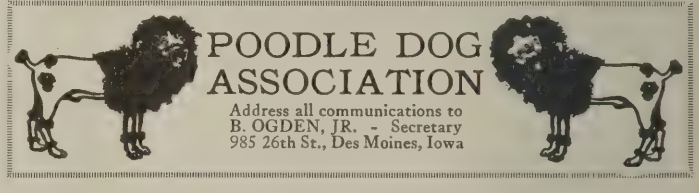
Belt Dressing. A good belt grease or dressing is one which gives the belt sufficient flexibility and at the same time causes it to cling to the pulley, but does not harness and liberally to work harness. Rub the oil or grease, warm to the hand, thoroughly into the leather while it is still damp from the washing. After the harness has hung in a warm room overnight, remove, with a clean, dry cloth, the excess of oil which the leather is unable to take up.

In case the oils and greases mentioned are too expensive or too difficult to obtain, they may be mixed with not more than an equal quantity of heavy mineral oil, petrolatum, or paraffine, or a mixture of these substances.[1] In no case, however, should any grease or other preparation containing mineral acids or oxalic acid be used on harness or belts. No matter how highly subsequently stiffen or injure the belt in any way. Among the best belt dressings are mixtures of cod and neat's-foot oils with tallow and wool grease, free from mineral acid.

Clean the belt well, especially on the pulley side, by washing it with warm water and a good neutral soap, such as castile or white toilet soap, and, if necessary, scrape it on the pulley side to remove dressing and dirt that may be caked on it. Wash rapidly, and do not permit the belt to become wet, as it will then stretch and slip. Dressings never should be allowed to cake on the belt because caking causes the belt to run unevenly and also injures it. The dressing should be liquid at ordinary temperature, should be applied to the outside of the belt while it is at rest, and should be allowed to soak in overnight. It should be applied very evenly and should be rubbed in with cotton waste, a piece of felt, or with some similar material. If absolutely necessary, a very light dressing may be applied to the pulley side of the belt, using cotton waste or felt lightly greased with the belt dressing. Even distribution and penetration should be secured as far as it is possible to do so. Avoid resin or greases containing resin. They weaken the belt and shorten its period of service. Do not use belt dressings excessively, as they will cause undue stretching and loss of grip. Belts should never look or feel greasy. They should never be more greasy than they were when installed.

Mildewing of Leather.

Any leather article is almost certain to mildew if kept in a warm, damp, and dark place, such as a closet, cellar, or stable. This mildewing probably will not reduce seriously the serviceability of the article, unless it is allowed to remain on the leather too long. It may, however, change the color appreciably, thus injuring the appearance. The simplest way to prevent mildewing is to keep the leather in a well-ventilated, dry well-lighted place, preferably one exposed to the sunlight. Mildew cannot make much headway in the sunshine. When mildew develops, it should be washed off with soap and warm water, or simply wiped off with a moist cloth, drying the leather well afterwards. These simple measures are preferable to the application in the home of preparations designed to prevent the growth of mildew.



To Members of Poodle Dog Association of Iowa:

The time for the National Convention at Minneapolis, Minn., is fast approaching and many members will be there.

In a recent conversation with Mr. W. S. Wilcox, President of the Association of Ice Cream Manufacturers of Iowa, he stated that most of the Iowa manufacturers will headquarter at the Hotel Dyckman. This affords an excellent opportunity for us to meet our old friends and customers, have a good fellowship meeting, and discuss our plans for the next State Convention to be held at Cedar Rapids.

Extensive plans are being made for the entertainment of the ladies and many Iowa manufacturers will be accompanied by their wives, so let us help to make their stay in Minneapolis as pleasant as possible. Come, and bring your wife.

Don't forget the dates — October 10, 11 and 12. Let's have a big attendance.

Trusting you have enjoyed a prosperous season, and with kindest personal regards, and hoping to see you in Minneapolis, I am,

G. H. BULGER,
President Poodle Dog Association.

Large New Catalog Coming

For Milk Dealers, Ice Cream Makers and Creamery Men

DURING the last year our General Advertising Department has been building a large comprehensive catalog in loose-leaf form. This is being used throughout our entire organization with such success that we have decided to issue it in book form about the first of January, 1922.

It will include more than three hundred pages of photographs-drawings, information and prices. It will show many pictures of Davis, Watkins Equipment in actual operation in milk plants, ice cream factories and creameries. It will illustrate and describe in detail the many machines constructed in our several factories. Also information as to how the most progressive men in the Dairy Industry do the work at low cost of operation.

This is a period of retrenchment. Not in the building of new plants, nor the purchasing of new machinery; but, in doing those things which must permit a reduction in the money spent in operating the "spread." Handling costs must come down. You can do this only in one way—by equipping and routing the work so as to shorten up the distance between cost and selling price.

That is what this NEW CATALOG is for—to help you plan your work; and handle it at low cost. To show you the modern automatic equipment which will handle your work at much less cost for labor, time and losses. To guide your selection of the machinery best fitted for your needs. To show you just how well equipped we are to give you a a SERVICE worth more than it costs.

We are now making up the mailing list for this NEW CATALOG. We want to know how many to print. If you think you can make good use of this book, write us on a postal card, or in a letter "Put my name down for NEW CATALOG"—sign your name, name of company, and address; and mail it to

Davis-Watkins Dairymen's Mfg. Co.

Room 1205—130 North Wells Street
CHICAGO, ILL.

See Our Exhibit in Booth 78—Ice Cream Supply Men's Mammoth Show at Buffalo, N. Y., Oct. 31st. to Nov. 5th.

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October 31st to November 5th, 1921

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The
ICE CREAM REVIEW

PUBLISHED THE FIFTEENTH OF EACH MONTH BY

THE OLSEN PUBLISHING COMPANY

H. P. OLSEN
President and Manager

E. K. SLATER
Secretary and Editor

Also Publishers of

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OFFICIAL ORGAN

Ice Cream Division Indiana Mfgs. of Dairy Products
Oklahoma Association of Ice Cream Manufacturers
Wisconsin Association of Ice Cream Manufacturers
Michigan Association of Ice Cream Manufacturers
Nebraska Association of Ice Cream Manufacturers
Southern Association of Ice Cream Manufacturers
Kansas Association of Ice Cream Manufacturers
Louisiana Ass'n of Ice Cream Manufacturers
Iowa Association of Ice Cream Manufacturers
Texas Ice Cream Manufacturers Association
Arkansas Ice Cream Manufacturers Ass'n
Poodle Dog Association of Iowa
National Order of White Caps
The Nebraska Cornhuskers
Indiana Hoosier Wild Cats
Wisconsin Badger Flyers
Michigan Dairy Boosters
Oklahoma Wolfhounds
Kansas Jack Rabbits
Missouri Mules
Dixie Flyers

OCTOBER 1921

BULLETIN OF EVENTS

Eastern Exposition, Association of Ice Cream Supply Men—At Elmwood Music Hall, Buffalo, N. Y., October 31st to November 5th, inclusive. Roberts Everett, Secretary, 1328 Broadway, New York City.

Association of Ice Cream Manufacturers of Pennsylvania—Fifteenth Annual Convention, Erie, Pa., October 31, November 1, 1921. Following the meeting Nov. 1st, the association will adjourn to Buffalo to inspect the Eastern Exhibition. J. W. Neuman, Secretary, care of H. L. Neuman Co., York, Pa.

Pacific Ice Cream Manufacturers Association—Annual Convention, Nov. 14, 15, 16, 1921, Seattle, Washington. Bert H. Walker, care of Royal Ice Cream Co., Tacoma, Wash., Secy.

West Virginia Association of Ice Cream Manufacturers—Annual Convention, at Wheeling, W. Va., November 21st and 22nd. C. F. Jamison, Huntington, W. Va., Secretary.

Southern Exhibition—Association of Ice Cream Supply Men, Auditorium Armory, Atlanta, Georgia, November 28-December 2, inclusive. Roberts Everett, Secretary, 1328 Broadway, New York City.

Southern Association of Ice Cream Manufacturers—Ninth annual convention, Atlanta, Georgia, Nov. 29, 30 and Dec. 1, 1921. J. W. Clopton, Decatur, Ala., Secretary.

North Carolina Ice Cream Manufacturers' Association—Annual Convention, at Atlanta, Ga., in connection with Southern Exhibition, November 28th to December 1st. Headquarters, Ansley Hotel. A. E. Dixon, Fayetteville, N. C., Secretary.

National Association of Practical Refrigerating Engineers—Twelfth Annual Convention, Hotel Lorraine, Philadelphia, Pa., November 30, December 1, 2, 3, 1921. Edward H. Fox. 5707 West Lake St., Chicago. Secretary.

Texas Ice Cream Manufacturers' Association—Fourteenth Annual Convention, Ft. Worth, Texas, December 7, 8, 9, 1921. Headquarters, Texas Hotel. H. F. Owsley, Dallas, Secretary.

Oklahoma Association of Ice Cream Manufacturers—Annual convention, Oklahoma City, Dec. 12-13-14, 1921. Secretary, M. T Cochran, Altus Ice Cream Co., Altus.

Kansas Association of Ice Cream Manufacturers—Annual Convention, Kansas City, Mo., December 15, 16, 1921. B. T. Perkins, Pittsburg, Secretary.

Louisiana Association of Ice Cream Manufacturers—Second Annual Convention, New Orleans, January, 1922. Newton F. Manning, Monroe, La., Secretary.

Michigan Allied Dairy Association—Annual Convention, in Municipal Auditorium at Saginaw. Tentative dates, Feb. 14, 15, 16, 17, 1922. H. D. Wendt, General Secretary, Lansing.

IN DEVOTING a considerable part of this issue of The Ice Cream Review to the Eastern Exposition, put on by the Association of Ice Cream Supply Men, we feel that we are not only giving our readers interesting information, but we are recognizing in our humble way a most worthy effort on the part of that association to serve a great industry.

The stage is set for the greatest meeting of its kind ever held in the east, and Buffalo will know that a bunch of live business men are in its midst October 31st to Nov. 5th, inclusive. Secretary Everett advises us that interest in the event insures the best meeting ever held and the ice cream man who fails to be there is going to miss more than he will be missed.

The ice cream supply man is playing a most important part in the development of the ice cream industry and the man in the business who does not realize this fact doesn't have a very clear understanding of what is going on. True, he is interested in developing his particular business, but who is not? Through his various organizations, state and national, he joins hands with others to boost everything that is for the good of the industry. We take off our hat to him.



NOT all of the profiteers in the retail ice cream business have been made to see the light. In most of the large cities they have been forced to lower their prices, but this applies only in a general way to the large retailers. In the outlying districts the retailer has been left to follow his inclinations along that line. In most cases he has been wise enough and honest enough to inaugurate lower prices.

There are exceptions, however. We encountered one of these exceptions the other evening right near home. We visited a nearby parlor and were astonished to note the war-time prices which still prevailed. We courteously asked the reason for such prices and were informed that "you don't have to buy anything here if you don't want to." In this we concurred and we didn't buy anything.

This parlor is near a public grade school and a high school. Most of the patronage is furnished by the children. There is a robber who makes a specialty of robbing children and he is getting away with it because most people choose to be robbed rather than to protest. If justice were done such a robber would be behind the bars instead of profiteering at the expense of school children. Some of these days we will have laws that will curb the operation of all robbers, whether they operate with a dark lantern or behind a soda fountain.

In the meantime the consumption of ice cream is not what it might be if fair retail prices were maintained everywhere. The manufacturer of ice cream suffers lower gallonage and the people have less ice cream to eat. All because of consciousless retailers who rob little children. Shame on them!

IN A RECENT number of confectionery magazine we find an idea that should be equally as applicable to ice cream as candy.. The suggestion was made to feature an attractive box of candy as a window display along side of a variety of regular printed calling cards, which might be obtained from your local printer, then having a neat card on the box of candy, which should be the conspicuous feature of the window display, read "Your Best Calling Card."

Surely a brick of ice cream is a welcome calling card, and the highly attractive appearance of present day ice cream packages should make a brick of ice cream an equally presentable calling card as a fancy box of candy.

Likewise can a window display be made attractive with ice cream cartons to stop passers-by and convey a desire to "take home that brick of ice cream." Now while the natural consumption of ice cream is on the down grade, can't the progressive ice cream manufacturer well afford to start a campaign among his dealers for competitive window displays embodying the foregoing idea?

⚜

DELEGATES to the Annual Convention in Minneapolis were treated to a wonderful talk by Prof. E. V. McCollum, of Johns Hopkins University, relative to the food value of dairy products. He told them some facts about their business which every ice cream manufacturer in the country should have heard. He didn't mince words at all and we will take pleasure in publishing his address in a subsequent issue.

He frankly told the ice cream manufacturers that he was going about the country extolling the superior virtues of dairy products as human food, but he was not saying very much about ice cream. He let them understand that until they put the emphasis on quality in making ice cream he could not conscientiously give it his unqualified endorsement. By inference at least he let them understand that, in his opinion, too many manufacturers are trying to see how cheaply they can make ice cream, instead of trying to see how good they can make it. We wish that more could have heard this remarkable address.

⚜

THERE are altogether too many ice cream manufacturers who are satisfied with making money during a few weeks or months of the year. They concentrate all their efforts on getting a big gallonage during the summertime and then let the business "go to pot" the rest of the year.

By their actions they assist the consumers to reach the conclusion that ice cream is a hot weather confection instead of a food. They take it for granted that their customers don't want ice cream except during the hot weather, when they should go and tell their customers what they are missing by not making ice cream a regular item of food purchases for the family table all the year round.

THE Ice Cream Review will be in evidence at the Buffalo Exposition, and we hope to feel better acquainted at the close than at the beginning of the big doings. The business end of our organization has sent out an S. O. S. call to the editorial department for help and it has fallen to our lot to be at the Buffalo meeting in person—and undisguised as far as Nature has permitted. The Review editor will be there and hopes to meet every reader. Please call around at our booth and introduce yourself. We are a bit bashful—that's why we make such hard work of an editor's job—and we will appreciate it if you will come around and help mess up our headquarters. We want to get acquainted.

⚜

ONE could not fail to be impressed by the spirit of progress which prevailed at the annual convention. Serious minded folks were in quest of information and methods which will further advance their industry. True, they had a good time, but they were there for a different purpose. It was a great convention and will result in greater things for the association and the individual member.

⚜

EX-PRESIDENT MARTIN retires with the respect and admiration of every member. To have served such an association so well is an honor to which any man may well aspire.

⚜

IN THIS issue of The Ice Cream Review are printed a number of the addresses delivered at the convention of the National Association of Ice Cream Manufacturers. Other addresses and discussions following will be published in later issues.

⚜

JUDGING from gossip at the Dairy Show, the boys in Dixie are going to put on the biggest convention ever held in the South. Keep your eye on Atlanta.

Statement of Ownership, Management, Etc., of The Ice Cream Review, published at Milwaukee, Wis.—required by the Act of August 24, 1912.

The Olsen Publishing Co., Publishers, Milwaukee, Wis.

Manager—H. P. Olsen, Milwaukee, Wis.

Editor—E. K. Slater, Milwaukee, Wis.

OWNERS.—(If a corporation, give names and address of stockholders holding one per cent or more of total amount of stock)—H. P. Olsen, Milwaukee, Wis.; M. Olsen, Milwaukee, Wis.; E. K. Slater. Milwaukee, Wis.; Paul H. Laabs, Milwaukee, Wis.

Known bondholders, mortgage and other security holders, holding 1 per cent or more of total amount of bonds, mortgages, or other securities,—None.

Signed, H. P. Olsen, Manager.

Sworn to and subscribed before me this 16th day of September, 1921.

C. J. Linden, Notary Public, Milwaukee Co., Wis.

(My commission expires February 1st, 1925.)

NOTE:—This statement is made in duplicate, both copies to be delivered to the postmaster, who will send one copy to the third Assistant Postmaster General (Division of Classification), Washington, D. C., and retain the other in the files of the post office. The publisher must publish a copy of this statement in the second issue printed next after its filing.

Eastern Exhibition---1921's Mecca for the Progressive Ice Cream Manufacturer

WHAT the automobile shows in Chicago and New York are to the automobile industry, what the annual exhibition of the railway equipment makers means to the railway builders and operators of the world, what the Dairy Show is to the producers of milk, the Eastern Exhibition of The Association of Ice Cream Supply Men in Buffalo, opening the last day of this month, is to the ice cream industry of the United States and Canada—its industry's greatest expositional event.

The Eastern Exhibition this year will be the biggest that the Association of Ice Cream Supply Men ever has managed. It is expected to have the greatest attendance ever recorded. Coming at the close of a season that has been marked by strenuous efforts toward plant economies and general operating and sales readjustments this exhibition has a potential value for the ice cream manufacturers within fourty-eight hours ride of Buffalo that can safely be termed incalculable.

There are few ice cream manufacturers in the country who do not know something about the exhibitions promoted and managed by The Association of Ice Cream Supply Men. These exhibitions assemble beneath a single roof for five or six successive days every product and service that an ice cream manufacturer needs. From an architect's blue prints for an entire new factory down to the smallest piece of metal equipment needed in it, the visitor to one of these exhibitions can inspect his present or future needs. The newest freezers, vats, mixing aparatus, are all there. Sales services are arrayed for inspection. Every variety of packaging and shipping apparatus, motor trucks, refrigerated bodies, tubs, cabinets, cans, salt, milk, sugar, gelatine, extracts, fruits, hardening room eqiupment, moulds, paints, cleaning specialties, essential oils, fittings, floorings, gums, improvers, laboratory equipment, tools, specialties, etc., etc., are there to be examined and compared and tested. Every variety of machinery employed in an ice cream plant is displayed. In fact everything used in, around or in any way connected with the operation of a plant is included in the comprehensive expositions of the industry which the national supply men manage.

It is the greatest of any of these exhibitions that is to open in Buffalo Oct. 31st and to close Nov. 5th.

"Will Promote Economies," Says President Jordan.

That it will be not merely the biggest in size but also in dollars-and-cents value to those who visit it is the opinion of O. S. Jordan, President of The Association of Ice Cream Supply Men, who believes that it will be seen, in looking back in after months, to have held greater importance to the industry than any other exhibition that has ever been assembled because of the peculiar value held this year of anything tending toward rock bottom in management and processes.

"The great value of the Eastern Exhibition this year," according to Mr. Jordan, "is in the opportunity it gives the owners and executives of 700 or 800 different plants to visualize their next year's problems in a physical way in advance of their peak season. Everything at the Eastern Exhibition will be tangible, demonstrable, and that is what is needed now. There will be not merely the ideas there that have been evolved by many able minds, but the physical accessories and expressions of these ideas will be right there too, to touch, to inspect, to compare and valuate. Manufacturers interested in greater production or in getting their present production more economically can actually go over everything employed for that purpose, from one end to another. With condition of reconstruction existing throughout the country as they do end with ice cream competition tending naturally all the time to become more scientific, the owners of plants need an oppor-



A Corner of the 1920 Exhibition.

FOR A GREATER ICE CREAM INDUSTRY—Eastern Exhibition, Buffalo, October 31st - November 5th, inclusive.

WRITE FOR NEW LOW PRICES

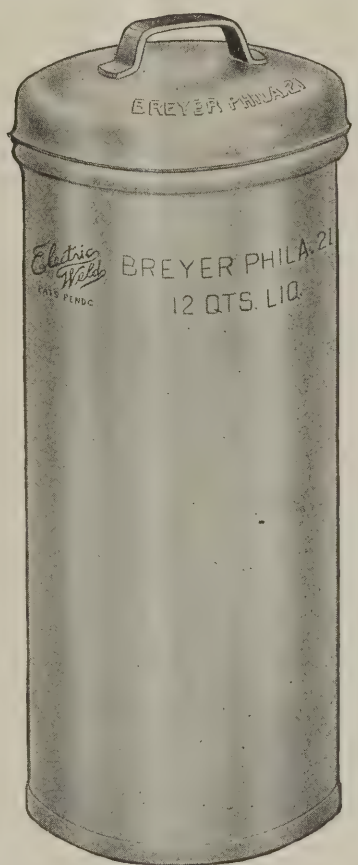
NO Solder Electric Weld NO Rivets

Trade Mark, Registered

"Low Maintenance Cost" Ice Cream Cans
The Weight is in The Plate—All Steel and Tin

The Electric Weld GUARANTEE

1. That no solder, lead or rivets are used in the construction of Electric Weld Ice Cream Cans.
2. That all Electric Weld cans are made of a specially prepared copper-bearing, rust-resisting steel known as "tinning" or "dairy plate" and made of the same gauge material as specified in our advertising.
3. That all welds, being subjected to hammer and pressure tests, are sound and will not crack, break, leak or come apart.
4. That the can is completely assembled in the black before tinning and that it is coated by soaking the entire can in one piece in pure "straits" tin by the old-style hand dip, triple coating process.
5. That Electric Weld cans are of exact capacity and that each can is carefully examined and stamped by our Inspection and Test Department before shipping.



Patent Allowed.

The Electric Weld Ice Cream Can.

The Retinning Feature

Electric Weld Ice Cream Cans may be retinned over and over again at small cost. They are made complete in the black, leak-proof and ready for long service. Every time you retin an Electric Weld you can save approximately 30 cents. Write for prices, list of "Repeat order buyers" and other data pertaining to the **Solderless Can.**

The Non-Deforming Lid

Non-deforming edge keeps the lid round. THE RIM: One-piece expanded bead rim reinforces and protects the can from hard knocks and affords a positive grip for wet, slippery hands. SEAM: Butt welded, solid fusion of the joint that will not crack, break or leak. BOTTOM: A solid flanged leak proof bottom for hard wear and tear. No interstices or rolled edges to collect dirt. Affords a fine grip. Easy to clean. The strongest as well as the most sanitary bottom, three thicknesses soundly welded and solderless.

In 1920 the Horton Ice Cream Co., of New York, bought 2000; in 1921 a repeat order called for 5000 more. In 1920 the Breyer Ice Cream Co. of Philadelphia, Pa., bought 14,000; in 1921, 10,000. In 1920, Colonial Ice Cream Co., Philadelphia, Pa., 1000; in 1921, 30,000. Proof of quality and service in a nut shell.

John Wood Manufacturing Company

CONSHOHOCKEN — CANADIAN JOHN WOOD MANUFACTURING COMPANY, TORONTO, CANADA — **PENNA.**

Branch Offices: Cleveland (1841 Carter Road) Brooklyn (No. 5 Bush Terminal Bldg.)
Chicago (320 E. North Water St.) Boston (78 W. 2nd St.)
Philadelphia (1223 Hamilton St.) San Francisco (268 Market St.) Los Angeles (1333 E. 7th St.)

Address All Communications to Home Office, Conshohocken, Pa.

tunity to get down to actual physical facts, as these represent manufacturing and merchandising development, and this exhibition is just that opportunity and one that can exist in no other way for them.

"With 150 booths leased in the Elmwood Music Hall and with more than 100 makers of equipment, machinery, supplies and services ready to install displays the Buffalo exhibition will offer in greater variety than ever before the essentials of ice cream manufacture. Numbers of elaborate machinery displays have been prepared, among others. The companies which will have exhibits include among them practically all of the best known supply houses in the country."

The 700 or 800 ice cream manufacturers referred to by Mr. Jordan are expected, on the basis of attendance at previous exhibitions, to register at the Buffalo show from at least twenty-five different states and Canada, and to represent 700 or 800 different ice cream manufacturing enterprises in that territory. Altogether an attendance of well over 1,000 persons is anticipated and Buffalo hotels already have reserved nearly all their available rooms for the week.

The annual convention of the Pennsylvania Association of Ice Cream Manufacturers will be held in Erie, Pa., a short journey only from Buffalo, October 31st and November 1st and its members will adjourn to visit the show in Buffalo in a body on the latter day. An attendance equally widely representative of the various states is expected from New England, New York, New Jersey, Delaware, Maryland, West Virginia, Ohio, Indiana, Illinois, Michigan, Wisconsin, Iowa and at least a dozen other states and Canadian provinces.

The site of the exhibition, the Elmwood Music Hall, is at Virginia street and Elmwood avenue in Buffalo. Just outside the active business center of the city, set among trees and attractive buildings and yet within a six-minute ride of the principal hotels and within a ten-minute walk of the Lafayette, the official hotel headquarters for the week. It is the building used throughout the winter for important concerts and civic entertainments and is one of the best conditioned buildings in the United States for the holding of a large exhibition, being ideally lighted, spacious and attractive.



Elmwood Music Hall, Buffalo, N. Y.

In this connection the exhibition management has announced that its decorative plans provide for a combination of color tones and specially arranged exhibition properties that will be in keeping with the nature of ice cream as a product that is pleasing to the eye and suggestive of a definite yet insubstantial daintiness.

In addition to the Lafayette Hotel which will house several hundred ice cream manufacturers and supply men, the hotels Statler and Iroquois have each made many reservations for visitors to the exhibition.

Diversified entertainment will be at hand for all who register at the show, informal social activities hav-

(Continued on Page 16)

Wood's Gelatine

IT'S PURE

Guaranteed Food Products

Gelatine
India Gum
Kreamine
Fairy Cream Powder
Yum Yum (Ice Cream Flavor)
A-XXXX Vanilla
Grinders of Cocoa

The Most Complete Line on the Market

Write for Price List

W. B. Wood Mfg. Company

Manufacturing Chemists
ST. LOUIS, MO.

The Association of Ice Cream Supply Men---A Record of Constructive Work Well Done

THERE is not an ice cream manufacturer in the country today, probably, who does not know about the activities of The Association of Ice Cream Supply Men. This trade organization has accomplished so much during the last two years that it is really a justice done to the history of the industry to put together, in as permanent a form as a monthly publication can offer, a brief review of what it is and what it has accomplished.

It is a national organization of the allied trades upon which the ice cream manufacturing industry is dependent for its machinery, equipment, supplies and special services. It embraces such a diversity of interests as the makers of refrigeration equipment, the great salt mines, tubs and cabinets, the motor truck manufacturers and the makers of refrigerated truck bodies, architects, nationally-known merchandising experts, special counselors in advertising, flavor producers from the owners of California fruit groves to the importers of rare oriental gums, sanitary paper products manufacturers, the greatest gelatine producers of America and, through importers, those of Europe also, manufacturers of chemical cleansers and detergents, manufacturers of glass enameled vats, makers of steel cans, makers and producers of milk and the manufacturers of powdered milk and powdered cream, paint and varnish manufacturers, and other houses lending still greater variety to the combined products of its members.



O. S. Jordan, President, Assn. of Ice Cream Supply Men.

This organization, with its amusing diversity of products and interests brings to a common purpose—that of intensive service to and development of the ice cream industry—a combination of industrial knowledge and aggressive habit perhaps unequaled in any other large industrial association in the country.

It has been in existence in its present form two and one half years. That short time has been long enough to attract to it the attention of many of the important industrial figures of the country. Its distinctive policies and purposes and the progressive manner in which these have been pursued explain the eminent place it holds today.

Few Americans—and this can be said of many of those Americans who are engaged in it—know the real romance of the ice cream industry. Oliver S. Jordan, President of The Association of Ice Cream Supply Men, recently referred to it as "that industry peculiarly American—as American as Bunker Hill or the Monroe Doctrine". Ice cream as it is known today is entirely an American product and the appetite of the American for it is seemingly as characteristically national as is his love for baseball or his election night parade. No other nation takes instinctively to ice cream as does the American. The children of no other lands naturally smack their lips at sight of the frozen delicacy which every American youngster knows as part of its heritage of youthful delights. Ice cream is literally an American confection.

But the romance does not lay wholly in the national character of ice cream. The story of the ice cream industry is a romance as great as any that business has ever known. Within the memory of men still in their thirties' the commercial ice cream of the country was largely sold on small dishes by hand purveyors on the streets.

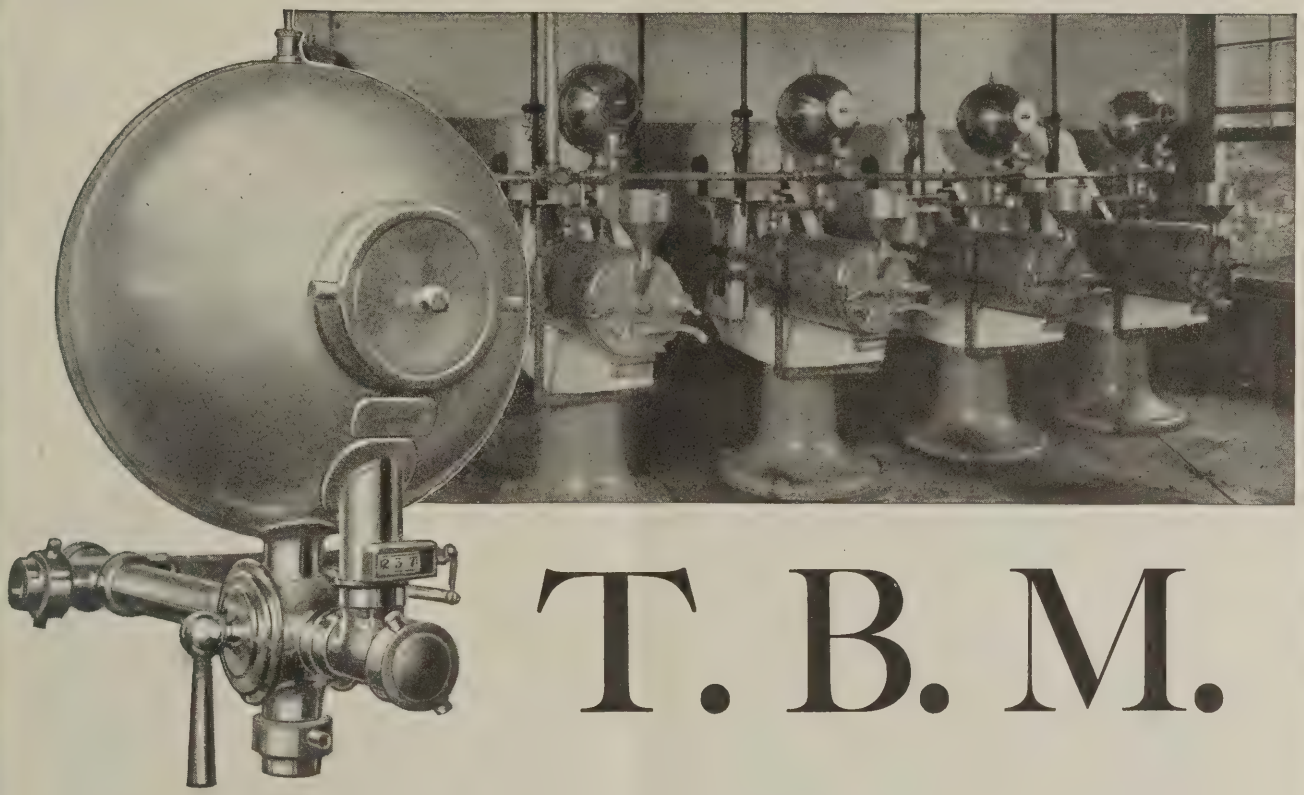
Yet today ice cream plants are among the show places of the largest cities. There are several $5,000,000 or greater ice cream manufacturing corporations. Every man, woman and child in the United States eats an average of more than three gallons of ice cream in a year. Ice cream is served at presidential banquets; it is eaten by the lowliest of Americans. It is sold from palatial retail stores in the fashionable sections of every city, and no mining camp in the Rockies is too far from civilization to have the cook serve ice cream for dessert. From investments of a few scattered thousand dollars, the industry has grown to represent producing investments of over $300,000,000. This year alone the ice cream manufacturers of America will pay out more than $200,000,000 in merchandise and labor bills.

Devoted to an industry with a history so unique and with potentialities so great, The Association of Ice Cream Supply Men in its comparatively short existence has accomplished many things. Its nation-wide, intelligently planned and persistently carried out work has been punctuated, as it were, by important industrial exhibitions in Philadelphia, St. Louis, Atlantic City and Portland, Ore., and will soon be further so accentuated this year by an eastern exhibition in Buffalo the latter part of this month and by a southern exhibition in Atlanta the week of November 28th, which latter will be devoted to the interests of the ice cream manufacturers of the South. These industrial exhibitions, important as they are, however, are accentuations only of an aggressive undertaking pursued week after week throughout the year—a work of industrial development which is constantly eliciting from many sources, some of them not even indirectly concerned in the ice cream industry, such comments as, ". . . you are doing much more active constructive work than most associations of this kind", "from what we have heard the ice cream supply men have one of the most aggressive wide-awake organizations that exist", ". . . we want to say that we are heartily in sympathy with such aggressive methods", ". . . the Association is a great help to the whole ice cream industry", ". . . . we certainly commend you on your constructive efforts".

No description of the Association of Ice Cream Supply Men and its unique standing in the world of organized industrial betterment would be complete without a consideration of its remarkable Code of Fair Practices. Believing that it could hasten the growth of the ice cream industry in no one surer way than by making it as nearly impossible as might be for ice cream man-

FOR A GREATER ICE CREAM INDUSTRY—Eastern Exhibition, Buffalo, October 31st - November 5th, inclusive.

THE C-B CALENDAR

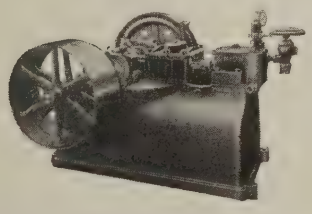


T. B. M.

T. B. M. stands for the successful Thomas Batch Measures, and Thomas Batch Measures stand for **economy, accuracy,** and **cleanliness** in the freezer room.

In just a few years from today the rows of round, nickel plated T. B. Ms mounted on freezers will be as customary a sight as brine freezers themselves now are. Ice cream manufacturers everywhere are rapidly installing them. Why? Because it doesn't take very long for **ice cream** manufacturers to adopt a proven time saver and waste preventer. And these new Batch Measures have clearly demonstrated at least one interesting and important fact: no brine freezer, regardless of make, can be run at maximum efficiency without a Thomas Batch Measure.

Thomas Batch Measures are not expensive. They may be bought with new freezers, and if the costs of the old time batch tanks are deducted, it will bring the total costs of the freezers only slightly higher than if ordered without them. And, too, first costs are insignificant compared with the saving in labor, mix, flavoring and operating time, accomplished by using these Batch Measures.



Directors of Eastern Distribution for the Viscolizer

To get the whole story send for our new booklet. It shows a number of installations, explains just how a T. B. M. works, and tells what some representative users think of the attachment on their freezers. Find out what it will cost to equip your freezer room with them. No obligations incurred. Send for the booklet and quotations. Note: State the size and make of your freezers.

CHERRY-BASSETT COMPANY

PHILADELPHIA BALTIMORE

ufacturers to stand losses in equipment purchased, the Association unanimously adopted a Code of Fair Practices which has been described by prominent industrial experts as the ultimate expression of a real conscience in business, and which has been used as a model in several other industries for the drawing up of similar codes of fair commercial dealings. So remarkable is this Fair Practices Code in its expression of "Let the buyer be protected" spirit that the business press of the country has given much voluntary attention to it. Any violation of the Code by a member of the Association results in that member's expulsion.

The Code is in two sections, the first relating to dealings as between buyer and buyer and the second to dealings of competitor as against competitor, and is as follows:



Part of the Floor of the First Eastern Exhibition in 1919.

SECTION I.

1—Misbranding of articles as regards the materials or ingredients of which they are composed, their quality, their method or place of manufacture or origin: "inferential" misbranding, i. e., using trade names or descriptive terms which stimulate trade names or descriptive terms of unadulterated or geniune goods.

2—Bribery of buyers or other employees of customers, with the payment of specified percentages of purchase price of all goods bought, with money, presents, excessive treats, etc., to obtain new business or to induce the continuance of patronage.

3—Commercial bribery of customers by money, long term credits not in keeping with trade custom, excessive entertaining or any other means.

4—False or misleading advertising concerning prices, advertiser's status as a manufacturer, methods employed in the advertiser's business, false claims to Government or other endorsements, etc., or any advertising, printed, written or oral that comes within the definition of "undesirable advertising" laid down by the National Association of Ice Cream Manufacturers.

5—Trade boycotts or combinations of traders to prevent buyers from obtaining goods through customary channels.

6—Sale of rebuilt articles as new products.

7—"Leader" selling—i. e., selling one piece of goods at less than cost and recouping on others sold at the same time.

8—Making up and disseminating false cost sheets.

9—"Lottery" premiums—i. e., giving or offering premiums of unequal value, the receipt of any particular premium to be determined by lot or chance.

10—Discrimination in prices between different purchasers or different localities, based upon other than legitimate cost, sales and delivery considerations.

11—Selling food, or a product to be put into food, which, because of its nature or method of manufacture, or for any other reason, violates a local, state or federal ordinance or law.

12—Consigning unordered goods to a possible buyer, with the hope that they will be used and paid for.

13—Distribution of samples of a better grade than the product they are supposed to represent.

14—Any wilful misrepresentation as to market conditions or supply, either as to finished products or raw materials, tending to induce buyers to overbuy their requirements or contract for future deliveries to their plain loss or disadvantage.

SECTION II.

1—Bribery of customer's employees to introduce foreign substances into a competitor's goods already purchased.

2—Tampering with or misadjusting goods sold by a competitor, for the purpose of discrediting him with a customer.

3—Bribery of competitor's employees or spying on competitor's plant, trailing of competitor's delivery and sales agents, bribing railroad employees for information about competitor's shipments, stealing or copying competitor's blueprints, or any other means to the end of procuring a competitor's business or trade secrets.

4—Procuring breach, withdrawal or delay of competitor's contracts with customers by misrepresentation or by any other means.

5—Inducing competitor's employees to leave in such numbers as to disorganize, hamper or embarrass a business.

6—Making false or disparaging statements, either written or oral, respecting a competitor's products, selling prices, business, financial or personal standing, etc.

7—Threats of suits of patent infringement for selling or using alleged infringing products of a competitor, unless such threats are made in good faith.

8—Threatening to sue a competitor for the purpose of intimidation.

9—False claims to patents or misrepresentation of the scope of patents.

(Continued on Page 138)



The Buyer's Page



Standard Equipment for Ice Cream Plants

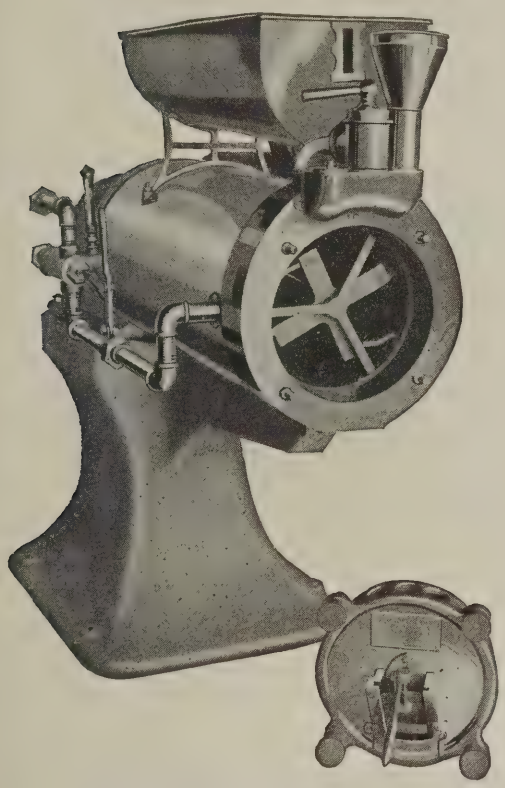
Immediate Shipment from Chicago or St. Paul

Creasey Ice Breaker

Every manufacturer of ice cream, large or small, needs this sturdy machine. Built over-size throughout—stands up under hardest service you can give it.



The size of the broken ice can be regulated by the use of fine or coarse combs—furnished with each machine—which prevent passage of the ice until it is broken to a certain fineness. This is a special feature, and one of great value. Picks are easily removed from drum when necessary, but they cannot become detached when in operation. No rivet heads or bolts or nuts to work loose.



More than 16,000 Creasey Breakers in use; why not put one to work in YOUR plant?

U. S. Brine Freezer

A large capacity freezer, heavily built throughout, with ample bearings and large gears. Furnished for either belt or motor drive, or can be converted from one to the other in your own factory when desired. Electric machine equipped with 3 H. P. motor.

The hinged cylinder cover is standard on all sizes of U. S. Freezers; makes them quickly accessible for cleaning. The brine jacket passages are designed for the greatest efficiency in cooling the cylinder and arranged to avoid all clogging and stopping. The brine flow is controlled by a valve of special design which gives complete control of the rapidity of the freezing process.

U. S. Freezers are made in 40, 60, 80, 100, 120, and 160 quart capacities; there is a size that will exactly meet your needs.

A handsome and practical machine that will pay for itself repeatedly in your plant. Let us give you further details and prices.



Have You This Catalog?



It is one of the most complete catalogs of ice cream machinery and supplies ever published. You will find between its covers the best of the things made by many of America's leading manufacturers —a valuable book for reference. We'll gladly send you copy on request —without obligation.

Twin City Branch: **2490-4 University Ave., St. Paul**

A. H. Barber Creamery Supply Co., Chicago.
Gentlemen: Please send us complete information about:
☐Creasey Ice Breaker
☐U. S. Brine Freezer
☐Copy of your Catalog No. 72.
Name .....
Address .....

A. H. Barber Creamery Supply Co.
302 W. Austin Ave., Chicago, U.S.A.

Buffalo, "Queen City of the Lakes"

ICE cream manufacturers and members of the Association of Ice Cream Supply Men who attend the Eastern Exhibition at Buffalo, which will be held October 31 to November 5, inclusive, will see on every hand the material evidences of the great strides which Buffalo, at the eastern gateway of the Great Lakes, and the western terminus of the new barge canal, has made in the opening years of the twentieth century. This will be the first time this association has held an exhibition in the Queen City-of-the-Lakes, and those who remember Buffalo at some previous time will be astonished at its progress and development.



Niagara Falls from American and Luna Falls.

Ice cream men will find comfortable hotel accommodations awaiting them, of which the city is justly proud, because they are equal to the best in the world in appointments and service. Both European and American plans are represented, and visitors have a wide choice in rooms and locations; comfort at little cost, and luxury at modest prices. Rates for rooms are fixed and never are increased because of the presence of a convention in this city. Among the more prominent hotels are the Statler, Iroquois, Lafayette, Genesee, Broezel and Touraine.

Buffalo's convenient location, unexcelled facilities and attractions have made it one of the great exhibition and convention cities of the United States. Buffalo being accessible to more than half the people of the United States and Canada in twelvehours, or less. For this travel there are the fastest and best equipped trains of the great trunk lines, no less than seventeen railway systems entering the city, and in summer the added facilities of ten steamship lines, which bring many thousands of convention visitors and tourists to Buffalo.

In summer and autumn Buffalo is a paradise for the automobilist. Buffalo leads in asphalt paved streets, and in addition there are many miles of beautifully macadamized parkways, connecting a splendid system of public parks. In Delaware Park, the largest of the city's recreation grounds, are located the Albright Art Gallery, one of the finest examples of Grecian architecture in America, the white marble building of the Historical Society, a zoo, a casino, green houses and other buildings. Provision is made in Buffalo's parks for the lover of outdoor sports, including baseball, golf, lawn tennis and lawn bowling. They are intended for the use of all people and "Keep Off the Grass" signs are not used.

At the front is a splendid view of lake and river, and in the distance suggestions of Buffalo's greatness as a commercial and manufacturing city. Many children find delight in the wading pool at Humboldt Park. An unsurpassed collection of rare plants and flowers is housed in the great botanical garden in South Park. In each of the larger parks there is a band pavilion and free daily concerts are given by the Park band.

Many millions of dollars have been spent by New York State in the improvement of highways, and Erie county, in which Buffalo is located, has co-operated and contributed liberally for the creation of good roads in this section, with the result that brick and macadam roadways radiate in all directions far into the country, and to the east, across the state. One of these improved roadways connect Buffalo with Niagara Falls, practically a suburb of this city, and an objective point for thousands of tourists who never tire of witnessing the majesty and grandeur of the cataracts and the wonderful gorge and rapids below. Niagara Falls also is accessible from Buffalo by train or trolley, with frequent and rapid service.

While advancing their material interests the people of Buffalo and city officials always have considered the social needs of the community, and this city always has been among the leaders in this service. The first organized charity work in America was begun by the Charity Organization Society, which still exists. The first, or one of the first public bath houses in the United States was established by the City of Buffalo. Buffalo is amply provided with public and private hospitals, and in the past few years has co-operated in the war against the white plague. The city has built and maintains at Perrysburg, in the hills to the southwest of the city, a splendid hospital for the treatment and care of both adults and children suffering from incipi-

FOR A GREATER ICE CREAM INDUSTRY—Eastern Exhibition, Buffalo, October 31st - November 5th, inclusive.

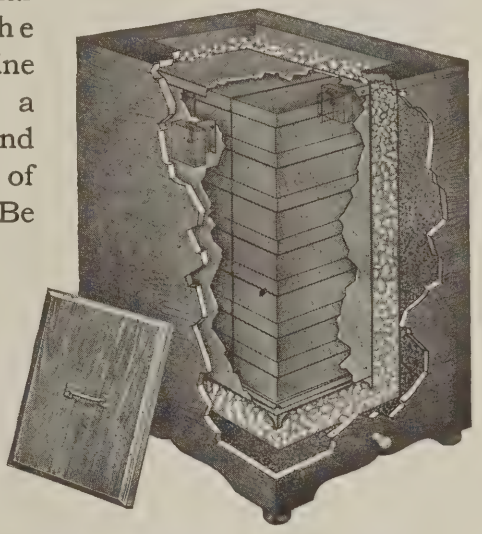


Nelson (Patented Ice Cream Cabinets

"Confessed The Best When Put to Test"

are constructed along scientific and practical lines to conserve ice and salt supplies and keep the ice cream in perfect condition until sold. The manufacturers have devoted thirty years of study and experiment toward the building of the best possible ice cream cabinets for the manufacturing trade. Each particular make of cabinet of the Nelson line is sold with a guarantee and on a plan of "You Must Be Satisfied"

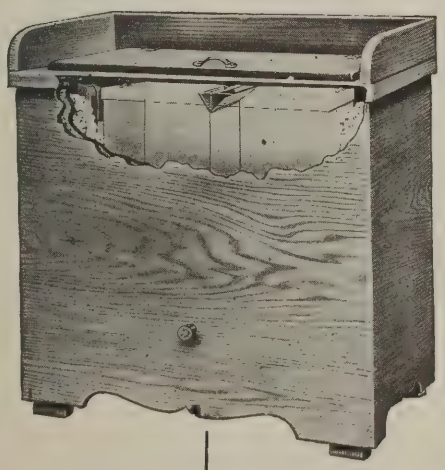
C. Nelson Brick Cabinet
Patented May 8, 1906





Three Compartment Cabinet

42 Qt. Brick Cabinet with Ice Rail



Patented Nov. 11, 1919—1321120

This Proposition Will Interest You

Any responsible ice cream manufacturer—particularly wholesale ice cream manufacturers and dealers—may order from 1 to 100 Nelson patented Ice Cream Cabinets, place them in practical use, and after 30 days, if not entirely satisfactory, return at our expense for freight, both ways.

Can any manufacturer offer a more liberal or fair proposition? You owe it to yourself to thoroughly investigate the price, merits and construction of the Nelson Patented Ice Cream Cabinets before making any further purchase.

Plan on your season's requirements now, and have your supply on hand when needed.

C. Nelson Manufacturing Co.

2308 Division St. **St. Louis, Mo.**

ent tuberculosis. Contracts have been let for a million dollar hospital for those in advanced stages of this scourge. Altogether there are more than one hundred agencies and institutions in Buffalo for the care, treatment and maintenance of the unfortunate and misguided. These matters have received the careful attention of the Chamber of Commerce, and through the activities of its Charities Bureau fake solicitors have been practically driven out of town, and much waste prevented.

With her growing iron and steel industries, and hundred of other stable and established manufacturing plants, Buffalo affords steady and remunerative employment to a great army of workingmen, and at the same time every facility for a most comfortable living.

It is not a city of tenements, the few existing being vigorously regulated, and many hundreds of the city's workingmen are comfortably housed in their own cottages, with an abundance of air and light, and usually a lawn and garden.

Since the beginning of the present century, the system of instruction in the public schools of this city has been extended to include training in arts and crafts, so that the children are no longer taught solely to become clerks or bookkeepers, but if they wish they have the opportunity of learning the fundamental principles of a number of valuable trades. Nor have the girls been overlooked in this improved training, and they are taught cooking, sewing and domestic science.

Aside from all of her material advantages, natural and acquired, Buffalo regards as her greatest asset the loyalty and enthusiasm of her citizens.



EASTERN EXHIBITION—1921's MECCA FOR THE PROGRESSIVE MANUFACTURER

(Concluded from Page 8)

ing become a recognized feature of the industrial shows held by the Association of Ice Cream Supply Men. A definite entertainment program will not be announced until shortly before the exhibition opens, however.

The exhibition will not be open evenings except that on one evening it is planned to invite the public of Buffalo to inspect the displays in order that it may gain a true idea of the magnitude and scientific progress of the industry. The exhibit will close on Saturday, November 5th.

The Association of Ice Cream Supply Men has not restricted exhibition privileges at Buffalo to its own membership but has extended them to non-member houses with goods or services of value to the industry. Among exhibitors will be the following individuals and firms:

LIST OF EASTERN EXHIBITION SPACE-HOLDERS

Allman Gas Engine & Machine Co., 461 Canal St., New York City.
American Refrigeration Co.
Anheuser-Busch Sales Corp., 2367 Logan Blvd., Chicago, Ill.
Aschenbach & Miller, 3rd & Callowhill Sts., Phila., Pa.
Atterbury Motor Car Co. ,Buffalo, New York.
Auto Car Co. ,Ardmore, Pa.
Baeder-Adamson Co., Richmond St. & Alleghany Ave., Philadelphia, Pa.
Buffalo Foundry & Machine Co., Buffalo, N. Y.
Burdick-Garrison Co., 225 Fifth Ave., New York City.
Chalmers Gelatine Sales Corp., Richmond, Va.
Cherry-Bassett Co., 1106 Arch St., Phila., Pa.
Commercial Truck Co., Hunting Park & Rising Sun Ave., Phila., Pa.
Corrizo Extract Co., 211 W. 20th St., New York City.
Cosmopolitan Lithograph Co., 141 E. 25th St., New York City.
Creamery & Milk Plant Monthly, 327 S. La Salle St., Chi. Ill.
Crown Fruit & Extract Co., 418 W. Broadway, N. Y. City.
Crescent Mfg. Co., 105 Hudson St., New York City.
Crystal Gelatine Co., 121 Beverly St., Boston, Mass.
Cone Co. of America, 3rd & Van Alst Aves Long Island City.
A. Daigger & Co., 859 N. Franklin St., Chicago, Ill.
Davis Cooperage Co., Martinsville, Ind.
Davis-Watkins Mfg. Co., Jersey City, N. J.
Dominion Chemical Co., Syracuse, New York.
James F. Drew & Co., 396 Broadway, New York City.
Thos. W. Dunn Co., 248 Front St., New York City.
Edison Storage Battery Co., Orange, N. J.
Electro Chemical Co., 59 Walker St., New York City.
Elyria Enameled Products Co., Elyria, Ohio.
Emery & Co., 11 Wyoming Ave., Melrose, Mass.
Essex Gelatine Co., 40 N. Market St., Boston, Mass.
J. B. Ford Co., Wyandotte, Mich.
Glacifer Co., 102 Merrimac St., Boston, Mass.
Grand Rapids Cabinet Co., Grand Rapids, Mich.
Grand Rapids Table Co., Grand Rapids, Mich.
John J. Grothe & Co., Everett & Union Sts., Woburn, Mass.
S. Gumpert & Co., Bush Terminal, Brooklyn, N. Y.
B. Heller & Co., 40th St. & Calumet Ave., Chicago, Ill.
Homer Mfg. Co., Homer City, Pa.
Hudson Mfg. Co., 119 N. Union St., Chicago, Ill.
Ice Cream Review, 210 Sycamore St., Milwaukee, Wis.
Ice Cream Trade Journal, 171 Madison Ave., New York City.
Impruv-Mix Co., 403 W. 24th St., New York City.
International Salt Co., Scranton, Pa.
H. A. Johnson Co., 221 State St., Boston, Mass.
Keiner-Williams Stamping Co., Richmond Hill, L. I.
H. Kohnstam & Co., 83 Park Place, New York City.
McSavaney Co., Springfield, Ohio.
August Maag Co., 509 W. Lombard St., Baltimore, Md.
F. C. Mathews Co., 63 Mullett St., Detroit, Mich.
Menasha Printing & Carton Co., Menasha, Wis.
Meyer Wagon Works, 214 Elm St., Buffalo, New York.
Merrell-Soule Co., Syracuse, N. Y.
David Michael & Co., Ridge Ave. & Green St., Phila., Pa.
H. H. Miller Industries, Inc., Canton, Ohio.
Milligan & Higgins Gelatine Co., 222 Front St., New York.
Mojonnier Brothers, 739 W. Jackson Blvd., Chicago, Ill.
John H. Mulholland Co., 145 N. 12th St., Philadelphia, Pa.
National Paint & Varnish Co., 8707 Kinsman Rd., Cleve. O.
C. Nelson Mfg. Co., 2300 Division St., St Louis, Mo.
Ivan B. Nordhem & Co., 8 West 40th St., New York City.
Oakes & Burger, Cattaraugus, N. Y.
H. H. Ottens Mfg. Co., 129 S. Front St., Phila., Pa.
Parker-Brawner Co., Washington, D. C.
Paterson Parchment Paper Co., Passaic, N. J.
Rex Extract Co., 257 Pacific St., Brooklyn, N. Y.
Rice & Adams, Buffalo, N. Y.
Richmond Cedar Works, Richmond, Va.
Righter Mfg. Co., 144 Provost Ave., Jersey City, N. J.
Geo. H. Robinson Co., 225 E. 22nd St., Chicago, Ill.
G. R. Ryan Mfg. Co., Rochester, N. Y.
Sanitary Tinning Co., 8753 E. 93d St., Cleveland, Ohio.
Steuben Advertising Co., Inc., Le Roy, N. Y.
Sanitary Products Corp., 2710 Lefevre St., Philadelphia, Pa.
B. B. Scott, 24 Ormsbee Ave., Providence, R. I.
K. W. Schantz, Inc., 76 Main St., Buffalo, N. Y.
Sealright Co., Fulton, N. Y.
H. A. Sinclair, 169 Broadway, New York City.
Curtis F. Sisco Co., 10 E. 43rd St., New York City.
Solar-Sturges Mfg. Co., Congress & Green Sts, Chicago, Ill.
Star Extract Works, 8 W. Broadway, New York City.
Sweets, 803 Central Bldg., Atlanta, Ga.
Emery Thompson Machine Co., 271 Rider Ave., N. Y. City.
United Reinforcing Co., 601 Tuscarawas St., E. Canton, O.
C. J. Van Houten & Zoon, 105 Hudson St., New York City.
Virginia Tub Co., Bristol, Va.
Walker Vehicle Co., 87th & State Sts., Chicago, Ill.
Ward Motor Vehicle Co., Mt. Vernon, New York.
Widlar Co., 640 Bolivar Road, S. E., Cleveland, Ohio.
J. O. Whitten & Co., Winchester, Mass.
Wisner Mfg. Co., 230 Greenwich St., New York City.
Wolf Advertising Co., 43 W. 36th St., New York City.
Wolf & Lavenson, 15th & Mt. Vernon Sts., Philadelphia, Pa.
John Wood Mfg. Co., Conshohocken, Pa.
York Mfg. Co., York, Pa.



WILL EXHIBIT AT BUFFALO

Davis-Watkins Dairymen's Mfg. Co., along with the many other progressive supporters of the big show, will exhibit their Progress Ice Cream Equipment at the Buffalo Exposition.

Marking the Progress of the Ice Cream Industry

The Association of Ice Cream Supply Men

Previous "supplymen's exhibitions" have brought home, to attending ice cream manufacturers a most comprehensive understanding of this association's service to the ice cream industry. These exhibitions are "not merely selling shows," but rather regarded as educational, inspirational and broadening, reflecting the spirit back of The Association of Ice Cream Supply Men—that of furthering the progress of the industry. It will pay you well to attend.

See these SEALRIGHT Exhibits

BUFFALO—*Oct. 31st to Nov. 5th*

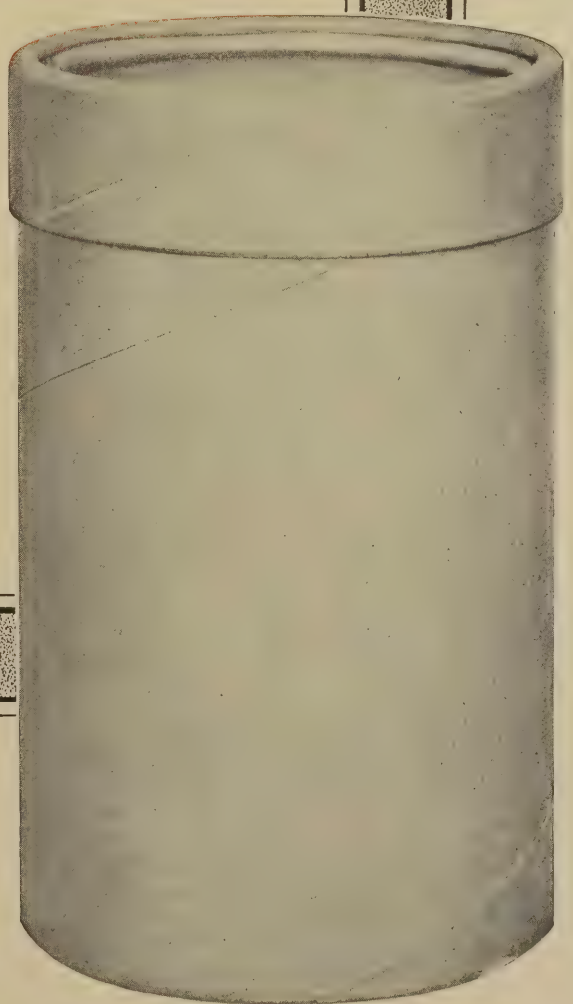
Third Annual Eastern Exhibition
Elmwood Music Hall
Sealright Exhibit—Booth No. 62

ATLANTA—*Nov. 28th to Dec. 2nd*

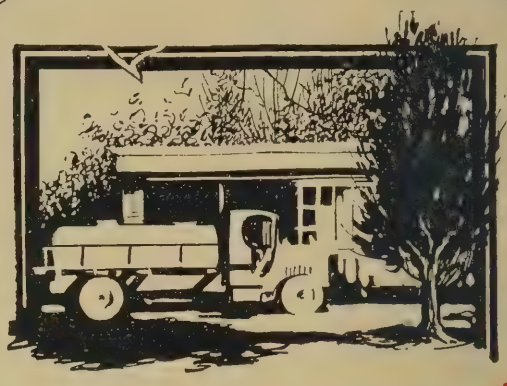
Southern Exhibition
Auditorium-Armory
Sealright Exhibit—Booth No. 34



SEALRIGHT CO., Inc.
Fulton - - New York
Largest Manufacturers in the World of Cylindrical Liquid-Tight Paper Containers



See our exhibit and meet our representatives at the Eastern Exhibition of the Association of Ice Cream Supply Men, Buffalo, N. Y., Oct. 31st to Nov. 5th.



Up-to-date-ness!—

Up-to-date-ness has more than merely the fashionable idea attached to it now-a-days—this is one angle, of course, but we have the *greatest* respect for the man who will be among the *first* to change his methods, when he really sees a chance for improvement, (despite what his competitors may be doing.) This usually results in his making up the expenditure involved by a new increase in trade.

Look around you!—and see what your neighbors are doing. Are they buying new equipment? If they are, then for competitive reasons you, too, should buy.

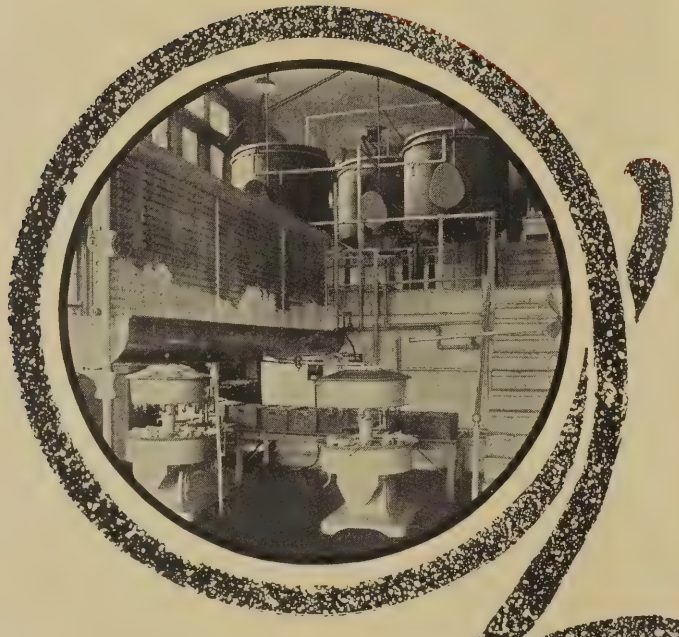
If they are NOT—then here is a wonderful chance for you to get in ahead. Remember, that with your price remaining level every fraction of a cent per unit of production that you are able to reduce your costs, will mean additional profit for you without charging your customer any more.

Pasteurization, for example, is one of the items which many dairymen have sought to avoid as an expensive overhead which netted them nothing. The Pfaudler Company has proved the fallacy of any such attitude and, on the basis of showing economies gained has sold a very considerable number of its pasteurizers within the last few months. We are sincere in our belief that we have the best pasteurizer on the market and have prepared a limited edition of a booklet—"Pasteurization." This will tell you about the new Pfaudler Pasteurizer, and the manner in which it simplifies the process of pasteurization, making it a comparatively inexpensive operation.

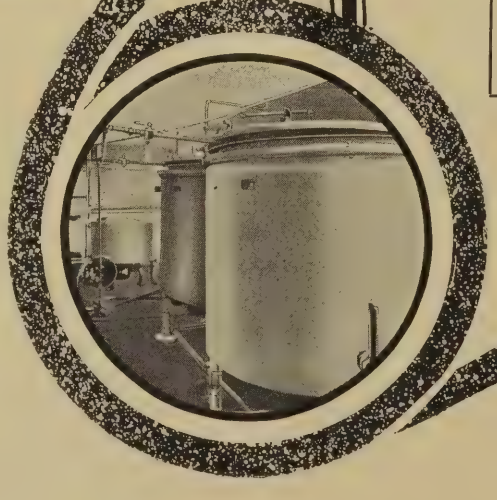
Fill in and mail this coupon.

THE PFAUDLER CO., Rochester, N. Y.
Gentlemen:
Please send me your booklet "Pasteurization."
.....
.....
.....
No obligation attached to this request.

The PFAUDLER CO.
The World's Largest Makers of Glass Lined Steel Equipment
ROCHESTER, NEW YORK
NEW YORK CITY CHICAGO SAN FRANCISCO
LONDON, ENGLAND SYDNEY, AUSTRALIA



Pfaudler Glass Lined Pasteurizers—Sanitary Milk Products Co., Indianapolis. This company is well satisfied with their Pfaudler Pasteurizers, as is indicated by the following quotation from one of their letters recently received: "Wish to advise that the three 500-gal. Pfaudler Pasteurizers have been installed since June 15, 1921, and we are very much pleased with them. We believe the flavor of the milk is much better since using your tanks, also the bacterial count is much lower; we also find them to be labor savers."



Pfaudler Glass Lined Pasteurizers—Sanitary Milk and Ice Cream Co., Peru, Ind. Quoting a recent letter from the above: "We wish to remark that we are highly pleased with the tanks, as they are satisfactory in every way."

ACKNOWLEDGMENT IS DUE

Editor Ice Cream Review:

It is customary at all times to give proper credit wherever credit is due. The practice of claiming credit for something which someone else has done is manifested in all lines of activity more or less. Priority of publication of an article representing considerable study and experimentation is usually sufficient evidence as to who should receive credit for the work. The use of such an article once before published and presenting it at another time by someone else without crediting the author of the same, is, in the professional world considered not only very discourteous but apparent stealing of a commodity.

In the July 1920 issue of the Ice Cream Review was published an article entitled "Should Gelatine be Pasteurized with the Ice Cream Mix or Added After the Mix is Pasteurized", by Professor A. D. Burke, Oklahoma A. & M. College. On page 94 of the June 1921 issue of the Ice Cream Review appeared the same article word for word, purporting to have been an address delivered by John T. Cunningham of Chicago, before the Illinois Convention of Ice Cream Manufacturers, 1920.

It is evident that many readers of the Review have the impression that Mr. Cunningham was the author of the paper. Mr. Cunningham has refused to sign an acknowledgment and apology to Professor Burke and I believe that the readers of the Review should understand the situation. The following is the note of apology which Mr. Cunningham was asked to sign and publish: "Apologies to Professor A. D. Burke:

On page 94 of the June 1921 issue of the Ice Cream Review appeared a paper entitled "Should Gelatine Be Pasteurized With the Ice Cream Mix or Added After the Mix Has Been Pasteurized." This is a paper which I presented to the Illinois Ice Cream Maker's Association Convention and it undoubtedly has appeared to the readers of the Review that I personally am the author of this paper. This same paper was published word for word in the July 1920 issue of the Review by the author of this paper, Professor A. D. Burke, Oklahoma A. & M. College, Stillwater, Oklahoma. I desire to offer my apologies to Professor Burke for presenting this paper at the Illinois Convention without the proper acknowledgment of it's source and without mentioning the author of the paper.

SIGNED————————"

Yours truly,

A. C. BAER,

Professor of Dairying and Dairy Husbandry
Oklahoma Agri. & Mech. College,
Stillwater, Okla.

⚜

WILL MAKE ICE CREAM FOR VINTON

The Bryan-Leverich Motor Co. sold their new brick building on West Fourth street to the Hutchinson Ice Cream Co., of Cedar Rapids.

The purchase of this building by the Cedar Rapids company means a new industry for Vinton, Ia. They expect to establish an ice cream factory which will be in operation by the first of October, or a little later. Several thousand dollars worth of machinery will be installed for handling the milk and cream and making the frozen delicacies for which this company is noted.

The building purchased by the Hutchinson company is ideally constructed for their line of business and is conveniently located.



"DOC" Advises Users to Run Germ-X Through Entire System

Dear Customer:

A large number of the users are running a Germ-X solution through the entire system of their plant after cleaning. Those who do this are receiving no complaints about spoiled, moldy or off-flavored products. Their plant is sterile and sweet smelling.

Simply make a Germ-X solution—one ounce of concentrated Germ-X to one gallon of water—and run it through all equipment, pipe lines, etc., just as you run your milk or cream.

P. S. We have recently issued an instructive folder on the use of Germ-X. Send for it and we'll also send you a free sample.

"DOC" GERM-X.

Distributed by

The Creamery Package Mfg. Company

CHICAGO - - - - 61-67 W. Kinzie St.
BUFFALO, N. Y. - - 133-137 E. Swan St.
KANSAS CITY, MO. - 1408-10 W. 12th St.
MINNEAPOLIS - 318-320 Third St. N.
OMAHA - - - 113-115 117 S. Tenth St.
PHILADELPHIA - - 1907 Market St.
PORTLAND, ORE. - - 6-8 N. Front St.
SAN FRANCISCO - - - 699 Battery St.
TOLEDO - - - - - 119 St. Clair St.
WATERLOO - - - 406-8 Sycamore St.

Why the Compressor Loses Capacity When Operating on Brine and Hardening Room

A Practical Talk by a Representative of the Baker Ice Machine Company of Omaha, Nebraska

THE proper design of the refrigerating equipment for the ice cream manufacturer necessitates a very careful study on the part of the refrigerating engineer. This is true also of the design of plants for creameries and dairies. But when ice cream duty and cream or milk cooling duties are combined extraordinary care must be exercised in the selection of the ammonia compressor and in the design of the expansion side of the equipment, so that the work may be performed in the most economical and satisfactory manner.

We will assume that the reader is familiar with practical refrigerating methods as ordinarily applied to each of the above classes of service, independently, so that we will confine our remarks to the points which must be considered when applying mechanical refrigeration to these various services combined.

Of foremost consideration is the extremes in temperatures required, ranging from zero degrees Fahrenheit in the hardening room to 25 degrees brine for cream and milk cooling.

In order to secure a temperature of zero degrees in the hardening room the temperature of vaporization of the ammonia should be about twenty degrees below zero. This cannot be obtained unless the vaporization pressure or suction pressure is about 3 pounds gauge.

On the other hand 25 degrees brine is ordinarily obtained with 15 degrees ammonia, which represents a suction pressure of about 28 pounds gauge.

A knowledge of the relation of ammonia pressures and temperatures is very essential to a thorough understanding of the workings of the machine. Frequently we hear an engineer complain that he cannot hold his hardening room temperature down while his compressor is working on the brine. This is due to the fact that the suction pressure has been raised above the pressure, corresponding to the temperature at which the ammonia will evaporate. As a result the liquid ammonia lays in the coils of the hardening room without doing work until the temperature raises sufficiently to evaporate it, or until the suction pressure has been again reduced.

In plants having two compressors—one machine can be operated on the low pressure work and the other on the high pressure work. But small plants have one compressor only and the hardening room work and cream or milk cooling duties cannot be economically performed at the same time, unless the compressor is fitted with two independent suction lines which can be operated at different suction pressures.

Of next importance is the relation of suction pressure to the capacity of the ammonia compressor.

All compressors are rated at 15.6 pounds suction pressure and 185 pounds discharge pressure. We cannot expect a compressor operating at 3 pounds suction pressure to deliver more than 58% of its rated capacity, while at 28 pounds suction pressure it should deliver 142% of its rated capacity.

A ten ton machine, for example, operating with 3 pounds suction pressure on milk or cream cooling duty and trying to hold hardening room at the same time could not deliver more than 5.8 tons of refrigeration in 24 hours. The same machine would be able to deliver 14½ tons refrigeration on the milk and cream duty.

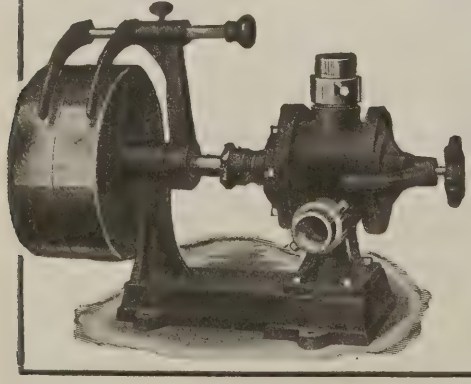
These facts demonstrate clearly why it is that a compressor originally installed to perform work on high suction pressures (20 to 25 lbs.) is incapable of taking care of low temperature work in addition. The low temperature work may require only a small percentage of the capacity of the machine, but it cuts the possible tonnage of the compressor about 40%.

The Baker Ice Machine Company has taken care of this feature in a most practicable way. They have made special provisions in the construction of their compressors enabling them to attach a double suction arm with valve between, which makes it possible to operate the cylinders at different suction pressures. By this arrangement, extremely low temperatures can be maintained with one cylinder, and high temperatures can be maintained with the other, without the consequent loss of efficiency incident to the entire operation at low pressure, thereby getting full rated capacity from the compressor. This arrangement also permits throwing the two cylinders on either the low temperature or the high temperature work at the discretion of the operator.

It serves the functions of two compressors, and for the ordinary creamery or dairy that is engaged also in the ice cream business this arrangement is ideal.

The Baker Ice Machine Company will have an Exhibit at the National Dairy Show and will be pleased to receive their friends and parties interested in Dairying products.

Taber Creamery Pumps



are the most sanitary because they are entirely dissectable. Demand a Taber Pump from your jobber. If he cannot supply you we will sell you direct. Address:

Taber Pump Company
297 Elm Street
BUFFALO, N. Y.

FOR YOUR PARTY.

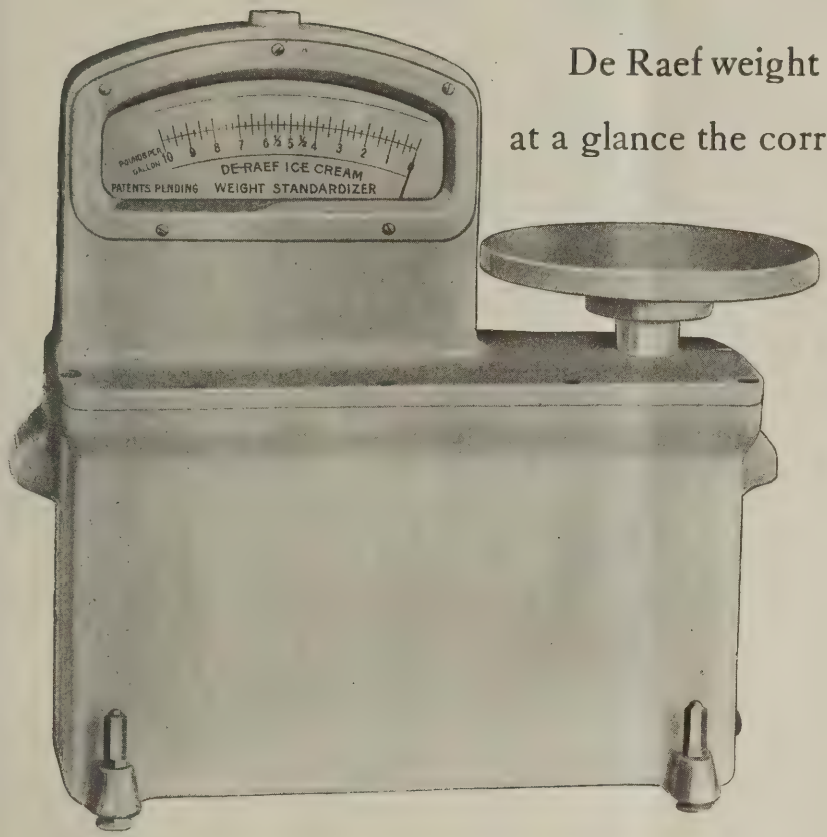
Of course ice cream is served at all parties! In fact, it is that very course which is awaited most eagerly during the repast, as least, by the fair sex, (and since prohibition, we think we can vouch the same for the "opposites").

At a recent party, ice cream was served in a manner both unique and attractive and we are going to pass it on to our readers so that their wives and sweethearts may try it at their next party.

Take the allotted number of small flower pots, and after a thorough scrubbing, line each one with waxed paper and pack with ice cream. Then, to represent the earth, grated chocolate is thickly sprinkled on top, and a gay flower on a stem is stuck into the "earth". This will be a real ice cream surprise held in a flower pot.

Standardization of Ice Cream

By Weight Per Unit Volume



De Raef weight standardizer tells you at a glance the correct weight per gallon, while the ice cream is still in the freezer, giving the ice cream maker full control of a standard weight per gallon as well as a given over-run.

No weights—no charts—no counter balances —no telescopic cups — no adjustments — no magnifying glass to read dial—no figuring—always ready for operator—water proof and rust proof.

Works automatically—reading can be made ten feet away—large black figures on white dial. Will give correct weight per gallon of ice cream, regardless of weight per gallon of mix.

De Raef Ice Cream Weight Standardizer circular sent on application to the Ice Cream Department



N. A. KENNEDY SUPPLY COMPANY
KANSAS CITY MISSOURI



Barker, Duff

Ice Cream Advertising Headquarters

EAT A PLATE OF *ICE CREAM* EVERY DAY!

FOR A GREATER ICE CREAM INDUSTRY—Eastern Exhibition, Buffalo, October 31st - November 5th, inclusive.



A Morris.

323 4th Ave. Pittsburgh Pa.

BARKER, DUFF & MORRIS
PITTSBURGH, PA.

Would like to have an outline of your 1922 Advertising Plans

NAME _____

ADDRESS _____

Monthly Powdered Milk Market Report for September, 1921

By Bureau of Markets and Crop Estimates, United States Department of Agriculture.
Prices Paid for Raw Material Delivered During September, 1921, F. O. B. Factory.

Geographic Sections	Whole Milk			Buttermilk per gallon	Skimmilk per cwt
	Price per CWT	Butterfat Basis	Allowance 0.1 p. c. fat		
New England	1.92	3.5	4—4.2	...	...
Middle Atlantic	2.00—2.45	3.5	4—5	...	...
South Atlantic	.....	...	....	...	...
E. North Central	1.80—2.30	3.5	4	...	20—40
W. North Central	2.09—2.12	3.5	3	0.5—0.8	.30
South Central	.....	...	....	...	...
Northwestern	1.59	3.5	4½	...	...
Southwestern	1.75	3.5	....	...	...

Manufacturers' Wholesale Selling Prices During September.

The wholesale prices given below are based on reports of manufacturers covering actual sales made to jobbers, wholesale grocers, and similar buyers on basis of cash or short time credit with freight included to distributing point in each section.

Prices in the column headed "Range of Prices" are the highest and lowest reported by all firms. Those given under "Bulk of Sales" are the highest and lowest reported by different firms as the "bulk of sales" prices.

Geographic Sections		Whole Milk Powder		Skim Milk Powder		Buttermilk Dried	
		Range of Prices	Bulk of Sales Prices Fresh Goods	Range of Prices	Bulk of Sales Prices Fresh Goods	Range of Prices	Bulk of Sales Prices Fresh Goods
N. E.	Case	.....	.....	.....	.....	.....	.....
	Bulk	28–34	28–34	10–13	10–13	6.65–11½	6.65–11½
M. A.	Case	.....	.....	.....	.....	.....	.....
	Bulk	28–34	28–34	3–13	5–13	6¼–11½	6½–11½
S. A.	Case	.....	.....	.....	.....	.....	.....
	Bulk	28–34	28–34	10–13	10–13	11½–12½	11½–12½
E. N. C.	Case	36–50	.....	.....	.....	.....	.....
	Bulk	28–40	28–34	7–13	7–13	6½–11½	6½–11½
W.N.C.	Case	.....	.....	.....	.....	9½–12	9½–12
	Bulk	28–34	28–34	8–13	8–13	5½–11½	5½–11½
S. C.	Case	.....	.....	.....	.....	.....	9½
	Bulk	28–34	28–34	9¼–13	9¼–13	7–11½	7–11½
N. W.	Case	.....	.....	.....	.....	10–10½	10
	Bulk	.....	35	7–13	8–13	3½–12½	3½–12½
S. W.	Case	.....	.....	.....	.....	.....	10½
	Bulk	35–38	35–38	8½–14	9¼–14	6–10	6–12½

NOTE—Bulk goods includes that sold in barrels and drums. Case goods includes that sold in tin containers.

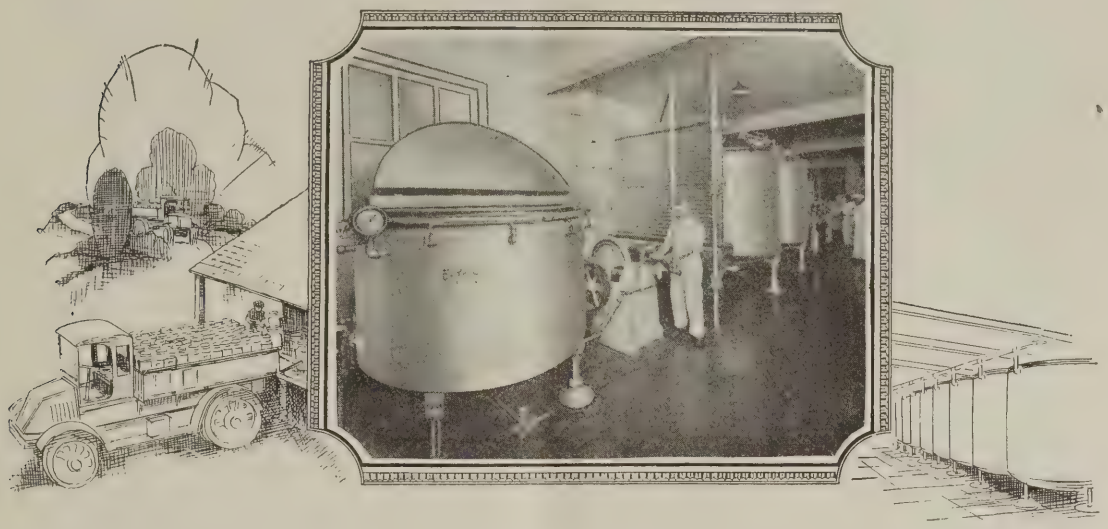
NOTE–Skimmilk powder for export trade was reported at 11½ to 13c per lb., f. a. s. Atlantic seaboard and 13c per lb., f. a. s. Pacific seaboard.

New England (1)—Maine, New Hampshire, Vermont, Massachusetts, Rhode Island and Connecticut. Middle Atlantic (2)—New York, New Jersey, Pennsylvania. South Atlantic (3)—Delaware, Maryland, Dist. of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia and Florida. East North Central (4) Ohio, Indiana, Illinois, Michigan and Wisconsin. West North Central (5)—Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska and Kansas. South Central (6)—Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, Oklahoma and Arkansas. Northwestern (7)—Montana, Wyoming, Idaho, Washington and Oregon. Southwestern (8)—Colorado, New Mexico, Arizona, Nevada, Utah and California.

(Continued on Page 28)

FOR A GREATER ICE CREAM INDUSTRY—Eastern Exhibition, Buffalo, October 31st - November 5th, inclusive.

SERVICE—NOT JUST EQUIPMENT



A One-Floor Ice Cream Plant that Saves Space and Reduces Cost

A FEATURE of Elyria Equipment installations is the compactness of plant layout and consequent ability to save valuable floor space and overhead room which can be devoted to other purposes. ¶The Elyria units in the Hayes Ice Cream Plant [illustrated above] consist of two 1000-gallon storage and aging tanks and one 500-gallon mixing tank—all direct connected under one continuous operating system with the freezers—a plan which eliminates rehandling and assures rapid, uninterrupted flow of materials. ¶Elyria Engineers are specialists in designing just such plants as this. They can recommend for your approval a layout which will give you maximum daily output with minimum use of floor space, labor and time. ¶And, they will prove to you the advisability of using Elyria Glass Enameled Steel Equipment because it is the most thoroughly and most scientifically constructed equipment in its class.

Economy

Elyria Glass Enameled Steel Equipment is easily cleaned and kept clean; it will not crack or chip; it neither gives flavor to or takes flavor from the product. Its use heightens the general efficiency of the plant.

The mechanical improvements of Elyria Tanks and the systems under which they are installed guarantee continuous maximum production with minimum cost. Elyria Engineers will prove this to you.

You will be interested in having complete information on Elyria Equipment—mixers, storage tanks, weight tanks, pasteurizers and etc., for the Milk and Ice Cream Plant. A letter will bring proof of Elyria superiority at once.

ELYRIA ENAMELED PRODUCTS COMPANY, ELYRIA, OHIO

Pittsburgh New York Chicago San Francisco Los Angeles Canadian Milk Products Company, Toronto

ELYRIA GLASS ENAMELED STEEL EQUIPMENT

Condensed and Evaporated Milk Market Report

By Bureau of Markets and Crop Estimates, U. S. Department of Agriculture.

Manufacturers Wholesale Selling Prices of Condensed and Evaporated Milk (September)

The wholesale prices given below are based on reports made by manufacturers covering actual sales of condensed and evaporated milk to jobbers, wholesale grocers and similar buyers, delivered at manufacturers' distributing points on basis of cash or short time credit. Foreign prices are given as F. O. B., or F. A. S., points of export in section in which sales were made.

Geographic Sections	Sweetened Condensed, Bulk, Per Cwt. Unskimmed	Skimmed	Unsweetened Evaporated, Bulk Per Cwt. Unskimmed	Skimmed
New England—				
Range	9.20—11.00	4.50—7.50	8.50—11.50	4.00—4.60
Average	10.70	5.77	10.00	4.30
Mid. Atlantic—				
Range	9.20—11.00	4.50—7.50	8.25—12.08	2.47—7.20
Average	10.17	5.61	10.62	4.33
So. Atlantic—				
Range	9.20—11.00	4.50—7.50	.....	2.25—4.20
Average	10.07	5.70	11.40	3.48
E. N. Central—				
Range	9.00—11.00	4.50—9.00	6.45—9.00	2.50—7.50
Average	10.12	6.00	7.78	4.44
W. N. Central—				
Range	9.00—11.00	6.25—7.50	7.78—8.33	.....
Average	10.03	6.70	8.06	3.88
So. Central—				
Range	9.20—11.00	6.96—7.50	.....	.....
Average	10.07	6.82	.....	3.50
No. Western—				
Range	9.20—11.00	6.96—8.00	.....	4.50—5.38
Average	10.44	7.49	.....	4.94
So. Western—				
Range	9.20—11.00	6.96—7.50	.....	.....
Average	10.10	7.23	10.75	.....
United States—				
Range	9.00—11.00	4.50—9.00	6.45—12.08	2.25—7.50
Average	10.20	6.12	9.05	4.28

New England—Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, Middle Atlantic—New York, New Jersey, Pennsylvania. South Atlantic—Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida. East North Central — Ohio, Indiana, Illinois, Michigan, Wisconsin. West North Central—Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas. South Central—Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, Oklahoma, Arkansas. North Western—Montana, Wyoming, Idaho, Washington, Oregon. South Western—Colorado, New Mexico, Arizona, Utah, Nevada, California.

MOVEMENT OF EVAPORATED MILK MUCH HEAVIER THAN CONDENSED MILK.

The most noticeable feature revealed by a review of the latest available reports from milk manufacturers is the activity in the movement of unsweetened evaporated stocks as compared with sweetened condensed during the past month. Business in the former class of goods was of much more satisfactory volume than the latter, and the tone of the market correspondingly better. This applies to case goods primarily, as the approach of cooler weather has naturally reduced the demand for bulk goods, especially from the ice cream trade.

Manufacturers' reports of total stocks on hand Sept. 1 indicated approximately the same surplus of condensed case goods as the previous month, but show a notable decrease in the quantities of evaporated case goods of over 35 per cent. The same comparison holds with reference to unsold stocks also, condensed case goods being practically the same as August 1, while unsold stocks of evaporated case goods September 1 were almost 50 per cent lower. Stocks of both classes of case goods were less than half of those reported a year ago.

The export movement during August apparently served to give considerable relief to the situation. As will be noted from the accompanying figures, exports of evaporated milk more than doubled those of July, amounting to 22,803,000 lbs. Exports of condensed milk were but 7,557,000 lbs., although this was 2,000,000 lbs. heavier than July. The United Kingdom received 12,716,000 lbs. of evaporated and 3,232,000 lbs. of condensed, thus ranking as the country to which by far the heaviest shipments were made. France and Germany received approximately 3,000,000 lbs. each of evaporated milk, but aside from these countries mentioned no unusual shipments appear to have been made. It is of interest to note that during the first eight months of 1921 exports of condensed milk were but 62,000,000 lbs. compared with over 221,000,000 lbs. during the same period in 1920, while exports of evaporated milk this year amounting to 116,000,000 lbs., are some 5,000,000 lbs. heavier than 1920.

Manufacturers' selling prices to domestic trade during August remained practically the same as during July, but reductions occurred in prices to foreign trade. The greatest cuts were made in prices of sweetened condensed which averaged 34c lower per case. Unsweetened evaporated prices to foreign trade were not so generally reduced by all manufacturers, as some seem to have advanced these prices slightly with the result that the average was but 4c less per case.



No Wonder They Smile!

—for ice cream stabilized by ESSEX Gelatine looks as delicious and wholesome as it invariably proves to be. No separation of fats from the milk and its water content—hence perfect digestibility and no ice splinters.

Your customers will wish their friends to try an ice cream that is uniform; pure; smooth as the cream it is made from!

ESSEX GELATINE COMPANY

Manufacturers

BOSTON, MASSACHUSETTS

Warehouses for Service

708 So. Delaware Ave., PHILADELPHIA
175 South St. NEW YORK
400 So. Broadway, ST. LOUIS
Board of Trade Bldg. CHICAGO
2nd & Brannan Sts. SAN FRANCISCO

MEMBER

MANUFACTURERS UNSOLD STOCKS OF CONDENSED AND EVAPORATED MILK

Includes all stocks held by manufacturers which were not sold or under contract for delivery on unfilled orders.

Commodity	Total Unsold Stocks Sept. 1, 1921		Comparison of Unsold Stocks For Same Firms Reporting			% Inc. or Dec. Sept. 1, 1921 over Sept. 1, 1920
	Firms	Pounds	Firms	Aug. 1, 1921 Pounds	Sept. 1, 1921 Pounds	
Condensed Case Goods	11	21,574,032	11	20,115,951	21,574,032	— 60
Condensed Bulk Goods	40	19,073,658	37	22,220,734	19,029,468	+229
Evaporated Case Goods	30	36,149,083	28	58,916,363	35,946,379	— 54
Evaporated Bulk Goods	21	763,390	20	915,266	763,390	+ 25
Total	..	77,560,163	..	102,168,313	77,313,269	— 44

UNFILLED ORDERS FOR CONDENSED AND EVAPORATED MILK

Includes the amounts of each commodity for which orders have been received by manufacturers whose orders were in excess of their unsold stocks.

Commodity	Total Unfilled Orders Sept. 1, 1921		Comparison of Unfilled Orders For Same Firms Reporting			% Inc. or Dec. Sept. 1, 1920 over Sept. 1, 1921
	Firms	Pounds	Firms	Aug. 1, 1921 Pounds	Sept. 1, 1921 Pounds	
Condensed Case Goods	1	339,000	1	425,000	339,000	— 58
Condensed Bulk Goods	..	.....	..	.....	.....	.....
Evaporated Case Goods	10	6,039,030	10	6,110,018	6,039,030	+ 67
Evaporated Bulk Goods	..	.....	..	.....	.....	.....
Total	..	6,378,030	..	6,535,018	6,378,030	+ 43

MONTHLY POWDERED MILK MARKET REPORT.

(Concluded from Page 24)

Manufacturers' Total Stocks of Powdered Milk.

Includes all stocks held by manufacturers reporting whether manufactured by them or purchased from others; whether on their own premises; in storage; or in transit (unsold) for warehouse consignment; and whether sold or contracted for sale but not delivered.

TABLE I.

Total Stocks of Powdered Milk Products.

Commodity	Code	Pounds Sept. 1, 1921	Pounds Sept. 1, 1920
Whole Milk Powder	Case	288,574	803,605
	Bulk	632,650	547,949
Skim Milk Powder	Case	266,924	277,109
	Bulk	6,734,262	7,526,528
Park Skim Milk Powder	Case	.....	.....
	Bulk	3,391	33
Cream Powder	Case	.....	.....
	Bulk	43,858	85,428
Dried Buttermilk	Case	61,000	.....
	Bulk	2,668,507	1,242,136

Manufacturers' Unsold Stocks of Powdered Milk.

Includes that portion of stocks reported in Table 1, not covered by current sales or future delivery contracts.

TABLE II.

NOTE—Bulk goods includes that sold in barrels and drums. Case goods includes that sold in tin containers.

Unsold Stocks of Powdered Milk Products.

Commodity	Code	Pounds Sept. 1, 1921	Pounds Sept. 1, 1920
Whole Milk Powder	Case	288,574	.....
	Bulk	482,650	5,000
Skim Milk Powder	Case	200,254	9,068
	Bulk	4,640,543	2,455,253
Part Skim Milk Powder	Case	.....	.....
	Bulk	3,391	.....
Cream Powder	Case	.....	.....
	Bulk	43,858	.....
Dried Buttermilk	Case	48,000	0
	Bulk	2,298,022	827,113

*Do not include stocks of one large firm included last month.

EXPORTS OF CONDENSED AND EVAPORATED MILK FROM THE UNITED STATES.

EXPORTS OF POWDERED MILK FROM THE UNITED STATES DURING AUGUST, 1921.

Total, August, 1921	7,556,763	22,802,953
Total, August, 1920	20,502,915	5,100,048
Jan.-August, Inc., 1921	62,660,211	116,359,657
Jan.-August, Inc., 1920	221,102,578	111,951,384

	Condensed Lbs.	Evaporated Lbs.
Total exports, August, 1921	1,598,921 pounds	
Total Exports, August, 1920	35,759 pounds	
Jan.-August, Inc., 1921	5,051,053 pounds	
Jan.-August, Inc., 1920	2,186,431 pounds	

NEW PLANT NEARLY COMPLETED

Water mains and plumbing have been put in the building and floors are laid, so that with the installation of the heating system, the factory of the Berlin Ice Cream and Dairy Products Company, Berlin, Wis., will be practically complete. The company does not plan to move the machinery from its present location into the new building until next year.

"It would interfere too much with our current business if we were to transfer the machinery now," said Frank Feiner, Secretary. "Our decision is to remain in our present location until the colder months when the volume of business is less, and then to move the machinery and begin in the new factory. The West side building will be painted white during the spring, and with machinery and other necessities installed, we will be ready to manufacture ice cream and dairy products in the most sanitary way possible."

The volume of business transacted by the company has increased greatly since the inception of the local ice firm.

Don't miss a single copy of The Ice Cream Review. We'll see that you do not if you send us two dollars for a year's subscription.



What Sells One Brand Over Another?

Taste?—Yes
Advertising?—Yes

——But the advertising that sells depends on **newness** in art and message.

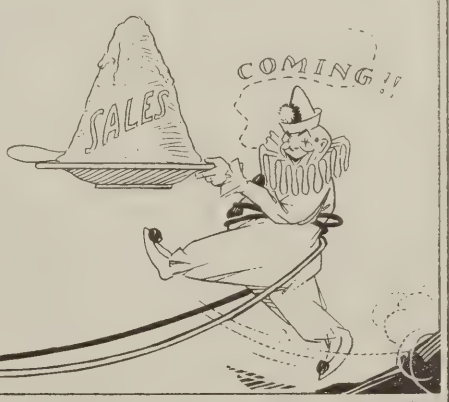
New Ideas—that's the problem!

It's only natural for the dealers to prefer to handle the ice cream whose manufacturer backs it up with original advertising ideas.

And the dealer finds his selling immensely easier when the decorations in his store and his windows connect up in the public's mind with the advertisements they have seen on the poster boards, in the street cars, and in the newspapers.

The problem, of course, is to originate the ideas and plan the campaign that will make the dealer yield to the demand for **your** ice cream. That is where the Nordhem Company, as a specialist in ice cream advertising, will assist you.

Nordhem Service originates sales-producing ideas.



Why not talk over your advertising questions with the Nordhem representative at the convention?

IVAN · B · NORDHEM COMPANY

Advertising and Selling Service for Ice Cream Manufacturers

8 West 40th Street · · · New York City

MEMBER

Stricter Regulations in Ohio

STRICT enforcement of the new code of rules and regulations provided in the new Kryder ice cream bill will take place in the future, according to reports from Columbus.

The regulations are as follows:

SANITARY CODE AND REGULATIONS FOR ICE CREAM MANUFACTURERS

Re-Amended Substitute Senate Bill No. 105

1. All ice cream shall be made from fresh sweet cream and dairy products and shall not contain fats other than dairy or milk fats nor more than one-half of one per cent, of vegetable gum and shall be composed entirely in accordance with Re-Amended Substitute Senate Bill No. 105.

2. All work rooms shall be thoroughly cleaned and free from dust, dirt and contamination and debris of every kind and character, including unused tools, utensils and apparatus; shall be well lighted and well ventilated. Basements shall not be used for workrooms unless these provisions can be met.

3. Garbage and all waste material subject to decomposition must be removed daily to the outside and deposited in a can provided exclusively for this purpose, composed of impervious material and provided with a tight fitting cover. Covers must be kept on the cans at all times except when entering or removing the material.

4. The sidewalls and ceilings of all work-rooms shall be well plastered, tiled or wainscoted or ceiled with metal or lumber and shall be well painted to the end that they may be readily cleaned and they shall be kept free from dust, dirt and foreign matter.

5. The floors of all work rooms shall be impermeable and be made of cement, tile laid in cement, or other suitable non-absorbent material which can be flushed and washed clean with water. Floors shall be sloped to one or more drains which must be properly connected to the sewerage system.

6. Doors, windows and other openings of every work room shall be screened during the fly season with screens not coarser than 14 mesh wire gauge.

7. All factories or shops shall have convenient toilet rooms, separate and apart from the work rooms, and no toilet rooms shall be within or connected directly with a work room, either by a door, window or other opening. The floors of the toilet room shall be of cement, tile or other non-absorbent material, and shall be kept clean at all times. Toilet rooms shall be furnished with separate ventilating flues or pipes discharging into soil pipes or on the outside of the building in which they are situated. Lavatories and wash rooms shall be adjacent to toilet rooms and shall be supplied with soap, water and clean towels and shall be maintained in a sanitary condition. Work room employees before beginning work and after visiting toilet rooms shall wash their hands and arms thoroughly in clean water.

8. No person shall live or sleep in any building used as a factory or shop, unless the factory or shop is separated by impervious walls, without doors or windows or other openings from the parts of the building used for living or sleeping purposes. No horses, cows or other animals shall be stabled or kept in any building where ice cream is made, unless the factory or shop is separated from the places where the horses, cows or other animals are stabled or kept by impervious walls without doors, windows or other openings.

9. No person suffering from or afflicted with tuberculosis, a venereal or contagious disease, shall be employed in or about any part of an ice cream factory and to this end the proprietor or manager of any ice cream factory shall require him or her to handle or come in contact with any material used in such ice cream or the product thereof, to furnish a certificate from a reputable physician showing him or her to be free from any infectious or contagious disease.

10. All work room employees shall be clean in person at all times and shall wear clean washable clothing and caps. They shall not smoke nor chew tobacco while at work. They shall not touch the product with their hands at any time. Employees may be specially designated to cut and wrap brick ice cream and to fill fancy moulds and as this work necessitates some handling of the product, such employees must be scrupulously clean and wear clean, washable clothing and caps.

11. All wagons, trucks, drays, cans and tubs, platforms and racks, shall be constructed that they may readily be cleaned and they shall be kept clean. Utensils must be of smooth non-absorbent material, as tin, or tinned copper, the seams of which are flushed smooth with solder. Freezers, vats, cans, mixing cans or tanks, piping and all utensils used as containers for ice cream or raw material, and all tools used in the making or the direct handling of ice cream shall be thoroughly cleansed after use with hot water and sterilized with steam or other sterilizing agent.

12. Soft or melted ice cream or any other ice cream shall not be refrozen under any circumstances.

13. Store and storage rooms for materials must be kept clean and free from objectionable odors. Decomposed, decayed, fermented, contaminated or rancid material shall not be used.

14. All cans, packers or receptacles used in the manufacture, transportation or storage of ice cream must be free from dents and rust and must be properly tinned inside and the use of liners for ice cream packers is hereby discouraged.

15. All creamery and condensory operators, ice cream manufacturers and all other dealers in milk and cream, and their customers must cleanse all receptacles used in shipping milk, cream or ice cream as soon as they are emptied in order to prevent the development of dangerous bacteria to threaten the health of the consumers of the product. No person shall use any vessel used in the manufacture and sale of ice cream for any other purpose.



CONDENSED MILK MACHINERY

The Better Kind

We teach you to make condensed milk.

C. E. ROGERS

Builders of Better Condensing Equipment

8731 Witt St. Detroit, Mich.

MANY manufacturers are spending thousands of dollars each year for signs, bill boards, window trims, newspaper space and general advertising. This money in most cases is well invested because it helps your sales force get new stops.

However the value of this advertising is lessened unless your ice cream is so uniformly good that your customers can distinguish your ice cream from your competitors' when they taste it.

C. W. Brand Vanilla will improve your present mix to such a degree that your customers will easily be able to taste the difference.

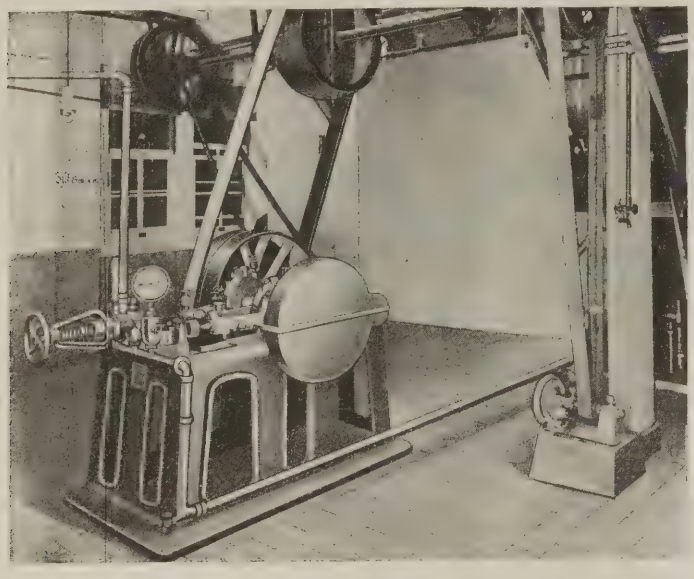
The consumer will go past one store to buy ice cream at another if the other man's ice cream tastes better.

The Widlar Company of Cleveland, Ohio who manufacture C. W. Brand Vanilla will be glad to show you that your ice cream can really be made to taste better.

CALIFORNIA PLANT USES HOMOGENIZER.

It is quite certain Californians consume as much ice cream per capita as is consumed by the inhabitants of any other state. For this reason an ice cream business in California is a pretty fine investment.

There is but one "fly in the ointment". Competition is exceedingly strong. But many of the ice cream manufacturers there have found out, as have Marshall Field in the departmest store business, Cadillac in the automobile business and the leaders in other lines, that nothing pays like quality goods—nothing gives complete assurance of growing and permanent success as the public knowledge that this or that particular concern manufactures the best goods obtainable.



A Gaulin Homogenizer Installed in Plant of Peerless Ice Cream Co., Sacramento, Calif.

One of the California ice cream makers that recognized the business building value of quality ice cream was the Peerless Ice Cream Co., at Sacramento, Cal.

This concern always prided itself on the excellence of its product. They found it difficult to make a product that was always free from graininess and always had as rich a taste as the quality of the mix deserved. The trouble, they discovered, was because their product was not homogenized. Furthermore, they found that the best procedure was to homogenize the whole mix at a pressure of from 3000 to 3500 pounds. To make a long story short, they ordered a Gaulin homogenizer.

Since the installation of the Gaulin, their business has grown by leaps and bounds and they expect it to grow for many years to come.

"Crescent"
Ice Cream Packing Tubs
Made right
Keep tight
Write For Prices
Crescent Tub Manufacturing Co.
Johnson City, Tenn.

NATIONAL ASSOCIATION OF PRACTICAL REFRIGERATING ENGINEERS

The twelfth annual convention of the National Association of Practical Refrigerating Engineers will be held at Hotel Lorraine, Philadelphia, Pa., on November 30 and December 1, 2 and 3, 1921. This is the first meeting of the Association to be held in the East, and it is confidently expected that it will eclipse any previous gathering of refrigerating engineers, even the successful convention which the Association held at Chicago last December.

The gratifying growth of the Association during the past few years, with its membership representing every section, and almost every state in the Union, makes it reasonable to expect a record attendance, and anticipating this the committees in charge of the convention arrangements are making preparations on a greater scale than ever before.

The program to be provided will include papers by men of world-wide reputation, who are being chosen because of their familiarity with the particular subjects in which the membership, and refrigerating engineers in general, are interested. Also, there will be papers of interest to all groups of the refrigerating industry, including the employers and managers who will be welcome to attend as visitors. Each year is showing an increase in the number of plant owners and plant managers who attend the sessions of the convention. They are commencing to realize that during the few short days the Convention is in session they can obtain most valuable information as to plant operation. Along the same line of reasoning, many employers are making a practice of sending their engineers to these annual meetings. They have learned that it is a good investment.

The Educational and Examining Board of the National Association of Practical Refrigerating Engineers has recently had prepared under its supervision a Lecture Course on "The Principles of Refrigeration", in twenty parts, for the benefit of its members. Starting with Lacture No. 1, the Course is sent to them at intervals of two weeks. It is the most valuable work on that important subject thus far contributed, and the Board is to be highly commended upon the results of its efforts.

Refrigerating engineers who are not now members of the Association would do well to write the National Secretary, Mr. Edward H. Fox, 5707 West Lake St., Chicago, for information, with a view to joining and availing themselves of the educational work it is carrying on, including the Lecture Course.



ICE CREAM REPORT FROM M. T. COCHRAN.

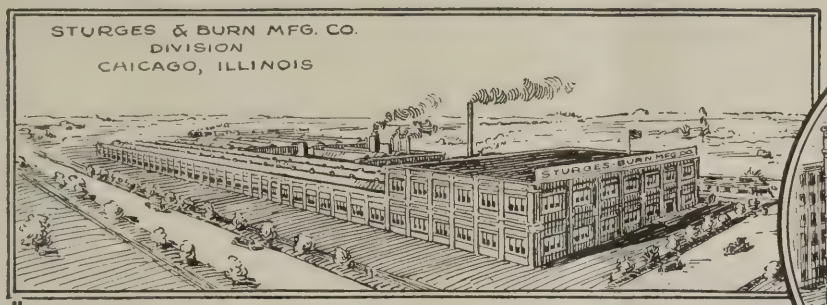
Mr. M. T. Cochran, secretary of the Oklahoma Association of Ice Cream Manufacturers, sends in the following report:

"The weather for July and August was ideal for the ice cream men, and all plants heard from report a nice business. Some report an increase over 1920, while others report around 70 per cent output. Taking the state as a whole, do not believe that the output will be as large as 1920."



WILL OPERATE IN BUTTER AND ICE CREAM

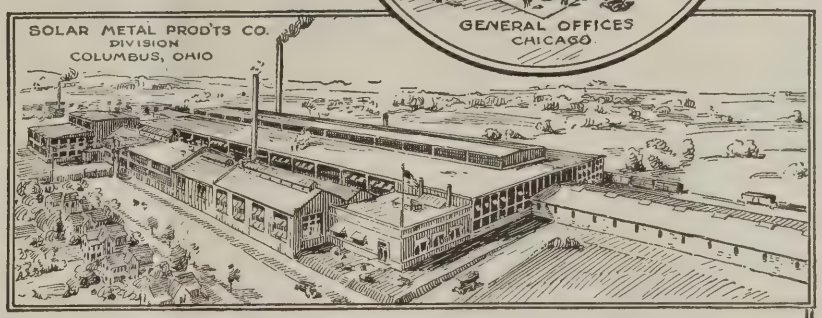
Tomahawk, Wis. — The Tomahawk Co-operative Dairy company has sold its creamery to A. A. Searl of Tomahawk and Joe Levin of Chicago, who will operate a first class creamery and ice cream factory.






ICE CREAM CANS


SELF-CLOSING RECEPTACLES




ICE CREAM PAILS

Teamwork *for*
Improved Service, Enhanced Quality and Lower Prices


ENAMELS


BRICK SLABS

TWO factories—one, at Chicago, The Sturges & Burn Mfg. Co., the world's largest makers of milk cans; the other, at Columbus, Ohio, The Solar Metal Products Co., Inc., leaders in the manufacture of ice cream cans—are now working under one management, the Solar-Sturges Mfg. Co.


ICE CREAM TUBS

The bringing together of the manufacturing equipments, the skilled managers and workers, the accumulated experience and knowledge, and other advantages, results in an organization through which can be offered to old and new friends and customers—better service—better quality—better prices. To this aim the new company is dedicated.


BRICK TANKS

We invite correspondence and extend invitations to visit our offices and factories at all times. If you attend the National Dairy Show at St. Paul, October 8th to 15th, we will welcome your visiting our booths Nos. 114-115-124-125 and 102.


CITY DELIVERY CANS

Solar-Sturges Mfg. Company

General Offices, Congress and Green Streets, Chicago, Ill.


STEEL CHURNS


WESTERN PATTERN MILK CANS

WAREHOUSES

Chicago, Ill.	Binghamton, N. Y.
New York, N. Y.	Pittsburgh, Pa.
Atlanta, Ga.	Portland, Ore.
Cincinnati, O.	St. Paul, Minn.
Mason City, Ia.	San Francisco, Calif.
Modesto, Calif.	Syracuse, N. Y.
New Orleans, La.	Tacoma, Wash.
Columbus, O.	

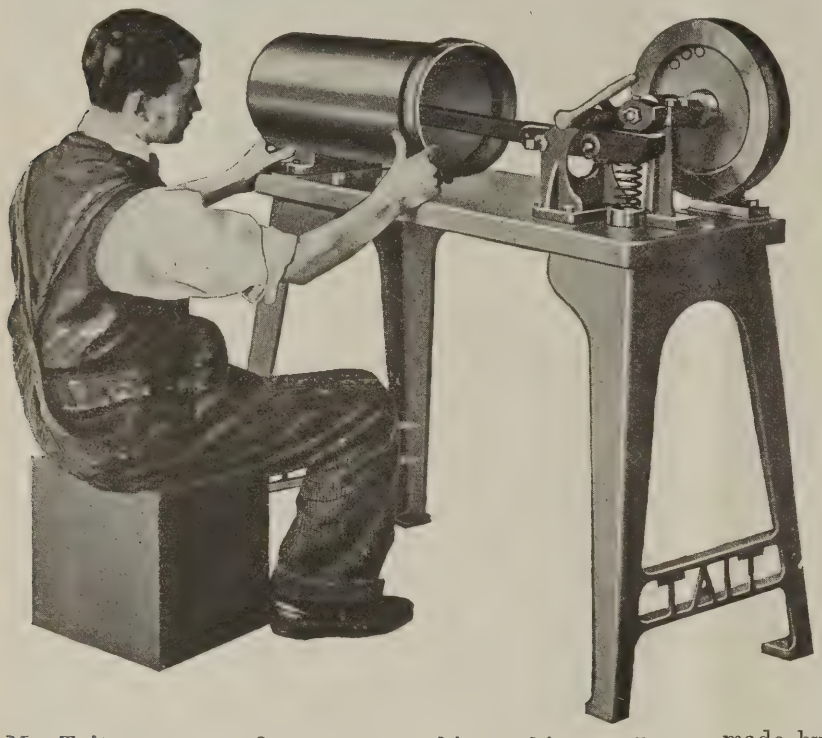

EASTERN PATTERN MILK CANS


REFRIGERATOR CANS

SOLAR
MILK CANS

THE MANNING-TAIT CAN STRAIGHTENER.

The Manning-Tait can straightener was invented by Mr. Harry Tait, of the well known firm of Tait Brothers, ice cream manufacturers and milk dealers of Springfield, Mass., after considerable experiment to perfect an apparatus that would take all the dents out of cans, especially the small dents that are nearly always found near the bottom hoop and the hook at the neck of the can.



Mr. Tait was granted a patent on this machine on June 26, 1917, and assigned his right, title and interest in the invention to the Manning Manufacturing Co., of Rutland, Vt., as manufacturers.

In 1917 and previously the milk dealers bought their milk by measure instead of weight, and many of them lost money because of dented cans, which would not hold full measure. A badly dented can could not honestly be passed by any sealer of weights and measures. Milk dealers realize that a dented can cannot be washed absolutely clean because only the high spots are reached. This fact has made the Manning-Tait can straightener very popular in milk plants. It is necessary for cans to be straightened before they can be successfully retinned. The majority of the largest retinning concerns in the country have used Manning-Tait can straighteners ever since they were first introduced. One large firm has 25 of these useful machines in use.

Mr. Tait and other milk dealers and can manufacturers experimented with pressure rolls and other devices and came to the conclusion that such apparatus would not take all the dents out of the cans although it would take out the large dents and restore the cans to their original shape. Mr. Tait, however, devised a machine which would do the work and do it well. A bronze hammer operating against an anvil conforming to the true diameter of the can will straighten cans with astonishing accuracy. This is the principle on which the Manning-Tait can straightener is constructed.

A great deal of experimenting was necessary to develop the proper curves for the hammers and anvils and to regulate the power of the blow to best perform the work, but the perfected machine takes the dents out no matter how large or small they are. It also makes the cans absolutely smooth to conform to their true capacity. The hammer strikes 250 blows a minute, so it is apparent that cans are straightened quickly—the exact speed depending of course upon the condition of the cans. The machine is built for either pulley or direct connected motor drive.

Several of the original can straighteners invented by Mr. Tait are still in use in the Tait Brothers plants throughout New England and their use has spread to all parts of the country.



CENSUS SHOWS GREAT INCREASE IN MILK SUPPLY.

In the United States census report on dairy products on farms just issued, the loss of farm made butter in pounds in ten years is remarkable. It shows, says the report, that the making of butter has gone largely from the farm to the factory. It is noted, also, that there is a 32 per cent reduction in the number of pounds of cheese made on farms in the same period.

Milk production in Wisconsin increased in the 10 year period from 1909 to 1919, 69.5 per cent, the figures for 1919 being 858,258,521 gallons. Of this there was sold 473,816,832 gallons. On Wisconsin farms in 1919, 8,666,037 pounds of butter were made, and in 1909 more than 27,000,000 pounds. The farmer ate most of the butter because only 2,933,300 pounds off the farm were sold. But when it comes to butterfat sold, the figures show a large increase, being almost double what it was ten years previously. The dairy farmers sold 82,727,323 pounds and the losses elsewhere in farm-made products of the dairy were made up many fold in this item.



BIGGER GALLONAGE AT ANAMOSA, IOWA.

The Anamosa Farmers' Creamery, Anamosa, Ia., is making great quantities of ice cream this season. Up to this time the output has been 30,000 gallons, which is nearly four times as much as was made during the entire season of 1920. During that season the output was 8,162 gallons. The company makes a fine grade of ice cream, and has no difficulty in placing its output. The figures indicate something of the growth of the ice cream and soda fountain business during the past few years. Ice cream used to be considered a confection. Now it is handled as a food.—Anamosa (Iowa) Eureka.



The man who does not keep appointments will generally keep everything else if he can borrow it.

Highest Purity

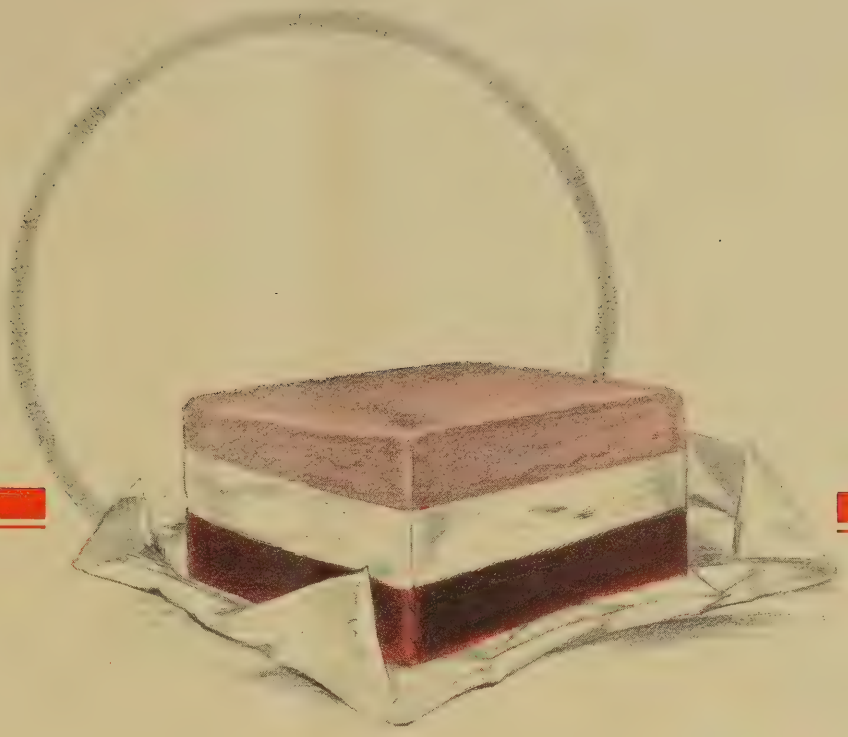


MADE IN AMERICA
For Quality Buyers

THE ASSOCIATION OF ICE CREAM SUPPLY MEN MEMBER

You can't forget the satisfaction which unfailingly follows the use of Chalmers' Gelatine.

CHALMERS GELATINE
SALES CORP.
RICHMOND VIRGINIA



Our Relation To You

It is necessarily a close one. The very nature of the product you make requires, that what we sell you to put into your product must be of high quality. The delicacy of a flavor itself—the results so much desired thru its use—its subtle influence in tempering consumers' opinion of your ice cream—the rather difficult matter of predetermining a flavor's quality, all entail upon us a rather serious obligation in our business relationship. Obviously, your confidence, earned and maintained, is the big asset we cherish. And, of course, B-F Flavors must merit this for us.

The Boerner-Fry Company, Iowa City, Iowa

MANUFACTURERS OF HIGH GRADE EXTRACTS





"Um Yum! But It's Good!

"—so smooth and velvety it just seems a 'feller' can't get enough of it." Of course, it's made with

Ucopco Pure Food Gelatine

that most efficient ice cream stabilizer and uniform distributor of moisture and flavor.

There's a grade for every purpose.

Let us tell you more about them.

The United Chemical & Organic Products Co.

4200 S. Marshfield Ave.
Chicago, Ill.

217 Broadway
New York City

"UCOPCO Comes Sealed in Red Drums"

A GOOD ADVERTISEMENT.

The average man buying space in a newspaper for advertising purposes uses the space to exploit his wares. It is his space, he has or will pay for it and he has a message for the reader about his product, or whatever he is advertising. He is courting favorable attention.

It is not our intention to pose as a judge of advertising. Few people agree on what constitutes effective advertising copy. With this brief introduction, which may serve as an excuse for reproducing the advertisement below, we ask that you read the following which we clipped from the Pittsburg Leader. A quarter page space was used in displaying it in big type. Note how little is said about Rieck's ice cream, yet we submit that it is interesting and effective advertising copy:

THIS IS THE REWARD
THAT LABOR BRINGS.

From the whittling of a stick to the building of an empire, man's labor, intelligently expressed, is the root and base, the body and blood, the bone and tissue of existence.

Without labor, nothing is or nothing could have been. It is the food in our mouths, the clothing on our backs, it is light and heat, shelter and protection. It is part of all we have, or are, or ever hope to be.

So it is that as a man expresses himself in labor for the benefit of fellow men he prospers in material reward and grows contented in the joy of tasks well done.

But, his labor must be constant and progressive, else, like clay which hardens under idle hands, the object of his task will never see the fullest glory of expresion.

He must not only work long hours and many, but he must seek out new methods and better plans, that he may "make two blades of grass grow where only one grew before."

If he is a manufacturer he must improve his plant, his equipment and his facilities. He must often go far afield for materials and ingredients that will be in keeping with the standards he observes. He must plan his production and his distribution so that the finished product of his labor will conform with the ideals of quality and service that brought him his success.

In short, his is the obligation to combine the powers of equipment, materials and systems, and co-ordinate them into a smoothly working whole.

Then, while he labors on, achieving honor that is real and tribute that is lasting he knows that there are always the clever few who believe in a short and pleasant by-way to success.

But, one after one he sees their claims disproved. Quality that is assumed, service that is superficial, value that has no basis in fact all die and pass away while humanity, old as the ages in experience, sits at judgment.

And so the worthy laborer grows strong with the years, gathering his reward about him, and prospering in the kind esteem of fellow men.

This week all of the more than 2,000 Rieck dealers have on sale a few Private Brand Brick—Maple Nut—an Ice Cream of surpassing goodness—just right for warm weather dessert.

Friends are good things to have in reserve, if you can depend on yourself for the present.

Increases Winter Business



Think what it would mean to you to ask thousands of customers their first choice of fruit, and flavors, and then offer those same customers a combination of a dozen or more of those first choice fruits and flavors, made into a **Supremely Delicious Ice Cream.**

Blanke-Baer Honey Fruit Salad

The Marvelous Fruit Combination means much in overcoming Winter Selling difficulties as Honey Fruit Salads adds to your Ice Cream just the Fruit and Flavor your customers want.

Put up in gallons cans, 10 gal. kegs, ½ bbls. and bbls.

Don't lose time or wait for sample. Order TODAY a case (6 gal. cans) of this heavenly mixture. You'll be surprised at wonderful results and low cost.

Blanke-Baer Extract & Preserving Co.
3230 South Kings Highway
ST. LOUIS, MO.

A Vanilla Products Display at Buffalo

"Yes, indeed," says Mr. Gabe Wegener, President Hudson Mfg. Company, Chicago, "we will be at Buffalo, the Third Annual Eastern Exhibition of the Association of Ice Cream Supply Men. We have just two products to display—Hudson's Ice Cream Flavor No. 52 Special, and Hudson's Ice Cream Flavor Concentrated No. 52 Special. In other words, our exhibit will be a 'Vanilla Products' display, showing the products both in the raw and finished stages. Though we have been furnishing the ice cream industry with Vanilla Products for over thirty years, and enjoy, consequently, a thoroughly established business, we are keen for the Association of Ice Cream Supply Men. We are convinced that the purpose back of this organization, the character of their exhibitions, and the several activities of the organization throughout the year, all materially benefit the ice cream industry as a whole. And we are eager to do our part to further the good already accomplished. Simply stated, we will be at Buffalo because we value and appreciate that the ice cream industry has reached a point of development where such an organization, as above mentioned, is a prime necessity."



Illustration above shows the Hudson Display Booth at the First Eastern Annual Exhibition of the Association, held at Philadelphia.

NORTHEY
REFRIGERATORS
COOLERS
For All Purposes—Any Size, Style or Finish
ICE CREAM CABINETS
COLD STORAGE DOORS
NORTHEY MFG. CO. Waterloo, Iowa, or Jobbers Everywhere

A NEW BOOKLET ON CAR TANK TRANSPORTATION.



The Pfaudler Co., Rochester, N. Y., has recently issued a booklet describing their car tanks, which will be of special interest to plants where large quantities of materials are transported from one branch to another. A copy of this booklet will be furnished on request by the Pfaudler Company.

"....our continued business"

Excerpt from *the* letter attached to our salesman's order

Confirming a verbal order recently given one of our salesmen, a very complimentary letter accompanied the order, part of which we quote herewith.

"We would like to take this opportunity to express our appreciation to you and your firm for the service we have received on our recent shipments and also on the uniform quality of your product. "We receive compliments daily on the true delicate bean flavor your Vanilla produces and it is our belief now that we have a Vanilla that will earn us a reputation. Convey to your firm our sentiments and you may rest assured of our continued business so long as we receive the same high quality Vanilla we are now getting."

Naturally, we want that "continued business," and of course we know we will be assured it only so long as Hudson's Vanilla runs true to its established standard.

"Distinction does not consist of self-asserted claims." Leadership in any particular line is not a thing to be decided by the "Leader." His supporters attend to that. Our present position in the Vanilla Business comes from others —those whom we have served during these thirty-three years of consistent, earnest, constant effort to deliver a good product, on time, at a fair price.

The expressions of genuine satisfaction we are constantly receiving from users of Hudson's Famous Ice Cream Flavor Vanilla and Tonka Blend No. 52 Special, lead us to believe that there is a pleasant surprise awaiting your first trial of it—which later will become a firm conviction that in Hudson's Vanilla Products you, too, will have found "a Vanilla that will earn us a reputation."

Attend These Progressive Exhibitions

BUFFALO
Oct. 31 — Nov. 5
EASTERN EXHIBITION
Elmwood Music Hall
Booths Nos. 114-121

The character of the Association of Ice Cream Supply Men's Exhibitions and the spirit of purpose back of the association, are worthy of the unqualified support of every ice cream manufacturer. Your attendance at these exhibitions this year will inspire you to a fuller realization of the progressive development of your industry. There will be a cordial welcome awaiting you at our Booths at both of the Exhibitions. Come.

ATLANTA
Nov. 28 — Dec. 2
SOUTHERN EXHIBITION
Auditorium Armory
Booths Nos. 59-60

MEMBER THE ASSOCIATION OF ICE CREAM SUPPLY MEN

The Hudson Manufacturing Co.

MEMBER THE ASSOCIATION OF ICE CREAM SUPPLY MEN

(Incorporated)

GABE S. WEGENER, *President*

ESTABLISHED 1888

VANILLA PRODUCTS

119-121 North Union Ave.
(Corner Waldo Place)

CHICAGO, U. S. A.

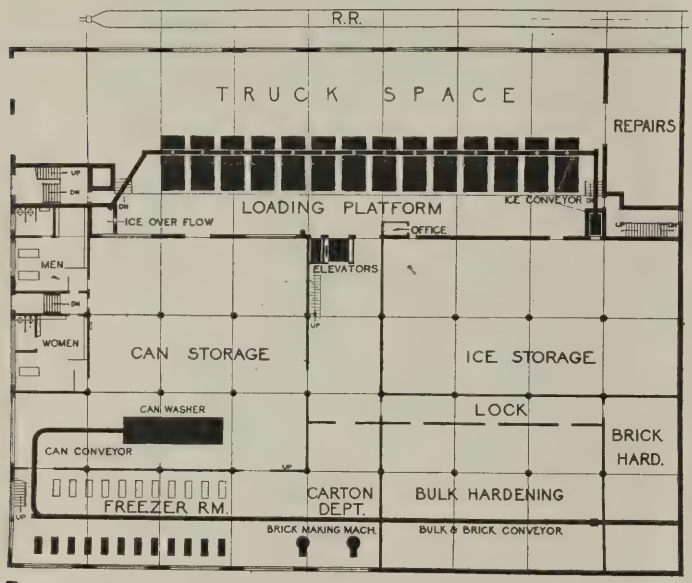
Branches: Vera Cruz, Mexico Windsor, Canada Dallas, Texas San Francisco, California

The Layout and Design of a Modern Ice Cream Plant

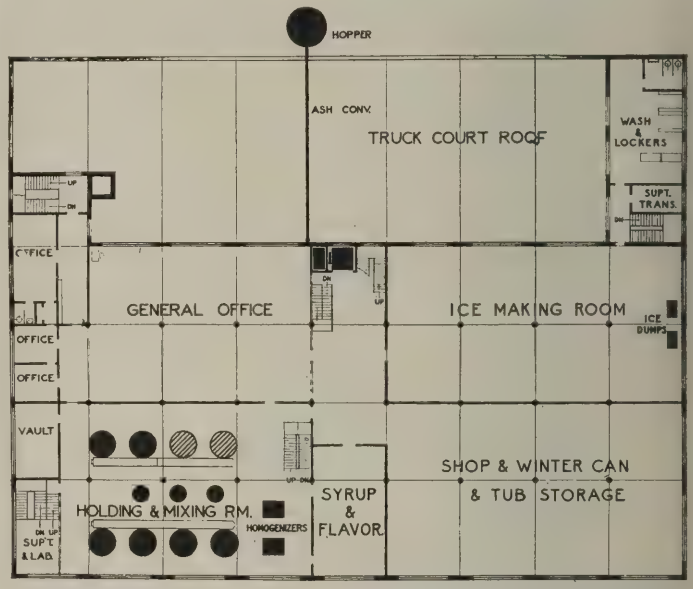
By FRANK D. CHASE, President, Frank D. Chase, Inc., before the National Association of Ice Cream Manufacturers, Minneapolis, Minn.

SOME day some one will write "The History of an American Industry," and the student thereof will learn some valuable lessons applicable to his own business. The ice cream industry is comparatively a new one, but, through the lessons of other industries many ice cream manufacturers are going to profit, not only by their own mistakes and those of their competitors, but by the history of other lines of manufacture.

The ice cream industry is going to follow other American industries through a period of radical evolution. Nearly every manufacturer, regardless of his product recognizes this, and the more progressive and



FIRST FLOOR PLAN FRANK D. CHASE Inc-ENGINEERS CHICAGO



SECOND FLOOR PLAN FRANK D. CHASE Inc-ENGINEERS CHICAGO

far and clear thinking men not only recognize this fact, but understand just what this is and what it means to them.

To continue in business, to exist as a going concern, one must meet this revolutionary situation and master it. For generations American manufacturers have prospered and expanded, and it has not been extremely difficult to do so. The markets for products have grown faster in scores of instances than the manufacturer could supply. Raw material and labor were abundant and cheap. Competition was usually negligible. Horse sense and hard work counted about 99%.

All this is changed. Raw material prices are usually controlled by interests powerful enough to dictate prices. Labor is paid more; is organized and demands, deserves and is receiving more than in the past. Advertising is a necessity. Competition is keen—new plants, some small, many with large capital, are entering the field. Scientific management, in two words, is the summation of this radical revolution.

While horse sense and hard work still bulk large in the successful business, in fact, no business prospers without them, there is one more factor to be taken into account in modern business. This factor is science. We all know that the ice cream factory would not function long without the laboratory. This is science. The milk engineers have developed equipment which can only be built or operated with a knowledge of chemistry. This is science. Your raw materials and your process and finished product are dependent upon refrigeration. This is science. And I now mention one other branch of science which is to-day recognized in almost every industry in this country. I refer to plant engineering as playing an essential and increasingly necessary part in not only the layout and design of the ice cream plant, which the title of my paper mentions, but in its location, layout, design, finance, operation and management. These factors, properly engineered, make scientific management.

This subect is big enough to fill volumes, so I can only describe briefly and in outline the development of a plant, and while it all seems obvious as we run over it, I can assure you, from the experience of one who has been laying out plants for 20 years, that a scientific analysis of these factors is, at least until very recent years, usually neglected.

Consider then, briefly, the following factors:

Location.

First: The city—its market, supply and cost of raw materials; its climate with consequent annual per capita consumption. The kind of distribution and its cost, availability of capital and of labor; the competition and consequent size of market. These things determine the proper city and the size of the plant which may be operated profitably.

Secondly: The site. Practically the same problems localized, i. e., supply of raw materials at the right cost. Track and truck receipts and deliveries. Labor, proximity to market.

Layout.

We are all familiar with plants which are properly laid out; their operation is joyful and profitable, and alas, we are more familiar in the ice cream business, as in every other business, with plants which are not well laid out, and these pay daily a tax which is worse than a government tax because competitors do not all pay it.

The old adage that "the longest way 'round is the shortest way home", does not apply to the modern factory. It should read: "The shortest straight line

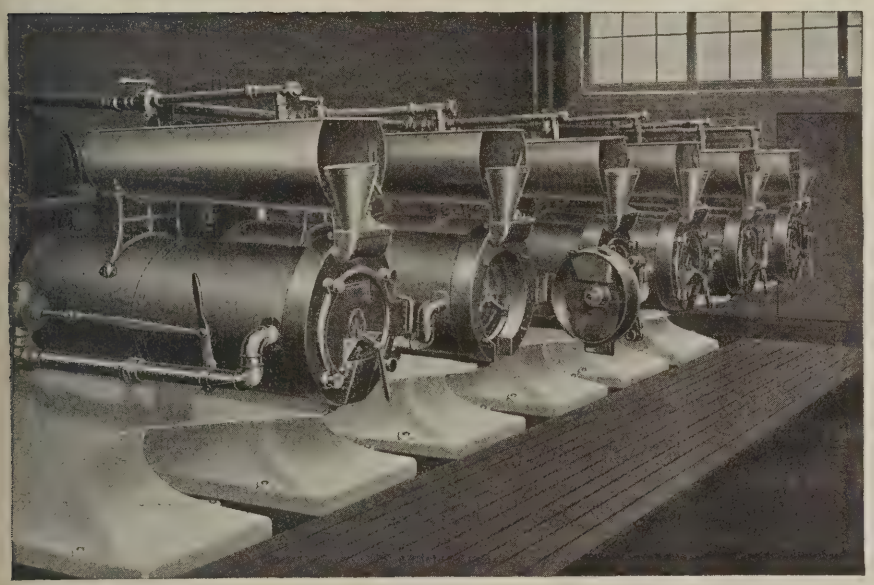
DON'T BUY NOW!

Wait Until You Have Seen the Latest

U. S. Heavy Duty Freezer

at the National Show

New Features to be Shown for the First Time



1. An advanced form of batch control that is based on entirely new principles, and satisfies every requirement of correct modern ice cream manufacturing. (Standard equipment on all of the larger sizes from 100 qts. capacity up; optional on smaller sizes.)

2. The old Fruit Hopper is done away with, and greatly improved facilities to make it easy to fill in the fruits and flavors, and inspect the process of freezing are provided.

3. A new cream control which is a great improvement over the old. The moving parts are few in number. They are easy to disassemble and put together again for cleaning, and their action is precise and reliable.

4. The cream passages have been very much simplified, and the old style cream inlet valve on the cover has been eliminated.

5. A rotary brine control valve having several distinct advantages over all former designs.

Our Exclusive Features and Special Advantages

Adjustable Motor Table.
Guard with Chain Running in Oil.
Easily Converted from Belt to Motor Drive and Vice Versa.
Shafts, Bearings and Gears of Finest Materials and Extra Heavy Construction, machined by the most approved scientifically correct methods.
Brine Jacket and Passages that do Not Clog Up Easily or Leak, Yet are Readily Accessible for Inspection and Cleaning.
No Soldered Joints to Open up and Leak.
Bolted-Together Unit Principle of Assembly, all parts interchangeable.
A Really Heavy-Duty Machine.
Roller Bearings (on all large sizes—optional on smaller sizes.)
Widest and Most Complete Range of Sizes— 40, 50, 60, 100, 120 and 160 quarts.
The Largest Ice Cream Freezer in the World is a U. S. Heavy Duty Freezer.
Rapid Vertical Discharge.
Whipping Device of most approved double dasher type, easily removed, cleaned and replaced and developed to give the finest velvety texture to the finished cream and the desired overrun.
Patented Removable Bearing and Support, independent of cover, for front end of dasher.
Hinged Cylinder Cover on All Sizes.
Quick, Thorough Mixing of Fruits and Flavors insured by Special Arrangements.
No Iron or Other Corrosive Metals to wear or Come in Contact with the Cream Inside the Freezer.

Where 9 160-Qt. U. S. Heavy Duty Giant Freezers Were Ordered in One Season

The Colonial Ice Cream Co., of Philadelphia, have this season ordered altogether **nine** 160-qt. Giant U. S. Heavy Duty Freezers. These machines represent the very latest in ice cream freezer construction, including Hyatt Roller Bearings and the automatic batch control. The Colonial Ice Cream Co. is one of the most progressive in the business, and decided in favor of U. S. Heavy Duty Giant Freezers to replace smaller units only after thorough test in actual service.

U. S. Freezer & Machine Corporation

Union Avenue and Frost St., Brooklyn, N. Y.

Representatives and Distributors in all Parts of the United States and Canada

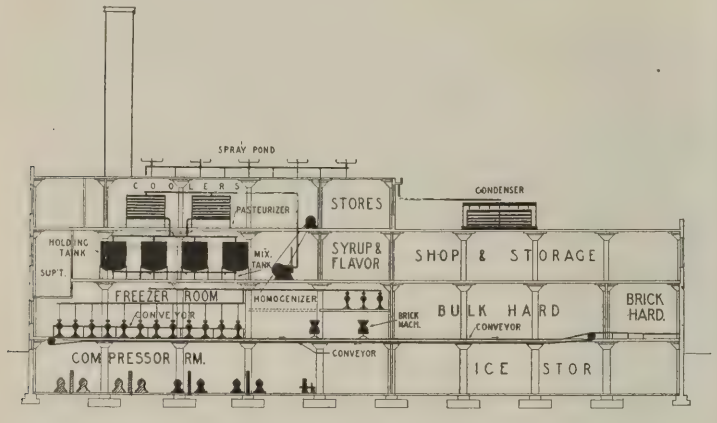
No. 18

between the points of receipt and delivery is the shortest way home to profits", and in the ice cream factory we have a factor to help and one which is often forgotten, i. e., the law of gravitation. Let nature handle your materials. It is cheaper than pumping.

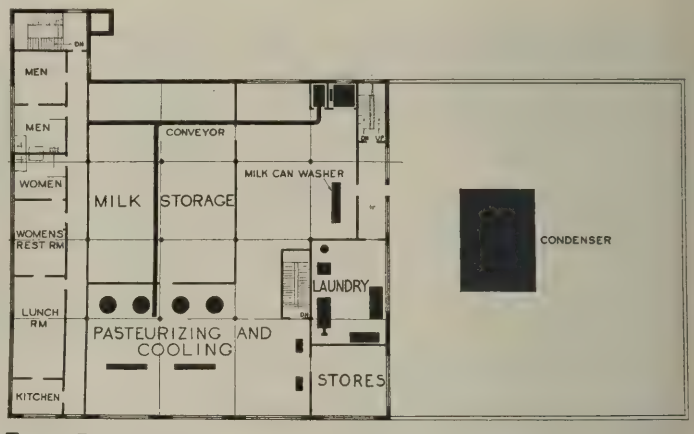
With these simple principles in view, follow the processes through the diabramic plant herewith illustrated.

The capacity of the diagramatic plant illustrated is approximately 20,000 gallons maximum per day. It is, of course, possible to make the problem a specific one by making a large number of assumptions and working out in detail each department. This seemed unnecessary.

The successful plant is the one which is individual in its planning. Within limits standardization is a good thing, but it is frequently carried too far.



LONGITUDINAL SECTION FRANK D CHASE Inc-ENGINEERS CHICAGO



THIRD FLOOR PLAN FRANK D. CHASE Inc-ENGINEERS CHICAGO

These diagrams are primarily to suggest simplicity and co-ordination in layout.

The short straight line of processes may easily be traced through these plans in the following steps:

1. Receiving: Milk and cream delivery by truck or car, in covered court of size to permit of rapid handling of trucks.

2. Continuous milk can elevator carries cans of milk to the top floor of the building, where they will be discharged automatically on to a roller conveyor which acts as a magazine for feeding to can storage or pasteurizer.

3. Sugar and stabilizer are added in the pasteurizer, from store room adjacent. These stores and other supplies being handled by the freight elevator.

4. Homogenizers follow the pasteurizing from which the mix goes to coolers on the top floor and again by gravity to the holding or aging tanks on the second floor.

5. Freezers are fed from the batch mixers on the second floor by gravity, and these in turn are filled by gravity from the holding tanks. Overrun testers, gelatine kettle and other equipment is shown on space provided.

6. Bulk and brick hardening, packing and storage is provided and final delivery made at the platform. Ice is manufactured on the second floor, stored on the first and basement floors, and crushed and conveyed to truck loading spouts.

7. Power plant is located in the high basement, with facilities for coal and ash handling. A score of other essential facilities include a machine shop, can and tub shop and storage, laboratory, laundry, store and stock rooms, salt receipt, storage and delivery. Employees welfare facilities. Compressors are, of course, adjacent to the power plant and condensers are on the roof.

These are the essentials of the manufacturing layout. The cost of the plant and its equipment, as well as its profit, may vary 50 per cent, dependent on the economy and skill displayed by the engineer in coordinating all of these departments.

The utilization of our friend, so often slighted, the law of gravity, induces us to build vertically instead of horizontally—an advantage in decreasing the cost of property, smaller properties, too, being easier to secure.

Another consideration often overlooked is an anticipation or provision for the future. Fifteen years ago the average manufacturer gave little thought to large increases in business.. To-day the plant builder who neglects the consideration of the future is courting failure. We know that we must grow to keep in business, and we must plan accordingly, bearing in mind not only population or market, but its location with attendant delivery costs. Before a plant is designed, a comprehensive plan for 2, 4 or 10-fold growth through central and branch plants should be carefully worked out.

Subsidiary lines of manufacture which balance the daily or seasonal demands on equipment and organization, must be developed in connection with plant design. Ice, milk and beverages are logical lines as we know, and there are others becoming more common.

The structure which houses the machinery of an ice cream plant is, itself, a most important piece of equipment. The process, that is, our shortest straight line to profits, must first be worked out and the building slipped between and around this equipment.

There is no line of demarkation between the frame of the building as equipment and the machines themselves. Let me prove this:

Sanitation.

Proper drainage and absolute cleanliness are lrst essentials. Not only must walls and floors be of proper, and incidentally economical materials to permit of thorough and easy cleaning, but every piece of apparatus must clean readily, and preferably by gravity, into or onto the building itself, at a particular place. It is surprising how many floor drains do not drain.

Refrigeration is the big item of expense in the ice cream factory. It's a question of insulation vs. coal, and the engineer can, or should figure, not only the refrigeration required for every operation, but should design every square foot of insulation with specific



of the year and the news you want to hear!

The EASTERN EXHIBITION of the Association of Ice Cream Supply Men is to be held in Buffalo October 31st to November 5th inclusive. Machinery —equipment — services — supplies — the representative supply houses of the nation participating — a Show to serve the ice cream industry exclusively— one thousand persons of the industry attending—150 booths—150 varieties of essential articles and products — promoted, managed and its constructive character assured by the non-profit-taking organization which has given the buying ice cream manufacturer a "Seal of Safety,"

THE SEAL





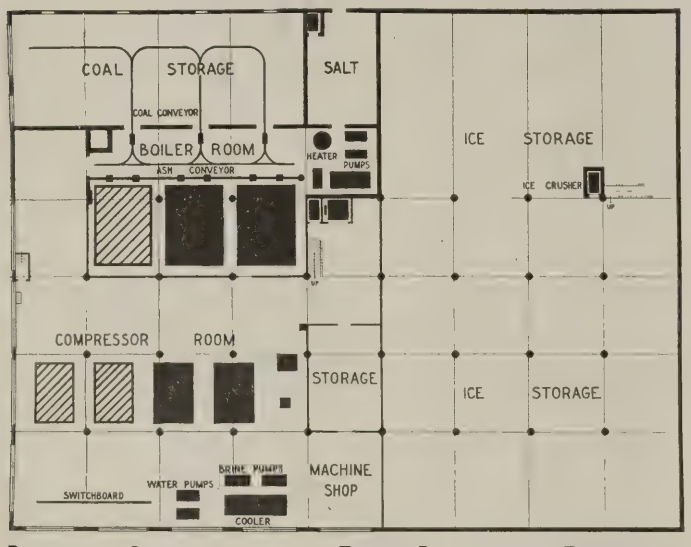
OF SAFETY

THE ASSOCIATION OF ICE CREAM SUPPLY MEN
1328 BROADWAY NEW YORK CITY

reference to that profit consumer, the boiler. It does not take many tons of coal, or many days' operation to pay for a bit of insulation, which then becomes a dividend payer instead of a tax..

The type of building for a given plant depends on local conditions, location, city ordinances and funds available.

Concrete gives us for the heavy loads carried, the cheapest, most sanitary, water tight and durable construction. It has one feature which emphasizes the unity of building and equipment. It's extremely difficult to cut or change. Pipes in concrete usually stay put, and if incorrectly placed are expensive to move. The location of every pipe and every piece of machinery must



BASEMENT PLAN FRANK D. CHASE Inc-ENGINEERS CHICAGO

be incorporated into the plans of the big piece of equipment, that is, the building.

The large and heavy units must be located to permit of properly and economically designed floor slabs, columns and foundations. Settlement breaks pipe lines.

Labor has been mentioned as a factor in plant operation and therefore in costs. This is especially true of the ice cream plant and I have shown the numerous items of conveying equipment, which the large plant cannot afford to be without. Even small plants can profitably install many inexpensive units of labor-saving conveying equipment. Conveying equipment properly designed is absolutely essential to the profit-making plant. Its first cost and savings in operation over labor can always be pre-determined. Conveying equipment, too, must be designed as an integral part of the building.

In the modern plant, the laborer increases his production by virtue of his operation of proper equipment and earns more for his employer and himself.

Much has been written and said about "productive" and "nonproductive" labor. Non-productive labor, I believe, can be easily classified as labor which can be eliminated through proper equipment. All other labor is productive of some results, regardless of whether or not the work in question results in a change of the character of the material handled.

There is to-day in most ice cream plants the opportunity for the elimination of non-productive labor through the installation of proper conveying and material handling equipment.

The modern ice cream factory, lighting, heating, plumbing, ventilation and welfare requirements are a study in themselves. State and municipal laws are becoming more and more rigid, and the number of men and women employed, their location in the plant and their comfort and well being, must be considered in connection with each department, and in the design of the building.

The equipment of an ice cream plant forms an imposing array. For the sake of bringing a realization of the scope and complexity of this problem, I simply tabulate herewith a list of the more important units. The connections, valves, motors, etc., multiply this list by many fold: Boilers, stokers, ash-handling equipment, breeching, vacuum pumps, process pumps, air compressor, damper regulators, instruments, draft gauges, thermometers, etc., valves, traps, blow-off tanks, heating system, plumbing and sewerage system, fuel, coal handling equipment, stack, feed pumps, water heaters, heater for process work, temperature control, soot blowers, scales, piping layout, fittings, bilge pumps, pipe covering, ventilation.

Type of System — Compression — Absorption.

Compressors: Type—Vertical or horizontal, double acting or single acting. Drive—Motor or steam.

Direct or belted, high or low speed.

Condensers: Atmospheric or double pipe, condensing water, temperature range, spray pond, cooling tower or wells.

Brine Pumps: Centrifugal and reciprocating, steam driven or motor driven.

Condensing Water Pumps: Centrifugal or reciprocating, method of drive.

Ammonia and Brine Piping Layout: Type of valves, type of fittings, type of receivers, type of oil separators, type of scale traps, type of accumulators, type of insulation.

Ice crusher, ice conveyor, elevators, freight and passenger, salt elevator and hopper, can conveyors, ice cream conveyors, can washers (ice cream), ice cream freezers, bricking machines, holding tanks, batch mixers, pasteurizers, mixing kettles, homogenizers, coolers, milk can washers, sanitary piping system.

Capacity and dimensions, system of refrigerating, type of agitators, type of cranes, can dumps, ice chutes or lowering devices, cans, can fillers, system for air agitation.

Source of Supply (if private plant): Character of current A. C. or D. C., distribution voltage, generator equipment, switchboard, power distribution system, number, size and type of motors, motor location, load centers, present and future load requirements, type of lighting system, proper intensities of illumination, lighting layout location of outlet, mounting heights and spacing of lamps, reflector equipment.

If Public Service—Location of lines, class of service available, service requirements, line extensions — cost if any, reliability of service, power company special rules if any, local codes if any, departmental metering, telephone systems, auto-call systems.

Laundry Equipment: Washing machines, ironing machines, extractors, dryers.

The financing of the plant is not entirely outside the scope of this paper and a word may be permitted. For years the investment house and your personal banker have bought and then sold securities and financed industrial loans on the statement of the client that a profitable going business was entitled, for certain purposes of enlargement or new construction, to funds or loans. The auditor and appraiser established the value of the business and its record of profits and the lawyer established the legality of the transaction, and investigation stopped at this point.

Present day conditions require more than this. There is many a plant which has a successful record of

W. B. Wood Mfg. Co.

Manufacturing Chemists

ST. LOUIS, MO.

Correspondence Solicited.
We Furnish The Taste.

earnings covering years, which will never earn another dividend without rehabilitation or remodeling to cut costs—to meet modern competition.

A prominent New York banker recently wrote an article, which has been widely circulated, on "The Engineer and the Banker," explaining the function of the engineer in connection with the issuance of industrial securities. To-day engineers are called upon frequently to pass upon the physical capacity of plants to continue to earn dividends. Had this been the practice generally during the past few years, there would have been fewer instances of passed dividends and decreased earnings. The engineer can help in financing and refinancing through intelligent estimates of plant costs and by honest and competent endorsements.

Plant operation and management can be strengthened and made easier by the engineer. He can introduce into the going plant the economics which can be effected by the improvement, simplification or balancing of equipment, by the introduction of labor-saving equipment and the modernization to meet the new competition.

Layout and design is the one big activity around which center the manifold needful activities of the engineer who hopes to help in the development of a most promising and profitable industry—the manufacture of ice cream.

BIG OPENING OF NEW CREAM AND DAIRY CO.

On the evening of September 1st the modern plant recently completed by the Ironton Ice Cream and Dairy Co., Ironton, Ohio, was thrown open to the inspection of the people of Ironton and vicinity. Splendid music was engaged for the evening.

The new plant is equipped with the most modern machinery available for the manufacture of ice cream. The company is justly proud of their new plant and the public were cordially invited to avail themselves of that opportunity to observe the manufacture of ice cream under the most modern and sanitary conditions.

REVIEW BEST OF ALL.

Mr. F. Fellows Mason, of Dunmore, Scranton, Pa., when remitting for the renewal of The Ice Cream Review for a period of two years, penned the following testimonial on the invoice which he returned to us: "The best paper of ALL I receive." We hope all of our readers are of the same opinion, and we mean to make it our business to endeavor to have you think the same as Mr. Mason.

Diamond-F
Protective Papers
For Ice Cream and Candy Makers
Glassine — Greaseproof
Vegetable Parchment — Parchmoid
Made by
Diamond State Fibre Company
BRIDGEPORT (near Philadelphia) PENNA.

PACIFIC ICE CREAM MANUFACTURERS' ASSOCIATION

To All Members.—Since you received the second notice of your own Pacific Convention to be held in Seattle, November 14th, 15th and 16th, your program committee have made progress, and we have been able to secure some real live speakers, both locally and from the East, and we can assure you something very interesting and instructive, put over by men who know how to make their arguments count.

We want you to bring as many of your plant men as possible; they are the ones who are in daily contact with the subjects that will be discussed, and after listening to the papers and the discussions to follow they are going to make more efficient members of your organization.

Try and keep on speaking terms wtih your wife until this big event, as we want the ladies to attend. The Seattle boys are going to see there is nothing lacking for their comfort and entertainment.

Make no other engagements for the dates marked. This is your Convention, and you must do all you can to make it the success it should be.

Yours truly,

PACIFIC ICE CREAM MFR'S ASSOCIATION,
J. E. Dunne, President,

Attest: Bert H. Walker, Secretary,
Jay H. Kugler, Field Secretary.

WHAT IS SALES MANAGEMENT?

That salesmanagement is inclining more and more into a financial phase of business and that the salesmanager instead of being a developer of business must be a producer of business at a profit, was the keynote of an address made to the Baltimore Ad Club by A. H. Deute, General Sales Manager of the Borden Company of New York.

Mr. Deute pointed out that during a period of years the salesmanager has developed from a head salesman who checked over the daily reports of salesmen into an executive whose real work it is to find ways and means for so placing the production of a house that the greatest immediate profit may be realized while at the same time the future good will of the organization is developed. It was further developed that the salesmanager who fails to appreciate his responsibility toward the financial side of the business is falling far short of his opportunities because the problem of business houses to-day is not volume but a stabilization of earnings.

URGES ICE CREAM FOR PUPILS

Yakima, Wash.—Ice cream may take the place of milk in school children's luncheons if the suggestion of Superintendent A. C. Davis, Yakima, Wash., is favorably acted upon. There would be no increase in the cost, dairymen say, and the dish would be more palatable than milk during the warm season. A committee, consisting of Dr. W. L. McClure, Dr. H. H. Smith, Secretary B. F. Kumler of the school board, and Superintendent Davis, was appinted to determine the standard for this year's milk supply.

Don't let that used machinery of yours stand in your way. Turn it into cash by advertising it for sale in the "Review" Want Department.

The Grand Rapids
ICE CREAM CABINET OF QUALITY



Construction of Our "Zero" Brick Cabinet



STYLE No. 4

Depend on the Product of Finished Artisans

THE personnel of this organization is carefully selected in a city which is noted for the large number of skilled cabinet makers and other artisans available.

The men who make Grand Rapids Cabinets understand that we have a high reputation to maintain and that nothing short of their best efforts can be permitted. That is why you never find any evidence of poor or careless workmanship in a Grand Rapids Ice Cream Cabinet.

And that is why you can be sure that your product will be at its best when it leaves a Grand Rapids Cabinet.

Do you know that Grand Rapids Ice Cream Cabinets are also the most economical? We will be glad to demonstrate it to you.



STYLE No. 5

Grand Rapids Cabinet Company

Successors to

Chocolate Cooler Company

55-59 Alabama Ave. N. W.—Grand Rapids, Mich.

New England Sales Office and Warehouse, MERROW BROS. Inc., 44 N. Market Street, Boston, Mass.
South Eastern Sales Office and Warehouse, CHERRY-BASSET CO., 33 So. Charles St., Baltimore, Md. / 1106 Arch Street, Philadelphia, Pa.
North Western Sales Office and Warehouse, A. C. BLACK, 515 Lumber Exchange, Minneapolis, Minn.

Filled Milk Legislation

THE following is a report of the House Committee on Agriculture in connection with Representative Voigt's Bill (H. R. 8086) to prohibit the transportation across state lines of bogus milk compounds. This bill is of great importance to dairy interests of the country and the National Milk Producers' Federation will greatly appreciate your endorsement of this legislation.

CHAS. W. HOLMAN,
Acting Secretary National Milk Producers' Federation.

* * *

The committee on agriculture, to whom was referred the bill (H. R. 8086) to prohibit the shipment of filled milk in interstate and foreign commerce, having considered the same, report it back to the House without amendment, with the recommendation that the bill do pass.

Purpose of the Bill.

During the last five or six years the manufacture of so-called filled milk has assumed considerable proportions in this country, and the bill proposes to prohibit the manufacture of this compound in the District of Columbia, the territories, and insular possessions, and to prohibit its shipment in interstate and foreign commerce. Filled milk is defined to mean "any milk, cream, or skimmed milk, whether or not condensed, evaporated, concentrated, powdered, dried, or desiccated, to which has been added, or which has been blended or compounded with any fat or oil other than milk fat, so that the resulting product is in imitation or semblance of milk, cream, or skimmed milk, whether or not condensed, evaporated, concentrated, powdered, dried or desiccated." The bill provides a penalty of a fine not exceeding $1,000, or imprisonment for one year, or both, and has the usual provision that the act, omission, or failure of any person acting for or employed by another, within the scope of his employment or office, shall be the act, etc., of the principal, as well as of the agent or employe.

The Compound.

Filled milk is an imitation of condensed or evaporated milk made by mixing condensed skimmed milk and cocoanut oil. The skimmed milk is reduced by evaporation to about half its bulk, and after this operation there is added from 6 to 8 per cent if cocoanut fat. The resulting mixture is an exact imitation of pure evaporated or condensed milk; it has the same consistency, the same color, the same taste, and the difference in the two products can only be detected by an expert or by chemical analysis. The compound can be made more cheaply than the regular article, and, in view of the fact that the imitation is perfect, many people buy it in the belief that they are getting full condensed or evaporated milk. According to the testimony of the leading manufacturer, skimmed milk has recently sold for 35 cents per hundred and refined cocoanut fat at 12 cents per pound. The cost of a quantity of skimmed milk and cocoanut fat sufficient to fill 48 1-pound cans of the compound is a little over 80 cents, or less than 2 cents per 1-pound can. The retail price of the 1-pound can is from 10 cents up. The Bureau of Markets gives the following figures of the production of the compound in recent years:

Evaporated, part or full skimmed, modified with foreign fat (case goods), 1920, 84,044,000 lbs.; 1919, 62,262,225 lbs.; 1918, 50,619,163; 1917, 30,488,262 pounds.

Evaporated, part or full skimmed, modified with foreign fat (bulk goods), 1920, 2,517,000 lbs.; 1919, 2,748,120 lbs.; 1918, 3,861,097 lbs.; 1917, 4,543,640 lbs.

In 1920 nearly 8,000,000 pounds of cocoanut fat were used in the manufacture of filled milk, taking the place of that many pounds of butterfat, injuring the market of the American farmer, and bringing his product in competition with a decidedly inferior product produced by oriental and other cheap labor and handled in many instances under shockingly insanitary conditions.

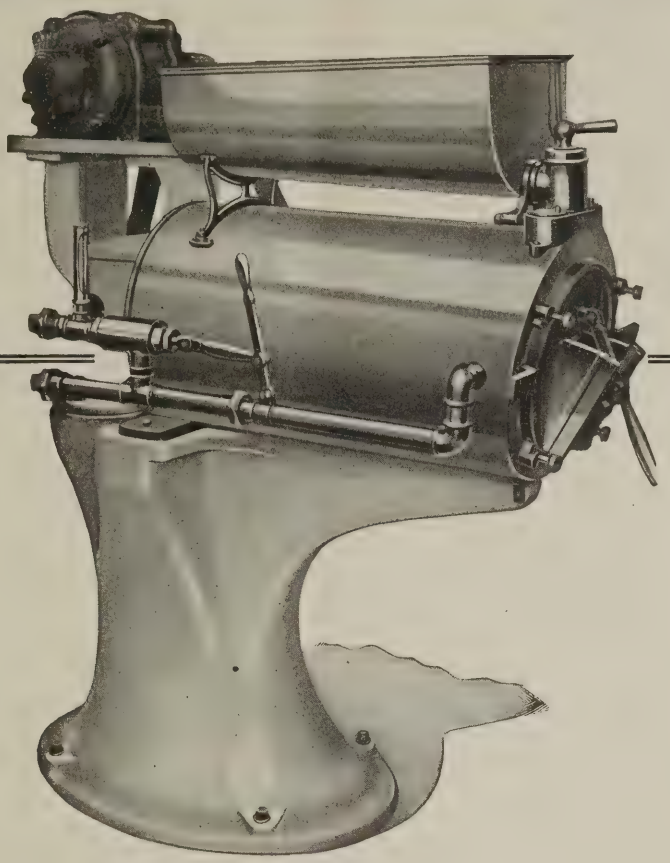
Fraud on the Public.

Filled milk is sold under various trade names, such as "Hebe," "Carolene," "Enzo," "Silver Key," "Nutro" and "Nyko." The manufacturers can not sell it as milk, but it is put up in the same size cans as regular condensed milk, and the evidence before the committee shows that it is advertised by the retail dealers as milk and evaporated milk. Storekeepers sell it with the statements that "it takes the place of milk," "just as good as condensed and much cheaper," "nothing better on the market," "takes the place of condensed milk." Instances have been found in which the cocoanut fat was mixed with milk and sold for cream; the compound has been used for making ice cream, and recently a company has been formed at Pittsburgh to manufacture an artificial cream from skimmed or fresh milk and cocoanut fat. The company states in its prospectus, "we can wholesale our Kream for 100 per cent less than cow's cream and still make a profit of over 100 per cent." In many cases retailers sell the compound for the same price as the straight evaporated milk, although the price per 1-lb.

JUST MAKING IT CLEAR TO THOSE THAT HAVEN'T HEARD

That the Southern Exhibition of supplies, machinery and equipment in the Auditorium-Armory, Atlanta, Ga., November 28th to December 2nd, inclusive, is in the service of the ice cream industry of the South—the country where the sun itself is ice cream's friend. As great, as important as a National Industrial Fair is to a country—for it will be the heart and the soul for a week of the growing industry of a growing section, where the entire range of methods, materials, ideas and suggestions that an ice cream manufacturer can use will be at hand. One hundred and twenty booths—20,000 square feet of floor space — experts in supplies, machinery, equipment, merchandising and advertising service from the entire country—a serious, dignified and epoch-making Show, made possible through the national co-operative work of

THE ASSOCIATION OF ICE CREAM SUPPLY MEN.



Emery Thompson Brine Freezers

are built stronger than the heavy motors that operate them.

The Emery Thompson is qualified for accuracy and high production.

If you want to get the most out of your sweet cream, you can always rely upon an Emery Thompson for giving the cream smoothness and fullness of body.

"Write for catalog and prompt delivery"

Emery Thompson Machine & Supply Company

271-275 Rider Avenue 6-8 Canal Place (Bronx) NEW YORK CITY

Our machines will be shown at the Minneapolis, Buffalo and Atlanta Fall Conventions, and we cordially invite you to call on us.

can to them is about 3 cents less. A number of surveys in various parts of the country show that the compound is sold largely in sections inhabited by people unable to read English and sections inhabited by people of limited means, and not sold at all in better residential districts. The fact that it is largely sold in the sections mentioned shows that the statements on the label that the article is a compound is not a sufficient protection to the public.

It appears that even the United States government was defrauded into buying this compound. At Camp Willis, Ohio, in 1913, two carloads of it were furnished at this camp for the use of the troops, and the mess sergeant stated that he had been informed that it was better than milk.

There is ample evidence that the compound is sold at retail as milk, but the interstate shipment can not be prohibited under existing law because the manufacturers label it under a trade name, and not as milk. There is no doubt that the sale of the compound violates the spirit, if not the letter, of the pure food and drugs act. The act provides (sec. 7) that an article of food shall be considered adulterated "if any substance has been mixed and packed with it so as to reduce or lower or injuriously affect its quality or strength," or, "if any substance has been substituted wholly or in part for the article," or "if any valuable constituent of the article has been wholly or in part abstracted," and shall be considered misbranded (sec. 8) "if it be an imitation of or offered for sale under the distinctive name of another article," but the manufacturers escape under a proviso to section 8 that an article shall not be considered adulterated or misbranded, "in the case of * * compounds * * under their own distinctive names, and not an imitation of or offered for sale under the distinctive name of another article." * * *

The regulations prescribed by the Department of Agriculture in pursuance to the pure food and drugs act contain the following:

"Condensed milk, evaporated milk, concentrated milk, is the product resulting from the evaporation of a considerable portion of the water from the whole, fresh, clean, lacteal secretion obtained by the complete milking of one or more healthy cows * * and contains, all tolerances being allowed for, not less than 25.5 per cent of total solids, and not less than 7.8 per cent of milk fat."

No reason is perceived by the committee why an exact imitation of or substitute for this article should be permitted to be sold to the public which does not meet these requirements.

PURE — HIGH GRADE
GELATINE
AND
Quick Action Ice Cream Powder
Special Double Strength Ice Cream Powder
Pure Powdered Gum
Ripener Powder
QUALITY — UNIFORMITY — SERVICE
St. Louis Gelatine Company
St. Louis Missouri

Inferiority.

Dr. McCollum, of Johns Hopkins University, a high authority on the subject of nutrition, testified before the commitee that the vitamines, which are absolutely necessary to promote growth in the human body, are found most abundantly in butterfat, and that milk is the chief article of food relied upon for the vitamines. Dr. McCollum demonstrated his contentions before the committee by showing photographs of rats which had been fed experimentally on diets with and without butterfat, and the results obtained were astounding. He said:

"There is no question but what milk is the only food for which there is no effective substitute. It is not a question of whether there is some food value in skimmed milk, as to whether we can get along in some peculiar situation, that one might not get along if a suitable amount of eggs were included in the diet every day. It is not a question whether technically you can bring before a legislative committee if this sort a situation which might work in a satisfactory manner without this food. But this is the point, that we are educated to use milk. We are a people who for hundreds of generations have depended upon dairy products as a prominent article of our diet. We know how to use it, and we like it. We have an agricultural industry which can not remain a permanent one—there can be no permanent system of agriculture without an animal industry to go with it. * * We have no deposits of phosphorus and no adequate deposits of calcium that will meet the agricultural needs of this country for fertilizer. * * There is no similar property (vitamines) in any vegetable oil, including cocoanut oil and cottonseed oil, comparable with what you find in butter fat. * * I guarantee that any infant that is fed for a few weeks on one of these milk substitutes will develop rickets. * * My suggestion is that we do everything that is in our power to maintain at its full tide an industry so important as the dairy industry, and to bring the American cow into competition with a cocoanut grove is an injustice."

Dr. E. B. Hart, of the University of Wisconsin, says:

"I have already stated in hearings before legislative committees in our own state that at least 90 per cent of the fat soluble vitamine of whole milk is removed in the modern commercial skimming process. This statement is based upon recent experiments in our laboratory, where refinement of control has been perfected, as contrasted with the older experiments made by Dr. McCollum, which led him to state that there was still about 50 per cent of he fat soluble vitamine in skim milk, but it does not begin to compare with whole milk in respect to its content of this nutritional factor."

In a few years the output of filled milk has grown 5,000 per cent, and the manufacturers frankly stated before the committee that the business is in its infancy. The committee is of the opinion that the traffic in the article should be stopped now, before irreparable injury is done the health of the Nation, and before serious damage is done to the dairying industry. The vast dairying industry of this country is absolutely vital to a proper system of agriculture and to maintaining the fertility of the soil.

The farm and dairying organizations are a unit in opposing the manufacture of this compound. If the business grows, as it will without legislative interference, it will mean a decided decrease in the dairy herds of the country. Instead of vast quantities of whole milk being condensed, the butterfat will be extracted and turned into a comparative oversupply of butter.

USEFUL INFORMATION

for manufacturers of
ice cream and water ices
who want to make their products BETTER

GUMPERT'S ICE CREAM IMPROVER

Ice Cream ripened by the usual methods alone cannot reach the same degree of excellence as ice cream in which Gumpert's Improver has been used. This product is as beneficial in aged mixes as in fresh mixes.

Gumpert's Improver is not a *substitute* for natural ripening but a *supplement* to it.

Like Nature, Gumpert's Improver softens and breaks down the coating of albumen, casein, ash and other milk solids that surround the globules of butter fat in cream; but does it far more quickly and more thoroughly than natural aging alone.

The higher proportion of butter fat thus released gives the ice cream a richer, finer taste.

The complete softening of the milk solids by Gumpert's Improver permits the air, when whipped in, to form small, numerous and regular shaped cells. An even, soft, velvety texture is produced in the ice cream.

TEXTOR

A STABILIZER FOR WATER ICES AND SHERBETS

Textor eliminates the roughness and the uneven grain found in ordinary water ices and sherbets.

It produces a wonderfully smooth, even, luscious texture, delightfully free from lumpiness and crystalization.

Textor-stabilized ices and sherbets, no matter how often repacked, harden smoothly and uniformly. The sugar, water, fruit and flavor are held in proper suspension from the first dipperful till the last scraping at the bottom of the can.

Textor, when dissolved, is colorless, odorless, tasteless. Simply mix it with the sugar dry, add the water, then the fruit, and freeze.

The consumption of water ices and sherbets is far smaller than it would be if the ices were better made. Textor brings about much of the improvement which is so essential to the development of this profitable business.

S. GUMPERT & CO., *Bush Terminal*, BROOKLYN, N. Y.

The oversupply will depress the price, and as the price of milk is regulated by the price of butterfat, the keeping of dairy herds will become less profitable. It is possible that in isolated instances farmers receive more money for their milk where the skimmed milk is manufactured into the substitute, but there can be no question that the introduction of the cheap cocoanut oil in competition with butterfat is an economic injury to the dairying industry as a whole.

Views of Agricultural Department.

Dr. C. W. Larson, chief of the dairy division of the department, appeared before the committee and stated that he considered the manufacture of filled milk to be a slight injury to the dairying industry now, but that it would be a decided injury if the manufacture were to increase; that the use of the compound decreases the use of the product of the cow; that by the manufacture of the compound an additional market is not found for the farmers' product; that he was informed by a manager of a company having 156 stores in Washington that the compound is sold at the same price and for the same purpose as was regular evaporated milk:

"I believe that in a nation that has one outstanding industry like agriculture in this country it is to the interest of all the people of the Nation to develop and further that industry. I further believe that the dairy industry is vitally connected with our whole agriculture. What I mean by that is that dairying is important from the standpoint of the production of wheat and corn and all our other crops. * * I think it is desirable and important that that industry be maintained and not injured by some imitation."

Dr. O. F. Langworthy, chief of the office of home economic of the department, stated that he would not object to the compound if its use could be limited to the same use that skimmed milk is put, but that he would not approve of it as a substitute for regular milk, either for infants or adults.

Other Manufacturers.

It is probable that some of the manufacturers of the compound were driven into the business in order to meet competition. Mr. Walter Engels, representing the Borden Co., the largest manufacturer of evaporated milk in the country, stated that—

"His company has always stood for the highest ideals in the production and manufacture and care of milk; and among those ideals is the thought that the public should receive the butterfat in all milk products as the milk comes from the cow. * * If Congress or the several states do not do something to stop this competition, our company may be compelled as a matter of necessity to meet this competition to go into the manufacture of it, much as they dislike to do so. * * Some critics have thoughtlessly argued that the manufacture of the legitimate article should meet this competition by reducing the price to meet it. * * There is only one way you can meet it, and that is to go in and make it yourself, and I know that some of these other companies do not want to make this stuff. They were dragged into it to meet competition with their legitimate articles. If Congress would stop the sale of it, I think they would be glad to stop the manufacture of it. * * The Hebe Co. has applied for registration of its trade-marks in * * many other countries. * * That means that they intend to extend this compound business to foreign markets, and when they find out what this stuff is the whole condensed milk industry is going to get the black eye that the filled-cheese industry got.

For the calendar year 1919 we exported 850,865,414 pounds of condensed milk, and for 1920, 414,250,021 pounds.

Constitutionality.

There is nothing new in the proposal that milk products not containing a certain amount of butterfat shall not be transported or sold in interstate or intrastate commerce. Under the pure food and drugs act as it now stands, milk and condensed milk can not be shipped in interstate commerce unless they contain a given percentage of butterfat, and certainly it is proper to insist upon the same standard in an imitation or substitute article. Congress, by virtue of the pure food and drugs act, has barred from interstate commerce many drugs and articles of food which do not comply with certain standards. It has barred therefrom obscene literature and lottery tickets.

The power given to Congress by the Constitution over interstate commerce is direct, without limitation, and far-reaching. Congress may adopt not only the necessary but the convenient means necessary to exercise its power over a subject completely within its power, and such means may have the quality of police regulations.

In the lottery cases (188 U. S., 321) the principle was established—

That it is equally within the power of Congress in regulaing interstate commerce to protect the public morals as it is to protect the public health or the economic welfare of the people. (Hoke v. U. S., 227 U. S., 308).

Congress not only has the right to pass laws regulating legitimate commence among the states and with foreign nations, but also has full power to bar from the channels of such commerce illicit and harmful articles. Congress may itself determine means appropriate to this purpose; and, so long as they do no violence to the other provisions of the Constitution, Congress is itself the judge of the means to be employed in exercising the powers conferred on it in this respect. (McDermott v. Wis., 228 U. S., 115).

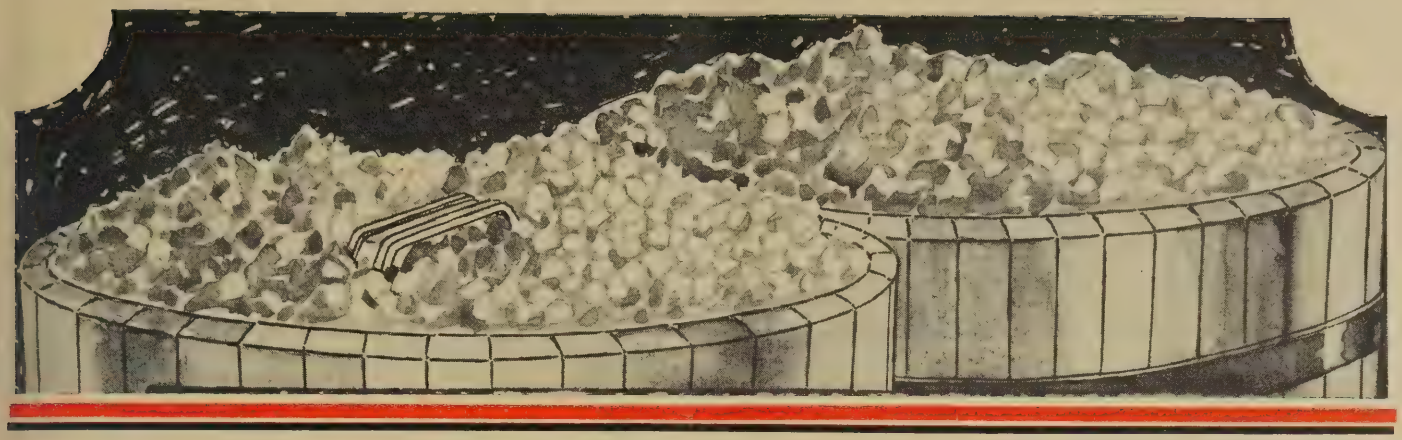
Congress is not to be denied the exercise of its constitutional authority over interstate commerce and of its power to adopt means necessary and convenient to such exercise merely because those means have the quality of police regulations. Eckman Alterative Case, 239 U. S., 510).

An Ohio statute forbids the manufacture and sale of condensed milk unless made from unadulterated milk from which the cream has not been removed and in which the milk solids are equivalent to 12 per cent of those in crude milk and 25 per cent of them fat, and skimmed milk is permitted to be sold only under

NO higher standard nor better quality in cream test bottles and glassware can be found than the well known Kimble Brand.

Order from your Jobber or write us direct.

Kimble Glass Company
402 W. Randolph Street
Chicago, Ill.
Factories: Vineland, N. J., Chicago, Ill., New York, N. Y.



Exclusive rights on the "Crushes" mean greater gallonage per year

THE 1921 season has proved that Ward's Orange-Crush, Lemon-Crush and Lime-Crush Ice Cream Compounds are producers of new business for ice cream manufacturers.

The well-known "Crush" drinks are the most demanded of all fruit-flavored beverages. The ice cream compounds, with the same quality and deliciousness, are proving equally popular in bulk and brick ice cream and sherbets.

Already, many of America's leading ice cream manufacturers have adopted the "Crushes" as standard flavors. This is what they have found: That these flavors are good sellers and fast repeaters, and make a strong appeal when featured as "specials," either in bricks or bulk.

Thus, the Crushes have been the means of increasing their total gallonage this year.

These Compounds import to ice creams and sherbets the rich color, fine fragrance and flavor of luscious oranges, lemons and limes. They are fruit flavors of first quality. They give you full control of flavor and color. With the "Crushes" no additional color is needed.

"We have had excellent results with the "Crushes" as you can know by the good orders given you. We can truthfully state that the "Crushes" are the best we have ever handled."

Brown's Ice Cream Co.,
J. E. Brown, Manager

Ogden, Utah
May 16, 1921

The public **wants** the "Crushes" in ice cream and sherbets. This is proved wherever the products are offered. Think of the selling possibilities of a brand so closely allied with the best advertised and fastest-selling fruit flavors in the world. Think of the prestige—the advantage over competition.

If your territory has not already been taken, it will pay you to write at once for full particulars about exclusive rights. Fill out and send the coupon below.

ORANGE-CRUSH COMPANY

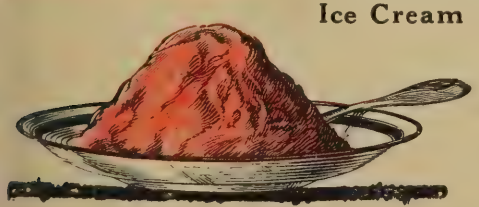
Plant and Laboratories
Chicago

Research Laboratory
Los Angeles

In Canada:
Orange-Crush Company, Ltd., Winnipeg

Sell these money-makers:

Orange-Crush, Lemon-Crush, and Lime-Crush Ice Cream and Sherbets.



In Bulk and bricks.

Sign and Send this Coupon Now

ORANGE-CRUSH COMPANY
314 W. Superior St., Chicago

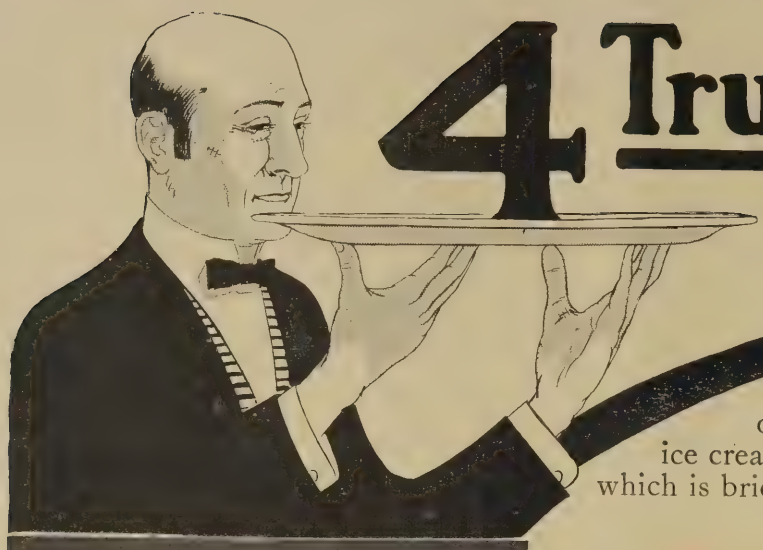
Send us, without obligation, details regarding exclusive rights in our territory on Ward's Orange-Crush, Lemon-Crush and Lime-Crush Compounds for flavoring Ice-Cream.

Name .....

Street and No. .....

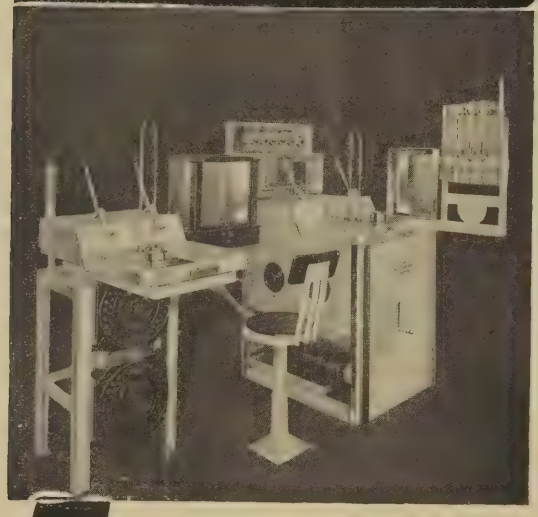
Town and State .....

I.C.R.-10



4 True Servants

There is probably no apparatus that has done more to establish operating efficiency and economy in the ice cream industry than the Mojonnier equipment which is briefly described herewith.

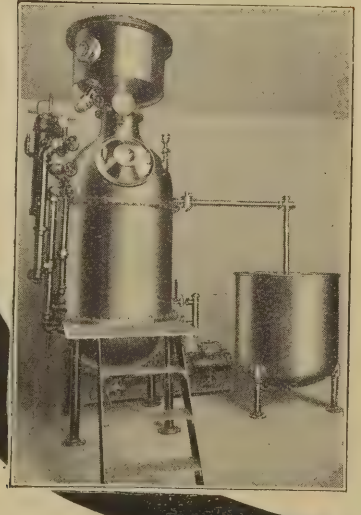


Patented.

Mojonnier Milk Tester in the Laboratory

This apparatus determines accurately the butter fat and total solids in all classes of dairy products. It enables the ice cream manufacturer to purchase his raw materials intelligently, paying only for actual amount of butter fat received; also to standardize his mix to within .05%, insuring absolute uniformity and eliminating all guess work. One percent excess butter fat means a loss of 5.4c per gallon of mix, while 1% excess total solids means a loss of 2.5c per gallon. Figure it out for yourself and see how many times this device will pay for itself in your plant, then let us send you our bulletin giving full particulars.

App. & Process
Pat. Pend.



Mojonnier Vacuum Condensing Unit in the Mixing Room

The Mojonnier Vacuum Condensing Unit represents another efficient achievement that is fast being adopted by enterprising ice cream manufacturers. By displacing his pasteurizer and mixing tank with a Mojonnier Vacuum Condensing Unit, the manufacturer is enabled to not only make his mix from fresh milk direct from producer, but also take care of his surplus. Several manufacturers have in this way decreased the cost of their mix 15c per gallon. When there is a surplus of fresh milk above that required for making the regular run of ice cream mix, it can be converted into sweetened condensed milk or some other condensed milk product for which there is always a ready sale, eliminating all losses thru waste and converting them into actual profits. Investigate the possibilities of the Vacuum Condensing Unit in your plant.

Ever Faithful and

to the Ice Cream Industry

Mojonnier Over-Run Tester in the Freezer Room



Pat. Pend.

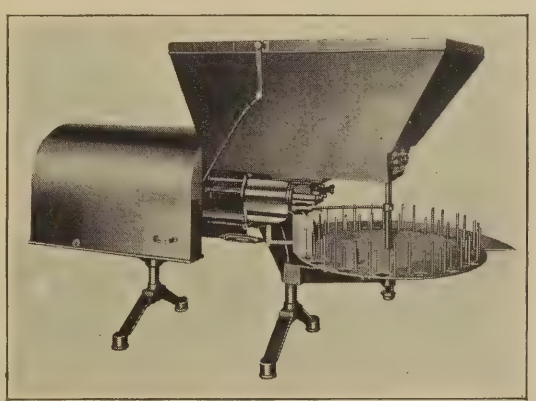
Every ice cream manufacturer knows what the over-run, or swell, means to him. Good over-run means a nice profit at the end of the year. Insufficient over-run means an actual loss.

By the aid of the Mojonnier Over-run Tester, you can control your over-run absolutely. Each percent of over-run is worth .4c per gallon of ice cream. Frequently the flavor and texture is improved by changing your radio of fat and solids not fat, and increasing the over-run. If you can increase your average over-run only 10%, it means a saving of 4c a gallon, or $4,000 a year on 100,000 gallons.

If you are interested in saving these extra profits, write for more complete details of the Mojonnier Over-run Tester and proof of what it is doing for others every day in the year.

Mojonnier Ice Cream Packing Machine in the Packing Room

Here is a packing machine that is an indispensable acquisition to the ice cream industry. All but human, it automatically packages ice cream just as it comes from the freezer, one, two or three layers at the same time. Fills either quarts or pints, in either one, two or three flavors. Eliminates pouring into molds, dipping, cutting and wrapping. Delivers cream from freezer to package without being touched by human hands and insures absolute uniformity of measure. Capacity twenty quarts per minute or 1200 bricks per hour. Whether your plant is small or large, you cannot afford to neglect the great opportunity for cost-saving which the Mojonnier Brick Machine offers. Investigate our easy purchase plan.



Patented Dec. 17, 1918.
(Process and Other Patents Pending)

Mail the Coupon

For your own advantage and to give you an opportunity to thoroughly investigate the incomparable benefits to be derived from Mojonnier Efficiency Equipment for Ice Cream Plants, let us send you full and detailed information on any or all the devices here referred to. Use the coupon herewith. Check the equipment in which you are especially interested and you will have made the first step to new and decidedly attractive profits.

Mojonnier Bros. Co.
MILK ENGINEERS
739 W. Jackson Boul. Chicago

Sales Branches;
NEW YORK ST. LOUIS ATLANTA SEATTLE COLUMBUS

Mojonnier Service Coupon

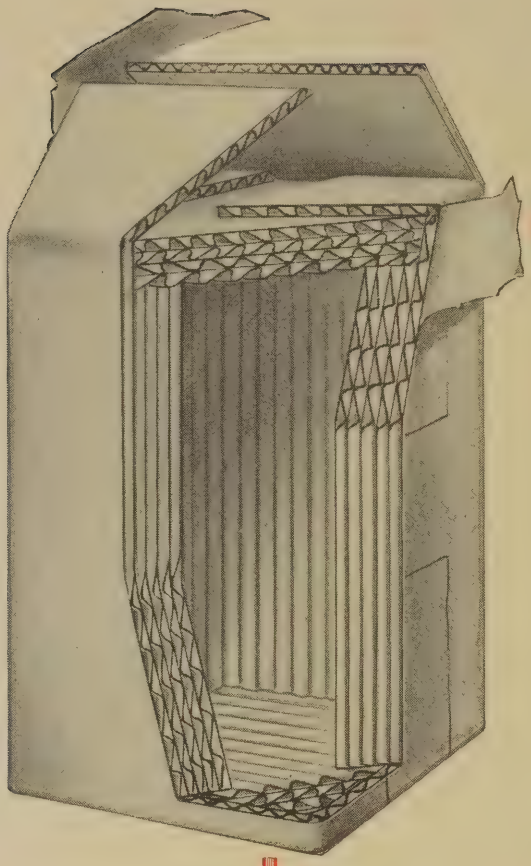
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Please send complete descriptive literature covering apparatus checked below:

.....Mojonnier Milk Tester
.....Mojonnier Vacuum Condensing Unit
.....Mojonnier Over-Run Tester
.....Mojonnier Brick Machine

Name .....
Address .....
City ..... State.....

Efficient



Test The Value of These Containers

Now, while the rush has died down can you watch the full service to which you can put these

Single Service Iceless Containers



They have a distinct place in your delivery system. They reduce costs, make unprofitable deliveries worthwhile and save a lot of trouble and expense here to fore unavoidable.

Try out a hundred or so. The cost is small, the possibilities great. Prices and Booklet on request—Write

The Hunt-Crawford Company

Manufacturers of

Cellular Fibre Products

Orchard & 14th Sts.

Coshocton, Ohio

certain restrictions. The secretary of agriculture of Ohio in 1918 threatened prosecutions for the sale of Hebe filled milk, and the Hebe Co. brought a suit in equity in the United States District Court in Ohio to restrain the prosecutions. The case went to the United States Supreme Court. (248 U. S., 297). The court held that the Hebe product fell within the condemnation of the statute: that the statute was a valid exercise of the police power of the state, and that no constitutional right of the Hebe Co. was infringed. The court says:

"But the statute could not direct itself to the product as distinguished from the name more clearly than it does. You are not to make a certain article, whatever you call it, except from certain materials, the object plainly being to secure the presence of the nutritious elements mentioned in the act and to save the public from the fraudulent substitution of an inferior product that would be hard to detect. * * It seems entirely clear that condensed skimmed milk is forbidden out and out. But if so, the statute can not be avoided by adding a small amount of cocoanut oil. We may assume that the product is improved by the addition, but the body of it is still condensed skimmed milk, and this improvement consists merely in making the cheaper and forbidden substance more like the dearer and better one and thus at the same time more available for a fraudulent substitute. It is true that so far as the question of fraud is concerned the label on the plaintiff's cans tells the truth — but the consumer in many cases never sees it."

Legislation in Various States.

While the proposed bill will not prohibit the manufacture and sale of the compound within the limits of a state, the committee is of opinion that a law prohibiting interstate shipment will suppress it, because a sufficient market can not be found without such shipment, and also because a sufficient milk supply can not be found in many states which would warrant engaging in the enterprise.

Furthermore, quite a number of states have already passed a law outlawing the compound. Wisconsin recently passed a law making it unlawful to manufacture it. Utah, Maryland, Florida, California, Colorado, Connecticut and Oregon have laws either suppressing the compound or providing such stringent regulations as to make its sale impossible. In New York both houses of the legislature passed similar bills, but it failed to go to the governor. In New Jersey a similar bill was vetoed by the governor. In Pennsylvania a bill was passed by the house but died in the senate committee. Ohio has had a law for many years under which the compound was suppressed, and this year a resolution was adopted by the board of health of the City of New York to the same effect. The department of health—

Takes this position for the reason that cocoanut oil does not possess the food value that butterfat possesses and the substitution of same for any milk product would undoubtedly be reflected in the health of the children of this city. Cocoanut oil is no substitute for milk. Cocoanut oil does not possess the same growing qualities found in the butterfat of milk, and any legislation which would permit the addition of cocoanut oil to any milk product would be opposed to the best interests of the people of the city. * * The board of health of this city has adopted a standard for ice cream in which the use of cocoanut oil or vegetable fats is prohibited.

FROM COAST TO COAST ICE CREAM MANUFACTURERS ATTEST IMPORTANCE OF SUPPLY MEN'S EXHIBITIONS.

The Ice Cream Review last month in an article on the King of Ice Cream Eaters, Roy Tillinghast, of Providence, R. I., quoted J. E. Dunne, president of the Hazelwood Ice Cream Co., Portland, Ore., and also President of the Pacific Ice Cream Manufacturers' Association, and known to ice cream manufacturers of a number of states as "Joe," as saying of the All-Pacific Exhibition of the Association of Ice Cream Supply Men held last year in Portland, that it had done "more for the uplifting of the ice cream business than any other one factor that has occurred in many years."

An ice cream manufacturer from the Atlantic coast has just asserted in a different fashion the value of the exhibitions managed by The Association of Ice Cream Supply Men in a statement concerning the big Eastern Exhibition to be held in Buffalo, October 31st to November 5th inclusive. This manufacturer is L. J. Schumaker, Vice-President of the Crane Ice Cream Co. of Philadelphia.

"The growth and development of any industry, as such, is generally measured by the strength and size of its conventions and its exhibitions," Mr. Schumaker's statement says. "Very few manufacturers can afford to take time away from their business to travel around the country from place to place and see everything new that is developed or brought out; on the other hand, no manufacturer can afford not to take the few days time necessary to attend an exhibit which will group together the newest improvements and the best developments in his particular line.

"Every year we spend considerable sums of money in improvements and additions to our plant, but whatever may be brought to our attention or whatever we consider during the spring and summer months we always say 'Well, we will not buy anything until we have attended the exhibition in October'; and it is only after we have seen the 'big show' that we decide just how our money will be spent. We feel after having seen the exhibits and talked with the other manufacturers who attend that we can feel confident that we have seen the latest and the best, and if we do not then choose wisely it is due to our own lack of judgment.

"I doubt if the average manufacturer attends these exhibitions for the purpose of actually buying at them; he attends that he may determine just what he wants to buy.

"Prices everywhere are gradually settling down and we are approaching an era in which return to price competition is inevitable. Then it is that the manufacturer who can manufacture most economically will continue to forge ahead, while the manufacturer whose methods are wasteful will fall by the wayside.

"There never was a time when it was as important as it is right now for the manufacturer to inquire most carefully into every operation in his plant and ascertain where he can save labor or space, or where he can make one machine do the work of two, or where he can find equipment that will improve his quality—and nowhere can a manufacturer get so much information at so small an expenditure of time and money as he can at one of the exhibitions of the Ice Cream Supply Men."



Works Quick

He (in motor car): "The lever here controls the brake. It is put on very quickly in case of an emergency."

She: "I see, something like a kimono."—Exchange.

John Wood Outing on the Delaware



Bunn Eating Contest. On the left of the star in bathing "costume" is Frank Sutcliffe, President.



The Potato Race.

MORE than 500 employees and their friends of the John Wood Manufacturing Company, Conshohocken, Pa., participated in the third annual outing and picnic to Augustine Beach, on the Delaware Bay, and indulged in various forms of amusements and sports, the plant being closed down for the day. The steamer Thomas Clyde was chartered for the eight-hour trip on the water. The start was made from Philadelphia, and for the first four hours on the trip down the river and bay there was dancing, singing and card playing, while others interested themselves viewing the large plants which border the river, including the New York Shipbuilding Corporation, Sun Oil Co., Worth Brothers big steel mills, Pusey and Jones, DuPonts, the world-famous Hog Island with its deserted ships, and League Island, with its array of battleship grey craft, squares of buildings and docks presented an interesting after-the-war scene.



He Hit 2100 at That! Victor Mauck, chairman of the Board of Directors, who proved to his men he could swing a hammer to the tune of 2100 as well as wield a pen.

At Augustine Beach there was plenty to keep the Jack Woods hustling. Victor Mauck, chairman of the board of directors, had motored down and greeted the party on its arrival. After luncheon the sport events started. A bun eating contest attracted the crowd, where Jack Welsh, the hustling business agent of the Boilermakers' Union, prepared the buns by covering them with a liberal amount of molasses.

Frank Sutcliffe, president of the company, had entered the event. He did not withdraw when he saw those buns, tied to strings, bathed in molasses and was a contestant until the finish, withdrawing in favor of Albert Tanara when his bun dropped to the ground and collected a liberal portion of sand and dirt. Collins was a persistent contestant, continuing for awhile, even after his molasses-covered bun had annexed earth, sand and pebbles.

A bowling competition in which Joseph Winter, Works Manager, J. Daugherty, Engineering Dept., and George Hofstetter, Jr., Sales Department, opposed Joseph Henderson, Purchasing Dept., H. Lee Koenig, Inspection Dept., and Alfred Snow, Engineering Dept., resulted in favor of the last named team after a close finish, 324 to 317, in which Snow came through with a few strikes and spares and won the match for his team.

The Executives' race was a merry little fight between Frank Sutcliffe, Victor Mauck, Joseph Winter, H. Lee Koenig and Arthur Marland. Sutcliffe was the winner. Leslie Heatherton, of New York City, was starter in



Three-Legged Race.



The Executive Staff. Left to Right—Morris H. Feldman, General Sales Manager; Frank Sutcliffe, President; Joseph Winter, Works Manager; Victor Mauck, Chairman Board of Directors, and H. L. Koenig, Chief of Inspection.





WARNER-JENKINSON CO.

ST. LOUIS

Manufacturers of Ice Cream Makers' Supplies and Certified Food Colors

—o—

They come and they go, but PURITY ICE CREAM POWDER holds fast. You can't get away from it; when you want a good reliable cream stabilizer you have to use Purity Powder. Should any difficulty be experienced when homogenizing by the mix becoming too thick, simply replace Purity by Red Seal Special Homo-Powder.

—o—

Ice Cream makers looking for quick and certain action in the Ripening tank use RED SEAL RIPENER. One ounce of Ripener to every fifty pounds of mix does the work. Just throw the "Ripener" in the holding tank and then stir it in.

—o—

RED SEAL GIANT VANILLA makes new friends every day. No one who uses Giant wants to try anything else.

—o—

RED SEAL COLORS. All shades.

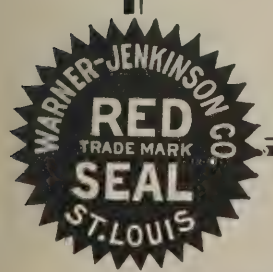
LIQUID, PASTE, POWDER. Satisfaction guaranteed.

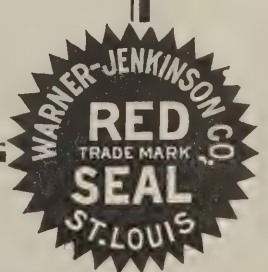
—o—

RED SEAL TRUE FRUIT FLAVORS. Ideal for ice cream.

ST. LOUIS

WARNER-JENKINSON CO.





all the events. In this event it was claimed that some had "beaten the pistol" and the race was run over with Sutcliffe again a winner in spite of his handicap. Next year he will be placed ten yards behind scratch.

The potato race proved exciting, Francis Lafferty winning from a field of six contestants. In the boys' race, John Mellon, Jr., was the winner. Charlie Slavin carried off top honors in the hammer test, ringing the bell at 3000, while Tom Jenkins was a close second. Morris H. Feldman, General Manager of Sales, W. H. Richman, Sales Manager of the Ice Cream Can Department, Earl Freas, Branch Manager of the Philadelphia office and Joseph Montague, Sales Manager Range Boiler and Tank Dept., took turns with the hammer. Everyone participated in one or more events, and with perfect weather and nothing to mar the days' events it was one of the most successful outings ever held.. On the return home Madeleine Pagnacco won the lucky number dance. Cups were awarded to the winners of all events.

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MESSAGE FROM A. E. DIXON

The following is a message from A. E. Dixon, Secretary of the North Carolina Ice Cream Manufacturers' Association, in which he urges 100% attendance at the Southern Convention of supplies, machinery and equipment in the service of ice cream, to be held in Atlanta, Ga. November 28th to December 1st. A copy of the "Act to Require Sanitary Conditions in Ice Cream Plants, Creameries, and Cheese Factories" will be found on another page of this issue. This act is mentioned in the letter given below:

"Final arrangements have been made with the Ansley Hotel by which your President, Mr. White, and myself have secured a reception room for the North Carolina delegation, and everything will be done to make everyone comfortable and feel at home.

"It is feared by some that in meeting with the Southern Convention we may lose our identity, but I wish to impress upon you that this will not be the case, provided the efforts of your officers prevail. Undoubtedly all the Supply Men belonging to our Association will attend, and I sincerely hope we will have a 100% attendance of the Active Members. Saw Mr. White in Raleigh and he assures me he will be on hand, as will the writer. The Secretary is going to bombard you from now until the time of departure with letters, bulletins, etc. urging your attendance. Won't you write me at once, stating you will attend the Convention in Atlanta, Ga?

"No doubt you have received a copy of the Act regarding the sanitary condition of Ice Cream Plants. The Act is the result, as you know, of an interview your Directors had with Mr. Allen at our last Meeting, and I feel the Association should be congratulated on this. It only goes to show what co-operative action will do.

"Let's try some more Co-operation in Atlanta, Nov. 28th to Dec. 1st.

A. E. DIXON
Secretary.

⚜

HYDRO CAPITALIZES ON NEW PACKAGING METHOD.

How the progressive Hydrox Company, ice cream manufacturers of Chicago, used their new Mojonnier packaging machine as a selling point in their advertising is shown by the following, taken from one of their advertisements in the Chicago Tribune of Sept. 18th:

"Goodbye to Human Hands

"The Hydrox Company announces another remarkable development in placing an absolutely pure ice cream on your plate. Human hands are now done away with; a wonderful machine has taken their place.

"The Mojonnier Brothers Ice Cream Brick Making Machine

"Is a machine we have been looking for for several years, and which these remarkable men have now perfected. It is a machine that receives the ice cream right from the freezer, pours it into airtight cartons and molds it into perfect bricks, which are immediately sealed. And it is an intelligent machine. It will make you a three-layer brick of orange and pineapple and vanilla or anything you like without ever the touch of the human hands upon it.

"This is the last step. A year ago we gave you the carbonating process. This carbonating process removed all the air from the freezers and replaced it with an atmosphere a hundred times times purer than air, thereby absolutely preventing the dangerous multiplication of bacteria. Now this filling machine takes this purified ice cream right from the freezers, and the cartons are sealed immediately to **KEEP** the air out.

"For today we should like you to try our especially delightful."

⚜

A bulletin issued by the Association of Ice Cream Supply Men contains a little paragraph which shows that, even though business conditions have been far from top-notch, the ice cream business seems to hold fort and come out on top in the quantity produced:

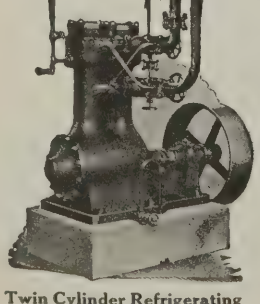
"A Connecticut cross-roads country store keeper, six miles from a manufacturing city that had experienced for months, plant shut-downs and financial difficulties reacting in the surrounding sections, has sold five gallons of ice cream, almost all in cones, every day. There is no reason for believing that either the latent demand for ice cream or its distribution methods have been exploited to anywhere near the maximum."

⚜

15th ANNUAL CONVENTION HELD IN ERIE

Erie, Pa. is the chosen place for the fifteenth annual convention of the Association of Ice Cream Manufacturers of Pennsylvania. The convention, which is to be business meetings only, will be held on October 31st and November 1st. Following the November 1st meeting, on Tuesday, the association will journey to Buffalo, N. Y., where the Eastern Exhibition of the Association of Ice Cream Supply Men will be in full swing.

THE VILTER MFG. CO.



Twin Cylinder Refrigerating Machine.

830 Clinton Street
MILWAUKEE, -- WISCONSIN

If this small Refrigerating Machine is not large enough to handle your Ice Cream Trade, **Remember** we build

Refrigerating Machinery

of any capacity desired.



PUMPING PROBLEMS HAVE BEEN OUR BUSINESS FOR OVER THIRTY YEARS—AND HERE ARE SOME OF THE ANSWERS

John W. Ladd Company.....Detroit
Bessire & Co.....Atlanta, Indianapolis, Louisville
Gowing-Dietrich Company...Syracuse, New York
Wright-Ziegler Company....Boston, Massachusetts
Dairymens Sup. & Con. Co.....Pittsburgh, Pa.
Oakes & Burger.....Cattaraugus, New York
R. G. Wright & Company.....Buffalo, New York
Alberta Dairy Sup. Ltd.....Edmonton, Canada
DeLaval Company, Ltd.....Peterboro, Ontario
W. A. Drummond & Co.....Toronto, Canada
Baker, Hamilton & Pacific Co.....San Francisco
A. H. Barber Cmy. Sup. Co.....Chicago
Beatrice Creamery Company.....Denver, Colorado
Cherry-Bassett Company.....Baltimore
Blanke Mfg. & Supply Co.....St. Louis
J. G. Cherry Company...Cedar Rapids and St. Paul
Dairy Machinery Co., Inc.....Seattle, Washington
Enterprise Dairy & Cmy. Sup. Co.....
.....Cincinnati and Columbus
Huey & Philp Hdwe. Co.....Dallas, Texas
Kennedy & Parsons.....Omaha and Sioux City
N. A. Kennedy Supply Co.....Kansas City, Mo.
Meyer Dairy Equipment Co.....St. Louis
Mojonnier Brothers Co.....Chicago
Monroe & Crisell .....Portland, Oregon
C. E. Rogers .....Detroit
O. J. Weber Co.....Los Angeles, California

VISCOLIZERS TOO!

THIS BUFFALO EXHIBITION AND THE ASSOCIATION OF ICE CREAM SUPPLY MEN IS A BIG THING FOR ALL OF US.

By Sealright Co., Inc., Fulton, N. Y.

Mfrs. of Sealright Liquid Tight Paper Containers.

As stated in our advertisement in this issue of The Ice Cream Review, we believe it will pay ice cream manufacturers well to attend the Third Annual Eastern Exhibition of the Association of Ice Cream Supply Men at Buffalo, October 31st to November 5th, inclusive. We base this statement on the knowledge of what the previous exhibitions have accomplished. Representative ice cream manufacturers who have attended, all report that it is at these exhibitions they receive that "something" which sends them back home alert to the significance of their business and the possibilities of progressive growth.



See the Sealright Container on Exhibit at Buffalo

Let us repeat again, these exhibitions are "not merely selling shows." They are not so regarded by ice cream men attending, or the exhibitors. They are educational, inspirational and broadening. Gathered under one roof are displays covering every phase of the ice cream industry. There is the opportunity for the ice cream manufacturer to visualize equipment, methods, and plans, etc., pertaining both to the manufacture and selling of ice cream; further, representatives of the several exhibitors are present, men who must of necessity understand the ice cream industry and who, through their work and travels, come constantly in close contact with problems facing the industry. These men, naturally, are in a position to convey information which means so much to the ice cream manufacturer. Then, also, and of great importance, is the presence of so many ice cream manufacturers themselves. The interchange of ideas and the "relating of 'how we do it down our way'," heart to heart conversations of ice cream fellows, in groups (you will find them all over the place) are so obviously of value that we don't have to explain anything further about it.

The big thing, however, that impresses us, and which, naturally, makes us eager to stand back of the Association of Ice Cream Supply Men, is its established policy to plan and work and direct its activities in absolute harmony with the progressive development of the ice cream industry. There is a spirit of co-operation, a desire to be of genuine value to ice cream manufacturers, a definite purpose to elevate the business standards of those concerns selling to the ice cream manufacturers, and a sincere plan of operation that will assure the accomplishment of these ideals. And we have discovered that the Association of Ice Cream Supply Men has already made itself felt in a way that augers well for the industry as a whole. We are for it.

We will be at Buffalo and at Atlanta, also. We go to these exhibitions and buy space and retain our membership in the Association, not because of the "immediate returns" we might expect, but chiefly because, by so doing, we are openly manifesting our faith in the association and its activities. It must, indeed, be gratifying to the executives of the association to note how prominently ice cream manufacturers have recognized the purpose of the association and have come to regard themselves as co-partners in this big work before us. And, surely, that is as it should be. The most good for all concerned comes only through a mutual understanding of an industry's problems—and it is very evident that such an understanding can most equitably be reached through an association of this character.

Sealright Company, Inc., will exhibit their Sealright Liquid-Tight Paper Containers. Our representatives will be present to explain not so much the container itself, but to discuss and point out how this container bears a distinct relation to the future increased sales possibilities of any ice cream manufacturer. And, naturally, such being the case, our display will contribute its part of the value you will obtain by coming to Buffalo. We shall look for you.



PACIFIC COAST MEN VITALLY INTERESTED IN LABOR MEASURE IN HAWAII.

San Francisco, Cal.—Because of their close relations with Hawaii, California business interests are closely following the threatening labor situation in the Islands, and the progress in Congress of the measure to relieve the shortage in the agricultural industries by authorizing the importation of alien labor in the emergency under regulations to be imposed by the government.

Congress Asked to Pass Measure.

Members of Congress from California are being urged by banking, insurance and steamship interests and other business organizations to support the bill, and leading members of the San Francisco Chamber of Commerce are advocating its passage.

In a statement recently, W. P. Roth, vice-president and general manager of the Matson Navigation Company, quoted letters which he had received from Hawaii to show conditions obtaining in the sugar and other industries.

"Illustrating the conditions which are arising from the curtailment of labor, I have just received a letter from E. D. Tenney, president of Castle & Cooke, Ltd., sugar factors in Honolulu, in which he cites the case of one of the largest sugar plantations in the islands," said Mr. Roth. "As compared with 1919, when this plantation manufactured 31,654 tons of sugar, only 15,338 tons have been manufactured this year out of a total crop estimated at more than 35,000 tons. This condition is due entirely to the shortage of labor and every day's delay in harvesting the crop increases the aggregate loss. This is typical of most of the plantations.

Coming Crops Endangered.

"Serious losses are now being entailed in the 1922 and 1923 crops, owing to lack of labor to make the plantings and attend to the proper cultivation, which must be done now."

John D. McKee, chairman of the board of the Mercantile Trust Company, stated that he was satisfied that relief for the labor shortage in Hawaii was urgently needed, and that he hoped Congress would pass the bill which will enable the President to grant admission to such numbers of Chinese as will ensure sufficient labor for the plantations.

"I can see no objection to this," he said, "provided only they are barred from the mainland."

Rollo V. Watt, chairman of the Hawaiian supervisory committee of underwriters, saying that the insurance companies had a vital interest in Hawaiian prosperity, expressed the conviction that the labor situation is such as to justify the granting of relief. The present situation, he declared, jeopardizes American interests.

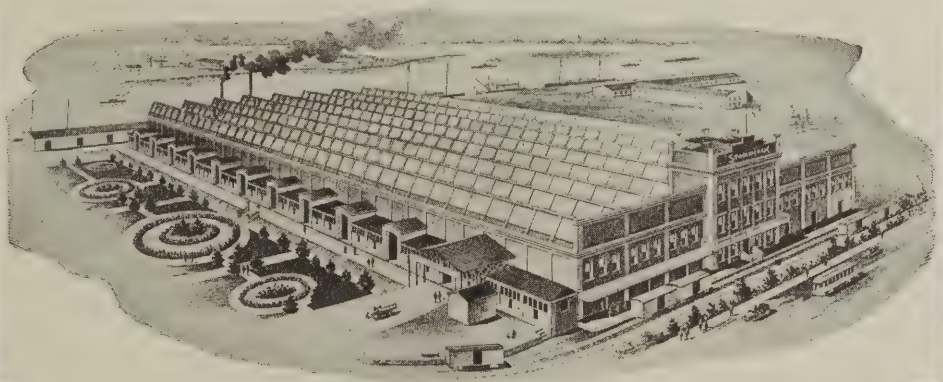
STOLLWERCK

COCOA POWDER

Quality, Flavor and Color unsurpassed. Best results in ice cream making can be obtained by the use of Stollwerck Cocoa Powder.

Prices and samples upon request

Packed in 25 and 50 lb. drums Also barrels and cases



PLANT OF THE STOLLWERCK CHOCOLATE CO.
STAMFORD, CONN.

BRANCHES:
NEW YORK BOSTON CHICAGO KANSAS CITY
SAN FRANCISCO SALT LAKE CITY SEATTLE PORTLAND, ORE.

TRUE TO LIFE

Nordhem Connective Advertising from the Public's Point of View.

When a woman buys a new gown she likes to see first "how it looks" upon a model.

A man doesn't purchase an automobile until he's tried it out on the road.

It's hard to sell anything when the buyer can't see in advance just how it will show up in actual use.



The Manufacturer's Name and Brand Occupy the Imprint Space.

It's the recognition of this principle that will add such unusual interest to the display of the Ivan B. Nordhem Company at the Buffalo Exhibition.

The background of this exhibit will be a large rural landscape painted in oil especially for this occasion by the well-known artist, August W. Hutaf. In this realistic setting will stand an exact reproduction, in miniature, of a 24-sheet poster board, containing one of the Nordhem "Big 6" ice cream posters de luxe for the 1922 season.

Naturally the ice cream manufacturer who's going to use posters to advertise his cream wants to know just how his poster is going to look to the passer-by.



One of the Nordhem "Big 6."

So here's his poster-board, true to life. And the Nordhem representatives in charge of the exhibit will be glad to change the advertisement on the board to show him how the other five of his "Big 6" posters will appear.

Other features of the famous Nordhem connective campaign will be on display at Buffalo, in addition to the "Big 6". This means all forms of ice cream advertising—from window cards, cut-outs, posterettes and car cards, to souvenirs and newspaper copy.

The ice cream manufacturer who has not decided on his advertising policy for 1922 will find it well worth while to get acquainted with the Nordhem men at Buffalo—and with their poster board display.



No one talks so much about the enormity of gambling as the fellow who tried to beat the game and failed.

SUPPLY MEN RECKON 1921 ICE CREAM PRODUCTION TO AVERAGE INCREASE OVER 1920

In a Confidential Printed Bulletin issued to its members October 10th, The Association of Ice Cream Supply Men reports in some detail concerning conditions which have characterized the ice cream industry and which have governed the houses supplying its machinery, supplies, equipment and services during 1921. Part of this report to its membership, concerning the estimated production of ice cream up to and through the first few days of September has been released for general publication.

"Many conflicting opinions are current concerning the volume of production," says the Association bulletin, after first referring to the abnormal alternation throughout the season of warm and cold periods. "The Association is in receipt of manufacturers' reports, in general or comparative terms, not in actual numbers of gallons, from almost all sections of the United States. It also has received reports in terms comparative of this and last year's business from Association members of nearly all of the general groups of manufacturers comprised, i. e., machinery, equipment based on metal, extracts, gelatines, miscellaneous supplies, packaging, shipping and motor delivery equipment, etc., etc.

"On the basis of these reports production up to September 10th by sections and in terms of comparison with 1920's terms of production would be: New England, a possible slight decrease; the Eastern states, unchanged, unless by a slight advance; Mississippi Valley, a slight advance; the South, a falling off of a possible 15%; the Southwest, unchanged; the Northwest, at least some advance; the Pacific Coast, an advance. With production included for the balance of September, during which warm weather prevailed, it is safe to modify each of the above in the direction of greater production, and to estimate the year's total production up to October 1st as in advance of 1920 for the same months."

The bulletin also contains the following interesting comments on sentiment within the industry as it has been observed by supply men coming in contact with ice cream manufacturers:

"Whether in relation to his possible success in achieving operating economies, to next year's probable demand or to his standing today as compared with general business conditions, it is to be noted that the ice cream manufacturer in every section is a definite optimist at present. The following, a report made to the Association by an ice cream manufacturer speaking from a territory in which a decreased production was reported, is a definite expression of this attitude:

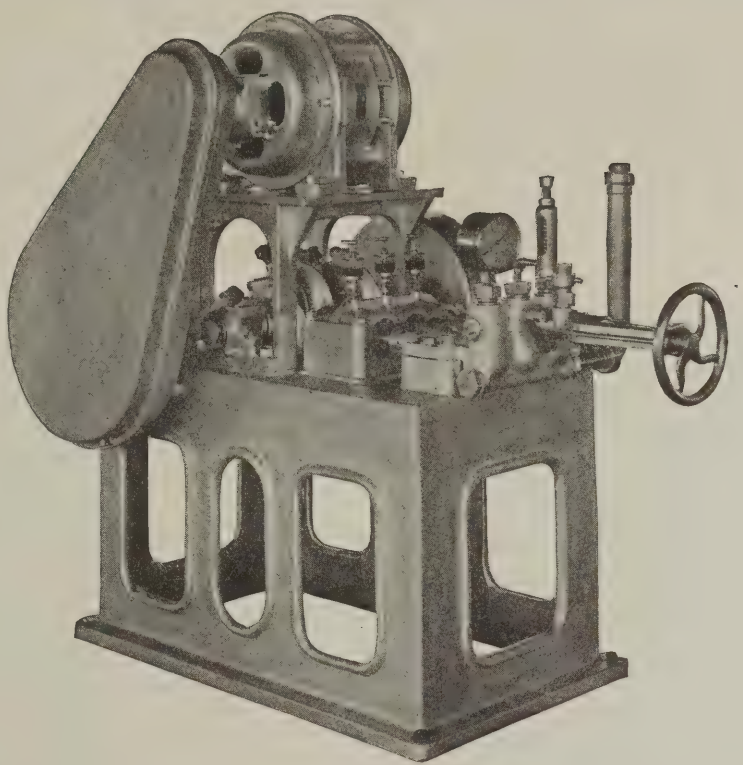
" 'We contemplate the purchase of more tubs, cans, machinery, and other equipment than we have in any previous year, for we have a belief that there is bound to be a decided turn sooner or later and with it a lot of ice cream business, and we are going to try to be ready for this business when it comes.' "



ICE CREAM BY WEIGHT

Elizabeth, N. J.—A resolution urging William J. Bender, sealer of weights and measures, to bring the question of selling ice cream by weight rather than by measure before the state convention of the New Jersey Department of Weights and Measures, to be held at Trenton, N. J., and to take steps towards bringing about legislation whereby manufacturers will have to sell their ice cream by weight, was adopted at the regular meeting of the Retail Ice Cream Dealers' Association of Elizabeth.

Many Gaulin Homogenizers Are Used 10 Years or More



Users of Gaulin Homogenizers will all testify to their unusually long life, even when subjected to severe service. No plants in the country demand more work out of their homogenizers than the Abbotts Alderney Dairies, Philadelphia; The Ives Ice Cream Co., Minneapolis; Tait Bros. Springfield, Mass.; McBride Bros. & Knobbe, Chicago, or the Waterloo Ice Cream Co., Waterloo, Iowa. Yet each of these concerns and many others have used their Gaulin Homogenizer for 10 years or more. In each case the Gaulin is still in service and good for many more years of satisfactory work.

The Secret.

What is the secret of the exceedingly long life of the Gaulin as compared to ordinary machines of this type? Why does it give such long service and such continuous service, free from breakdowns.

There is no secret about its wonderful durability. It is simply the result of proper designing, the use of carefully selected materials, and having each part made and assembled by expert craftsmen.

If you will examine the Gaulin you will find it as carefully made as the finest custom-built automobile. Each part is made with precision machinery and must fit to the thousandth part of an inch.

And remember the Gaulin is the only homogenizer equipped with the Gaulin Spring Homogenizing Valve and Head.

Book Sent Free.

For full details, write for "The Story of the Homogenizer" sent free to readers of this paper.

Manufactured by

THE MANTON-GAULIN MFG. CO., Boston, Mass.

Distributed by

THE CREAMERY PACKAGE MFG. COMPANY

CREAMERY MACHINERY
MILK AND CREAM HANDLING MACHINERY
CHEESE MAKING MACHINERY

SALES BRANCHES—(Write to nearest one)

Chicago, Ill., 61-67 W. Kinzie St. **Philadelphia, Pa.,** 1907 Market St.
Buffalo, N. Y., 133-137 E. Swan St. **Portland, Oreg.,** 6-8 N. Front St.
Kansas City, Mo., 1408-10 W. 12th St. **San Francisco, Cal.,** 699 Battery St.
Minneapolis, Minn., 318-20 3d St. N. **Toledo, Ohio,** 119 St. Clair St.
Omaha, Neb., 113-15-17 So. 10th St. **Waterloo, Ia.,** 406-8 Sycamore St.

ICE CREAM MAKING MACHINERY
REFRIGERATING SYSTEMS
DAIRY MACHINERY AND SUPPLIES

Everything You Will Need at the Buffalo Show

By Cherry-Bassett Company, Baltimore

WHY are you going to the Buffalo Exhibit of the Association of Ice Cream Supply Men? There are a good many answers to that question and we'll say now, before you offer your reply, that you are correct. In fact you couldn't give a wrong answer. The ice cream industry has reached a recognized standing of national importance and as a logical sequence conventions and exhibits must be held more or less frequently, just as in other important fields of industry, in order that the individuals engaged in the business will not drop into the much talked of rut. Most of us who are concerned with the ice cream industry are fully aware of the necessity and benefits of exhibits.

The Buffalo Exhibit will permit not only a mingling and exchange of ideas between ice cream manufacturers, but you can see, feel, taste, measure, price or operate hundreds of new devices, methods and machinery, thus making comparisons under ideal conditions and also absorbing valuable ideas that are hard to price in dollars and cents.



View in Plant of Teck Food Products Co., Pittsburgh, Pa., Showing Hendler Can Trucks Filled With Cans and Superware Brick Slabs. Note Also the Pile of Superware Brick Tanks in the Left Foreground.

Because the ice cream business has grown so rapidly and is still such a young industry, there is right now, a wealth of new methods and new machinery that is constantly developing. Machinery or methods looked upon as extreme and radical 15 years ago are now antiquated. And we suspect that many of the things exhibited at Buffalo this year will be ancient objects of history by the time aeroplanes start their regular express delivery of ice cream.

The experiences of our organization bear out this belief. We usually keep two jumps ahead of the industry as a whole, in developing new equipment, etc., and this means keep everlastingly at it. We have been able to anticipate the requirements of manufacturers in a variety of ways. Our Superware line embodies a group of equipment for ice cream plants that has kept in the lead ever since we started to produce Superware, and we expect it to KEEP in the lead. This Superware line comprises brick tanks, moulds and slabs; tin spoons, tin carry-out cans; the Hendler Patent Can Truck and the Thomas Batch Measure.

This last device is the latest addition to the Superware family. Without attempting to boast, we sincerely believe the Thomas measure is worth a trip to Buffalo if you see nothing else. You certainly want to see a device that is being hailed everywhere as a wonderful improvement that should not be ignored, and which is quickly being installed once the whole story of its functions has been explained. It really does revolutionize freezer rooms, by making the mix feed to the freezers automatically and by counting the batches. It keeps the mix unexposed and prevents waste, slop and saves the time of employees. That's a lot to say about one single device, but we learned that it would do all these things from concerns who now operate them—we THOUGHT it would do them, and now KNOW it.

Just before we developed the Thomas batch measure we were devoting a lot of time to the brick ice cream problem. And we covered the ground from A to Z—not alone, but in co-operation with manufacturers. The sizes, shapes, and construction of Superware for bricks have been arrived at by thorough experiment and by following the concensus of ideas of the largest ice cream manufacturers. We often wonder if the average purchaser of goods of this sort ever realizes that an enormous amount of time and effort was utilized to perfect each article and make it adaptable to all conditions. Take the Hendler patent can truck for example. This truck is the result of an idea one manufacturer had. We worked at the problem until we now turn them out in lots of 50 at one time and designed so that they suit everybody.

The demand for the unique Superware line has sprung up rapidly. At times we have had to struggle during the rush season to turn out the flood of orders on time. However, we now have a new factory for Superware production, operated by an associate, the Rosenfeld Mfg. Company, and this should lessen such congestion. The plant consists of three buildings occupying one whole block in Baltimore and such a plant of

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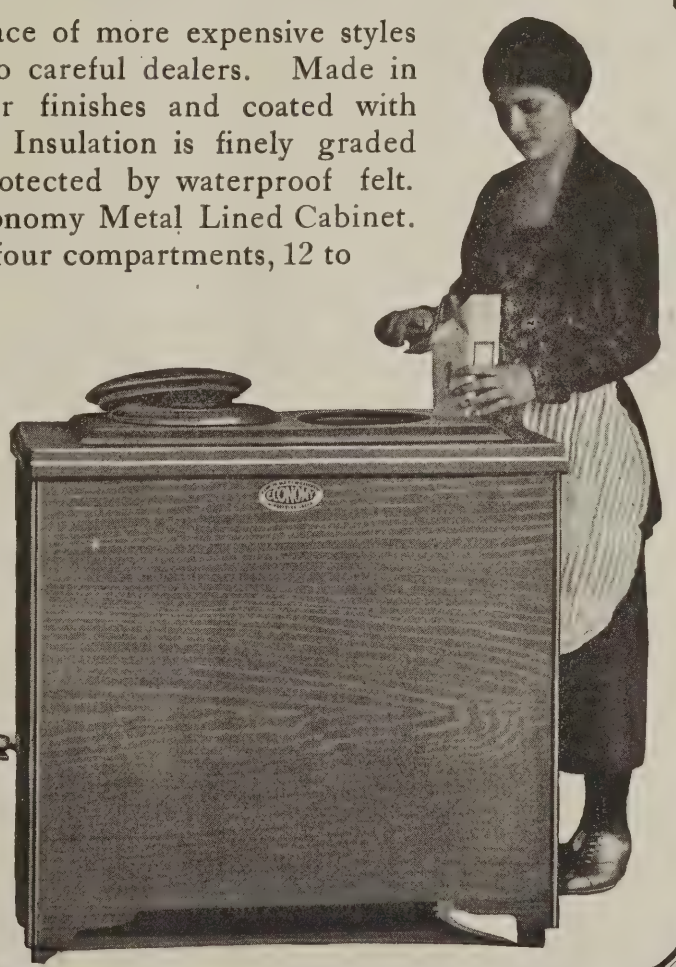
More Money In Every Sale

There's more *profit for you* when you sell ice cream out of an ECONOMY CABINET—because it costs you less for icing. Then it costs less in the first place and wears longer than most other cabinets, so it saves you money all the time.

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is fast taking the place of more expensive styles because it appeals to careful dealers. Made in mahogany and other finishes and coated with waterproof varnish. Insulation is finely graded granulated cork, protected by waterproof felt. Picture shows an Economy Metal Lined Cabinet. Made in from one to four compartments, 12 to 20 quarts. Ask about "Economy" Packing Tubs.



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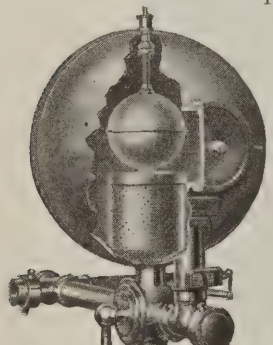
course gives us much greater capacity for production in this line. The Thomas batch measures are also manufactured here.

We have seen the need of an automatic ice cream brick cutter that is small enough for the majority of plants and large enough to do the work in a proper way.



View of One of the Buildings Belonging to the New Superware Plant at Baltimore.

This "happy medium" was located in Oshkosh, Wis. Its name is the "New Era" and we will have one on exhibit at Buffalo. We are promoting the sale of these machines in the east, and are sure enough New Eras will be found in eastern plants before many months, to cut bricks enough in a single day to pave the streets of Buffalo.



Thomas Budd Batch Measure.

Of course we're going to let you see Cherry pasteurizers, batch mixers and freezers at the Buffalo Exhibit. There is no better way of acquainting you with the merits of these well known machines than to exhibit them for you.

From this outline of what our exhibit will be, you may judge whether or not your attendance at the show will be profitable. Our exhibit will be typical of many.

NOTICE TO THE TRADE

It has come to our attention that certain firms have or contemplate the purchase from jobbers of apparatus from our general laboratory line for the purpose of creating a fragmentary milk tester, to carry on our patented methods of testing milk and dairy products for fat and total solids content. Our methods are fully covered by United States Letters Patent and such purchase and purchase of parts, either from us or from a jobber, does not give to the purchaser the right to use such parts to carry out our patented methods and processes. Any such efforts to carry out our methods and processes will be considered an infringement of these patents and will result in action to protect our rights and punish the infringers.

We may also add that our tester is designed, after years of experimentation experience, to accurately and quickly test milk for the fat and solid content thereof and that the results obtained by these infringing apparatuses are neither concordant or reliable, due to the incompleteness and inefficiency of the apparatus.

MOJONNIER BROS. CO.

THE DAY OF BETTER ICE CREAM HAS COME.

By Howard W. Black,

With The Widler Company, Cleveland, Ohio.

Ice cream manufacturers of the country are looking forward with special interest to the Eastern Regional Exhibition of the Ice Cream Supply Men, to be held at Buffalo, October 31st to November 5th. At no time in the history of the ice cream business has it been more imperative for ice cream men to get together and exchange ideas as at the present time. The fact that, during the past year, a great number of ice cream manufacturers report a slight loss in gallonage in spite of the extremely warm weather we have had this summer, proves conclusively that different methods must be pursued in order to get an increased business for next year.

During the war, the ice cream manufacturer's problem was not in selling ice cream, but in getting raw ingredients with which to manufacture same. He used substitutes for sugar, substitutes for flavor, and the extreme demand for his product acted as a substitute for salesmanship. The past year has been entirely different due to the fact that at least 40 per cent of the potential consumers of ice cream have been lost to the manufacturers, due to the money stringency, and to the high prices which retailers are still charging in most sections of the country.

We believe that the trend of ice cream business the coming season will be toward producing better ice cream instead of cheapening their product, in order to get the maximum gallonage. The ice cream manufacturer now realizes that there are a great number of people, through loss of work, who are unable to buy his product and in order to get the same amount of gallonage, or an increase in gallonage, it is necessary to make his ice cream so much more tasty and appealing that the people who have the money to purchase his product will eat more of it.

The Widlar Company, of Cleveland, has anticipated this change in the ice cream business. They have realized that the time is past when a manufacturer is satisfied with just "getting by". We realize that the consumer will go past one man's store to buy ice cream at another's, if the other man's ice cream tastes better. And for these reasons we are going to have on display at our booth at the Eastern Regional Exhibition at Buffalo, our C. W. Brand Vanilla.

If your ice cream tastes better than your competitor's, it must be better. This is the logic of the ice cream consumers. We extend a cordial invitation to all manufacturers who are going to attend the convention at Buffalo to call upon us at our booth and allow us to demonstrate to them the fact that it is really possible to make a better ice cream by using a better flavor.

Toot-Toot!

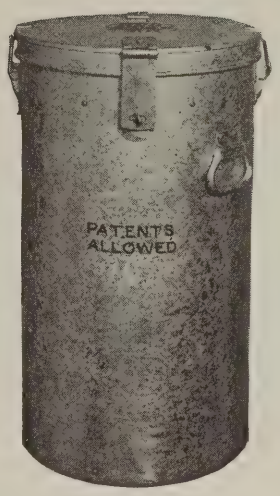
A sufferer who lived close to a railroad yard in the suburbs wrote the following to the railroad company complaining about the racket made by a switch engine:

"Gentlemen: Why is it that your switch engine has to ding and dong and fizz and spit and bang and hiss and pant and grate and grind and pull and bump and chug and hoot and toot and whistle and wheeze and jar and jerk and howl and snarl and puff and growl and thump and boom and clash and jolt and screech and snort and snarl and slam and throb and roar and rattle and yell and smoke and smell and shriek like hell all night long?"

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Let us send you prices on these containers. We will also show you some practical ways in which they help to develop business.

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Incorporated

TIMES BUILDING Room 1001 NEW YORK, N.Y.

The Express Situation

Address of FRANKLIN D. JONES, Counselor-at-Law, Washington, D. C., before the National Association of Ice Cream Manufacturers, Minneapolis, Minnesota, October 12, 1921.

The heavy increase in freight and express rates the past several years, with their resulting increase in the cost of living, has emphasized both to shipper and the public, the importance of transportation as an element in the cost of commodities. Manufacturers have learned that rates can operate to seriously curtail their business, even though their competitors pay the same rate. The public has learned that heavy increases in transportation costs must reflect themselves in the price to the consumer. The burden placed upon the distribution of goods by our excessive freight rates, the powerful influence of rates in restricting competition, the break down of the railroads during the war necessitating government operation, have all operated to focus attention and crystalize the demand for the restoration of our transportation service to an efficient basis as a pre-requisite to the re-establishmen of sound industrial conditions in the country. Unfortunately, the infinitely greater importance of the transportation of freight and passengers so far as the economic and social welfare of the nation is concerned has caused the express situation to be almost entirely ignored in public discussions.



FRANKLIN D. JONES

Yet the break down of express transportation was, if anything, more complete than that of freight transportation, the country at one time being threatened with a temporary complete elimination of express service.

After the government assumed control of the railroads, the Director General refused to carry out the separate contracts between the various railroads and express companies under which the express business had theretofore been conducted, but advised the companies that if they would form a single corporation, he would make a contract with that corporation to conduct the express business as the agent of the Director General. In June, 1918, the four main companies entered into such a contract with the Director General and organized the American Railway Express Company, exchanging all the property devoted by them to the express transportation business, estimated to be of a value of $30,000,000, together with $3,000,000 in cast for working capital for stock of the American Railway Express Company. The authorized issue of capital stock of the new corporation because of certain additions and betterments made subsequent to the time of valuation, aggregated $34,642,109.64. The Transportation Act of 1920 gave to the Interstate Commerce Commission the authority to authorize the permanent consolidation of these express companies into the one company, the American Railway Express Company, and the Commission exercised this authority by its decision of December 7, 1920. Wartime demands for equipment for use in the movement of troops and supplies, forced the new express company to utilize very unsatisfactory equipment, moving on slow trans, and a large amount of government business was moved which would ordinarily have moved by freight. In addition, the wages paid by war industries, as well as the draft, deprived the company of the services of many of its most experienced men. The express company has claimed, however, that the services rendered by it under these conditions was far better than would have been performed by the original companies because the unification of facilities under one management permitted better distribution of the facilities and made possible many economies impossible under separate operation, such as the elimination of duplication in pick up and delivery service, duplication of office, and so on. Economies resulting from unification, the company asserted before the Commission, reduced the cost of operation over $13,000,000 per annum. Whatever may be the merits of the consolidation of the express companies into a single monopoly, it is generally admitted that the break down in express service was complete. Loss and damage claims which, between 1911 and 1916, fluctuated between $2,000,000 and $3,000,000 jumped until for the year 1918 they totaled over $22,000,000, or over 9 per cent of the total express charges. The elimination of the check-up system, as well as other conditions, resulted in unparalleled theft and loss. The pick up and delivery service in many industries was almost entirely abandoned. In the Express Rate Case, we presented to the Commission evidence showing that out of 372 ice cream manufacturers located in all but three of the states of the United States, no pick up service whatsoever was accorded 235 shippers, while the remaining 137 received only a limited service. The delivery service on empties was equally bad. Meanwhile, the deficit facing the express company was mounting up at an appalling rate.

The express company in March, 1920, filed a petition asking for an average increase of 25 per cent over the existing rates. The Association opposed this increase because we felt these shippers should not be penalized for the manifest inefficiency of the carriers as shown by the excessive loss and damage claims and the complete break down of its service, and secondly because we did not feel it just that the ice cream industry should pay for a pick up and delivery service it did not receive, nor assume through increased rates, the burden of paying the large loss and damage claims of other industries when such claims in the ice cream industry were insignificant. In co-operation with a number of other industries, we succeeded, after a hard fight, in holding this increase to 12.5 per cent.

Immediately following this decision, however, the United States Railway Labor Board by two decisions, in July and August, 1920, increased the wages of various classes of express company employees, whereupon the company petitioned the Commission for a further increase and the Commission allowed an increase in rate of 13.5 per cent to cover this wage increase. This increase was, of course, not combatted by the Association.

At the same time, the general express rate increase case was submitted, the express company also peti-



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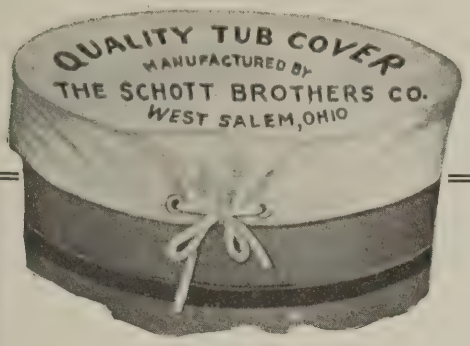
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tioned for changes in the official express classification. The two changes affecting the ice cream industry was first, a proposal to increase the estimated weights of ice cream on a five gallon shipment, for example, from 100 pounds to 115 pounds, and on other size shipments correspondingly, and secondly to increase the charge for the return of five gallon empties from 16c to 20c, and for empties exceeding that capacity from 27c to 35c. These charges in practical effect threatened a very heavy increase in rates. We lost the fight as to estimated weights but won our fight against an increase in the rate on empties.

The arrangements made between the Director General and the express company covering express traffic expired on September 1, 1920, and prior to the expiration of this contract, the Association of Railway Executives and the express company filed a petition with the Interstate Commerce Commission asking for the approval of a proposed contract to be entered into by them regulating transportation of express. A contract of the character proposed at that time was in the nature of a pooling arrangement and under Section 5, paragraph 1 of the Interstate Commerce Act, such an agreement is prohibited unless the Commission is of the opinion that such an agreement is in the interests of better service to the public or economy in operation and does not unduly restrain competition. Under this contract, the carriers are divided into four groups, Eastern, Southern, Western and Mountain Pacific. By this contract, after deduction of expenses, the balance remaining is to be distributed as follows: 2½ per cent to the express company and the remainder among the railroads in their respective groups in the proportion that the gross express transportation for the month earned on the line of each such railroad bears to the gross express transportation revenue earned on the lines of all such railroads for the month in that group. In the event that the 2½ per cent set aside for the express company exceeds 6 per cent of the average value of the entire real property and equipment and other capital of the express company, involved in the express business with specific exceptions such excess profit is to be divided one-half to the express company and one-half to the other carriers. One-half of this proportion of profit accruing to the express company is to be accumulated by the express company until such a sum equal to 10 per cent of the value of its entire real property equipment and other property employed in the express transportation business shall have been reached after which any such profit is to be divided in the ratio of one-quarter to the express company and three-quarters to the carriers. This contract, therefore, is in effect a cost plus contract permitting the express company from all revenues received to pay its operating expenses and deduct a 6 per cent return on the value of its capital employed in the express business. If its 2½ per cent of the remainder after deduction of expenses runs over 6 per cent, it gets one-half of such excess. Before this contract was entered into, the railroads received approximately 50 per cent of the total revenue. In March of this year, it was reported that on the basis of the new contract, the Eastern carriers were getting 27 per cent, the middle states carriers 40 per cent, the mountain pacific group 53 per cent. The Eastern carriers were not getting a satisfactory revenue because of the high cost of express operations in the way of terminal operations, pick up and delivery service and the large amount of short haul business. The railroads have appointed regional and divisional committees, which are operating in cooperation with officials of the express companies apparently with the idea of reducing, if possible, the operating costs of the express company so the carriers will have a heavier participation in the revenues.

The ice cream industry was more recently threatened with a heavy increase in rates through a proposed heavy increase in estimated weights. An Eastern manufacturer of a patented dry refrigerator container filed complaint with the Commission claiming that the estimated weight granted his company by the express company was unduly prejudicial as contrasted with the weight allowed on shipments in the regular tub container. In view of the extensive hearings and heavy expenses to which the Association had been put in the Classification Case, it was naturally assumed by Association officials that if any prejudice existed, it would be corrected by lowering the estimated weight on the patented container. Under the Transportation Act of 1920, however, the Commission has the power to fix minimum as well as maximum rates and the power to order a carrier to remove a prejudice or discrimination by increasing the lower rate. The examiner in this case on a most incomplete record rendered his report directing the removal of the prejudice by increasing the estimated weight on ice cream shipments to 140 pounds. After considerable effort, even though the examiner's report had been rendered, we secured permission to intervent in this case, to file brief and to make oral argument. While it was our expectation that it would be necessary to have a rehearing and produce extensive evidence in various parts of the country, we were very fortunate in procuring a modification of the examiner's report from the Commission with the result that the express company was ordered not to increase the estimated weight on tub shipments above that at present obtaining and was also directed to establish an estimated weight on the dry container of 75 per cent of its gross actual weight. In this case, we therefore accomplished two very important results. First, the ice cream industry was saved from an increase in express rates of approximately 30 per cent; secondly, the principle was definitely established that a dry container was entitled to a 25 per cent reduction for refrigeration which, in the event a practical container is devised, will be a tremendous saving in transportation cost to the ice cream industry.

This brings the express situation down to date. There is an insistent demand throughout the country that the carriers should reduce their charges so that normal industrial conditions may be more quickly established. Although it may be inconsistent to demand it when under our regulatory system the carriers are limited to a small percentage of profit in times of prosperity, yet it has been felt that the carriers should bear a portion of the burden of the period of depression and that the reduction of rates would be both a sound business move on their part from the standpoint of revival of traffic and business but also a politic action from the standpoint of maintaining the good will of shippers. Up to very recently, the carriers have been bitterly hostile to any general reduction and the Interstate Commerce Commission has apparently viewed any such action with disfavor. President Harding, however, in conference with the Commission is reported to have indicated his feeling that rates should be reduced for the good of the country, and since the resignation of former Chairman Clark, and the new appointments, it is rumored the Commission looks with more favor upon rate reductions. It is the opinion among newspaper men in Washington rather closely in touch with the situation that the carriers, in response to the feelings of the administration, are



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about to make a reduction in freight rates. Every reason which argues for a reduction of freight rates applies to a reduction in express rates, particularly in those industries which are dependent almost solely upon express transportation for the distribution of their products. There are in fact added reasons for the reduction of express rates.

Labor costs have been substantially reduced. The express company was given a 13.5 per cent advance in rates in September of last year solely on the basis of the increase in labor costs resulting from the award of the Railroad Labor Board, in August, 1920, which granted an increase of 16c per hour, forcing an additional cost on the express company of $30,000,000. In the recent decision of the Board effective August 1, the wages of employees were reduced 6c per hour. This decision affects some 70,000 to 75,000 express workers. The present award is estimated to have reduced the labor costs of the express company approximately $8,000,000 a year. About 27 per cent of the pay increase which resulted in the 13.5 per cent rate increase has thus been eliminated by this decision which of itself would warrant a rate reduction of over 3½ per cent.

The loss and damage claims which in 1919 represented the inexcusable figure of over 7 per cent of the total express charges have also been tremendously reduced. For the month of June of this year, as contrasted with June, 1920, there was a reduction in number of claims from 163,790 to 57,193,—a decrease of 106,597 claims, or a 65 per cent decrease. The decrease for July, 1921, as contrasted with July, 1920, is 66.1 per cent. On the basis of the percentage of expense incurred for loss and damage for 1917, the last year on which figures are available, a 66 per cent reduction would justify a reduction in rates of nearly 5 per cent.

There is no doubt too that there has been a great decrease in the cost of equipment and supplies, such as automobiles and general office supplies, which have lowered the cost of operation of the company.

The company claims also that the railroads have greatly reduced the cost of operation by eliminating the operation of special trains for express matter. Two eastern roads are reported to have saved approximately $2,000,000 each by consolidating through express cars in regular schedule passenger trains. Such action, it is asserted, not only made more trains available for express service but also substantially curtailed operating costs. Again the capitalization upon which the company receives its 6 per cent return would warrant careful investigation. This amount was arbitrarily determined apparently as a matter of trade with the Director General and there never has been a valuation of express properties by the government. A minute examination of the elements entering into this capitalization might establish that the express company was getting a very handsome return. The community of interests if any with supply companies and other factors tending to increase costs of materials might also tend to show inflated costs.

The express company is in a vastly different position than it was a year ago. Then it was failing utterly to handle business offered. It is now reported that it can handle 30 per cent more business than it is doing without adding in the slightest to its present facilities and that its capacity for the handling of future business is almost unlimited. A year ago its losses were staggering. Now, the very depressed industrial conditions has been making money. For the last quarter of 1920 and the two quarters of 1921, it has declared dividends at the rate of 6 per cent. Under the cost plus contract under which it is operating, there is of course endless opportunity for the concealment of profits by their diversion into new equipment as well as their loss through extravagant operating expenses. However, its record since the rate increase is good. For the last six months of 1920, the total operating revenues of the company have increased over twenty and one-half million dollars. Its operating expenses have decreased over seven and one-half million dollars, and its net operating income has increased over twenty-eight million dollars. For the first six months of 1920 it had a deficit of $27,097,132, while for the same period of 1921, its operating income as already stated was $1,035,609. The latest figures which I have available which are for the months of April, May and June, already show total operating revenues to be running substantially in excess of those of 1920, operating expenses substantially lower and the operating income reaching a satisfactory basis instead of being deeply in the red as in 1920. For the month of June, the last month in which figures were available, the increase in operating revenues over the same month last year was over $894,000, the decrease in operating expenses was over $7,600,000 and the net operating income was $181,594, as contrasted with the deficit for the same month in 1920, $8,321,432. The operating income of the express company in one month as the result of the first express rate increase in August, 1920, jumped from a $7,948,170 deficit to $281,055, and this was in the face of the fact that a number of states have refused to increase their intrastate rates. There is no doubt that upon the present schedule of rates with any revival of business activity, and with reduced labor and material costs, the express company and the railroads will secure excessive and unreasonable returns.

Still another factor which might warrant a decrease in rates is the growing competition of motor trucks. If it could be shown that the present rate policy of the company is unwise, that it is diverting traffic from the express company to a dangerous degree, this too would justify reduction.

There is a very strong demand throughout the country for the repeal of the transportation taxes. There is a strong probability that the tax on freight will be abolished, and if this industry, with other industries affected by the express tax of 5 per cent acts vigorously in the matter it is not at all impossible they will secure the repeal of the tax. Although this tax was stricken from the bill by the house, it has been reinstated by the Senate finance committee.

To summarize the situation as it now faces the shipper by express there are these outstanding facts: First, there has been created through the action of the government in most of the territory of the United States, a complete monopoly of express transportation. It is a well known economic fact that the removal of the stimulus of competition tends to result in deteriorated service, increased costs and generally unsatisfactory conditions. It seems to be the impression, however, that the express company for the present at least is making sincere efforts to reduce its cost of operation and to furnish a more efficient service to the shipper. The company is extending the time limit for filing loss and damage claims to six months as soon as changes in the official express classification can be made. It is holding conferences among its officers throughout the United States for the purpose of standardizing the methods of maintenance and repair of motor service which is the most costly factor of express service; it has installed an efficient tractor and



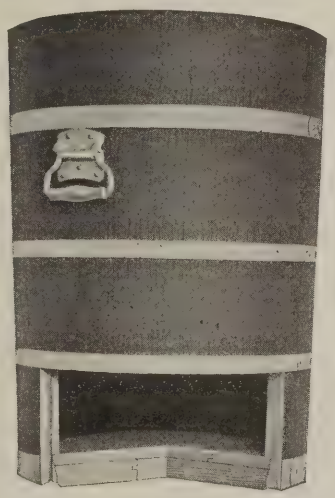
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Our Special Fall 1922 Delivery Proposition

The Stout Crate Co. Dept. R 373 BROADWAY **Milwaukee, Wis.**

trailer service in Chicago and Philadelphia for handling the large transfer traffic; it is holding meetings of employees throughout the country, training them to a better knowledge of tariffs, of methods of handling shipments and of dealing with patrons; it is testing out in different localities different forms of receipts to simplify the handling and checking of express packages; it has tremendously reduced loss and damage claims by the installation of proper checking system and there seems to be a feeling that the pick up and delivery service is improving. Whether or not these improvements are an earnest of the future or merely a re-action from the deplorable situation resulting at the close of the war, no one can say. A factor which may aid in securing for shippers the benefits of efficient service from the express company in the future is the competition of motor trucks and in some industries the competition of the parcel post.

The second important factor bearing upon the express situation is the existing form of contract with the carriers which has in it all the inherent danger of a cost plus contract in addition to being based upon a theoretical valuation which may be greatly inflated. while this contract does not necessarily have any relation to rates, the cost of service is a factor in the rate making and greatly inflated costs arising from a cost plus system unless they are most carefully scrutinized and analyzed by the Commission will result in forcing up or maintaining a higher level of rates.

Third, the industries of the country dependent upon express transportation are confronted with a very high level of rates, a level fixed by the Commission to meet conditions which have since been eliminated. The ice cream industry through the increase in rates and increase in estimated weights has been hindered with an increase of about 41 per cent within the past two years. There has been a substantial reduction in labor cost; there has been a great reduction in loss and damage claims; there has beyond doubt been a decrease in the cost of supplies and equipment, yet the express rate remains the same. This situation has always been particularly unfair to the ice cream industry by reason of the fact that the ice cream industry, supplied an insignificant amount of the loss and damage claims and by reason of the fact that the industry received very little pick-up and delivery service which in view of the short haul transportation on ice cream assessed on the industry a charge which represented a substantial percentage of the transportation cost, but for which no service was rendered.

Fourth: Express shippers are still confronted with the question as to whether or not any proper limitation can be made upon the type of commodities which shall move by express. It seems unfair that commodities which should naturally move by freight in periods when express facilities are inadequate should be permitted to utilize such facilities to the exclusion of shippers who have no other practical method of shipment. The express company apparently makes no limitation upon the type of commodity it will ship, having recently even shipped elephants by express.

It is our understanding that the bread and baking industry is considering the possibility of filing formal complaint before the Interstate Commerce Commission asking for reduction of express rates. If the members of this Association are seriously affected by the existing express rates, I have no doubt that it will be possible to secure the co-operation of a number of other industries who are affected in a similar way. With the general movement in this country toward the reduction of freight rates, with the recognition by the railroad executives that rates must be reduced in the interests of the public and in the interests of the railroads, there would seem to be no reason why the officials of the express company should not recognize the wisdom and the justice of similar action.



HOOSIER WILD CATS

President, EDWIN J. SMALL, Indianapolis, Indiana

Send all communications to H. A. STEVENS, Sec'y and Treas. 717 Railway Exchange, Chicago, Ill.

E. W. Razey, Indianapolis, Ind., a popular and well-known Wild Cat writes that he wasn't able to attend the National Dairy Show this year because he was so d—n busy down in his district trying to take care of business in sight. "Things are sure humming down here," he says and we are glad to hear it. We hope the "hum" isn't just the birds migrating south for the winter—but then we know that there is business to be got, Razey of the Wild Cats will get it.

* * *

Razey, a good friend of yours to whom we related your predicament calls you a —— he says you're mistaken. He said during the Dairy Show there won't be any business in sight in Indiana. Was he right?

* * *

Harry L. Wagner, a well known and well liked Wild Cat, who used to be located at 1442 Conway Bldg., Chicago, Ill., and was an able representative for The Pfaudler Co., Rochester, N. Y. has left their employ and regrets very much that he was not able to be at the Twin Cities in attendance at the "Big Tent".

He is now in the brokerage business at St. Louis, Mo., and is with his home folks. He sends his regards to all his dairy friends.

⚜

THE WYANDOTTE INDIANS WERE THERE.

The Wyandotte Indians were found to be strongly encamped in the heart of the "National" when the curtain of the big show went up. They carried out their old tradition and gathered together at the big pow-wow to meet old friends and to make new ones.

Everyone visiting their tepee found a friendly "Indian" to help him with his dairy cleaning problems, and no one went away feeling that the time was not well spent.

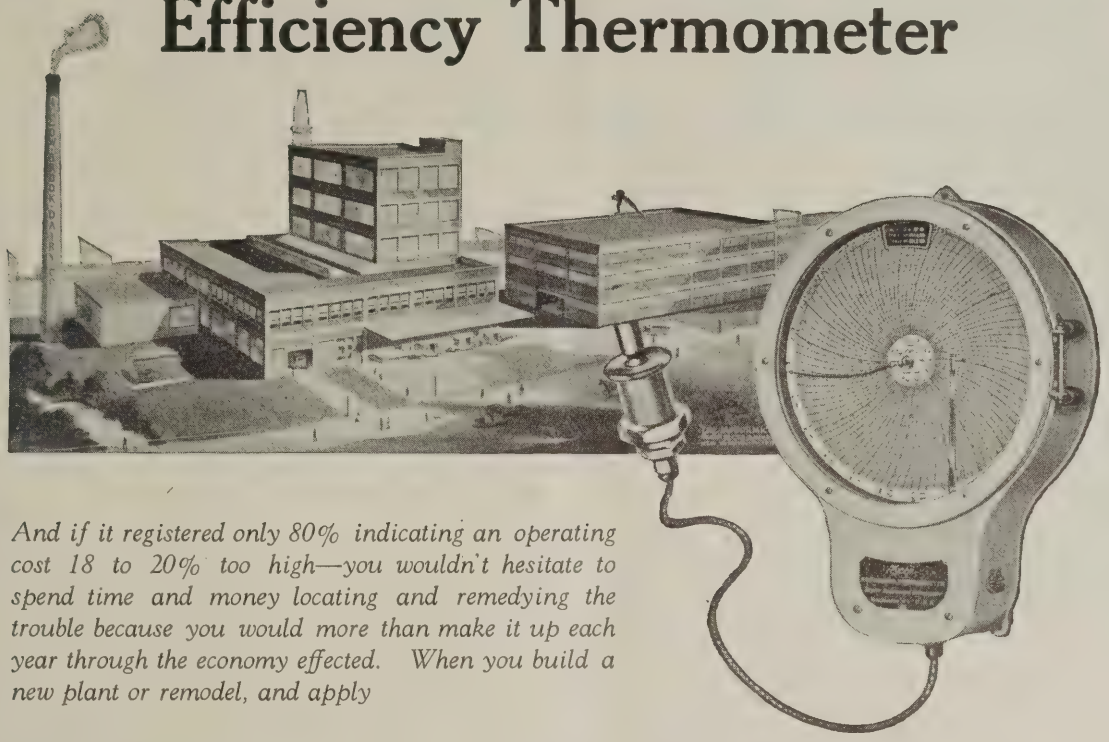
Just as in past, everyone who called at the Wyandotte wigwam was presented with a little token of friendship, and each person asked to use it as a reminder during the coming year to tell our friends and neighbors that we are going to the National Dairy Show in 1922.

Wyandotte Dairyman's Cleaner and Cleanser was represented by: J. J. Harris, Manager of Cleaner and Cleanser Dept.; C. B. Robinson, Assistant Manager of Cleaner and Cleanser Dept.; H. J. Willwerth, E. R. Hansen, H. W. McElroy, C. S. J. Gray, C. L. Lambert, N. D. Gordon, W. G. Farrish, C. C. Lowitz and Chief Little Bear.

⚜

Hand-painted china is a pretty feature of housekeeping, but hand-mended stockings will produce more happiness in the family.

If Your Plant Were Attached to an Efficiency Thermometer



And if it registered only 80% indicating an operating cost 18 to 20% too high—you wouldn't hesitate to spend time and money locating and remedying the trouble because you would more than make it up each year through the economy effected. When you build a new plant or remodel, and apply

McCormick ARCHITECTURAL AND ENGINEERING *Service*

you are taking the maximum precaution against building deficiencies into your plant which are bound to run operating costs up and hold production volume down.

It is a highly-developed and skilfully applied service which concentrates intensively upon your own peculiar conditions and problems and leaves nothing to speculation or chance.

Our long experience of successfully solving ice cream and dairy plant problems is an important element of McCormick Service which should be considered. It is a well known fact that efficiency in McCORMICK SERVICE plants registers high and that the cost of the service is more than made up each year by the numerous construction and operative economies effected by its application.

It may be to your advantage to confer with us before going ahead with your work. There's no obligation whatever in discussing your problems with us, either by mail or personal conference.

The McCormick Company, Inc.

PITTSBURGH
Century Building

Architects and Engineers for the Dairy and Ice Cream Industry

NEW YORK CITY
41 Park Row

Construction Executed by Your Own Contractor Under the Direction of Our Visiting Superintendents

Packaged Ice Cream

By C. E. ROGERS, Detroit, Mich., before National Association of Ice Cream Manufacturers, Minneapolis.

We have seen many ice cream wagons this summer carrying the slogan "Science — Service — Sanitation." Unquestionably every one of you believe in these three cardinal principles of handling food products, whether you advertise it in this form or not. This very slogan, "Science — Service — Sanitation" seems almost synonymous with "Packaged Ice Cream."



C. E. ROGERS

Science, as applied to the manufacture of food products means better products at a cost that makes service and sanitation possible. Service is the ability to place your product within ready access of the greatest number of people. Sanitation is your guarantee of the cleanest possible food and is just as important as your service and the result obtained from your sciences. Just why any one would wish to purchase bulk ice cream after once having used the cleanly and neat package that brick cream comes in, is beyond my comprehension.

I know that the American people, in fact all peoples, are creatures of habit, and once their minds are grooved along certain lines, it is pretty hard to pull their thoughts out of the rut. Therefore, the only excuse that I can find for bulk ice cream is the fact that people become accustomed to buying it before the brick was available for them, and have still continued doing so through the force of habit.

And now, may I pass from the customer to the dealer for a moment or two?

It is quite evident to me that the retail dealer who sells only bulk ice cream is either lacking good sense, or does not make use of what gray matter he is endowed with. Why a dealer will serve bulk cream to his trade instead of the brick package, when he positively knows of the shrinkage in bulk ice cream, and the waste in serving it, is also very hard to understand.

And while taking a "fall" out of the customer and the dealer, I might just as well at this time make a "three-base-hit" by landing on the manufacturer. He, it is, who in the past has discouraged the use of the brick and encouraged the use of the bulk, because he assumed that there was more profit in the one than in the other, and for the further reason that it was an easier handled product, and because possibly the brick entailed a little more of an organization, a little more investment, a little more trouble. That he was continually stepping on his own feet never seemed to strike him for a moment, for with the exception here and there, the average manufacturer has failed to realize the relationship between a brick package served to the customer neatly and cleanly, a pail of bulk cream, and increased sales.

Were we to stand here and say to you that crackers or macaroni were as valuable food products as ice cream—that they were as generally used by small children and invalids—every one of you would disagree with us, and rightly. We don't believe they are, and neither do you. Yet I cannot help but compare the present bulk ice cream cabinet with the old-fashioned cracker barrel. You reach below the counter, remove the lid, and scoop out what you want. You do that to-day with ice cream. They do it in thousands of stores—but just endeavor to buy a bag of crackers—you can't do it—not because the boards of health forbid it, but because the manufacturers themselves make it impossible. They force the public to buy a sanitary package. The public protested in the beginning—but they like it now—and so they will with ice cream. We do not need to stick to the cracker barrel alone to illustrate this point. What has become of the loose pickles, loose olives, unwrapped bread — in fact, unpackaged food stuffs of all kinds—to all practical purposes they are gone. This is an age of neatness, cleanliness, healthfulness, simplicity of operation—in fact, this is a "Packaged Age."

And what is true of all of the food stuffs mentioned is true of ice cream. The day of bulk ice cream for the consumer to take to his home, is past, and in its place has come that cleanly, wholesome looking, attractive, neat, quickly handled package—THE BRICK ICE CREAM.

The pioneer work in educating the public to purchase packaged merchandise has been done for you. You will reap a rich reward, indirectly the result of publicity work done by other food product manufacturers. The public are educated to purchase packaged merchandise. It is almost a habit with them. Even the pickle barrel is passing on—it may still be in the cellar but we doubt if it is filled with pickles.

Your industry is particularly fortunate. The packaging of most other food products has meant a material increase in the cost to the consumer. Yet, you can now put packaged ice cream in the hands of the consumer without raising the price to the consumer, and allow the dealer a larger, safer, surer profit—a pre-determined profit—that he cannot get on bulk ice cream.

We learned from several reliable sources that the dealer can dip from fifteen to seventeen quarts from a twenty quart packer. One dealer in our neighborhood said thirteen, but that seems too low. The sales manager of one of the largest factories stated that he believed an average of sixteen quarts would be fair. This gentleman stated they were charging the dealer $1.26 per gallon for vanilla cream in bulk. They were charging $1.35 per hundred quart pails. The dealer retailed this cream at 50c per quart. The dealer bought 20 quarts but he only sold sixteen. He received $8 gross for a product that cost him $6.25. He had a charge of 23c for pails, if he dispensed all quarts, or a gross profit of less than 25 per cent, and you know that he didn't make a legitimate net profit, and I believe many of you, in fact most of you, will agree that he didn't.

The dealer is gradually coming to realize these facts. Most of you have some dealers at least that practically refuse to dispense bulk ice cream. The secretary of one of the largest plants in this country told me a few weeks ago that all of their dealers were losing money on the bulk ice cream they dispensed for home consumption. Gentlemen, this condition is

200 Manufacturers For Cleaner, Purer, Better Ice Cream!

Approximately 200 ice cream manufacturers of the United States and Canada are pledged to make cleaner, better, purer ice cream.

They are heeding the United States Department of Agriculture admonition that air is a disastrous ingredient. So, they are making their ice cream without air.

A chain is only as strong as its weakest link. A manufactured food product is only as pure as its least pure ingredient.

Air is loaded with dirt, dust and germs. Whip filthy air into your 100% pure mix and you do **not** purify the air, but you **do** contaminate the mix.

It was an epidemic caused by infected ice cream that started Prof. W. P. Heath experimenting to find a way to make ice cream without air. That epidemic was fatal to two and nearly so to one hundred others. Yet, the plant where this happened was one of the cleanest, finest, most modern ice cream factories in the world. But it happened, just the same.

The advantage in making ice cream the HEATH-WAY is not alone a question of improved flavor — although that counts. It is not alone a question of greater advertising value — although that helps. It is not alone a question of finer texture and better standing up quality — although they count. It is primarily a question of WHETHER OR NOT YOU WANT TO CONTINUE MAKING ICE CREAM WITH AIR THAT IS NEVER CLEAN AND OFTEN DANGEROUSLY IMPURE.

You owe it to yourself to protect your product. You owe it to your dealers to protect their product. You owe it to the people who eat your ice cream to protect them — all of them — from this lurking danger which exists in the air you are whipping into your freezers.

TWO HUNDRED progressive manufacturers have seen the light. Surely you also want the latest that science offers.

Then get in touch with us. You have much to learn about Heathmade Ice Cream. Let us tell you about our method. It does not require any change in your present methods of manufacture or mix. Write to us NOW.

Heathmade Carbonated Products Co.

Sole Licensors of Heath Patents for Making Heathmade Carbonated Ice Cream

618 Wrigley Building
400 North Michigan Boulevard
CHICAGO

CANADIAN OFFICE
Carbonated Products, Ltd.
510 McKinnon Bldg. Toronto, Can.

wrong. When the handling of any product ceases to be of profit to the dealer it is human nature that he should not dispense more of that product than is absolutely essential, and that he should turn his attention to the sale of products that leaves him a profit. The dealer is your direct sales representative. He is the one who comes in direct contact with the ultimate consumer. He can help your sales, but you have got to make it possible for him to receive some reward for his efforts. The best of advertising is of little value without the dealer's co-operation.

One of, if not the **most** important phases of your manufacture of ice cream is the overrun or yield. Most of you, at least, hope to average 100 per cent. You sell this yield to the dealer, and it is only fair that you should make it possible for him to dispose of it **over** the counter—not crush it out back of the counter packing it into a pail.

The theoretical cost of that pail to the dealer is $1.35 per hundred pails. The actual cost is nearer $8 per hundred, for he loses the difference in volume bought and volume sold.

You all know that the quart boxes for ice cream will cost materially less than the dealer pays for pails. In fact, the mechanical packaging of ice cream should bring the cost of both package and factory labor to a figure that mould scarcely exceed $1.35 per hundred quart boxes. The dealer buys the empty pails from you now. Wouldn't he rather buy the filled box? Does he get any particular joy from packing ice cream in a pail with a dozen people waiting impatiently to be served at the fountain? Go to a soda fountain and buy a quart of ice cream. Did any of you ever take your watch in your hand and time the dispenser? The average, at four different stores we tried, was just over three minutes per quart—nearly an hour's labor to dispense a 20-quart packer of ice cream.

The argument was advanced us a few days ago that brick ice cream requires more ice and salt. This may or may not be correct—we are not prepared to say. If you undertake to handle your bricks in the same round cans that you use for your bulk ice cream you will undoubtedly use more ice and salt. You cannot pack to exceed three gallons of quart bricks in a five gallon packer. You couldn't freeze more than 40 quarts of ice cream in a freezer in the early days of the industry, but you have changed your freezers, and so you can change your cabinets. A 20-quart packer, to comply with the law, must have a cubical content of 1155 inches. A standard square cave, as used in our city, for bricks, has a cubical content of 1800 inches. This cave will hold 24 quarts of brick cream, or 300 cubic inches to the gallon of brick ice cream. Theoretically your 20-quart packer will hold five gallons, and it will, that is, you can put five gallons into it, but the dealer can only take out four gallons. From a dealer's standpoint, and from your standpoint, this packer cannot be construed to contain more than the dealer gets out of it. The dealer sells so many packages of ice cream, whether he sells it in bulk or whether he sells it in bricks, and if you consider these facts your 20-quart packer is really requiring 289 cubic inches of space to the gallon, and the brick is requiring 300 cubic inches. There is a difference, but the difference is so slight that the additional space required for cabinet room will amount to nothing. Your wagons can carry just as much brick cream in the same space that they do the bulk, for the square caves will pack closer together on the wagon.

Many of you unquestionably believe that the packaging of your ice cream will cut down your volume. This probably is true. You can sell your packaged ice cream to the dealer at a price that will net you considerably more profit per gallon than your bulk ice cream. Your dealer can dispose of this at the same price he is now dispensing his bulk ice cream and show a much larger profit. This will put pep in the dealer, and putting pep in the sales makes them increase. The dealer can figure his profits every day with accuracy, and not have to wait until the end of the season when he gets his rebate check to get his profit. We do not believe any of you are so anxious to increase your volume that you are willing to sacrifice your profits to do it. A reduced volume at more profit per gallon would probably be thoroughly acceptable to most of you. Right in the hot season, with the supply of raw material short, your men, machinery and teams working at their highest pitch, it would seem to us that this saving of a 20 per cent in volume is worthy of your consideration. If we could come to you and guarantee that during the peak of your load we would save you 20 per cent of your energy in shipping, in aging, mixing, homogenizing, freezing, hardening and delivering your ice cream requirements, without reducing your net profits, we believe you would welcome our intrusion.

Of course, I realize that in this audience, like in every other audience, there is the type of man who says, "We cannot do it in our locality, they won't stand for it," or the other fellow who starts to groan about the extra cost of putting up the brick—there are some who will even say that the customer does not want it—that he prefers bulk. They are of the same kind as they who laughed at the railroad train, poohpoohed the automobile, called the telephone a joke, said Marconi and his wireless was the imagination of a crazy man.

We have always had the hang-backer with us, and we always will have him. He belongs to the past age, the present, and the future, and I believe in him, because it is essential that we have him in our midst so that we can realize that the rest of you are of the kind that "Go Forward".

Every one of you sell far more vanilla ice cream than any other. Probably next in volume of sales would come chocolate. We believe that one of the main reasons, and probably the principal reason that the public today buys bulk ice cream is that heretofore it has been impossible for them to buy anything in brick form but a fancy ice cream. The Neapolitan Brick was most generally sold because you made more of it. A great many people do not like the Neapolitan brick. A great percentage of the public prefer the vanilla or the chocolate ice cream. Some few manufacturers during the past year or two have been putting out a packaged vanilla ice cream and a packaged chocolate ice cream. Where this has been done the product has sold readily, and the volume of business in that line has steadily increased. Heretofore, if a customer wanted a quart of vanilla or of chocolate ice cream he had no other means of securing it than buying the bulk product. There is no doubt in the world that if you furnished the dealer with packaged vanilla and chocolate ice cream the sales of these products would materially increase. The principal reason that these products have not moved more readily is that you have not furnished the dealer the packaged ice cream to sell. There have been thousands of dollars spent to advertise the slogan "Take Home a Brick". When the customer went to buy that brick he was forced to accept a fancy brick. If he could have known that the slogan "Take Home a Brick" meant a brick of vanilla or a brick of chocolate, as well as a brick of fancy ice cream, his inclination to take it home

The taste tells the tale

Impruv-Mix Has Stood the Test

Introduced in the fall of 1916, it is constantly growing in favor.

IMPRUV-MIX blends the incited cream flavor with every added flavor and removes all taste of milk powder, butter or condensed milk.

The delicious cream flavor, thus produced has increased sales for every user of this Ice Cream Improver.

"The Taste Tells the Tale"

Write us for further details and our booklet "Quality Guide."

THE IMPRUV-MIX COMPANY

403 W. 24th Street NEW YORK

would have been increased. We want to say to you—put your solid colors in brick form. Get the most benefit from your advertising. When you put in the dealers hands nothing but fancy ice cream you are only reaping part of the benefits that are possible to accrue from the advertising you do.

It is no more labor today to put your ice cream into brick form than it is to bottle your milk. The Brick Filler and its economy of operation is one more element that seals the fate of bulk ice cream. It will behoove you men engaged in this business to get your ear to the ground and listen attentively to what the consumer is thinking of—he speaks a language that most of us can understand, providing our voice of protest is not so loud that it makes it impossible to hear.

Mr. Manufacturer, I am neither a prophet, a seventh son, nor a son of a prophet, but I stand here as one who has been a close student of milk products and the ice cream business over a period of years—one whose perspective has not been blinded by the nearness to the industry—to say to you that the sales of brick ice cream within the next year or two will surpass in every way the sales of bulk ice cream, and further, that before long the sale of bulk ice cream will be prohibited in practically every state in the Union.

The old method of brick manufacture left a difference in the texture of that brick compared to the bulk. The mechanical packaging has eliminated this difference in texture, and how any right thinking person can say that they would prefer a pail of ice cream, dipped out back of the counter, to a neat, clean, sanitary package that is packed in the factory under absolutely sanitary conditions, is a mystery. We do not believe that this habit of buying bulk ice cream is going to last. Packaged ice cream can and will be sold—it just depends upon the effort you put into it.

We have before us a statement from one of the large Eastern manufacturers that during the past five years 27 per cent of their total sales have been brick ice cream. We have a statement of one of the largest manufacturers in the Middle West, that during the past two years the percentage of brick as related to total sales was 7½ per cent. One organization pushed the sale of brick ice cream—the other didn't.

The factory packaged ice cream enables you to put your product into the hands of the consumer just as you would like to have it reach them. The package of ice cream goes to the consumer in the shape in which it left your plant. With the bulk ice cream you do not know what kind of handling it gets after it leaves your wagon. Then again your dealer may get short—it has been known to happen—he will send out to some manufacturer and get a packer of ice cream because he can get it quickly. You had your sign in front of that store, and the man that bought that ice cream thought he had your ice cream. If there was anything wrong with it you got the blame. If there is dust in his ice cream pail when the dealer fills it **you** are making a dirty ice cream. If there happens to be chocolate on the spoon with which the dealer fills the pail of vanilla there is a peculiar looking substance in the vanilla ice cream. You would know it was a streak of chocolate, and the consumer would probably assume that it was, but it breeds an element of doubt in the consumer's mind as to just how careful you are in your manufacturing methods. The boards of health in every village and city in this country require the pasteurization of milk. Every one of you pasteurize your ice cream mix carefully and accurately. But these same boards of health require that all milk going to the home must be in bottles. There isn't one of you that could be persuaded to take your own pail to a store and purchase a quart

of milk dipped out of a can, and yet every one of you will contend that your wife would have her bucket just as clean as the bucket in which the dealer would dispense your ice cream. Milk today is a packaged product. There isn't one of you that would advance an argument that the per capita sale of milk today is not as great, and even far greater, than it was in the olden days of the can, dipper and pail combination.

Every one of you pride yourselves upon the sanitary condition of your plants—everything in them is kept scrupulously clean—you use nothing but the purest ingredients in your product—you watch it carefully from the time the milk leaves the cow until it gets into the dealer's hands, and there the supervision of it ceases with your bulk ice cream. You have not kept full faith with the public unless you protect that cream until it reaches the home. This condition is just like a man changing a tire, and finding that after he gets his spare tire all in place, and let the jack down, that there is no air in the spare tire. He has all the trouble of changing the tire and gained but little from it. This same condition is true of the bulk ice cream—you take good care of it up to the point just preceding its delivery to the consumer, and there your supervision ceases.

We believe that the days of bulk ice cream for home consumption are practically over. We believe that the time is not far distant when the boards of health of the larger cities will require the delivery of packaged ice cream for home consumption. This is probably no wilder dream than it would have seemed had this same prediction been made regarding bottled milk ten years ago.

The conversion of ice cream pail to the ice cream brick may take some time and some effort. We believe the housewife in serving her guests would much prefer to cut neat, clean slices from an ice cream brick and place it upon a plate, to dipping the ice cream from a pail and putting it in a saucer. Every one of you have men in your plant that will cut five, six, seven or eight slices to a quart with almost machine-like accuracy. The housewife can and will acquire this same skill. The brick ice cream will enable her to serve more easily, more accurately, and with far less slop than with the pail. All of you rather like to have your ice cream served at your table in the brick, and sliced at the table, the same as you slice your roast, but can any of you imagine setting a pail of ice cream on the table?

Packaged ice cream may temporarily reduce your gallonage, but it will increase your profit per gallon on the volume remaining. It will go to the consumer in the same cleanly condition that it left your plant. It will carry your name into the home. It will cease to be a sale of ice cream—it will be a quart of your product—not just ice cream. It will save you time. It will give the dealer an accurate basis on which to anticipate his profits. It will save the customer time in making his purchase. And all in all it should, and will, work to the end of making a more harmonious transaction for manufacturer, dealer and consumer.



CUBAN CROP LIMITATIONS MAY REACT ON SUGAR PRICES

Havana.—As time progresses, and it becomes increasingly clear that a considerable proportion of Cuba's sugar crop will remain unmarketed at the end of the year, the question of the policy to be adopted in relation to the coming crop assumes growing importance.

Continued Control Opposed

Expressions of opinion in relation to the continuance of the Sugar Finance Committee or some other central organization in control of the next crop indicate that sentiment generally is opposed to this course. While it is admitted that appointment of the present committee prevented the complete demoralization of the market, there is also a feeling that the operations of the committee have not resulted in the sale of as large a proportion of the crop as might have been disposed of without control. Some of the producers take the position that they would have preferred to sell their sugar for any price that could have been obtained in order to clean up the situation, although they admit that this would have involved the complete ruin of many companies.

Irrespective of differences of opinion as to the wisdom of centralized control, it is recognized that it would be disastrous to end the authority of the Sugar Finance Committee at the present time, or until some definite plan is worked out for the disposal of whatever portion of the past season's production may remain on hand when the new campaign starts. It will be obviously impracticable for the committee to continue the sale of old crop sugars after the new crop begins to come on the market. The treatment of such old crop sugars remaining unsold at the beginning of the next season is one of the important questions that remains to be decided.

Government Purchase Plan Dropped.

Less is being heard than formerly of the proposal that the government purchase the unsold balance of the past crop by means of a loan to be floated in the United States. One reason for this probably is that the internal loan recently authorized by Congress is not moving rapidly and is finding few purchasers at the current price of 60. This is a six per cent loan and was originally offered at 63. Another possible factor is that advices from the Cuban mission now in Washington indicate an apparent reluctance on the part of the Department of State of the United States to authorize the proposed external loan until the expenses of the Cuban government have been cut down further, a step which is advocated by President Zayas but which the Cuban Congress seems reluctant to take.

A plan that has been more generally discussed of late is that of postponing as far as possible the beginning of the next grinding campaign. It is argued that if the commencement of grinding can be delayed until January 15, February 1, or February 15, it will be possible to sell the greater part of the old crop, releasing the funds tied up in these sugars and making them available for the financing of further operations. It is pointed out also that it will have the effect of restricting the output from the 1921-22 campaign and will make it possible to produce the sugar at a lower average cost.

The suggestion has been advanced that the opening of the campaign be deferred and the output restricted by placing a tax of at least two cents a pound on all sugar produced before and after certain specified dates. Such a tax applying, for instance, to sugar produced before February 1 and after May 20 would be prohibitive and would limit actual grinding to the intervening period. It is figured that this would permit the making of a crop of not more than 3,000,000 tons, which would be produced under the most favorable conditions and at a lower cost than if the campaign extended over a longer period.

CARAMALA DISTINCTLY INDIVIDUAL

CARAMALA, the favor compelling flavor, is now, most universally used. Since its first appearance on the market **CARAMALA** has enjoyed a distinct, individual favor by both the ice cream maker and the consuming public

IT IS A TRADE STIMULATOR

CARAMALA Ice Cream is always in season. It produces a smooth, rich, firm cream with a peculiar pleasing flavor that the consuming public likes. "Give me Caramala Ice Cream," is the universal demand and is evidence of the fact, that once Caramala Ice Cream is eaten, "they call for it again."



LET US PROVE ITS MERITS

Send in your trial order, and if any Caramala claim we make is not sustained by your Caramala experience, simply return us the shipment within 30 days at our expense.

Caramala Signs like these furnished. They help increase your business.

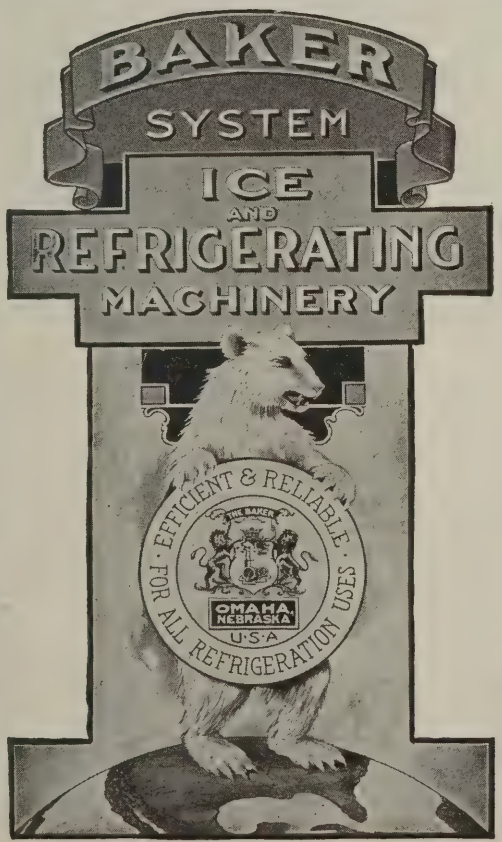


Reg. U. S. Pat. Off.

REX EXTRACT CO.

MANUFACTURERS

257 Pacific Street, Brooklyn, New York City



Improve Your Facilities

The installation of a **BAKER SPECIAL** Mechanical Refrigeration System would be the most important improvement you could make.

You would save the jobbers' profits if you buy a BAKER SYSTEM—We sell direct from the factory, and through our factory branch offices; hence, when you buy a **BAKER SYSTEM** you save the money that would go to the middlemen if you bought some other make of refrigeration equipment.

WRITE TO OUR ENGINEERING DEP'T

and get Free Bulletin No. 65 D

Baker Ice Machine Co., Inc.

Factory: OMAHA, NEBRASKA

(Direct Factory Branch, 214 Lumber Exchange Bldg., Minneapolis, Minn., C. W. Williams, Mgr.)

A Big Modern Ice Cream Factory

A Story of a Business Success of Absorbing Interest to the Man with a Vision

ASK the native of Stony Gulch, Arizona, or Genteelville Massachusetts, what Milwaukee is famous for and he will mention a business which got a baw slap on the wrist when congressman Volstead got his name in the papers, "first page, double column head".

Ask the citizen of Milwaukee, or any other city who knows the leading industries of the "Cream City" and he will mention other things for which it is famous.



Ask the man who is familiar with the ice cream business the country over and he will promptly tell you that Milwaukee is noted for its many fine ice cream factories, the superior quality of their product and the comparatively low price at which it is sold.

Among several fine, modern ice cream plants in the city is the one owned and operated by Mansfield's Ice Cream Company, 4th and Poplar streets, cut of which appears on this page. A Review reporter enjoyed a visit to this splendid plant one day lately and is indebted to Mr. Geo. D. Mansfield, president, and Mr. Arthur H. Graeszel, secretary, for the many courtesies extended. To go through this fine plant "from cellar to garret" and listen to Mr. Mansfield describe the different apparatuses for conserving labor and insuring a high quality product is a liberal education in itself.

Mr. Mansfield's story is far more than a recital of statistics concerning the operation of the plant. It embodies a human interest element which is absorbing to the man who enjoys learning about a business success. Mr. Mansfield's apparent chief interest in life centers about his organization and the wonderful development of the business in which he has been a prominent figure for over 30 years.

His father, Geo. C. Mansfield, was one of the early pioneers in Wisconsin dairying, having operated creameries and cheese factories for many years with headquarters at Johnson Creek, and enjoyed the distinction of having operated the first power cream separator in Wisconsin. It was a Danish Weston, one thousand pounds capacity. To quote Mr. Mansfield's words, "Brother Fred and I decided that the coming of the hand separator doomed our cheese business in that section and we decided to spread out in the butter and ice cream business. We came to Milwaukee and rented a cheap place in the basement of the Milwaukee Cold Storage Company's plant. We had just room enough for a churn and an ice cream freezer. This was in 1903. Two years later we moved to 4th and Prairie streets where we rented larger quarters. We thought that our business was pretty well provided for, but its unexpected growth soon forced us to look for more space. We purchased a lot 100 x 150 feet at the corner of 4th and Poplar streets, where our present business is located. We started building in the fall of 1907 and moved in the next spring. The original building was 64 x 150 feet. In 1919 we purchased additional ground and built an addition to the plant which makes the entire building 150 x 150 feet, four

Is your package easy to remember?

"Putting the name across" is never an easy job. People do not make it a point to remember your name when they see it. But if the package is so designed that it will arrest their attention, if it is striking—"different"—they will begin to remember it after seeing it the second or third time. And they will associate your name with your product.

Then, too, your package must deliver its contents in good condition. And only a house that has learned, through long experience how to build the best boxes can do both jobs well.

We have designed and made boxes for exacting organizations in every branch of business. For more than 20 years we have been improving the packing methods of business houses thruout the country.

Our service department will be glad to send samples and quote prices.

The Peerless Paper Box Mfg. Co.
1137 West 6th Street : Cleveland, Ohio

Any kind of folding box for every kind of business



Will Not Freeze Out *No Alcohol*

Vanilla Exquinta

TRADE-MARK

FINER, STRONGER AND BETTER THAN VANILLA EXTRACT

Economical *Pure*

Write today for prices and particulars

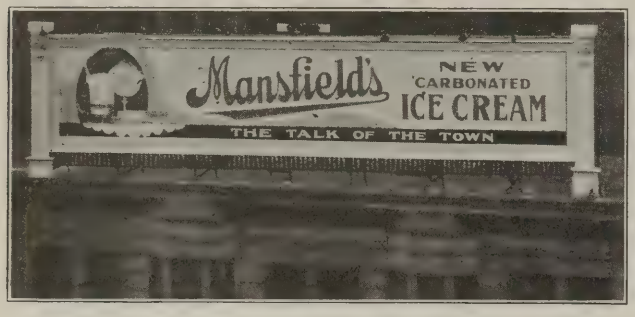
CROWN FRUIT & EXTRACT CO., Inc.

418-420 WEST BROADWAY
New York City, N. Y.

stories high and basement. The rest you can see for yourself."

A visit through this modern ice cream factory impresses one with the fact that nothing has been left undone to make it practical, at the same time it is a model of sanitation.

It's equipment includes the very best of everything and no expense has been spared to give service to the trade. One also gains the impression that in building the first section of the plant that Mr. Mansfield



Billboard Advertising That Gets Results.

must have had a clear conception of what the business would require a few years later, because the arrangement of the completed plant could not be improved upon.

The two upper floors are used for storing supplies and extra equipment. The second floor is given over to the mixing room, laboratory, ice tank, and general offices. The main floor is occupied by the freezing rooms, hardening rooms and for shipping and brick cutting.

A 100 ton ice tank supplies the necessary ice and 1,000 tons surplus can be carried at one time.

It is not our purpose to explain in detail the many interesting features of this plant. It is rather our wish to emphasize some of the conveniences that are employed. For instance, it is possible to load 16 autos at one time for city deliveries. Crushed ice and salt are carried by endless chains to overhead spouts. The city business is handled from a loading platform 120 feet long and is kept entirely separated from the country shipping business. This elaborate loading platform fronts a space 50 x 150 feet, without a post, which is in reality a big garage. The delivery men back their machines up to the loading platform after making the day's deliveries. If any repairs are needed this fact is reported to the superintendent and the repairs are made by two expert mechanics employed expressly for that purpose. In the "wee sma' hours" the autos are loaded and the delivery man finds his outfit all ready to go when he takes charge in the morning. This obviates the necessity of a detached garage and the loss of time incident thereto.

Over 20,000 gallons of ice cream can be handled in the hardening rooms and space is available for additional capacity when needed. A battery of seven continuous freezers makes up an imposing sight in the freezing room and three more are contemplated before warm weather arrives another season.

Each machine is equipped for making carbonated ice cream, and exclusive local feature of Mansfield's business. An extensive advertising campaign has recently been put on in the city in which a unique voting contest played an important part.

Consumers were invited to guess the three flavors employed in making "The Mystery Brick", each winner to receive a year's supply of ice cream—a brick each Sunday—absolutely free. "The Mystery Brick" was put out as a Sunday special for just one Sunday and over 100,000 guesses were sent in. Sixty-three winners were announced. "The Mystery Brick" contained the three following flavors—vanilla, nougat and mix-fruit. Replies came from Milwaukee and all the adjoining towns and cities and a very pleasing number of new dealers have been added to the company's list of customers.

Billboards advertising was used to back up the newspaper advertising and a large number of painted boards, similar to the one displayed in the accompanying cut, appear at vantage points throughout the city. This same design appears on every ice cream delivery auto used by the company.

The success of Mansfield's Ice Cream Company should serve as an inspiration to every ice cream manufacturer who has a vision of a larger business and hopes to some day make his dreams come true. Quality and service will make them come true, just as they have for Mansfield.



MICHIGAN CONVENTION.

The place and time of the Annual Convention and Dairy Show of the Michigan Allied Dairy Association will be Saginaw, February 14-17, both inclusive, according to action taken at the meeting of the Association's Convention and Show Committee which met in Lansing recently and consisting of Messrs. H. D. Wendt, chairman, M. L. Noon, R. F. Frary, C. J. W. Smith, R. J. Ellwanger, D. W. Shiel.

The convention and show, based upon plans which are now being developed by the Committee, will without question be the largest and most extensive of its kind ever produced in Michigan. There will be a complete line of commercial exhibits of dairy machinery, supplies and appliances of all kinds. Educational exhibits by the Michigan Agricultural College and the State Department of Agriculture will be featured. A dairy campaign in Saginaw to run for a week or more and ending with the convention and show is contemplated. In this, such agencies as the farm bureau, the schools, Saginaw Board of Trade, etc., will be co-operating, the purpose of which is to bring about a more complete appreciation of the value and essential features of milk and milk products.

The Saginaw Municipal Auditorium has been made available for the use of the Association by the Saginaw Board of Trade and is a building ideally suited for the purpose in question. The following sub-committees who will work with Mr. Wendt, who will be the Convention and Show manager, are as follows: Program—M. L. Noon, Jackson. Floor—C. J. W. Smith, Detroit. Finance—R. J. Ellwanger, Grand Rapids. Publicity—R. F. Frary, Lapeer. Reception and Banquet—D. W. Shiel, Hillsdale.



A Traffic Rule

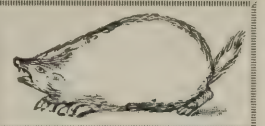
"Why do you turn out for every road hog that comes along?" said the missus, rather crossly. "The right of way is ours, isn't it?"

"Oh, undoubtedly!" answered he, calmly. "As for our turning out, the reason is plainly suggested in this epitaph recently used:

"Here lies the body of William Jay.
Who died maintaining his right of way;
He was right, dead right, as he sped along,
But he's just as dead as if he'd been wrong."

BADGER FLYERS

Send communications to O. E. HARWOOD Secretary - Treasurer 300 W. Austin Ave. Chicago, Ill.



We were looking for a letter from J. G. Hammerschlag, who is the very capable district manager for the Westerlin & Campbell Co. who are the western representatives for the York Manufacturing Company, with some news from his part of the country and he says that because his diamond studded eversharp was in pawn was no reason why he couldn't write as he always managed to keep an ordinary lead pencil on hand, so he says he is glad to tell us that, as usual the York Manufacturing Company had a fine exhibit at the Dairy Show (as if we didn't know that they did have a peach) and the exhibit was in charge of the Westerlin & Campbell Company.

There was a running exhibit of machinery which was worth while seeing and the boys were given a hearty welcome, old and new friends, at their booth.

Mr. Hammerschlag says "In honor of Volstead and his native state the reception was, unfortunately, dry". We doubt it though, very much, for we never saw a very dry party pulled off by any of the Badger Flyers.

* * *

We heard that little poem about the:

"We'll build a little still,
On the side of the hill,
Anl let the rest of the world go dry."

but we never heard one like M. E. Thompson, a Badger Flyer, sent in:

"Ten thousand Jews,
Are selling booze,
Without the state's permission;
To supply the needs
Of a million Swedes
Who wanted prohibition."

and he signed it—"A Swede Himself."

What's bothering us is just how much of that percentage brother Thompson has bought for consuming purposes. It we ever bump into him at any of these coming conventions, we are going to rub mighty close to his hip and be a good friend of his'n. Anyway, you have to concede that James Whitcomb Riley has nothing on Thompson. The Creamery Package Company of Chicago, Ill., is the lucky company to have this poet of renoun on their force.

⚜

THEM'S MY SENTIMENTS 'XACTLY.

"I would as soon think of doing business without clerks as without advertising."—John Wanamaker.

* * *

"There is not a business that correct advertising cannot make better."—Arthur Brisbane.

* * *

"Success depends upon a liberal patronage of printing offices."—J. J. Astor.

* * *

"Frequent and constant advertising brought me all I own."—A. T. Stewart.

* * *

"The road to fortune is through printer's ink."—P. T. Barnum.

* * *

"My success is owing to liberality in advertising."—Robert Bonner.

RE-TINNING MILK AND ICE CREAM CANS

A SPECIALTY

MAKE YOUR CAN SANITARY

Now is the time to have your old cans retinned, all double coated, so do not throw your old cans away, sent us a sample so we can show you what we can do to it.

SANITARY TINNING & MFG. CO.

3757 E. 93rd St., CLEVELAND, O.

SODA MENUS

Ice Cream Manufacturers—Use Them to Advertise

OUR menus are popular among ice cream manufacturers who give them to druggists and confectioners with the manufacturer's trade-mark or advertising slogan printed on them. This is a sure and inexpensive means of advertising the ice cream manufacturer as the menus come to the attention of the customers of the retailer.

These menus are **especially** for the Soda Fountain. They are not hotel menus nor restaurant menus, but are printed and embossed in colors on the highest grade of stock and reproduced from original drawings for the use of Soda Fountains exclusively.

Samples Free on Request.

THE ALLIS PRESS Kansas City, Mo.

Formerly K. C. Bill of Fare Press.

Our Pledge

That each lot of Standard Gelatine we ship you, will be of a uniform, high-grade quality. That this well-known characteristic will, at all times, be so dependable as to further enhance your confidence in us. We regard this confidence too valuable a trade asset to jeopardize at any time.

That we hold true to this pledge is best known by our many satisfied customers who order, "same as last."

Standard Gelatine Co.

130 N. Wells Street CHICAGO

WASHINGTON—MAINE

News From Far and Near

CALIFORNIA—FLORIDA

Greenville, Ala.—B. E. Bragg has opened a creamery and ice cream plant in the Greenville Ice Company building, located on Commerce street, and has commenced the manufacture of butter, ice cream and other dairy products.

Hamilton, Ont., Canada.—The Brant Creameries Co., will establish a dairy and ice cream plant.

Washington, D. C.—John Humphrey of Takoma Park; A. G. Bailey and Paul Sieman of Washington, D. C., have incorporated under the name of Takoma Park Ice and Ice Cream Co. The incorporation amount is $80,000.

Anamosa, Ia.—The Anamosa Farmers' Creamery has made 30,000 gallons of ice cream so far this season, as against 8,000 gallons for the entire season last year.

Waterloo, Ia.—The Producers Milk Co. sold their ice cream business to Jas. Cronin and B. F. Peck.

Geneva, Ill.—The Geneva Products Co., to manufacture ice cream, etc., capital stock $140,000. Incorporators: W. D. Banga, W. C. Sennet and L. S. Hardin.

Columbia City, Ind.—Mr. Geo. W. Myers has bought a half interest in the creamery owned by his father, Frank L. Myers. The creamery was established in 1892, and employs thirty men. They manufacture butter and ice cream.

Marion, Ind.—Montel Ice Cream Co., increased capital from $30,000 to $45,000.

Elkhart, Kans.—The Elkhart Ice and Ice Cream Plant is now under the management of J. Y. Bowers.

Ellis, Kans.—The Golden Belt Creamery and Ice Co., Ellis county, chartered with capital stock of $65,000. Ernest King, Grace King and Asa King, all of Ellis, Kans., purpose to manufacture, sell and ship ice, ice cream, butter and other dairy products.

Pratt, Kans.—Due to increasing business, the Kaufman Creamery and Ice Cream plant has been compelled to install new machinery, also to make further additions as to capacity of floor space.

Salina, Kans.—The Belle Springs Creamery Co., a branch of the Abilene, Kans., have recently begun the manufacture of ice cream.

Winfield, Kans.—The Winfield Dairy, where Velvet Ice Cream is made, is now the sole property of C. A. Radley, senior member of Radley& Blevins, owners of the plant heretofore. Mr. Bleving has sold out to Mr. Radley.

Hammond, La.—The Hammond Dairy Products Co. has begun the erection of a modern creamery and ice cream factory. The building will be of brick with large loading sheds on one side.

Shreveport, La.—The Northeastern Louisiana Milk and Cream Co. is being organized by West Carrol and Richland parish farmers and business men, and a few farmers of the northeastern part of Ouachita parish, for the purpose of organizing an extensive dairy, creamery and ice cream business in this part of the state.

Lawrence, Mass.—The Jersey Ice Cream Co. are planning to build an addition to their plant.

St. Paul, Minn.—The Curran Ice Cream Co., St. Paul, Minn.; capital stock $25,000. Incorporators: J. B. Curran, C. P. Curran, George W. Carlson and others.

Wakefield, Mass.—A small, modern ice cream plant has been built for A. B. Weld.

Charleston, Mo.—Preliminary steps have been taken to establish an ice plant, ice cream plant and creamery in this city.

Kansas City, Mo.—E. D. Frear, of Seattle, Wash., has invented a scale for measuring ice cream and will be associated with a company in Kansas City to put this on the market.

Charlestown, Mo.—Steps have been taken to establish an ice plant and an ice cream plant and creamery. The business men have signified their willingness to co-operate.

St. Louis, Mo.—The Liberty Cone Company and Union Ice Cream Company have consolidated, and hereafter will be known as Liberty Union Cone Company. The company has a capital stock of $20,000. Albert C. Davis is the attorney, 403 Title Guaranty Bldg., St. Louis, Mo.

West Plains, Mo.—E. D. Woodburn, formerly manager of the West Plains Creamery, has leased space in the Bond Block for an ice cream factory. Mr. Moore has also purchased the ice cream company formerly owned by S. T. Hardin and D. B. Moore, at Walnut Ridge, Arkansas.

Willow Springs, Mo.—The Willow Springs Creamery Co. will soon erect a modern creamery and ice plant, to cost $40,000. Included in the equipment will be a 20-ton ice making plant and ice cream making machinery.

Brantford, Ont., Canada.—The Brant Creameries, Ltd., will establish a dairy and ice cream plant.

Hastings, Nebr.—The present Hastings Ice Cream Co. is to have two plants as subsidiaries. W. C. Hunt of this company has purchased the McCook Ice Cream Co. and the Holdredge Bottling Works for this purpose.

Charlotte, N. C.—The Mecklenburg Dairy & Ice Cream Co. has applied for incorporation with $150,000 capital stock. Parties interested are: Robt. E. McDowell, Hazel Pharr, Chas. Stoew and J. E. McIlwaine.

Camden, N. J.—The Crescent Ice Cream Co., capital stock $125,000. Incorporators: E. G. Elzey, H. G. Elzey, and others.

Brooklyn, N. Y.—A confectionery and ice cream plant has been incorporated for $150,000 by Theo. Vagenas, E. Katsoros and A. Weiner.

Jamestown, N. Y.—Messrs. H. A. and F. Lindblom have opened up at 340 Forest Avenue under the name of the Chautauqua Ice Cream Company, and are manufacturing ice cream.

Saratoga Springs, N. Y.—The Kirk-Maher Co. of Malone, N. Y., manufacturers of ice cream, have leased the Hefferman building on Church St. nere and will open a plant directly.

Napoleon, O.—The Hockler Ice Cream Company will, according to intentions, build a new factory this fall.

Sandusky, O.—The Esmond Dairy Company announces the addition of a new hardening room which is to be thoroughly equipped.

Youngstown, O.—Additional refrigeration is soon to be installed in the Milliken & Evans Ice Cream Company.

Allentown, Pa.—A new branch plant for the M. & G. Ice Cream Co. of Tamaqua will be built at Allentown. The daily output is expected to reach 16,000 gallons.

Erie, Pa.—The Olympia Confectionery Co., at 1102 State St., will install refrigeration equipment this fall. Mr. Askorones is the manager.

Newberry, Pa.—Chris Fry will increase the capacity of his plant next season.

Pottstown, Pa.—Burdan Bros. have decided to build a model ice cream manufacturing plant.

Scranton, Pa.—A scranton service branch of the big M. & G. Ice and Ice Cream Company, Tamaqua, Pa., which is carrying on a tremendous business throughout the state, has been opened at 218 Pennsylvania Avenue.

Wilkes Barre, Pa.—F. Fadden & Sons, Inc., will build an ice cream plant here. The parties interested are from Scranton, Pennsylvania.

Providence, R. I.—A new story plant which is costing $60,000 is to be the future home of the Sunshine Ice Cream Co.

Memphis, Tenn.—The Dixie Ice Cream Co. of Memphis will erect a large plant. The plant will have a capacity of half a million gallons of ice cream annually.

Sherman, Tex.—Fire destroyed the plant of the Purity Ice Cream Co. The damage is estimated at $10,000.

Sweetwater, Texas.—The Sweetwater Ice Cream factory was destroyed by fire. It is not known what if any insurance was carried.

Shenandoah, Va.—Mr. J. F. Orye has intentions of building an ice cream plant this fall in Shenandoah.

Antigo, Wis.—The Antigo-Sheboygan Dairy Prod. Co., ice cream and butter manufacturers, incorporated capital 200 shares of preferred stock at $100 each, and 100 shares of common stock. M. G. Douna, F. H. Peacock and Alexander A. Kinewaldt are the incorporators.

Appalachia, Va.—The Appalachia Ice Cream Co., capital stock $50,000. Incorporators: E. R. Casper, H. H. McClanahan and S. A. McCluen.

Weston, W. Va.—During the latter part of August the Weston newspaper office was treated to a half gallon packer full of mighty fine ice cream, which was some of the first made by the Weston Dairy Company in their new, modern and sanitary plant at the head of main St. It is to be hoped that the Lewis county citizens will patronize the home boys, as they deserve their patronage.

Burlington, Vt.—The old plant of the Vermont Ice Cream Co. has been leased by the Coon Ice Cream Co. Enlargement and alteration of same will soon be in force.

Appleton, Wis.—Continued growth of the business of the Mory Ice Cream Co. has caused it to increase its capital from $75,000 to $100,000.

New Richmond, Wis.—The New Richmond Creamery Co. is installing ice cream equipment and will be ready soon.

Stevens Point, Wis.—The Sheboygan Dairy Products Company, Sheboygan, Wis., is branching out throughout the State of Wisconsin. The latest organization being at Stevens Point. They plan to add an ice cream department shortly.

FOR A GREATER ICE CREAM INDUSTRY—Eastern Exhibition, Buffalo, October 31st - November 5th, inclusive.

"UNITED" IRON WORKS CO. FOR SERVICE

For Cooling Purposes—*Remember*
"STERLING"
Ice and Refrigerating Equipment



After twenty-five years continous service ***"Sterling"*** equipment, in many instances, is still found on the job giving satisfaction. There is no better testimonial than good honest and efficient service rendered.

Our equipment — we claim — ***"Sterling"*** in name and ***"Sterling"*** in quality.

Special bulletin for your particular line on request.
Permit us to figure with you.

UNITED IRON WORKS, Inc., Kansas City, Mo.

Sales Offices and Representatives

Exchange Bank Bldg.
ST. PAUL, MINN.

415 No. Howard St.,
BALTIMORE, MD.

1339 Sixteenth St.,
DENVER, COLO.

402 Andrews Bldg.,
DALLAS, TEXAS.

415 Gravier St.,
NEW ORLEANS, LA.

612 Mayo Bldg.,
TULSA, OKLA.

513 United Bank Bldg.
SIOUX CITY, IA.

EVANSVILLE, IND.

FLAVOR YOUR ICE CREAM WITH

Cremilla

"CREMILLA" is better, smoother, creamier and of richer flavor than the finest grade of pure vanilla; and it's more economical.

"CREMILLA" is so concentrated as to make it the best flavor to use with homogenized cream; one-third to one-half oz. flavors perfectly 10 gallons of cream (one to one and a half pints for 500 gallons.)

Trial gallon by express on request. After fair trial, if you don't like it, send back what's left and pay us nothing.

National Fruit Flavor Co.
NEW ORLEANS, U. S. A.

AN ACT TO REQUIRE SANITARY CONDITIONS IN ICE CREAM PLANTS, CREAMERIES, AND CHEESE FACTORIES

The General Assembly of North Carolina do enact:

Section 1. That for the protection of the health of the people of the State, all places where ice-cream is made for sale, all creameries, butter and cheese factories, when in operation, shall be kept clean and in a sanitary condition. The floors, walls, and ceilings of all work rooms where the products of plants named herein are made, mixed, stored, or handled shall be such that same can be kept in a clean and sanitary condition. All windows, doors, and other openings shall be effectively screened during fly season. Suitable wash rooms shall be maintained, and if a toilet is attached, it shall be of sanitary construction and kept in a sanitary condition. No person shall be allowed to live or sleep in such factory unless rooms so occupied are separate and apart from the work of storage rooms. No horses, cows, or other animals shall be kept in such factories or close enough to contaminate products of same unless separated by impenetrable walls without doors, windows, or other openings.

Section 2. Suitable means or appliances shall be provided for the proper cleaning or sterilizing of freezers, vats, mixing cans or proper conveyors, and all utensils, tools, and implements used in making or handling cream, ice cream, butter or cheese, and all such apparatus shall be thoroughly cleaned as promptly after use as practical.

Section 3. All cream, ice cream, butter, cheese, or other products produced in places named herein shall be pure, wholesome, and not deleterious to health, and shall comply with the standards of purity, sanitation, and rules and regulations of the Board of Agriculture provided for in section eight of this act.

Section 4. Every person, company, or corporation who shall receive milk, cream, or ice cream which is delivered in cans, bottles, or other receptacles, shall thoroughly clean same as soon as practical after the contents are removed and before the said receptacles are returned to shipper or person from whom the same was received, or before such receptacles are delivered to any carrier to be returned to shipper.

Section 5. Creameries and factories that purchase milk and cream from producers of same on a butter-fat basis, and pay for same on their own test, shall make and pay on correct test, and any failure to do so shall constitute a violation of this act. The Board of Agriculture, under regulations provided for in section eight, shall have such test made of milk and cream sold to factories named herein that will show if dishonest tests and practices are used by purchasers of such products.

Section 6. It shall be the duty of the Department of Agriculture to enforce this act, and the Board of Agriculture shall cause to be made by the experts of the department such examination of plants and products named herein as are necessary to insure the compliance with the provisions of this act. For the purpose of inspection, the authorized experts of the department shall have authority, during business hours, to enter all plants or storage rooms where cream, ice cream, butter, or cheese or ingredients used in same are made, stored, or kept, and any person who shall hinder, prevent, or attempt to prevent any duly authorized expert of the department in the performance of his duty in connection with this act shall be guilty of a violation of the act.

Section 7. If it shall appear from the examinations that any provision of this act has been violated, the Commissioner of Agriculture shall have authority to order the plant or place of manufacture closed until the law is complied with. If the owner or operator of place refuses or fails to comply with the order, law, or regulations, the commissioner shall then certify the facts in the case to the solicitor in the district in which the violation was committed.

Section 8. The Board of Agriculture is hereby authorized to establish such standards of purity for products and sanitation for plants or places of manufacture named herein with such regulations, not in conflict with this act, as shall be necessary to make provisions of this act effective and insure the proper enforcement of same, and the violation of said standards of purity or regulations shall be deemed to be a violation of this act.

Section 9. For the purpose of defraying the expenses incurred in the enforcement of this act, the owner, proprietor, or operator of each ice cream factory or creamery in this State that disposes of its product at wholesale to retail dealers, to be resold, shall pay to the Commissioner of Agriculture during the month of July of each year an inspection fee of twenty dollars ($20), and each maker of ice cream who disposes of his product at retail only, and cheese factories, shall pay the Commissioner of Agriculture an inspection fee of five ($5) during the month of July of each year.

Section 10. That any person, firm, or corporation who shall violate any of the provisions of this act shall be guilty of a misdemeanor, and upon conviction thereof shall be fined not to exceed twenty-five dollars for the first offense, and for each subsequent offense in the discretion of the court.

Section 11. All laws in conflict with this act are hereby repealed.

Section 12. The act shall be in force from and after May first, one thousand nine hundred and twenty-one.

Ratified this the 8th day of March, A. D. 1921.

We design your new plant to fit or make your present one fitter

A thorough knowledge of ice cream making, together with our wide experience in industrial plants, enables our staff of engineers to design a low cost high efficiency plant for you, or to increase production in your present one.

One of our engineers will call on request, without obligation.

CHICAGO
645 N. Michigan Avenue

FRANK D. CHASE, Inc.
ENGINEERS—CHICAGO

ST. LOUIS
Railway Exchange Bldg.



Sethness Company,



Denver Office:
2910 Huron Street
DENVER, COLORADO

Pittsburgh Office:
609 Chamber of Commerce Building
PITTSBURGH, PA.

718 N. CURTIS STREET
CHICAGO, ILL.

COSCO BRAND

FRUITS

ICE CREAM CRUSHED FRUITS (BULK)
SOLID PACK FRUITS IN NO. 10 TINS
COLD PACK STRAWBERRIES
C. P. CRUSHED FRUITS IN BULK PKGS.

EXTRACTS

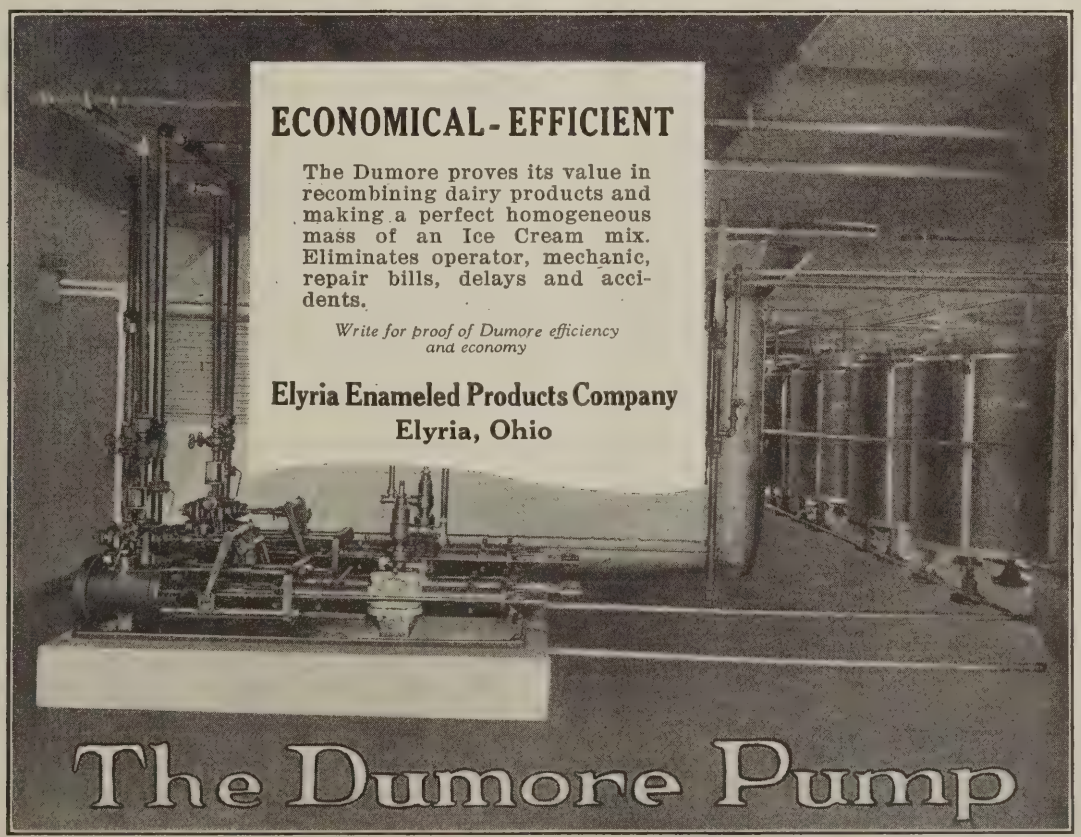
FLAVORING EXTRACTS, ARTIFICIAL
TRUE EXTRACTS
ORANGEADE EXTRACT (FOR ICES, SHERBETS AND PUNCHES)
CONCORD GRAPE EXTRACT (FOR ICES, SHERBETS AND PUNCHES)
VANILLA COMPOUNDS
VANILLA EXTRACTS, PURE
MARVEL PURE VANILLA BEAN EXTRACT
VANILONG
WALNUT FLAVOR
MAPLE COSCO CONCENTRATED
PINEAPPLE JUICE
QUINTOLS
EMULSIONS

COLORS

LIQUID CERTIFIED COLORS
CERTIFIED DRY COLORS
CARAMEL SUGAR COLORING
BUTTER COLOR ANILINE
NEW YORK ICE CREAM COLOR

TRUE FRUIT PASTES
CERTIFIED PASTE COLORS
MARSHMALLOW TOPPING
COCOA
BUTTERSCOTCH SUNDAE
CARAMEL SUNDAE
GELATINE
CITRIC ACID
GUM, PURE INDIA, POWDERED
ICE CREAM POWDER
SOLUBLE SKIM MILK POWDER SPRAY
KREMOLIN R. ICE CREAM RIPENER AND BINDER
VANILLA BEANS
VANILLIN
COUMARIN
GLYCERINE
TARTARIC ACID

SODA FOUNTAIN FRUITS AND PRIVATE LABEL MARSHMALLOW TOPPING FOR JOBBING PURPOSES



MORE REFRIGERATION.

The following ice cream companies have recently added new refrigerating equipment to their plants:

The Delaware Ice Cream Co., Laurel, Del.
E. E. Hanna Ice Cream Co., Wilmington, Del.
Bolk Dairy & Ice Cream Co., Lakeland, Fla.
Lyons & Rodant, Emmett, Idaho.
C. E. Gemmill, Cutler, Ill.
Cotlos & Paulos, Galesburg, Ill.
Purnell Ice Cream Co., Anderson, Ind.
The Furnas Ice Cream Co., Ft. Wayne, Ind.
Peter Adams, Richmond, Ind.
The Bender Ice Cream Co., Richmond, Ind.
The Velvet Ice Cream Co., Wabash, Ind.
The Hutchinson Ice Cream Co., Cedar Rapids, Ia.
The Pearl City Ice Cream Co., Muscatine, Ia.
The Boettcher & Combs Ice Cream Co., Topeka, Kans.
The Hill Top Dairy Co. (ice cream) Falmouth, Ky.
The Velvet Tip Ice Cream Co., Louisville, Ky.
The Ehrmans Ice Cream Co., Louisville, Ky.
Arcadia Ice Cream Co., Arcadia, La.
New Orleans Ice Cream Co., New Orleans, La.
The Horn Ice Cream Co., Baltimore, Md.
Orrell & Porter, Greensboro, Md.
Quality Ice Cream Co., Charlestown, Mass.
The International Ice Cream Co., Pittsfield, Mass.
D. G. Miller & Son, Eaton Rapids, Mich.
Withers & Neighbours, Three Rivers, Mich.
S. N. Sutton, Vicksbury, Mass.
A. Shakleford, Tarkio, Mo.
Lascarides Bros. & Pantelas, Millville, N. J.
Horton Ice Cream Co., Brooklyn, N. Y.
Levant Ice Cream Co., Falconer, N. Y.
Ice Cream Manufacturing Supply Association, New York City.
Norwich Ice Cream Co., Norwich, N. Y.
Trojan Ice Cream Co., Troy, N. Y.
L. R. Stroup, Ashtabula, Ohio.
Ideal Ice Cream Co., Dayton, Ohio.
The DeHaven Ice Cream Co., Ironton, Ohio.
Sapulpa Ice Cream Co., Sapulpa, Okla.
Eck & Fisher, Allentown, Pa.
The Penn-Cress Ice Cream Co., Cresson, Pa.
The R. E. Rakstraw Co., Mechanicsburg, Pa.
Olympic Ice Cream Co., New Kensington, Pa.
The Reinboldt Ice & Ice Cream Co., Oakmont, Pa.
The Breyer Ice Cream Co., Philadelphia, Pa.
The Colonial Ice Cream Co., Philadelphia, Pa. (main plant).
The Ganos & Lee Ice Cream Co., Tarentum, Pa.
Peerless Ice Cream Co., Spartanburg, S. Car.
The Houston Ice Cream Co., Houston, Tex.
W. J. McFarland Cold Storage Co. (ice cream plant) Ranger, Texas.
The Olympic Ice Cream Co., Tacoma, Wash.
Mory Ice Cream Co., Appleton, Wis.
W. F. Brown, Muscoda, Wis.
Wm. Watson, Vandergrift, Pa.



God's greatest mercy was to so shape our minds that as the time for death approaches we begin to think more of the past than of the future, and to have a greater love for the memory of the dead friends than we have for the presence of the living ones.

"NUISANCE" TAX WILL GO

The tax is to be taken from the ice cream cones of America's children, Republican members of the House ways and means committee have decided.

Of all the "nuisance taxes", this was the most obnoxious. Every one who patronizes places where soda water and ice cream are sold is acquainted with it. Internal revenue officers also are advised of its existence, particularly because they assert it is impossible of collection, as the returns cannot be checked up accurately without running up an expense account as great or greater than the amount realized from this source.

The yield has been about $25,000,000 per annum, but according to the authorities, users of fountain drinks have been charged several times that amount. In fact, it has been their experience that the tax has been chiefly important as an excuse for raising the price of ice cream and soda water, normally retailing at 5, 10 or 15 cents.

Elimination of the tax probably will witness a revision of prices for these commodities. In point of fact, dealers generally have not waited for Congress to act in the matter, but have absorbed the tax at the same time that they have slashed their quotations.

Where the "nuisance tax" has been continued, it has added another penny to the ice cream cone of childhood—a source whence the government cannot derive revenues with a feeling of complete satisfaction to itself or its agents.—Seattle (Wash.) Times.



UNITED CORK COMPANIES OPEN NEW OFFICE.

The United Cork Companies of New York, have opened a new office in St. Louis, Missouri, at 1420 N. Broadway. This office will be in charge of Mr. C. E. Schoenemann, who, for the past several years, has been connected with the Sales Office of Chicago. This is the ninth sales office established by this company, the others being at New York, Atlanta, Boston, Dallas, Cleveland, Chicago, Philadelphia and San Francisco.



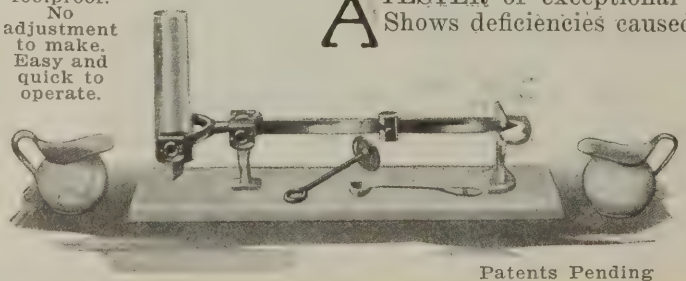
ICE CREAM FACTORY OPENS FOR BUSINESS.

The Richmond Creamery Co., New Richmond, Wis., manufacturers of butter and ice cream, opened for business recently. This concern has completed the erection of a thoroughly modern plant, and has installed all of the latest machinery for the manufacture of ice cream and butter, which will be marketed locally and in adjoining towns.

Petersen Ice Cream Gain Indicator

Absolutely foolproof. No adjustment to make. Easy and quick to operate.

A TESTER of exceptional value as a means of checking freezer efficiency. Shows deficiencies caused by improper refrigeration or handling of mix.



Patents Pending

Controls Over-run

The durability, simplicity and reasonable price of Petersen's Ice Cream Gain Indicator entitles it to a place in every ice cream plant. Write—

Coster-Petersen Co.
2531-33 HOMER STREET
CHICAGO, ILL.

DELFT

The World's Best Food Gelatine

HAROLD A. SINCLAIR 160 Broadway NEW YORK

Some of the
REASONS WHY
you will want
DELFT GELATINES

Bacteria	**GONE**
Odor	**GONE**
Chemicals	**GONE**
Sandiness	**GONE**
Shrinkage	**GONE**
Troubles	**GONE**
Uniformity	**HERE**

"Price is a relative term—quality always a concrete fact."

There are two classes of gelatine, DELFT—and others.

When you have once used Delft you will forget the others.

Meet us at Booths 6-7,
Buffalo Show,
Oct. 31-Nov. 5

Middle-Western Distributors
ROCKHILL & VIETOR
FRANK Z. WOODS, Manager.
180 N. Market St., Chicago, Ill.

South-Western Distributors
BLANKE MANUFACTURING & SUPPLY CO.
St. Louis, Mo.

ESTABLISHED 1868

Milligan & Higgins Gelatine Company

222-224 Front Street, New York

GELATINES
For Ice Cream Use

Time has Proved the Purity, Quality, Uniformity of our product

THUNDER CAUSES CONCOCTION OF ICE CREAM SODA

Drink Inventor's Grandson Tells Story of Storm That Started "Fizz" Vogue

Detroit.—A summer thunder shower forty-one years ago resulted in the "invention" of the ice cream soda according to Fred Sanders, Jr., of Detroit, Mich., whose grandfather, Fred Sanders, claimed the distinction of having discovered this American institution.

Used Real Cream

Speaking of his grandfather's discovery Mr. Sanders said:

"Forty years ago the American people regarded ice cream much as the lily that could not be painted. At that time they 'took it straight'. Sirups were in general use in drink concoctions, but the ice cream sundae and its many near relatives were unknown. Carbonated water was used by the soda dispensers in a popular drink known as sweet cream soda. Its chief ingredient was sweet cream, direct from the farm.

Quenches Wedding Thirst

"The thunder-shower that brought about my grandfather's discovery came in the summer of 1880. He was conducting a soft drink parlor and the storm caused the sweet cream he had intended for sodas to sour. Just after the storm passed a wedding party dropped in and my grandfather volunteered to experiment until he found a substitute drink. He tried several drinks and finally concocted one almost identical with the ice cream soda of today.

"Members of the party liked the new drink so well that it became popular within a short time and soon all dealers were making the sodas."—Chicago Post.

DISCOVERING ICE CREAM

Sambo, the New York darky, may have claimed the discovery of ice cream, the Detroit man the discovery of the ice cream soda, but it must be conceded that Science has discovered the real food value of ice cream, according to the opinion of "Sweets", a confectioners publication.

"Science has discovered ice cream. That is, the learned gentlemen who spend so much time poking their noses into the texture of different things, have learned that ice cream is of great food value. We find this out in many of the popular national publications of the day.

"Only a short time ago considered a luxury, the product of the ice cream manufacturer now is being acclaimed as one of the most wholesome dishes in the household. For this recognition the manufacturer is due little credit, only insofar as quality production is concerned. It is easy to understand just how much more widespread would be the popularity of ice cream in the household if there were more aggressive salesmanship—that is, efforts to sell the industry itself.

"The bakers say, "Bread is your best food," and that industry is content to sell itself as an industry to the public. Let ice cream manufacturers stop saying that theirs is the best and tell the public that their industry produces something of value to health.

"The scientists were a long time about it, but they finally discovered ice cream. There's hope that the ice cream manufacturers will, too.

EIGHTEEN PER CENT OF FAT.

Must Hereafter Be Contained in Ice Cream Sold in Ohio.

All cream sold in Ohio must contain at least 18 per cent butterfat and be so labeled, according to regulations just issued by Director of Agriculture L. J. Taber and R. M. Black, chief of the bureau of dairy and foods.

The word "cream" or any combination or association of the word "cream" shall not be used as a name or part of a name of any imitation of, or substitute for cream, milk or skimmed milk mixture of less than 18 per cent butterfat in connection with the sale of such imitation or substitute.

The words "cream half and half," "split cream," "thin cream," etc., and like labels shall not be used, but words such as "special milk," "half and half," etc., may be used on caps or labels for coffee and cereal milk provided the name of the producer or vendor, the words "standardized or whole milk," as the case may be, and the butterfat content be plainly printed on the cap or label.

At the request of milk dealers, Director Taber has allowed them 60 days to use up their supply of caps, but the contents of the bottles must meet fully the provisions of the new law.

THEY ARE BECOMING NUMEROUS

Did you ever notice that practically all of the large freezer rooms advertised in the ice cream paper lately that in addition to the ice cream freezers they show conspicuously the Mojonnier Ice Cream Overrun Tester?

MOJONNIER BROS. CO.



CHICAGO
NEW YORK
PHILADELPHIA
BUFFALO
ST. LOUIS
MILWAUKEE
LOS ANGELES
SAN FRANCISCO

Clarkson Gelatine Works

Manufacturers of

FOOD GELAITNES

Write Us Regarding Our Supreme Pure Food Gelatine No Better Stabilizer

Superior in Purity *Odorless and Tastless*
Economical in Price *Uniformity Always*

WE GUARANTEE TO SHOW YOU A SAVING

With the Tang of the Berry Patch"



A new Berry flavor that is the sensation of the ICE CREAM Industry—

Write for information

TRUE FRUIT

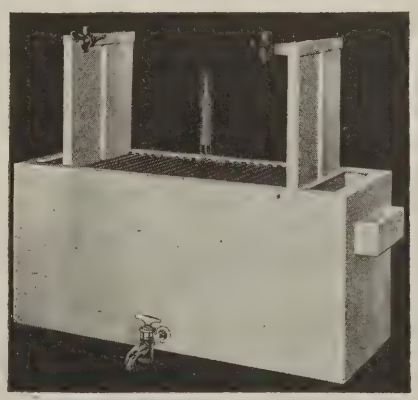
Mr. Ice Cream Man—Haven't you been looking and longing for a new flavor—one that is a true FRUIT? We have created it for you—Don't take our word for this—We are just ITCHING for an opportunity TO SHOW YOU—We will furnish you with four ounce sample on request, flavors and colors 10 gallons of cream. Beat your competitor to it. Now is your opportunity—GRASP IT.

Write us for prices *Advertising matter furnished free*

KAW VALLEY FRUIT PRODUCTS COMPANY
509-11 W. 5th STREET KANSAS CITY, MO.

Sterilize and Disinfect
WITH
Salt, Water and Electricity

WITH only salt, water and electricity the cell will produce Sodium Hypochlorite in five minutes time. Cheapest and best disinfectant known. Cost only about one cent per gallon. Has reduced bacterial count from 7,000,000 per cubic centimeter to 800 in five minutes time with great dilution. A true deodorant. Easily rinsed out.



Write for bulletins

The Electro Chemical Company
DAYTON, OHIO



PROF. BAER'S INQUIRY DEPARTMENT

Dear Sir:—Since last writing you we have decided to change our formula from evaporated milk to skim milk powder, using 6 lbs. sugar, 8 oz. gelatine, 4 oz. flavoring, 3 gal. of 4½ per cent milk, and 1 gal. of 40 per cent cream to the 50 lb. batch. We would like to know how many pounds of Merrell-Soule skim milk powder would bring our mix up to a first class standard ice cream.

Also please advise us as to the best way of ordering our cream, 20 per cent or 40 per cent. We still have trouble with the mix not coming up to the required amount and the cream forming butter on the paddle. Yours truly, J. B. McK. M. CO.

Reply: I have analyzed your ice cream mix, as you gave it in your letter. You will find the calculations given below in Table No. 1:

Table No. 1.

Ingredients	Fat	Serum Solids	Total Solids
6.00 lbs. sugar	....	.....	5.70
.75 lbs. gelatine & flavor	....	.....	.48
25.80 lbs. 4.5% milk	1.16	2.19	3.35
8.00 lbs. 40% cream	3.20	.42	3.62
40.55 lbs.	4.35	2.61	13.15
Per cent	10.70	.64	32.40

Per cent sugar, 14.79.

You stated that this mix was for a total of 50 lbs. I find, however, on adding it up that it only totals 40.5 lbs., and I am wondering whether you did not make a mistake in putting down the amounts of various ingredients.

You will notice that your mix figures 10 per cent butterfat and only 6.4 per cent serum solids, making a total of 17 per cent milk solids. Your total solids are high because this mix figures out nearly 15 per cent sugar. Without the sugar they are lower than I would want them for a good ice cream. You will have a much better balanced product if you will have, along with the 10 per cent butterfat, 10 per cent milk serum solids. You could get this by adding 4.5 to 5 lbs. skim milk powder. In that case, however, I would reduce the amount of sugar to about 12%.

You stated in your letter that you still had trouble in securing the overrun and that you also had trouble with the mix forming butter in the freezer. I suggest that you write to me again giving exact details showing all the ingredients of your mix; the temperature of pasteurization; the length of time and the temperature it is held at before freezing; the time necessary to freeze a batch in the freezer and the consistency at which you draw it from the freezer. With this information it is possible that I can locate your difficulty.

* * *

Dear Sir:—Following is our formula for a 600-pound ice cream mix, which I want you to pass on:

600 Lb. Mix.

Ingredients	Fat	Serum Solids	Total Solids
78.00 lbs. sugar	....	.....	74.1
437.00 lbs. milk	17.48	37.33	54.81
27.00 lbs. milk solids	....	25.67	25.67
53.00 lbs. country butter, 80% B. F.	42.40	.....	42.40
3.75 lbs. gelatine	....	.....	3.75
.75 lb. Meloine	....	.....	.75
1.25 lbs. extract	....	.....	.....
.13 lb. coloring	....	.....	.....
600.88 lbs.	59.88	63.00	201.48
Per cent	9.98	10.5	33.58

I want a 13 per cent sugar, 10 per cent butterfat 10½ per cent serum solids, and did want 32½ total solids but have 1 per cent more than I wanted.

What do you think of the formula? What could be done to improve it? I have been thinking of using some India gum, say about two ounces, to each hundred pounds of mix, at the same time taking out the equivalent amount of gelatine. What is the best method of incorporating this gum in the mix? What would be the result of the change? We hoped to make a smoother cream by adding the gum.

Yours truly, D. I. C. CO.

Reply: The reason that you have 33.5 per cent total solids is because you are using 13 per cent sugar instead of 12 per cent, along with 20 per cent milk solids. I should say that you have a very good mix and there is no reason why you should not use 33.5 per cent solids.

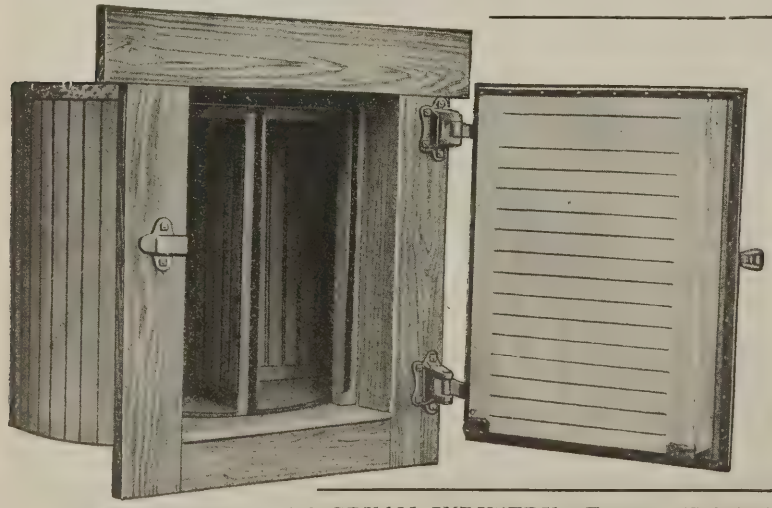
Regarding the use of pure India gum, I might say that many ice cream manufacturers prefer the use of some gum to a large amount of gelatine. The best way to incorporate this gum into the mix is to mix the finely ground gum thoroughly with the sugar and then stir into the mix gradually. I have found no trouble in getting it incorporated into the mix when used in this manner.

* * *

Dear Sir:—Will you kindly analyze and criticise the following mix:

115 gallons 18% cream, 5 gallons 3½% milk, 40 gallons 8% whole condensed milk, 250 lbs. sugar, 8½ lbs. gelatine.

Will you please work out a formula on the hundred



JAMISONS'

"NOEQUAL" REVOLVING DOOR

is making can-passing easier in Ice Cream Plants and Creameries everywhere.

It passes Ice Cream and Milk Cans back and forth without loss of temperature—and requires but one person to operate when fitted with unloading device.

Standard 5-Gallon sizes in stock.

Send for Catalog No. 10 and Prices

Jamison Cold Storage Door Co.

Formerly
Jones Cold Store Door Co.
HAGERSTOWN MARYLAND, U. S. A.

MENASHA
ICE CREAM CARTONS

help increase brick cream sales

Write for Samples

MENASHA PRINTING & CARTON COMPANY

MENASHA WISCONSIN

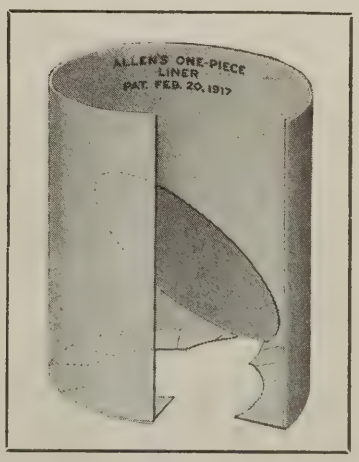
CHICAGO 1606 Conway Bldg.
NEW YORK 200 5th Ave.
CLEVELAND 755 Hippodrome Bldg., Annex
KANSAS CITY 307 Scarritt Arcade Bldg.
LOS ANGELES—421 I. W., Helman Bldg.



A Mark of Quality---

The Ice Cream Manufacturer who uses

Allen's One-Piece Sanitary Can Liners



in his cans places a distinctive mark of quality on his Ice Cream.

Samples and Prices upon Request.

Sold by your Supply Man—or Write Direct to

THE ALLEN CANDY COMPANY
PONTIAC Sole Manufacturers ILLINOIS

pound basis, using the above ingredients? What is the solid content of 8 per cent condensed, three to one?

Yours very truly, C. E. H.

Reply: You will find the analysis below in Table Number 1:

Table No. 1.

Ingredients	Fat	Serum Solids	Total Solids
115 gal. or 966 lbs. 18% cream	173.88	70.49	244.37
5 gal. or 43 lbs. 3.5% milk	1.50	3.69	5.19
40 gal. or 360 lbs. 8% condensed milk	28.80	79.20	108.00
250 lbs. sugar	....	.....	237.50
8.5 lbs. gelatine	....	.....	8.07
1627.5 lbs.	204.18	153.38	603.13
Per cents	12.5	9.4	37.0

Per cent sugar, 15.3.

Table No. 2.

Ingredients	Fat	Serum Solids	Total Solids
15 lbs. sugar	....	.....	14.25
1 lb. filler and flavor	....	.....	.60
22 lbs. 8% condensed	1.76	4.84	6.60
6 lbs. 3½% milk	.21	.36	.57
56 lbs. 18% cream	10.08	4.10	14.18
100 lb. mix	12.05	9.30	36.20

Kindly note that your product is extremely high in total solids, although the amount of milk solids is only about 22%. Your formula is not well balanced because of the large amount of sugar. You may have some reason for using such a large percent of sugar, but our trade in our section of the country does not use only about 12 or 13 per cent. I am suggesting in Table No. 2 a mix using the same ingredients calculated on a 100-pound basis. I have figured the 8% condensed milk, 30% total solids and 22% serum solids. This is a concentration of 2.5 to 1. The ordinary 8% evaporated milk does not run quite as high in solids, being about 26% total solids. You did not state in your letter what form of condensed milk you used.

* * *

Dear Sir:—In reading The Ice Cream Review I have taken much interest in your inquiry department. Last year I started in the ice cream business. I am using a Fort Atkinson freezer, connected to the brine tank. I have just completed the installation of a De Laval pasteurizer and mixer. The mix that I am using I arrived at by experimenting. I would like to have you analyze it for me and figure it on a one hundred pound basis, or suggest some other suitable mix. The mix I am using at present is 6 lbs. sugar, 3¼ gals. 22% cream, 2½ gals. milk powder, 4 ounces gelatine.

Milk powder is mixed 3 lbs. to the gallon of water.

Gelatine 4 ounces to 1 quart of water.

This mix gives 10 to 11 gallons of finished ice cream.

Very truly yours, E. R.

Reply: I have made calculations of your formula as requested and you will find it below in Table No. 1:

Table No. 1

Ingredients	Fat	Serum Solids	Total Solids
6 lbs. sugar	...	....	5.7
2.5 lbs. gelatine and water	...	....	.24
27.3 lbs. 22 per cent cream	6.0	1.89	7.89
21.5 lbs. powder and water	...	5.70	5.70
57.3	6.0	7.59	19.53
Percents	10.48	13.2	34.0

Table No. 2

Ingredients	Fat	Serum Solids	Total Solids
12.0 lbs. sugar	...	....	11.40
.5 lbs. gelatine (8 oz.)	...	....	.50
45.5 lbs. 22 percent cream	10.01	3.12	13.13
8.4 lbs. skimmilk powder	...	7.97	7.97
33.6 lbs. water	...	....	....
100.0 lbs. mix	10.01	11.09	33.00

The above table is for a 100-lb. mix—12 per cent sugar—10 per cent fat—33 per cent total solids.

You will notice that your cream tested about 10% butterfat and 34% total solids. I am suggesting in Table No. 2 a mix similar to the one which you now have calculated on the 100-pound basis, except that I have reduced the total solids to 33%, which is sufficiently high for a satisfactory ice cream testing 10% fat.

* * *

Dear Sir:—Thank you very much for your help. The graininess in our ice cream was as you suggested due to the low temperature at which it was stored, as, we have had no trouble since. Would like to have you check up the following mix for us:

69.00 lbs. 18.5 per cent cream.
15.00 lbs. condensed (unsweetened).
14.00 lbs. sugar.
.75 lbs. gelatine.
.50 lbs. vanilla.

I figure this mix to contain 14.1 per cent fat and 36.8 per cent total solids. After subtracting the fat from the cream I figure 9.2 per cent serum solids, condensed 7.7 per cent fat and 28 per cent total solids, sugar 95 per cent total solids, gelatine 86.4 per cent and no solids in the vanilla. Believe I am a little high on serum solids and low on gelatine.

Do you think this mix contains about the right amount of solids for a one hundred per cent overrun?

Respectfully, D. H. B.

Reply: I am glad to know that you have succeeded in eliminating the graininess in your ice cream. You will find an analysis of your mix given below in Table No. 1:



The new way—a child's play

Adds Years to Life of Your Condensers

Braun Condenser Paint is sold only in original trade-marked packages with labels attached. It is a PERFECT SCALE REMOVER.

5 and 10 Gal. Cans, $2.50 per gal.
Bbls. and Half Bbls., $2.25 per gal.

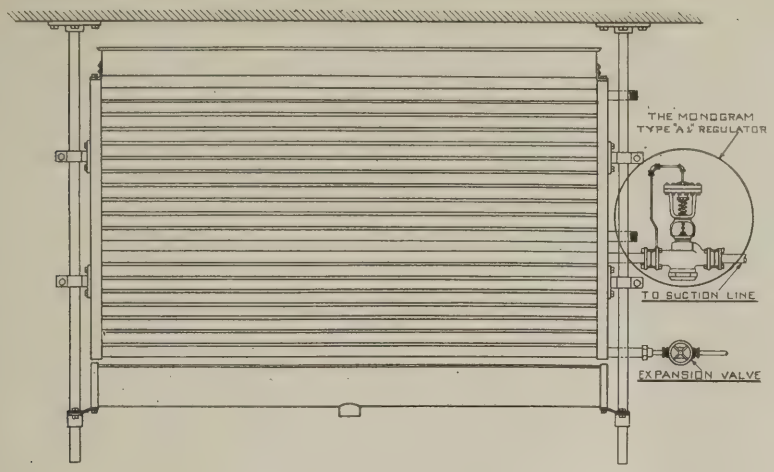
Put up in 5 and 10 gallon cans, barrels and half barrels.

MANUFACTURED BY

The American Paint & Button Company
ARKANSAS CITY, KANSAS

DISTRIBUTING POINTS

The Vilter Mfg. Co., Milwaukee, Wis. The Ruemmeli Dawley Mfg. Co., 3900 Chouteau Ave., St., Louis, Mo.
Chas. Zoller Co., 205 Prince St., New York City The Doermann-Roehrer Co., 318 E. 3rd St., Cincinnati, Ohio.



The
Monogram
Ammonia Pressure
Regulator

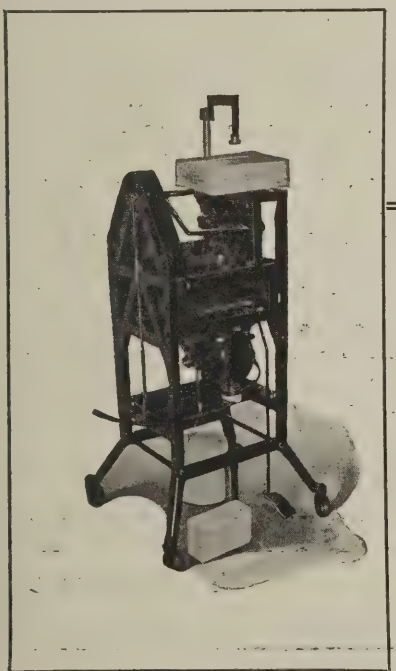
will guarantee the successful operation of Direct Expansion Milk Coolers.

Automatically regulates the temperature of the coils by proportioning the expansion of ammonia to the flow of the milk over the cooler.

Used for the past four years as standard equipment by one of the largest manufacturers of dairy apparatus.

The Type "A1" Regulator is fully illustrated and described in our Bulletin Series 21, No. 2.

MONOGRAM LINE
AUTOMATIC CONTROLS & SAFETY DEVICES
REFRIGERATING SPECIALTIES CO
9 S. CLINTON ST. CHICAGO, ILL.



No Trouble Tying Cartons with the "Bunn"

TIES packages at high speed and with unfailing accuracy, economy and efficiency. No string wasted; no extra wraps are employed.

One Girl Can Do the Work Which Now Takes Four or Five

At only half the production attainable on the Bunn Package Tying Machine 7500 packages can be tied in 8 hours with only one girl.

Our circulars will interest you—write

Take advantage of this offer. The service of our experts on tying problems is at your disposal. Command it.

B. H. BUNN & CO. 7329-31 Vincennes Ave. CHICAGO, ILL.

Table No. 1

Ingredients	Fat	Serum Solids	Total Solids
69.75 lbs. 18.5 p. c. cream	12.9	5.06	17.96
15.00 lbs. condensed	1.15	2.70	3.85
14.00 lbs. sugar	...	....	13.30
.75 lbs. gelatine	...	....	.75
.50 lbs. vanilla	...	....	....
100.0 mix	14.05	7.76	35.86

You have possibly figured your total solids a little high. The per cent of total solids which you have used is higher than the average in analysis. I am using the figure 8.9 per cent for the percent of solids in the serum. You have also figured your condensed milk 28 per cent total solids. As I understand it, this condensed is the ordinary evaporated milk which usually does not have over 26 per cent total solids. I do not know why you figure your gelatine 86.4 per cent as gelatine would run at least 95 per cent solids. Your mix easily contains sufficient solids to secure an overrun of about 100 per cent.

* * *

Dear Sir:—In your Inquiry Department in The Ice Cream Review, it does not state where those inquiries should be addressed, to you direct, or through The Review, and we are taking the liberty of writing you personally, as we are somewhat in a hurry.

We are using the following 100-pound mix: 12 lbs. sugar, 10 gals. 8% evaporated milk, 9 lbs. butter, 4 lbs. skim milk powder, 65.1 gals. 4% milk, 1¼ oz. vegetable gum, 3 oz. meloine.

From this we should get twenty gallons of ice cream but the best we can get is sixteen gallons. We use a tub freezer and have tried running fast and slow. We have a viscolizer and run the batch from the pasteurizer to the viscolizer. Some claim it is impossible to get a 100 per cent swell with a tub freezer, and if such be true, we want to install a brine freezer at once.

Do you think it would help us in getting our 100 per cent swell by putting in a brine freezer? We have also tried aging our mix twelve hours. So far, anything we have tried has not given us the 100 per cent swell. Yours very truly, N. M. I & P. CO.

Reply: I have your recent letter and have made an analysis of your ice cream mix, which is given below in Table No. 1:

Table No. 1

Ingredients	Fat	Serum Solids	Total Solids
12.0 lbs. sugar	...	....	11.40
10.0 lbs. 8 p. c. evaporated	.80	1.8	2.60
9.0 lbs. butter	7.56	....	7.56
4.0 lbs. skim milk powder	...	3.80	3.80
65.1 lbs. 4 p. c. milk	...	....	.36
.4 lbs. filler and flavor	...	....	....
100.5 lbs. mix	10.96	11.04	33.76

You can easily see that you have plenty of milk solids and total solids in your mix to get at least 100 per cent overrun.

You stated that you were doing your freezing in a salt and ice tub freezer. This freezer is undoubtedly losing you 25 per cent overrun. I suggest that you lose no time in securing a horizontal brine freezer, which I am sure will give you satisfactory results.

There is one matter in connection with the handling of your mix, however, which is not correct. You are not aging your mix longer than 12 hours. Most ice cream factories will try to age the mix at least 24 hours and preferably 48 hours before freezing.

* * *

Dear Sir:—Please give me information on pasteurizing mix before running it through viscolizer.

Please work out a formula for me with the following ingredients: cream, condensed 8%, sugar, gelatine, flavor. I want it to run about 12% on fat and 32 or 33% in total solids; also wish to say we will be using a viscolizer and expect to run the entire mix through the machine. Yours truly, C. F. S.

Reply: The usual method of handling ice cream mixes before passing through the viscolizer is to pasteurize the entire batch at 145 degrees and hold it for at least 20 minutes.

I am suggesting below, in Table No. 1, a 100-lb. mix made from the ingredients which you gave in your letter:

Table No. 1

Ingredients	Fat	Serum Solids	Total Solids
12 lbs. sugar	...	....	11.40
1 lb. gelatine and vanilla	...	....	.75
87 lbs. cream milk cond.	12.0	8.85	20.85
100.0 lbs. mix	12.0	8.85	33.00

You will notice that the 87 lbs. of cream, milk, and condensed is to furnish the butterfat and serum solids necessary to bring the total to 33 per cent. I presume that you will be able to calculate the amount of cream, condensed, and milk used to make it 87 lbs.

You did not state what your cream or milk was to test for butterfat consequently I could not give you the exact amounts of each to use. If you are unable to make this calculation I shall be glad to assist you further if you will give me the tests of your cream and milk. Please state also whether the 8 per cent condensed which you refer to is the regular evaporated milk or some other form of condensed milk.

* * *

Dear Sir:—Can you tell us what is wrong with our Strawberry Ice Ceam? We are unable at times to get it hard after being packed for twenty-four hours, and

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it softens very easily in the cabinets among the trade. Our mix is as follows: Seven quarts of 40% cream, four quarts of condensed milk, twelve quarts of milk, four ounces of gelatine, two ounces of strawberry flavor and two quarts of strawberry stock, with a mixture of pulp and crushed berries.

Very truly yours, T. P. M. E., Inc.

Reply: I have analyzed your ice cream mix and have assumed that you have used about seven pounds of sugar with this mix, as you do not state the amount. In Table No. 1 below you will find the calculations and the per cent of butterfat, serum solids and total solids:

Table No. 1

Ingredients	Fat	Serum Solids	Total Solids
7 qts. or 14.0 lbs. 40 p. c. cream	5.60	.72	6.32
4 qts. or 9.0 lbs. 7.5 p. c. condensed	.67	1.60	2.27
12 qts. or 25.8 lbs. 4 p. c. milk	1.03	2.20	3.23
6 oz. or .4 lbs. gelatine and flavor	...	....	.38
7.0 lbs. sugar	...	....	6.7
57.2 lbs. mix	7.30	4.52	18.9
Per Cent	12.8	8.0	33.0

If you use two quarts of fruit with this mixture the butterfat content will be reduced to about 11.5 per cent. Your mix if made according to what you state in your letter contains plenty of solids so that you should have a fairly smooth cream which should harden easily and stay hard. If you continue to have trouble I suggest that you use a little more gelatine or a little gum in addition to the gelatine you are now using.

* * *

Dear Sir:—We wish that you would give us some information on the following mix as to butterfat, solids (both serum and total):

Ten gallons sweetened skimmed condensed (Libby's) supposed to contain 42 per cent sugar;; 5 pounds granulated sugar with five ozs. Melionee added; 10 gallons 35 per cent sweet cream; 24 gallons 5 per cent whole milk; 1 gallon gelatine mixture (three pounds cooked in water).

This is the way our mix comes to freezer. At freezer we use two oz. vanilla for vanilla cream, three quarts chocolate syrup for chocolate cream, and for all fruit cream one-half gallon of fruit, and one ounce of true fruit extract, together with color.

We want to get out a well balanced mix and one that will give as smooth a cream as possible. Our state law here is 8 per cent for all creams. Our business is not large enough to make separate mix for vanilla and fruit creams so we would want a mix that would test 8 per cent after fruits, etc., are added.

We are getting about 90 gallons of ice cream from this mix. Are making about half of it into fruit creams, the 45 gallons of mix with the 2½ gallons of fruit added at freezer giving us 47½ gallons of mix to 90 gallons of ice cream. Is this O. K.?

Thanking you for any information.

Yours very truly, M. I. C. CO.

Reply: Replying to your letter of recent date, forwarded from The Ice Cream Review, I am glad to make the analysis of your mix as requested, and you will find the calculations for butterfat and total solids given below in table No. 1:

Table No. 1

Ingredients	Fat	Serum Solids	Total Solids
10 gal.—110.0 lbs. cond...	...	29.7	75.80
5.3 lbs. sugar and Mel...	...	....	4.75
1.0 lbs. gelatine solution..	...	....	.30
10 gal. 82.0 lbs. 35 p. c. cream	28.7	4.72	33.42
24 gal.—206.4 lbs. 5 p. c. milk	10.3	17.45	27.75
404.7 lbs. mix	39.0	51.84	142.02
Per Cent	9.6	12.8	35.1

You will notice that the butterfat test of your vanilla mix figures out 9.6 per cent and your total solids 35 per cent. Your overrun on this mix was from 95 to 100 per cent, which is about right. This gives you a weight of 4.5 lbs. to a gallon of ice cream, or about 22 lbs. to a five gallon can. The amount of butterfat would not have to be quite as high in order to make your fruit ice cream. Mixing one-half gallon of fruit with five gallons of mix for ten gallons of ice cream would reduce the butterfat from 9.6 to 8.7 per cent. If you reduce the butterfat so that your vanilla mix tests 8.8 per cent your fruit ice cream would test exactly 8 per cent. 35.7 lbs. butterfat instead of 39 lbs. of fat which you are now using would make a mix which would still comply with your 8 per cent butterfat law.

* * *

Dear Sir:—We are having considerable trouble with our overrun at present and we don't really know where to lay our fault. We are freezing with zero brine and it takes about eighteen to twenty minutes in freezing. We want a 100 per cent overrun. We use Cherry freezers. As to our mix, we are using 1½ lbs. of grucose to 100 lb. mix, 8 oz.. gelatine, 2 oz. gum, 4 oz. vanilla, 67 lbs. of milk, average test about 3.2 per

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cent, and we figure 10 per cent fat to 100 lbs. mix using sweet cream butter; balance skim milk powder and water to raise our total solids to 32.5.

In using Meloine we had honey comb cream in center of can so we have started using gum instead, but don't get a thick or heavy mix as we did with Meloine. With gum our cream seems to look watery in appearance.

We hold mix at 50 degrees F.. for 30 minutes to let gum thicken mix. Cold storage room is 10 below every evening; morning it is zero temperature. We We are using a York machine.

Will gum loose its efficiency standing, say six or eight months, when exposed to the air?

Meloine caused a shrinkage and honey comb cream.

Yours truly, I. S. O.

Reply: I do not know whether I am able to diagnose your difficulty from the explanation given in your letter, but it appears to me that if your mix is properly standardized to 10 per cent fat and 10.5 per cent serum solids and aged for at least 24 hours at below 50 degrees you should get a satisfactory overrun.

You stated that you were freezing at zero brine and it required 18 to 20 minutes for a batch. We have had no trouble in securing a satisfactory overrun, freezing a batch in 10 to 12 minutes. I suggest that you try experimenting with the amount of mix you have in your freezer, as it is possible you are overloading it. Probably a smaller amount of mix in your freezer would secure a better overrun if you reduced the time of freezing to 10 minutes.

* * *

Dear Sir:—Last November we wrote The Ice Cream Review in regard to some formulas and you answered us, giving us the formulas. We thank you very much for your kindness in this matter and are ashamed of ourselves for not having thanked you sooner.

We are not satisfied with the way we are making our ice cream mix and want to get it figured down to a more scientific basis and as we understand it all formulas should be worked on the 100 pound basis. The following list of the ingredients we are now using in what is approximately a 100 gallon mix or in other words, makes about nineteen (19) batches of 5½ gallons to the batch:

70 gallons of water.
65 lbs. 10 oz. skim milk powder.
10 lbs. 8 oz. sweetened condensed milk.
42 lbs. granulated sugar.
6 lbs. 4 oz. gelatine.
68 lbs. 14 oz. sweet butter.
24 drams Danish cheese color.

Now, what we want is for you to analyze this mix for us carefully advising the percent fats, serum solids and total solids also advising us what changes you would make in this formula to make a good commercial ice cream. We are in a very bad situation here on account of keen competition at a cheap price. We cannot get over $1.10 per gallon wholesale for our cream and to meet competition must have a good cream. We want something that will stand up and that has a good body. Butterfat does not count much in this territory. We cannot get any sweet cream at all and just a very small amount of whole milk so have to rely altogether on homogenized goods. If you do not like this formula, tear it to pieces and give us one that will be all right and will be as cheap or cheaper than this one. Please advise us how to figure this same batch we are now using on the 100 pound basis, instead of the gallon basis. Then advise how many pounds to use to the batch and what our finished cream should weigh and how much cream we should get from a batch. We are now using 5½ gallons of our present mix and getting out 11 gallons on an average. D. A. H.

Reply: I have analyzed for you below, in Table No. 1, the 100 gallon mix which you stated in your letter you were using:

Table No. 1

Ingredients	Fat	Serum Solids	Total Solids
42.0 lbs. sugar	...	....	39.90
6.25 lbs. gelatine	...	....	5.94
68.90 lbs. butter	57.87	....	57.87
65.60 lbs. powder	...	62.32	62.32
10.5 lbs. sweet condensed	...	2.83	7.03
583.8 lbs. water	...	....	....
777.0 lbs. mix	57.87	65.15	173.06
Per Cent	7.32	8.3	22.3

Table No. 2

800 lbs. Mix—8 percent Fat.

Ingredients	Fat	Serum Solids	Total Solids
56.0 lbs. sugar	...	....	53.24
8.0 lbs. gelatine, vanilla and color	...	....	7.00
76.2 lbs. 84 percent butter	64.00	....	64.00
100.0 lbs. sweet condensed	...	27.00	67.00
72.0 lbs. skim powder	...	69.00	69.00
487. 8 lbs. water	...	....	....
800.0 lbs. mix	64.00	96.00	260.24
Per Cent	8.00	12.00	32.53

You will notice that I have figured the total weight of your mix 777 lbs. You will also notice that the percentage of fat figured out 7.32 and total solids only 22.4 per cent. I am suggesting for you in table No. 2

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a mix using the same ingredients which you have been using worked over on the 100-pound basis. I have suggested an 800-pound mix as that is about what you have been accustomed to using. You will notice, however, that I have increased the serum solids and total solids considerably, as that is very necessary in order to assure ice cream of good body and texture. The trouble with your ice cream has been that you had too little solids compared with the overrun.

I believe it is possible for you to make ice cream from the formula suggested in table No. 2 and sell it at $1.10. Our Oklahoma and Kansas factories are using a similar formula, using 10 per cent butterfat instead of 8 per cent which slightly increases the cost of ingredients, and are selling the ice cream for $1 per gallon.

* * *

Dear Sir:—Will you kindly make up a formula using swet, pasteurized cream, sugar, pure vanilla and gelatine? We want to know whether or not we will have to use a filler so our ice cream will weigh four and three-quarters pounds per gallon?

Very truly yours, R. H. W. & CO.

Reply: I am suggesting below, in table No. 1, how to make up a 100-pound mix for 10 per cent butterfat and 10 per cent serum solids.

Table No. 1

Ingredients	Fat	Serum Solids	Total Solids
12.0 lbs. sugar	...	....	11.40
1.0 lbs. gelatine and flavor ...		....	.75
83.3 lbs. 12 percent cream..	10.0	6.51	16.51
3.7 lbs. skimmilk powder.. ...		3.51	3.51
100.0 lbs. mix	10.0	10.02	32.17

Overrun—85 percent cream will weigh.

You stated in your letter that you desired to use sweet pasteurized cream, sugar, vanilla and gelatine. It would be impossible to make up an ice cream of 20 per cent milk solids without the use of either skimmed milk powder or condensed milk. With the formula suggested in table 1 it is possible to get ice cream weighing 4.75 pounds to the gallon, providing the overrun is not over 85 per cent.

* * *

Dear Sir:—Will you kindly give me an ice cream mix to make a ten per cent. finished cream, using emulsified sweet butter cream condensed skim-milk powerd, condensed milk, and a small per cent of whole milk, that is as small amount as you think advisable in order to get a good tasting cream.

Second simply substitute liquid skim-milk for the condensed skim-milk powder, and give me the mixes to make 100 gallons of finished ice cream.

Also would like to have two mixes, using in one mix condensed milk, 8 per cent, to bring up the solids to about 30 per cent, and in the other condensed skim milk powder, both to make a ten per cent finished cream.

Yours very truly, A. M. H.

Reply: I find, that on reading your letter that I would not be able to calculate these mixes for you without additional information. For instance, you state that in one mix you desire to use emulsified sweet butter cream. I am not able to tell whether this cream is made by emulsifing the butter in whole milk, in skim-milk, or in skim-milk powder and water. If made with skim-milk powder and water I must know the proportions of skim-milk powder and water used.

You also stated that you wanted to use condensed milk but you did not specify if this was to be condensed skim, sweetened condensed skim-milk, or the

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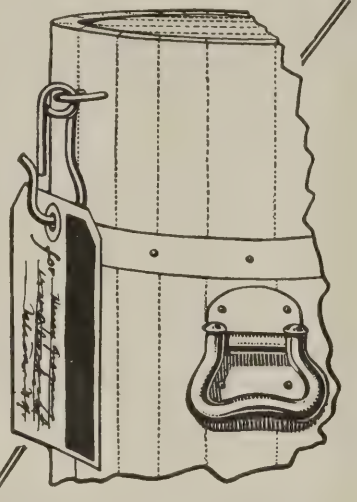
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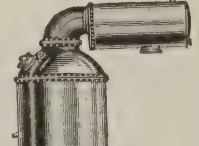
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regular 8% evaporated milk. You also did not state how much sugar you desire to use—whether 12%, 14%, or 16%.

You stated in your last paragraph that you wished to bring up the solids to 30%. A mix containing 10% fat and 12% sugar with only 30% total solids would not, in my opinion, make a satisfactory ice cream.

If you will furnish more detailed information, I will be glad to answer your questions. (See inquiry below.)

* * *

Dear Sir:—I want to know how to make nut ice creams, especially how to prepare different kinds of nuts, proportions, etc. We have an upright Progress freezer. Can you tell me where I can get these nuts?

Very truly yours, W. H. H.

Reply: I have your letter of recent date addressed to the Ice Cream Review which was referred to me. You should have no difficulty in making nut ice cream. The usual practice is to use the ordinary vanilla ice cream, color and flavor it for any combination and then use the crushed nuts which may be purchased from practically any creamery supply house which furnish crushed fruits and flavors. These nuts can be purchased in ground form, suitable for immediate use or the nuts can be purchased and ground up by the factory.

I do not know of any special formula or detailed directions for making nut cream except that found in a few of the ice cream books. Any ice cream maker can use his own judgment in blending flavors or different kinds of ice cream and also use the various crushed fruits and nuts.

* * *

Dear Sir:—Would be glad if you would give us process of making tests of ice cream for per cent of butter fat. Yours truly, L. I. C. Co.

Reply: We have made butter fat tests very satisfactorily by using the sulphuric glacial acetic test, a modification of the Babcock test.

The method simply consists of setting nine grams of well mixed ice cream or better ice cream mix, into either a 10% milk test bottle or a regular cream test bottle. Then add 10 cc. of pure glacial acetic acid. Mix this thoroughly with the cream in the test bottle and then add 10 cc. of the ordinary commercial sulphuric acid. After again mixing thoroughly continue in the regular way for making the Babcock test.

If this test is carefully made it should be accurate to within a very small per cent of error.

We will again have our one weeks short course for ice cream makers this winter during the week beginning December 26th and I suggest that you make plans to come to this course where all the various tests are taken up with the ice cream makers.

* * *

Dear Sir:—I figure the milk solids and sugar in 10 gallons of sweet condensed skim (3 to 1—40% sugar) to be: Total weight, 110 pounds consisting of 44 pounds sugar—milk solids 17.82 pounds—If this is not the correct way to figure this milk and if my figures are incorrect, kindly explain to me the right way and the correct figures. Yours truly, G. I. C. F.

Reply: A ten gallon can or 110 pound containing 40% sugar would furnish 44 pounds of sugar. This same 110 pounds containing 27% milk solids would furnish 29-7 pounds of milk solids. I do not know where you got your figure 17.82 pounds for milk solids but unless this sweet condensed milk is considerably different from all I have analyzed your figure is quite wrong. The total solids content of sweetened condensed milk is from 66% to 70%.

Dear Sir:—In formula one, I wish to emulsify sweet butter into 4% whole milk. I would like to have the amount figured to make 50 gallons of finished cream, testing 10% finished, and with the correct proportion of solids, which in your estimation would make a good balanced ice cream. To increase the solids in this mix, we are figuring on using Armours 8% evaporated unsweetened milk.

In formula two I desire to emulsify sweet butter in skim milk powder and water, now I would like for you to give me a mix for 50 gallons finished cream for formula two using skim milk powder or Armour's 8% evaporated milk to bring up the solids.

Our trade demands a sweet article of ice cream. We have in the past used 35 pounds granulated cane sugar for each mix of 225 pounds or 50 gallons finished ice cream. I would like for you to figure at or near this amount of sugar on these mixes.

Would it be advisable to emulsify 3 gallons of 30% pure fresh sweet cream, as part of the cream and the balance of sweet butter, and can you give me some advice as to how to proceed, that is, what should go in the mixer first, whole milk or water in the case you are emulsifying sweet butter in whole milk or skim milk powder and water. We want to use gelatine and to run through the emulsor, is it necessary to beat the gelatine before adding to the mix before pasteurization, we have used gelatine before, heating it to about 170 degrees, then cool down and add to the cold mix.

Very truly yours, A. M. H.

Reply: I have your further data regarding the ice cream mixes which you desired me to suggest to you. I am glad to suggest the two mixes requested in tables 1 and 2 below. You will notice that table 1 was made to contain a little better than 32.5% total solids and table 2 to contain 33%.

Table No. 1.

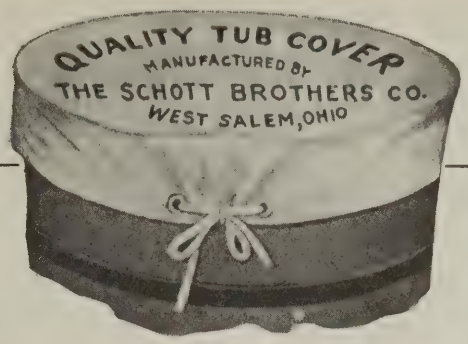
Ingredients	Fat	Serum Sol.	Total Solids
14.0 lb. Sugar			13.30
1.0 lb. Gelatine & Flavor (12 oz. gel., 4 oz. vanilla)			.75
20.0 lb. 8% Evaporated .	1.6	3.6	5.20
7.4 lb. Butter 84%	6.2		6.20
57.6 lb. Milk 4%	2.3	4.92	7.20
100.0 pound Mix	10.1	8.52	32.65

(100 lb. Mix—10% fat—20 gallons ice cream—using sweet butter, 4% milk and 8% evaporated milk.)

Table No. 2.

Ingredients	Fat	Serum Sol.	Total Solids
14.0 lb. Sugar			13.30
1.0 lb. Filler and Flavor			.75
12.0 lb. Butter	10.08		10.08
9.3 lb. Skim Milk Powder		8.87	8.87
63.7 lb. Water			
100.0 pound Mix	10.08	8.87	33.00

Either of the two formulas will make a satisfactory ice cream providing the materials used are first class and the mix is handled in the proper manner. If it is possible for you to secure some fresh sweet cream it would be advisable to use part sweet cream for the butter fat in your mix. In making up either of these batches it is desirable to put the whole wilk, skimmilk , or skim milk powder and water into the mixer first, then cut the butter in small chunks and then heat to the pasteurizing temperature. However, in getting the skim milk powder into solution in water it is best to have the water warm or at a temperature of about 110 degrees. It is not necessary to heat the gelatine in water as the gelatine can be added by mixing the granulated gelatine with the sugar thoroughly and introducing both into the mix at the time of pasteurization. We have done this for a number of years and find we get just as good, if not better results from our gelatine.



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Quality

There is no better test for the qualities of a product than time.

During its course a product like the **Quality Tub Cover** goes through a series of experiences and hard knocks that proves the weak spots in make-up, serviceability and cost.

The fact that after six years as users, original buyers of **Quality Tub Covers** send in repeat orders each season for new tub covers, should be proof enough for you to investigate the quality, price and serviceability of Quality Tub Covers.

The Quality Tub Cover comes to you complete with staples, tie strings and your advertisement

Write for Prices Now

The Schott Bros. Co.

"If Made from Canvas, We Make It"

West Salem Ohio

Cork Insulation

Indispensable for the economic operation of the

Ice Cream Plant

and the preservation of its

Products

Ask our nearest Sales Office for Catalogue and References.

United Cork Companies

LYNDHURST, N. J.

Branch Offices:

NEW YORK 50 Church Street
CHICAGO Westminster Bldg.
PHILADELPHIA 1042 Ridge Avenue
BOSTON 268 State Street
CLEVELAND 1200 West 9th Street

Sales Agencies:

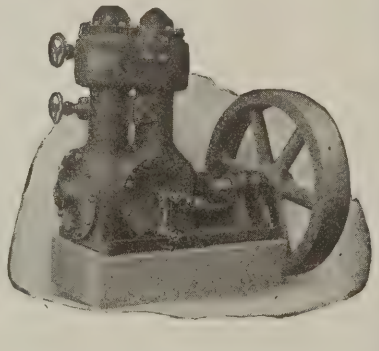
WARREN & BAILEY Los Angeles, Cal.
SEATTLE ASBESTOS FACTORY Seattle, Wash.
THE FEDERAL ASBESTOS CO. Milwaukee, Wis.

Mention The Ice Cream Review

It's Not Too Late

To Order a

Y-Enclosed O-Belted R-Ice K-Machine



For This Season's Run

We carry a complete stock of sizes of from ½ ton to 35 tons in our Chicago warehouse. We can ship any ordinary coil and tank order in about 10 days.

Complete plants in from 30 to 45 days.

WESTERLIN & CAMPBELL CO.

CHICAGO, ILLINOIS

J. G. HAMMERSCHLAG, *Wisconsin Manager*
1011 Majestic Building Milwaukee, Wisconsin

AN INTERESTING ADVERTISING CAMPAIGN.

We are taking the liberty of publishing a business letter which gives the details of an advertising campaign put on by the John Wood Manufacturing Company, Conshohocken, Penna., better than we could put it in words. We wish that we might reproduce the circulars referred to in the following letter, but space will not permit:

Conshohocken, Penna., Sept. 19, 1921.

Editor Ice Cream Review:

It may interest you to know that we have been conducting an extensive advertising campaign on Electric Weld Rivetless, Solderless Ice Cream Cans, not only using some advertising space in trade journals but backing this up with direct-by-mail campaign.

Circulars printed on 120-pound coated stock paper and printed in two colors are being mailed to more than 5,000 ice cream manufacturers on an average of one a week, leading up to the big National Conventions; The National Dairy Show, the Eastern Exhibition of Ice Cream Supply Men and the Southern Exhibition at Atlanta, Ga., as well as the various state conventions. In this series the folders were arranged as follows:

1. "Do You Retin Your Old Cans?"
2. "Bottom Formation."
3. "Testing the Weld."
4. "The Non-Slip Grip Beaded Rim."
5. "The Non-Deforming Edge Lid."
6. "The Inspector's Approval Stamp."
7. "The Solderless Can."
8. "Repeat Orders."
9. "The Plant Behind the Solderless Can."

The feature of this direct-by-mail series is that each circular tells its own story bringing out the various important points of our product in an orderly manner. The little story on retinning cans, of course will interest any ice cream manufacturer, and in this circular we have endeavored to interest him to the extent of calling his attention on page two to the fact that another letter will follow on the Electric Weld Bottom Formation, which we state would be mailed in about two weeks from to-day, and suggest to him that he do not miss it.

The first circular was sent out as an enclosure in a personal letter to the manufacturer which contained about two or three short snappy sentences, and circulars, 2, 3, 4, 5 and 6 were prepared in such a way that a one-cent stamp pre-canceled by postoffice permit is used as a clip to fasten one edge. Each circular contains a notice to the postmaster that returned postage is guaranteed which enables us to keep our mailing list right up to date, and in addition each circular on the addressed page calls attention to the next message to follow.

The Conshohocken Recorder turned out this work, and, while not a large printing plant, took personal pride in the appearance of the job and was progressive enough to prepare for this kind of work by buying additional equipment to handle a job of this kind satisfactorily.

Another feature is that circular No. 7 was mailed at such a time that it reached the ice cream manufacturers as an enclosure in a letted just before they left for the National Exhibition in St. Paul, while 8 and 9 were followups; one "Repeat Orders", and the other "The Plant Behind the Can" intended to move any doubt as to the proven success of our product and the organization in back of it.

This rather elaborate sales campaign on our part at a time when so many firms were retrenching proved highly successful, and the results have already been gratifying.

This advertising campaign, together with the concerted efforts of our branch managers in various sections of the country had stirred up great interest in our new type containers and is bringing us a splendid return,

We thought, perhaps, you might be interested in this advertising program.

Very truly yours,

JOHN WOOD MFG. CO.

ASSOCIATION OF ICE CRAEM MANUFACTURERS OF PENNSYLVANIA

To All Members: There will gather in Erie, Pa. on October 31st and November 1st, 1921, for the purpose of exchanging ideas, a Bunch of good fellows who's heart and soul are in their industry—Ice Cream.

Are You Going to be One Of That Bunch?

The idea of having a set program, with the usual prepared papers on various topics, will be eliminated this year. Open discussions will be the order.

Bring along a list of subjects you would like information upon and see if there is not some one present who can and is willing to interchange ideas with you.

This will be your convention and it will be just as good as you help to make it.

"He Profits Most Who Serves the Best."

Do not come with the idea that you are going on a joy party, because the Erie boys are going to see that you have a good time, but come with the idea that you are going to get help and give help and that you will do all you can to help make this 15th Annual Convention at Erie the Best Ever.

Frank Biers of the Erie County Milk Association says that the calls for hotel reservations are coming in fine, so get in line and write Frank to make your reservation.

The Lawrence Hotel will be our headquarters. October 31st and November 1st are the days and last but not least the evening train to Buffalo, where the Association of Ice Cream Supply Men will hold their eastern exhibit from October 31st to November 5th inclusive.

We welcome any one interested in the ice cream industry to meet with us.

J. W. NEUMAN, Secretary,

ROBERT CRANE, President.

MANUFACTURE ICE CREAM FOR RETAIL TRADE

Plans to manufacture ice cream for the retail trade in St. Paul and Minneapolis in a factory owned and operated by the retailers were made recently at a meeting of organizers of the Northwestern Ice Cream company of Minnapolis, which filed articles of incorporation with the secretary of state.

A large factory with a capacity to supply not less than 500 retail stores will be erected at once. J. H. Marshall, president, indicated after the meeting.

"This company will be strictly co-operative," Mr. Marshall explained.



An Unusual Service

Quality: Every one to whom we have shipped re-tinned and re-built cans, etc., come back with more business, stating we do exactly the kind of work they have always wanted.

Promptness: Customers tell us we make prompter shipments than any other concern—quick delivery is a special feature with us,

Dependability: You will experience, when having "MANITOWOC" on the job, a dependable re-tinning and re-building service that covers every detail, assuring you absolute satisfaction.

Satisfaction Guaranteed

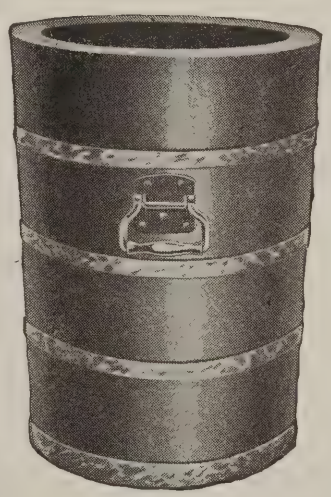
Our guarantee to you is backed by the most modern re-tinning and re-building plant in the country—by the most expert workmen—careful selection of material and rigid inspection and by an organization of high standing with the Dairy Industry.

"Quality First and Always" Is Our Motto

MANITOWOC PLATING WORKS

Electro Platers, Tin Platers and Galvanizers
Tinning a Specialty

MANITOWOC - - WISCONSIN



THE TEXAS BARREL COMPANY manufactures the most durable Ice Cream Tub on the market. Sizes in half gallon and up.

Our 29 inch five gallon tub prevents cream from melting at the top. A cream saver.

Specially prepared bottom so constructed as to withstand extremely rough treatment.

CABINET TUBS SPECIALTY

Can make immediate delivery—Write for prices

Texas Barrel Company

HOUSTON, TEXAS

VAN-MUL

The King of Ice Cream Vanilla Flavors

Made of **Mexican Beans** and Fortified

Will Not Freeze or Cook Out.

¼ Oz., 7c. Flavors, 5½ Gal. Mix of Ice Cream
3 Drams, 10c. Flavors, 100 Pounds of Candy

Many Satisfied Users

Packed	Price Per Pint
1 Pint Bottle	$5.00
5 Pint Bottles	4.50

ORDER NOW

Guaranteed to please or money back

Downey-Turnquist & Co.

Manufacturing Chemists and Importers

Makers True Fruit Extracts
SODA WATER FLAVORS

537 N. Dearborn St. CHICAGO, ILL.

IT ALWAYS PAYS To Retin Milk and Ice Cream Cans

There is no need of repeating about the excellence of our work and service.

Twelve years of experience and the best equipped tin-plating plant, assures quality and service.

Write for new price list

Alois Aufrichtig Copper & Sheet Iron Mfg. Co.

Third & Lombard Sts. St. Louis, Mo.

THE ICE CREAM REVIEW CORRESPONDENCE SCHOOL

Why not a correspondence school in the columns of the Ice Cream Review? Perhaps that isn't the name for it, but the name is not important. In the September issue we published the following letter:

Gentlemen: Having tried for some time to get some information without success, we are writing direct to you in the hope that you can refer this letter to some firm, capable of answering it correctly. While the writer is not exactly a novice in the ice cream business, having a couple of college degrees and several years' experience in different plants, so far we have been unable to successfully cope with this situation.

Our mix contains 10 per cent. butterfat and 35 per cent. total solids, with .7 per cent. gelatine and 12 per cent. sugar. It is pasteurized and the whole mix run through the emulsor, cooled to below 50 degrees, and aged over night. After freezing, the cream is poured into five gallon cans and hardened in large boxes with ice and salt, as we have not yet got in refrigeration. We find the cream—over half of it—to be "icy," that is, having formed long, thin crystals, especially around the edges of the can for about two inches toward the center. In addition to this, once in a while there is a can in which the sugar seems to have run to the bottom, forming a syrupy mass which becomes very hard and icy, and which occupies about three or four inches in the bottom of the can. These are our only troubles with the cream, and even when icy it has a good, smooth, creamy taste, is not granular, sandy, watery or in other ways off quality. We have gone thoroughly into proportions of the mix, and are positive that nothing is wrong up to time of hardening, as it is thoroughly mixed and emulsified, also freezer is working properly. We have been of the opinion that too slow or too fast hardening, due to ununiformity of hardening with ice, is the cause, also fact that cream often becomes soft during day while waiting for ice, etc., and is then repacked and rehardened. However, after doing our best to rectify such conditions, we are still having the same trouble, and we are very anxious to straighten things out. We have written and consulted several salesmen supposed to be "experts" in such matters, without avail, receiving almost exactly opposite suggestions in many cases. It you can give us any help in this connection we will appreciate the favor greatly.

Thanking you in advance for anything you can do for us, we are, Yours very truly,

——— ICE CREAM CO.

* * *

We have received the following answers to the questions raised:

Trinidad, Colo., September 10, 1921.

Ice Cream Review: I beg to suggest the following remedy or method of process to combat the trouble your correspondent is having with his ice cream.

Be sure your gelatine is high grade goods; age your mix as long as possible without getting sour (at least 24 hours, or better 48 hours) if you are fixed to hold the mix that long before freezing; add one ounce of Meloine or Gumpert's ice cream improver to each five gallons of mix, freeze before it gets too thick (otherwise the cream may become sticky). Then get two five gallon tubs, put ice and salt around the cans and see that the cans are frosted inside before pouring the mix in; use about 8-10 pounds salt at the first packing—repack in about three to four hours and also repack with less salt at least twice a day.. Until the cream is sold and leaves your plant, it will be well to cover the tubs with a few damp sacks so as not to melt the ice

too fast. I have advised to use tubs as I think you are not getting the right temperature in the boxes which you use for hardening purpose.

If anything is not quite clear, I shall be glad to advise you again. Yours for success,

K. CHRISTOFFERSEN,
627 Arizona Ave., Trinidad, Colorado.

* * *

"Two Troubles Instead of One."

Gibson City, Ill., Sept. 27, 1921.

Editor, Ice Cream Review:

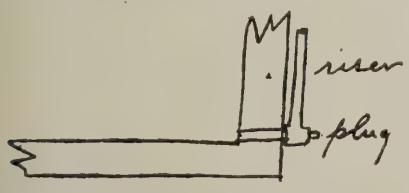
Dear Sir: In your September issue, on page 152, under the title of "Who Can Help?" I note a call for help from a brother ice cream man and, while I do not pose as an expert in such matters, as I have had similar trouble, I will tell you what I did to overcome it.

I think he has two separate and distinct troubles instead of one, as from his description he is up against the same things I had to overcome two years ago.

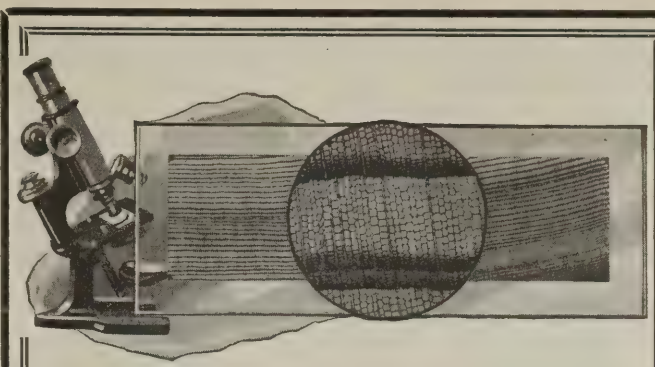
First, he is using a steam jet emulsifier and emulsifying the sugar with the rest of the mix. I tried this and found that the heat of the steam added to the heat of pasteurization was sufficient to partly burn or scorch the sugar and the result was an inch or two of dark brown syrupy ice cream in the bottom of the can. I was using a tub freezer at that time so did not get this stuff into the packing cans, but it meant quite a loss until I quit adding the sugar before pasteurization. I got the best results by making a raw mix of butter, milk powder and water, using HALF the required amount of water, pasteurizing this to 140 to 145 degrees, hold for 20 to 30 minutes, cool to about 120 degrees, then run through the emulsifier and cool to about 32 degrees. Age this a day or two and when ready to use add the rest of the water, the sugar, flavor, gelatine, etc., and mix and freeze. By doing this I got rid of the syrupy condition.

His other trouble, I think, is the result of the manner of packing in the slush box. I have seen several factories using slush boxes and the usual method seems to be to first empty the box, then pack the empty cans in it, with ice and salt, and as the ice cream is drawn from the freezer to pour it into these cans. They then handle the slush box the same as a can packed in a shipping tub, that is, draw off the melted ice (brine) and repack every so often, some even keep the slush box drained all the time. I tried this method and had much icy ice cream also, at times, soft ice cream.

To overcome this I installed a pipe drain as close to the bottom of the box as possible and just outside the box was a tee (see cut) with a plug in the end and a 16 inch pipe riser as shown here. This gave a brine level in the box of about 18 inches and the overflow over the top of the riser took care of any excess brine. By slanting the riser to one side any desired brine level can be had or the box drained entirely, the plug can be removed to clean the pipe in case it clogs up at any time.



To pack fresh ice cream. The ice cream was transferred from the freezer to the packing can and this can then immediately placed in the slush box. There should be plenty of crushed ice in the brine so that the cans will stand upright and the riser should be slightly slanted so that the cans will not cause the brine to rise enough to get into the ice cream. When the box was full or the freezing done the cans were covered with



Why REDWOOD makes Ice-Saving Ice Cream Cabinets

THE microscope tells why Redwood is unsurpassed as an insulating wood. It has a remarkable cellular structure—layer on layer of tiny cells uniform in size and shape. In properly dried Redwood, these cells form countless dead air pockets which are highly resistant to the passage of heat or moisture. They give Redwood an even texture and uniform high insulating qualities—make Redwood ideal material for ice cream cabinets, refrigerators and for cold storage compartments.

Redwood an Unusually "Still" Wood

Properly dried Redwood "stays put." Under all conditions of heat and moisture, it is subject to a minimum of contraction and expansion—is practically free from swelling, warping or shrinking. Joints stay tight. This, combined with its high insulating quality, makes Redwood an ice-saver, and keeps ice cream in salable condition.

Resist Rot

A **natural** preservative which impregnates every fibre of Redwood during the growth of the tree, guards it against rot and decay from moisture, acids and salts. Vats and tanks of Redwood give exceptionally long and satisfactory service in plants where dairy products are prepared. Redwood is, moreover, odorless.

Other Properties of Redwood

Light in weight and with a fine texture, Redwood is easy to work. It takes paint or varnish better than most woods. The wider-than-usual Redwood boards, with minimum of knots keep manufacturing costs down. Leading manufacturers of dairy and cold storage equipment are constantly increasing their use of Redwood.

Write our Chicago office for Booklet 3 Redwood Manufactured Products.

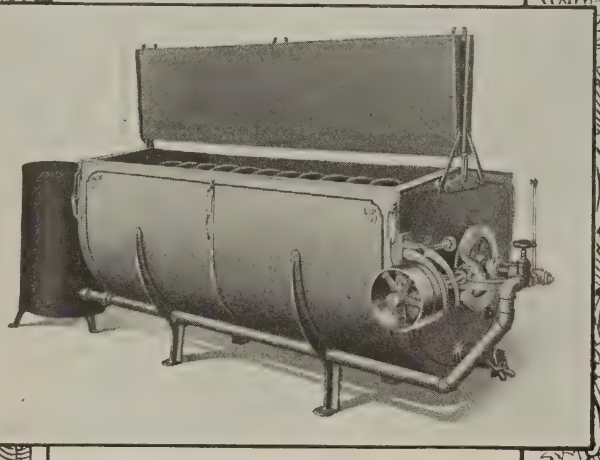
The Pacific Lumber Co. OF ILLINOIS
REDWOOD
REG U.S. PAT. OFF.

2082 McCormick Building, Chicago
New York City, N. Y. Kansas City, Mo.

THE PACIFIC LUMBER CO.
San Francisco, Calif. Los Angeles, Calif.

Export Company
A. F. THANE & CO.
40 Rector St. New York City
311 California Street San Francisco

The largest manufacturers and distributors of California Redwood
Members of the California Redwood Association



IF the experience of the other fellow means anything to you a Manning

BATCH MIXER

will be the next addition to your plant equipment. Thoroughly tested by use in modern plants throughout the country, the Manning merits the confidence of the progressive ice cream manufacturer.

Complete efficiency and unequaled durability have made this batch mixer a leader. Write us or the nearest supply house for descriptive circular and latest price list.

MANNING MANUFACTURING COMPANY
Rutland, Vermont

MANNING EQUIPMENT

layers of crushed ice and salt as deep as desired. I repacked from two to your times a day, depending on whether the ice cream was hard or new and soft. To repack slightly slant the riser, then tamp the ice down around the cans, forcing it into the brine. I did not draw off any brine but simply let it flow out over the top of riser. This keeps an even temperature in the slush box so long as the proper proportions of ice and salt are added. The temperature can be easily taken at any time by slanting the riser, letting a little brine run out, then catch a cupful and take its temperature with a thermometer. I found this method took less ice and salt, was less labor and kept the ice cream in better shape. Also no more icy ice cream.

My experience is that a slush box will turn out just as good ice cream as a hardening room, if properly handled. Also it will harden the ice cream quicker, but it requires more attention and skill to keep it just right. Many dealers have soft ice cream or icy ice cream even with the best of cabinets as they let it soften, then repack and harden. The difference between a cabinet and a slush box is only a question of size. I used a box 40x50 inches (inside measurement) for 100 gallons, or 10 inches square to the can. Depth, 30 inches in the clear inside or about 8 inches of ice over the cans.

I hope this information will help the other fellow and if there is any more information I can give him I will gladly do so. Yours very truly,

L. S. FRITH.

* * *

The Cause of Icicles.

Editor Ice Cream Review: On page 152 of September Ice Cream Review, is an inquiry regarding cause of icicles forming in Ice Cream from edges of can towards the center.

A few years ago I operated a continuous disc freezer. We were receiving many complaints of the same nature, icy around edge of can. We remedied our trouble by chilling the cans first and using an Ice Cream tub into which we had put a cabinet cylinder and ice and salt around it to keep the can cooled while being filled.

From this we learned that ice cream which melts from coming in contact with a warm can usually freezes up icy around the edges. Judging by this man's letter it seems that the fresh ice cream is not set into the tanks immediately. If he will set his empty cans to be filled into the holding vats, place the covers on the cans and then ice them up using the regular proportion of ice and salt, and then transfer fresh frozen ice cream from the freezer directly into these chilled cans, the ice cream has no chance to melt but begins to harden immediately, thus overcoming the icy condition.

Ice cream which has been through the freezer and then allowed to melt a little before hardening, the melted portion will always freeze up icy.

Yours truly,

The Haydon Company
W. S. LARSON
Supt. Ice Cream Dept.

* * *

In a recent issue we also published the following request for information:

A subscriber to the Ice Cream Review writes that he is using corn oil for the purpose of greasing cans for winter storage. He is wondering whether any other preparation is giving satisfaction elsewhere. Your experiences would be appreciated. Send them to The Ice Cream Review, for publication.

Replies to this inquiry are as follows:

Gentlemen: In answer to your letter of September 27th, we do not grease any of our ice cream cans for winter storage. We wash and sterilize these cans before storing, and then store them in a good dry room where no moisture can get at them. In this way we have no trouble with rusty cans from storing during winter.

I see no harm in using oil or grease for storing cans as long as same is free of acids. Yours truly,

T. T. B. Co.

* * *

Gentlemen: Replying to your subscriber who wants to know what is the best material to use in greasing ice cream cans for storing in winter, to prevent rusting, beg to advise that we have always used vaseline with beneficial results.

W. W. D. Mgr.

* * *

We do not find that is it necessary to grease ice cream cans when storing them away for the winter. We simply dry them out and stack them in a dry place.

I. I. C. Co.

* * *

Gentlemen: We purchase a low grade of vaseline from the Standard Oil Company to grease our ice cream cans for storage. We find it economical to warm our cans as well as warming the vaseline before spreading it on the cans.

This grease is applied with a 4 inch brush. We would appreciate any helpful suggestions along this line. H. C.

THOMAS W. DUNN CO. WILL EXHIBIT IN BUFFALO

The Thomas W. Dunn Company booth at the Eastern Exhibition of the Association of Ice Cream Supply Men will be in charge of Mr. F. E. Hellweg, who will have with him the chief executive of the company, Mr. Henry Rosenstein, and also a number of salesmen. The exhibit will consist of all grades of pure food gelatines in granulated, sheet and flake form.

Dunn's gelatines are especially produced and blended for use in ice cream manufacture.

"In this connection," says Mr. P. H. Manners, secretary, "we would like to point out as a matter of interest that the use of gelatine in ice cream was originally introduced by the founder of our house, the late Mr. Thomas W. Dunn, and the gelatines which we are selling today are produced as a result of the experience which we have gleaned for a period of 42 years, during which time we have probably turned out larger quantities of ice cream gelatine than any other concern in the business.

Besides being the first bulk gelatine house to specialize on gelatine for use in the manufacture of ice cream, we have recently acquired the trade mark rights of Cox's gelatine in the United States and Canada, which is the oldest package gelatine on the market.

Cox's gelatine has been sold in the United States and Canada since 1845, and has always been regarded as the standard for purity, uniformity and general excellence. House-wives all over the country are familar with the red, white and blue checkerboard box.

Very truly yours

THOMAS W. DUNN CO.
Per P. W. Manners.

The Significance of the "B"



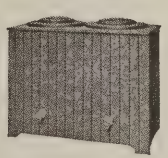
The Bee has long been known for its energy and constant industry. So has B. Riley Hauk, our president, who has had forty years' experience in the Creamery, Dairy and Ice Cream Makers' machinery and supply line. Mr. Hauk still has the same old pep, and is anxious to serve you by giving you the benefit of his experience in our line.

The "Bee" in our trade mark is also significant of the letter "B" in Mr. Hauk's name to distinguish it from any other company, as he is solely connected with and interested in the

Dairymen's Mfg. and Supply Co.
403 NORTH MAIN ST.
Saint Louis, Mo.

B. RILEY HAUK, President

Speed Up Brick Sales



Brick Ice Cream
is your
Winter Business

Schroeder Perfection
Brick Cabinets

Make it profitable for your dealer to sell brick cream and build up a steady "all-year" business.

"Insulation is the thing"

JOHN SCHROEDER LUMBER CO.
"A Dozen Cabinets or a Dozen Carloads"
WALNUT ST. MILWAUKEE, WIS.

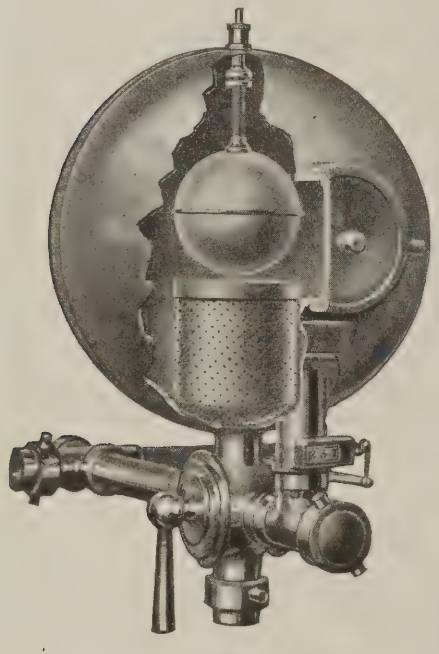
Do You Run Your Car Without a Speedometer?

To Measure Your Batch is Just as Essential as to Measure Your Mileage.
By Cherry-Basset Co., Philadelphia, Pa.

"THE best investment we ever made in our plant;" "Do not see how any manufacturer can afford to be without it;" "Does far more than was claimed for it;" "Count me as a real booster."

The reader would almost assume that any article which would elicit such praise must almost have received the magic touch of Aladdin and his lamp. This however is not a fairy tale but rather the account of a practical working device which has been developed not through the magic wand of an Aladdin but from the practical experience of the ice cream business. Once again has the old axiom proven true, "Necessity is the mother of invention".

May we ask the reader what single thing has been more sorely needed in an ice cream factory than some device which would prevent the many leaks and wastages incident to the present method of handling ice cream mix from the sanitary line to the freezer. Almost every other step in the manufacture of ice cream has been standardized and through standardization not alone has more uniform and better ice cream been produced, but great savings have been affected.



The Thomas batch measure has finally in its perfected shape taken its place in the ice cream industry alongside of the many other improvements which are making its possible for the ice cream manufacturer to effect economies hitherto impossible and also to arrive at costs of his product which before have been largely a matter of guess work.

Attached on the sanitary line leading from the holding vats and doing away with the present open style batch can the new Thomas batch measure is at once a device having both ornamental as well as many useful qualities. It has the distinct advantage that it can be attached to any make, style or size of freezer.

The simplicity of the apparatus, the ease with which it is kept clean appeal at once to the practical ice cream man. As one user recently remarked "It is fool proof and the best part of it is they have to use it." While it is true that its simplicity makes it fool proof and that it has to be used, yet with hardly an exception the men who operate it are its biggest boosters. For them it saves time, does away with all worry of overflows and overruns and furnishes a constant check on the amount of the day's make. For the plant owner it prevents the losses always occurring through careless operating, through valves being left open on the sanitary line, through spillage from the over-flow of the batch can and most important in this respect prevents the overloading of the ice cream freezer. It also assures him uniform colors and flavors where these are added at the freezer. Through the recording device on the measure the finest freezing room report sheet that has ever been possible is available for any who care for a careful tally of their days work. Costs such as flavor cost are now possible through knowledge of how much mix has been used to make each flavored ice cream. This has always been a matter of guess work.

Summed in the words of still another user, "There is no single thing in my plant which does as many different things for me as does that measure". That it is a real investment is apparent when one user of five forty quart freezers reports an actual saving of $25.00 to $30.00 per day on a manufacture of a thousand gallons of ice cream per day.

Anything which has the merit of appealing to the smallest as well as the largest ice cream manufacturer deserves a careful investigation, and all visitors to the Buffalo Exhibit of Ice Cream Supply Men should make it a point to see this device at the booth of the Cherry-Bassett Co., especially if you did not see it at the National Dairy Show.

Automatic Cone Machines

with which you can make a better cone, at a less cost, than with any other known device.

Prepare now for 1921 cone business.

We also have several automatic machines of another make as good as new, on which will make attractive prices.

Will thank you to write us.

The Cream Cone Machine Co.
CLEVELAND, OHIO

SOON TO START ERECTION OF BIG FACTORY

Negotiations have been completed for the purchase of a site for the proposed new plant for the manufacture of ice cream, to be erected in Los Angeles, Cal. by a recently formed company, which is headed by W. E. Keller, president of the Globe Milling Company, and A. A. Comey, formerly vice-president and general manager of the Christopher Ice Cream Company.

The project including plant and equipment will represent a total investment of $700,000.

The factory will have an estimated capacity of 1,000,000 gallons of ice cream per year, and through the introduction of modern machinery and methods of manufacture, the price to retailers can be considerably reduced, it is claimed. Ten Walker electric trucks will be used for the distribution of the ice cream, gasoline trucks being used only for hauling supplies to the factory. The plant will be under the direction of Mr. Comey, who has had considerable experience in this work. The company plans to extend its operations to other cities of the Pacific coast at a later date.—Los Angeles (Cal.) Times.

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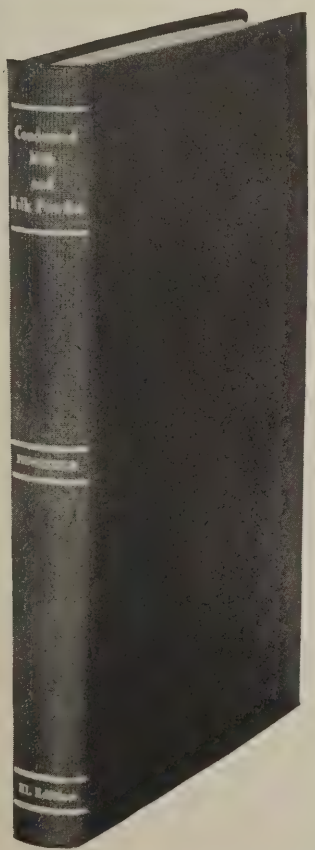
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(BY OTTO F. HUNZIKER)

THE THIRD EDITION of This Book Has Just Come from the Press.

This work represents a new book from cover to cover. It contains the description of the latest equipment and of the most improved methods and practices in the manufacture of every marketable line of condensed and dried milk products.

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NEWS ABOUT SUGAR

Items of Interest for the Ice Cream Manufacturer

AUGUST 1921 RECORD MONTH FOR CUBAN IMPORT

Figures of the Bureau of Statistics, Department of Commerce, covering imports and exports during August show that 285,426 short tons were imported during the month, valued at $18,119,553.

It is worth noting that of this total 240,305 short tons were imported from Cuba, this sugar being valued at $13,817,785, the next largest seller to this country being the Phillipines with 30,674 short tons, valued at $3,398,357.

San Domingo ranks third with 13,024 short tons of sugar, valued at $710,390.

Imports are More

With the exception of August, 1920, the imports were higher than those for August of the preceding six years, while over the period of eight months from January 1, the total imports seem to about hold their own, again with the exception of 1920, when abnormal conditions prevailed.

No beet sugar was imported during the month under consideration.

Comparative figures covering the month of August and the first eight months of the year for the last seven years, show imports in short tons of 2,000 pounds as follows:

Year	August	Eight Months
1921	285,426	2,215,759
1920	441,114	3,286,161
1919	195,248	2,557,645
1918	170,120	2,097,636
1917	197,615	2,134,133
1916	186,112	2,248,806
1916	216,424	2,237,198

Of the full duty paying sugars the bulk came from Santo Domingo, receipts from other countries aggregating only 1,419 short tons.

Receipts of Year

The following figures, in short tons, show the detailed receipts for the month of August and for the first eight months of the year:

From	August	Eight Months
Santo Domingo	13,024	107,997
Central America	412	21,203
Mexico	779	11,683
Brazil	225	3,216
Peru	....	10,247
Venezuela	....	3,205
Other So. America	....	4,393
British West Indies	....	1,993
Other West Indies	....	6,390
Hong Kong	3	525
Dutch East Indies	....	17,028
Other Countries	....	2,236

Of the total imports 169,928 tons were brought in through the port of New York; 35,503 tons through Philadelphia; 24,816 tons through Boston; 25,047 tons through New Orleans, and 13,307 tons through Galveston.

Exports of refined sugar for the month totaled 66,527 short tons, valued at $6,323,581, the largest buyers being Great Britain and France.

The export figures for August and for the first eight months of the last seven years are as follows in short tons:

Year	August	Eight Months
1921	66,527	353,100
1920	4,761	415,158
1919	59,549	519,890
1918	22,069	71,745
1917	78,400	385,938
1916	84,320	631,499
1915	76,403	229,355

The exports of refined sugar for August and for the first eight months of the year were to the following countries, figures given being in short tons:

Exported to	August	Eight Months
Great Britain	33,453	148,810
France	18,023	42,229
Greece	2,419	37,888
Gibraltar	87	7,190
Turkey in Europe	1,187	9,121
Netherlands	2,688	9,651
Rumania	66	664
Jugoslavia	244	2,925
Belgium	224	446
Malta	775	1,537
Italy	241	23,822
Finland	....	1,336
Russia in Europe	....	286
Spain and Canary Islands	92	17,435
Germany	44	1,159
Poland	244	244
Azores and Portugal	1	1,635
Denmark	448	448
Canada	135	2,548
Newfoundland	62	2,188
Mexico	333	9,214
Panama	37	707
Cuba	146	2,427
Haiti	72	562
Santo Domingo	71	839
British West Indies	33	941
Virgin Isles	21	437
Other West Indies	113	250
Bermuda	18	565
Other North America	2	189
Argentina	1,630	6,900
Uruguay	522	8,480
Other South America	60	626
Turkey in Asia	....	1,919
Other Asia	222	453
Philippine Islands	15	738
Morocco	1	776
French Africa	1,013	1,598
British Africa	69	349
Other Africa	2	427
Oceania	20	27

THE MOVEMENT OF SUGAR PRICES

The editorial, Facts About Sugar, remarks that recently the New York market for raw sugar for the second time this year registered the extreme low price of four cents a pound, duty paid. It is significant that on both occasions the holders of raws offered such stubborn resistance to the pressure for the further downward movement of prices that the low basis was not long maintained but yielded to a moderate advance. On the first occasion this development led the way to the very substantial buying movement that went on during the month of July. Whether the previous record will be duplicated in this respect remains to be seen, but there are unmistakable signs of at least a temporary improvement in trade demand.

At the beginning of the year 96 degree test sugar was selling in New York at 5.39 cents a pound, duty

Quality in Flavor Spells Quantity in Sales!

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FOR QUALITY

MICHAEL'S MEXICAN VANILLA POWDER

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With and without the bean showing

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Our Grades are of the HIGHEST QUALITY OBTAINABLE, clear to the point of TRANSPARENCY, SWEET, FREE OF ODOR, and GUARANTEED to comply with all STATE and NATIONAL PURE FOOD LAW REQUIREMENTS.

ITS USE INSURES GOOD TEXTURE AND A SMOOTH CREAM.

A TRIAL ORDER will convince you that these are the best grades of GELATINE in proportion to price that can be secured.

You are cordially invited to visit our Booth No. 39 at the Eastern Exhibition of the Association of Ice Cream Supply Men, Elmwood Music Hall, Buffalo, N. Y., Oct. 31 to Nov. 5.

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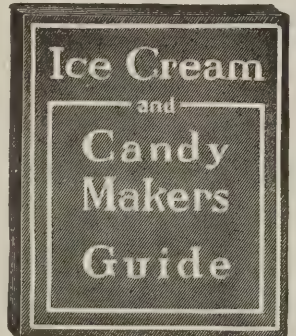
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TUTTI FRUTTI MIXTURE

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paid. After a slight advance to 5.52 cents the price gradually fell off until it stood at 4.52 early in February. About this time announcement was made of the proposed appointment of the Sugar Finance Commission to take charge of the sale of the Cuban crop and this resulted in an upward movement which carried the price to 6.27 cents during the latter part of March.

From this point a gradual decline set in which carried the price down to 5.06 cents at the end of May when the emergency tariff bill became law. The duty paid price being unchanged the higher tariff rate had the effect of depressing the cost and freight quotation on Cuban raws or in other words of passing the increase in duty along to the shoulders of the foreign producers.

During the month of June the Sugar Finnace Commission remained withdrawn from the market but the price of raw sugar steadily declined until it reached the four-cent level at which it remained during the ballance of the month.

Throughout this period the refining interests that had been most active in attempting to force raw prices to the lowest possible level continued their efforts in this direction with redoubled vigor, issuing statements to the effect that supplies were so greatly in excess of requirements that no more of the commission controlled Cuban sugar would be needed during the year. Despite this propaganda and the maintenance of a fictitiously low paper quotation for refined sugar it proved impossible to break the raw market below four cents, or indeed to hold it at that level. The practical exhaustion of trade stocks soon began to make itself felt and the Sugar Finance Commission was able to re-enter the market early in July and to sell a large quantity of its sugar at 4.61 cents, duty paid, later increasing its quotation to 4.86 cents where it has since remained.

During the present month the conditions prevailing in June have been practically reproduced. Trade demand for refined sugar has been inactive, refiners' operations have fallen off and with little incentive to purchase raws such offerings as have reached the market have been disposed of at steadily declining prices which brought the quotation on raw sugar down to four cents again on September 15. At this point sellers again showed resistance which made it impossible to force prices lower and the four cent price held good only for a week when an upward movement of one-eighth of a cent occurred.

Students of price movements hold that when a downward swing to a previous low level is repeated without being able to carry beyond that point it is an evidence that bottom has been touched and that a gradual recovery is in order. If this theory is correct it is reasonable to anticipate a moderate further rise in sugar with a decided increase in activity. The technical position in sugar with the low state of refiners' and distributors' stocks is favorable to such a development at the present time.

In view of the relatively large supplies of beet and Louisiana cane sugars that are about to become available in addition to the unsold balance of the Cuban crop it is not to be anticipated that any very great advance in prices will take place, but the evidence that the market has given of unwillingness to go below the four cent level should impart greater confidence to the trade in placing orders at or near the present basis.

It is argued that so great a decline already has taken place in the price of sugar that a further decrease at this time would not materially stimulate demand. As has been repeatedly pointed out in our columns sugar at its present price unquestionably is the cheapest foodstuff that can be purchased, but the average consumer is not informed as to the relative dietetic values of dif-

ferent foods and since he bases his judgment of the cheapness or dearness of a particular commodity upon the relation of its price to that which he has been accustomed to pay every decrease in price naturally leads to an increase in consumption. On the other hand the decline in prices within the past year has been so much greater than that which has taken place in other staple commodities and this fact is so well understood by the public that minor fluctuations are likely to have far less influence upon the demand from consumers than upon that from the trade. A more marked influence undoubtedly will be exercised by the gradual improvement in general business conditions which is now beginning to make itself manifest and which should lead to a steady increase in the use of sugar.

* * *

NEWS OF THE CUBAN SUGAR INDUSTRY

The following article is an interesting one prepared by H. O. Neville, who is the Cuban correspondent for Facts About Sugar, and will be of interest to ice cream manufacturers:

Havana, Cuba, Sept. 16.—A week of insignificant and scattered showers has just passed. Heat has been intense, winds moderate, with every indication of a visit from the tropical storm heading northwest from Trinidad, but this veered east of Cuba without even an additional quantity of rain to indicate its passage. In many places in the island the ground is very dry down to a depth of more than a foot, and a good general rain would be beneficial.

The number of mills operating has been lowered to three, "Delicias" having at last completed its campaign. The number of bags made sets a new record, this having been 768,378, as against an estimate of 700,000, and a crop last season of 578,738 bags. The other three mills, "Boston", "Preston" and "Santa Lucia" are still grinding steadily, but are believed to be rapidly exhausting the cane available to them.

Receipts Are Heavy

Sugar statistics for the week ending September 10th indicate a continuation of rather heavy receipts, these having been 20,815 tons, with a very marked lowering of exports, which were only 33,200 tons. No withdrawals of sugar for home consumption leaves stock in ports 1,198,444 tons, between three and four times that of September 11, 1920, and nearly twice that of September 11, 1919. The exports for the week were all for the United States, mostly to points north of Hatteras, with the exception of 8,394 tons to Great Britain. Thus total exports have now passed the 2,000,000 ton mark, but over 1,900,000 tons remain yet to be disposed of.

Quantity is Lower

The quantity of uncontrolled sugars still to be shipped is slowly diminishing, as of August 31st there remained the following:

Shipper	To whom sold	Bags still to be shipped
Marcelino Garcia	Imperial S. R. Co.	356,343
United Fruit Co.	Revere S. Co.	108,784
United Fruit Co.	Revere S. Co.	188,148
Dulce Nombre de Jesus	Loft	1,102
E. Atkins Co. Lt.	Rionda	88,920
E. Atkins Co. Lt.	Caledonia	102,088
E. Atkins Co. Lt.	Caledonia	120,725
E. Atkins Co. Lt.	Caledonia	48,523
E. Atkins Co. Lt.	Caledonia	25,232
E. Atkins Co. Lt.	Caledonia	15,623
E. Atkins Co. Lt.	Caledonia	24,716
E. Atkins Co. Lt.	Caledonia	41,754
E. Atkins Co. Lt.	Caledonia	79,767
E. Atkins Co. Lt.	Caledonia	12,393
E. Atkins Co. Lt.	Caledonia	20,800
Total		1,234,918

Did You Notice The "SANISCO" Ice Cream Sandwich Machines At The Dairy Show?

How they served the crowds, how simple they are to operate and how uniformly they deliver a slap of ice cream in perfect condition.

Our Circular tells many more things about this machine that you should know. Get one.

SANISCO CO. MILWAUKEE WISCONSIN



ICE CREAM PACKAGES of DISTINCTION



"Easy Closing"

MANUFACTURED BY

Ferguson-Lander Mfg. Co.

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PAILS in Three Styles
SENATE—EASY CLOSING
JACK FROST
Tape and wire handles

BRICK BOXES
in all styles
Plain or Paraffined

This
"CHICAGO" CAN LINER
has many features you should investigate
Send for samples and prices

The "promedios" for August have just been announced, these being as follows:

	First fifteen days	Second fifteen days	Month
Havana	2.73876	2.33781	2.73625
Matanzas	2.94629	2.54597	2.94441
Cardenas	2.86255	2.46150	2.86004
Cienfuegos	2.78817	2.38722	2.78566
Sagua	2.88911	2.4881	2.88660
Manzanillo	2.75223	2.35128	2.74972

The "promedio" for the first fifteen days was given out by the College of Brokers of Havana, but that of the last half of the month and of the full month was given out by the Secretary of Agriculture, in view of the fact that the Executive Board of the Havana College of Brokers has resigned and has not been replaced.

We gave a list in our recent letter of the sales effected during the entire month of August, and according to it the sales during the last half of the month consisted of only 3,020 bags of a total value of $28,592.66. The sales of the first half of the month consisted of 477,834 bags, worth $4,187,766.16.

Cancels Pay Raises

Decrees issued by the President during the past week have annulled all the increases in pay or salary formerly given to the laborers of the Government and forcing a readjustment of their wages, this readjustment to commence with the second fifteen day period of this month, that is, to become effective yesterday. The reduction to be made was not specified, the words of the decree defining that it should be "adequate". In another decree the president authorizes the payment of all pensions granted to members of the Army of Liberation and aiders of the Revolution, only in that proportion permitted by the funds available for this purpose, the total sum available being subdivided equitably among all those entitled thereto. President Zayas is giving every proof of the fact that as far as he himself can bring it about, economy in Government is prevailing, yet, notwithstanding this desire on his part, the joint commission from both Houses of Congress has, it is said, decided upon a budget for the current year of almost $65,000,000.00, estimating the probable receipts of the Government at $72,000,000.00.

Not only in Government lines is the tendency shown to lower wages, but it seems that at last a serious attempt is being made by the Association of Commerce and Industries of Havana Harbor to lower the wages being paid to the stevedores and others connected with the reception and dispatch of cargo. A commission has been appointed from among the members of the Association, consisting of Messrs. Smith, Donaphan, Cartaya, Stoddard and Latimer to study this question and to formulate a questionary which shall be sent to each member of the association to obtain his individual opinion concerning the problem. In addition to the lowering of wages of the laborers, will be studied the relation of the association to the delegates of the various workmen's unions of the harbor.

Modifies Former Order

President Zayas by a decree issued on the 6th of this month has modified a former decree authorizing the repatriation of foreign laborers who find themselves without employment in the Island, this modification prescribing that laborers from Haiti, Jamaica and the other Lesser Antilles contracted for labor in our agriculture shall be sent home for the account of the government, on account of their constituting at the present time a menace to the public peace of the island.

It is also further provided that those immigrants from these same countries who came to Cuba without contracts and who find themselves in a state of indigence, may also be sent home in groups without fulfilling the requisites of Article 5 of Decree 144, dated the 20th of July of this year, if the request for repatriation be submitted to the Secretary of Agriculture, Commerce and Labor through the agency of the Secretary of State by the Diplomatic Representative of the country from which the immigrants have come.

Inspectors Are Needed

Further attempts to make the Railroad Commission fulfill the ideal of such an organization held by the commercial public have resulted in the recent appointment of an inspector for each province, these inspectors being supposed to keep a general watch of railroad movements and conditions in the respective provinces and to report thereon to the commission. As inspector for Pinar del Rio Province, Sr. Eladio Blanco has been appointed; for Havana Province, Sr. Adalberto Senado; for Matanzas Province, Sr. Nicolas Sirgado; for Santa Clara Province, Sr. Benigno Frano; for Camagney Province, Sr. Federico Silva; and for Oriente Province, Sr. Juan Cruz Sota. As technical chief of these inspectors, Sr. Milian Alvarez Aragano has been appointed.

The use of alcohol as fuel for our internal combustion engines is increasing, and propaganda is still active tending towards a still further increase in its use. The suggestion has just been made in our financial press that a day be named for the holding of a monstrous celebration and procession, this day to be christened Alcohol Day, and to be recognized as a legal holiday and celebrated in all the towns and cities of the island.

Farmers Hard Hit

Continuous references are being made in our press to the conditions prevailing in the country districts, in which in many places groups of cane growers and other farmers have appealed to the municipal authorities of the location cited, begging that some public work be begun in order that they obtain employment and at least wages sufficient to purchase the food they require for their daily sustenance. From Colon, the center of a very large and rich agricultural section of Matanzas Province, the mayor has advised the Secretary of the Government that conditions there are desperate, as practically all the country stores have closed, due to the inability of their owners to continue furnishing supplies to the colonos who are already deeply in their debt.

Sellers Ask Payment

The owners of the stores state that the importers in Havana and in other places from which they obtain their supplies, have refused to furnish them further provisions, unless accounts already contracted be paid.



FUTURES MARKET IRREGULAR

A sudden rise in prices Sept. 29th followed by an equally sudden decline the next day marked the course of the raw sugar market on the floor of the sugar exchange. Earlier the market was virtualy without appreciable fluctuations.

The range of prices was as follows:

	High	Low	Latest
Raws—			
September	3.00	3.00	3.00
October	2.60	2.60	2.60
December	2.59	2.40	2.52
January	2.45	2.38	2.45
March	2.48	2.38	2.41
May	2.57	2.40	2.50
July	2.67	2.59	2.67
Refined—			
September	6.05	5.80	6.05
October	5.50	5.35	5.50
December	5.25	5.25	5.25

"W. B. ATTEBERRY DIED OCTOBER FOURTH."

This was the short but sad message which Gabe S. Wegener, president, The Hudson Mfg. Company, Chicago, received on Tuesday, October 4th. "Just when our first fears had given way to high hopes of recovery," said Mr. Wegener, "came the telegram that was a shock to our entire organization, for we all loved "Bill" as a friend, as well as a co-worker."



W. B. ATEERBERRY

W. B. Atteberry was injured in the auto stage accident as reported in our last issue. He was getting along wonderfully well when tetanus developed Monday, September 26th. He suffered terribly until the end came on Monday, Oct. 3rd, at 5 p. m., Oakland, Cal.

Mr. Gabe Wegener, who loved "Bill" as his own son, is deeply grieved at the sad death of W. B. Atteberry, and it was only with the greatest difficulty that he could speak of it at all, stating in part: "He was a very honorable and square fellow and had endeared himself to every one he came in contact with, both in business and social way. This was demonstrated by the flood of telegrams and letters received by Mrs. Atteberry. Everyone had a kind word for Bill Atteberry, and his loss will be keenly felt as a member of the Hudson organization. Words fail to express how grieved we are over his death."

He is survived by his wife, father and sister. Mr. Atteberry was a member of the Salesmens' Club, Association of Ice Cream Supply Men. Burial was at Hollywood, a suburb of Los Angeles, Calif.



"THERE'S A REASON."

When our representative asked Mr. H. C. Burdick, president of the Burdick-Garrison Co., Inc., of New York, if he would be in attendance at the Eastern Exhibition of the Association of Ice Cream Supply Men at Buffalo, he replied: "that if for no other purpose than to extend his personal thanks and appreciation to those whose untiring efforts have made possible the exhibition, he would most certainly be there."

Mr. Burdick said, "that the renewal of old friendships, and the making of new ones, would be worth many times the cost of a journey much further than Buffalo. But of still greater value would be the benefits derived from an intimate exchange of ideas with those who are every day meeting and surmounting the myriad difficulties that face every ice cream manufacturer."

"Business has turned the corner, and soon we will see the dawn of a new era of prosperity," continued Mr. Burdick. "Not the frenzied, counterfeit prosperity of a world at war, but the prosperity resulting from the determination of America to retain her dominant position in the industrial world."

For many years Mr. Burdick has been a close student of the problems that are the common lot of all ice cream manufacturers—particularly those of how to increase ice cream sales. As an "advertising specialist to the ice cream manufacturer" he has helped solve the problems of "increased gallonage" for many of America's leading manufacturers. Mr. Burdick said that the Burdick-Garrison Co. had very gratifying results from a new "Planned in Advance" advertising and sales effort campaign that was used by a number of their clients this past season.

Speed Up
Your Brick Cutting Dept. with a "New Era"

Cuts standard ice cream slabs from moulds into quarts, pints or any size desired, as fast as the operator can release the ice cream from the moulds.

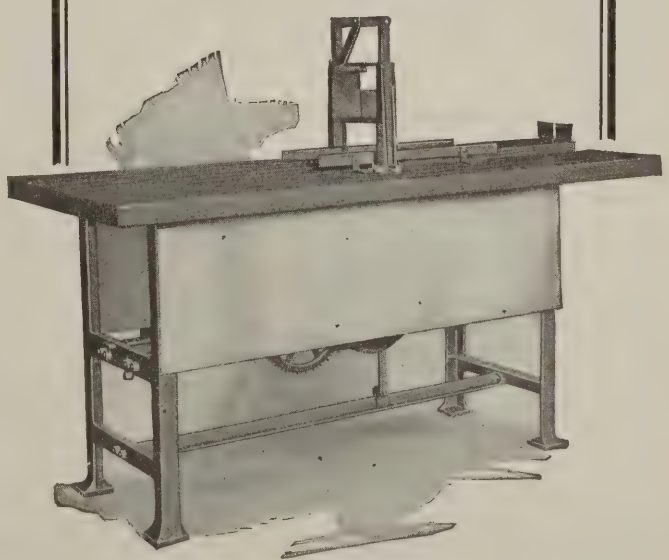
Absolutely Uniform

and unfailingly accurate is the "New Era" Ice Cream Brick Cutter. It's simplicity, speed and accuracy.

Reduces Costs

Our circulars tell all about this simple, practical machine. Get one.

The New Era Company
146 Merritt St. Oshkosh, Wis.



Increasing Ice Cream Sales in Winter

Address by W. M. B. SINE, Manager, Imperial Ice Cream Company, Clarksburg, West Virginia, before National Association of Ice Cream Manufacturers, October 12, 1921

Increasing ice cream sales in winter is the biggest problem in the ice cream business today. This subject, I think, is on the program with the idea of starting an argument, for just like all the rest of you, I "see red" during the winter months, but in my opinion, winter sales can be increased. The trouble is we are licked before we start. We think it can't be done, and, consequently, it is not. The whole trouble is that we have been in the habit of pinching down on the service and getting grouchy when frost came, really selling ice cream in the winter under protest. In other words, we were bears instead of bulls and trying to sell our ice cream short. The candy man doesn't let down when warm weather comes. He works harder. So does everybody else engaged in alleged seasonable businss.



W. M. B. SINE

Now from what I can observe there is no reluctance on the part of the public to eat ice cream every day in the year if it is offered to them. Every formal dinner, even if served on the coldest winter night, includes ice cream; every hotel continually includes it in its menu, and when your wife or my wife plans a dinner party the weather has nothing at all to do with what she serves for dessert.

Just sitting back and saying "it can't be done" doesn't seem just right and so with the idea of trying an experiment at one of our branches three years ago, we decided to distribute some of the advertising appropriation for that particular plant over the lean months, as we found the hot weather gave enough momentum in the summer to carry sales along without the additional acceleration that advertising furnished. We started that advertising with the waning of the season and kept increasing gradually until spring business started, when we let down. We made our product just a little richer, gave just a little bit better service, saw to it that the stock in dealers' hands did not get old, coarse and grainy or flavorless, as ice cream will get when kept too long. We also made special flavors to add variety and tempt the jaded appetite.

To call attention to these specials, we used window streamers and window displays even in the coldest weather of the year at the expense of being considered weak-minded. We also had a series of direct-to-the-consumer advertising in the form of announcements, in which was suggested new flavors and novelties in which ice cream could be served in the home, hot sauces, recipes, etc. Our order clerks scoured the papers for notices of lodge, church and other affairs.

When we took stock at the beginning of the summer season, we found that we had kept more of our organization together than in the previous years; the milk producers were in a sweeter frame of mind, and best of all, dealers were in line and more enthusiastic.

The following year we tried it out on a second plant, let up on advertising a little at the first plant, but not on the service, and we carried two of our plants through without red figures. Last year, with the help of the weather man, five of our plants increased their sales sufficiently to overcome the usual red figures.

This fall we started the campaign on a more elaborate scale. Per cent average for the winter months before and since going after winter sales were as follows:

	1917-18	1918-19	1919-20	1920-21
October	.04	.04	.08	.09
November	.02	.02	.05	.06
December	.02	.02	.03	.05
January	.01	.02	.03	.05
February	.02	.02	.03	.05
March	.04	.04	.05	.07

I want to stress a little bit the effect of winter advertising on our dealers. They quickly realized that we were out to do something and after awhile they took hold too and did their part. Instead of getting listless and indifferent in their service, the winter months found many of them on their toes and when spring came we had team work that accelerated our summer business.

And another by-product of our advertising which we had not forseen has been the effect on our own employes. The growing business keyed them up too. They had to live up to the advertising and instead of the rather perfunctory service which they had heretofore given dur-

Vanilla Custard Ice Cream

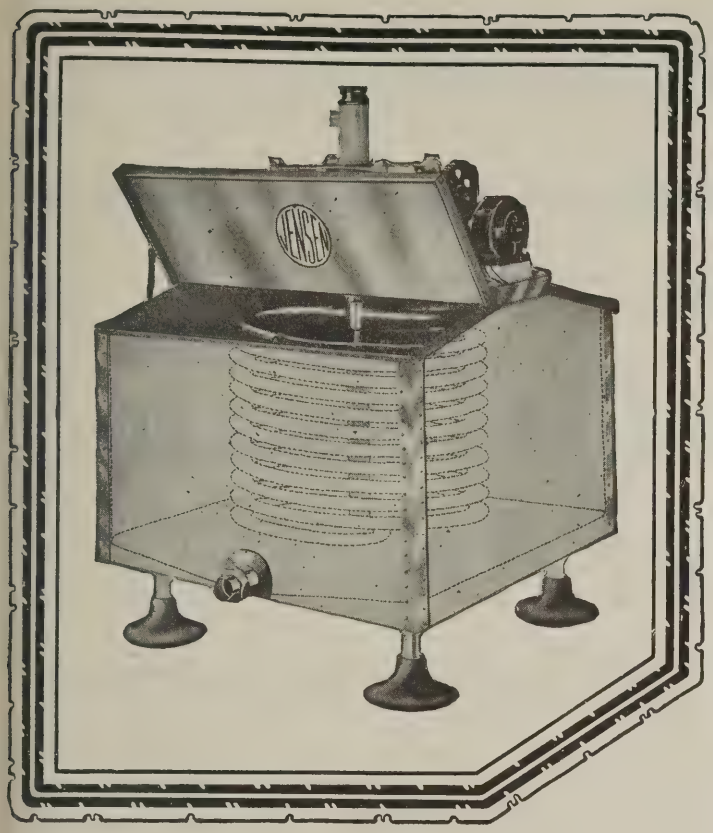
PLAIN?—Yes, but, oh, how delicious! How full of the sweet, billowy goodness that only pure, rich cream can have! How temptingly flavored; how generously filled with fresh, wholesome eggs! But—you must decide for yourself. Have a plate of Imperial Vanilla Custard Ice Cream at the nearest fountain and take some home for the family—they will pronounce it the finest Ice Cream ever prepared.

Of course, it's the Special this week in

Imperial

The Cream of All Ice Cream

Another "Dealer Help" Used by the Imperial Ice Cream Company. This Is Put on a Card About 6x9 Inches.



"Mark of Merit"

JENSEN

Vertical Pasteurizer and Ripener

The Ideal Machine for Aging Your Ice Cream Mix

BUILT LIKE A REFRIGERATOR—INSULATED WITH 3" CORKBOARD AROUND TOP AND BOTTOM OF MACHINE. The lid of machine is insulated with 1½", and sides of lid with 1" corkboard.

Suspended Twin Helical Coil always revolves from bottom up. DOES NOT EMULSIFY GAS IN OPERATION, DOES THE REVERSE—WORKS GAS OUT OF PRODUCT. This is essential as all gas and air should be eliminated during aging period, which is the time of flavor development.

ELIMINATION OF STUFFING BOXES prevents recontamination.

NO WEARING METAL PARTS IN LIQUID AREA OF VAT.

OCCUPIES ONLY ONE-HALF USUAL FLOOR SPACE—Saves 50% in driving power.

Full information will be gladly furnished. Write us today.

Jensen Creamery Machinery Company

Builders of "Equipment of Practical Efficiency"

BLOOMFIELD, N. J. OAKLAND, CALIF.

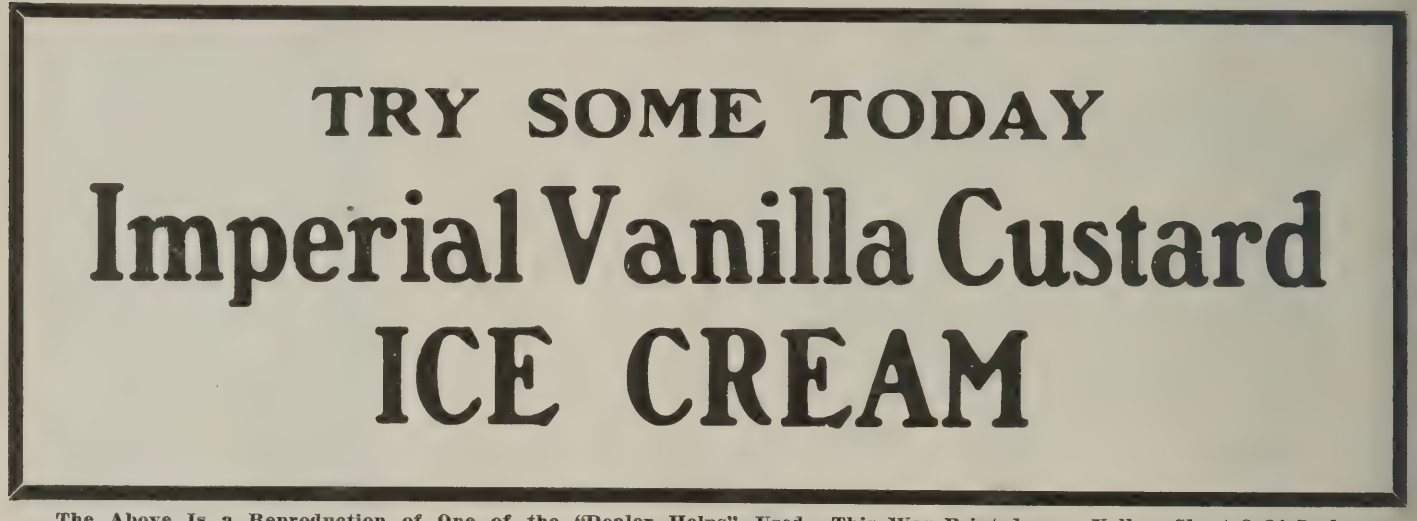
Southern Representative:
Blanke Mfg. & Supply Co., St. Louis, Mo.

ing winter months, why we got pretty enthusiastic work and thereby we kept our organization together through what we commonly called the dull season.

We haven't been niggardly about spending money, but we haven't been wasteful. Big newspaper advertisements cost money but big advertisements have the habit of starting people to think and what we wanted was to get them to think about our ice cream. We also made every possible effort to have these advertisements kick out of the page. Outside of the big city dailies the general run of advertising is often pretty plain stuff and we figured that clean type, good pictures and a general air of smartness was worth all it cost.

We are very well satisfied with the results and hereafter I believe we shall stop bothering about the weather man and go about our business of thinking up ways to make the consumer hungry for ice cream. At the same time we shan't overlook the very important thing of making it possible for him to get it when he has the notion. Thereby we shall help along the general cause of increased business in winter months as well as help ourselves and so far as I have observed this is what we are in business to do.

I haven't preached a doctrine I don't believe. I haven't preached at all, in fact—and this talk is in no sense the imparting of any secret of success. I've tried to tell, in my own way, that ice cream sales can be increased in winter and the proof is the fact that we've done it and expect to keep on doing it.



The Above Is a Reproduction of One of the "Dealer Helps" Used. This Was Printed on a Yellow Sheet 8x24 Inches.

A STATEMENT FROM THE B. & O.
Glass Lined Steel Tanks in Refrigerator Cars for the Transportation of Milk.

A new and so far very satisfactory method for the transportation of milk has been recently inaugurated by the Baltimore and Ohio Railroad Company, through the co-operation of the Harmony Creamery Company of Pittsburgh, by the installation of "Pfaudler" glass-lined steel tanks in refrigerator cars. The experiment, it is understood, is the first of its kind to be tried by any milk transportation concern. The following is a brief description of the equipment:

Three Baltimore and Ohio refrigerator cars, numbered 897, 898 and 899, were selected for this purpose. Their interior dimensions are 39 feet, 9 inches long and 8 feet, 3 inches wide. They were originally equipped with brine and ice tanks for refrigerating purposes; these were removed and two Pfaudler Glass Lined Steel Tanks, 11 feet 2 inches long and 6 feet 5 inches in diameter, were securely installed. The tanks are made of open-hearth steel plate of a seamless welded construction, having a capacity of 2,500 gallons each, or a total of 5,000 gallons, almost double of what can be obtained per car by the use of milk cans. Each tank is furnished with sanitary outlets so that there is perfect drainage. This means that, in addition to having the milk arrive at the station in uniform condition, there is a saving in milk which formerly adhered to cans when they were emptied at the terminals. The tanks are also furnished with openings at the top with quick closing swivel type doors, which are air-tight and thus increases the refrigeration efficiency.

The tanks are also equipped with an agitator, operated by an electric motor, current being taken from the company's plant. This agitator is started a few minutes before the milk is drawn off in order to mix the cream with the milk so as to make it uniform, and it is not run long enough to churn same. The milk is drawn from the tanks by rotary pumps which carry it as high as the car, from which point it can be delivered by gravity. These tanks are also equipped with Taylor index thermometers to show the temperature of the milk in the tanks at all times.

The above mentioned cars are operating over the Baltimore and Ohio Railroad between Pittsburgh and West Farmington, O., a distance of 107 miles, and the temperature loss during the run, which is about eight hours, is not more than 2 degrees. This has been accomplished during the extremely hot weather of August which gives assurance that there is no difficulty in this respect if the milk is sufficiently chilled before being placed in the tanks.

It is claimed by the creamery company that there is a large saving by the tank method, as compared with the can method. This is due to no refrigeration being required en route, saving in labor loading and unloading and in the renewals and maintenance of cans. In addition, the tank method is much more sanitary.

F. X. MILHOLLAND,
Asst. to Senior Vice-President, Baltimore & Ohio R. R.

ICE CREAM

A New Follow-Up Service

That WILL Increase Your Ice Cream Sales

It Has Done So for Others!

During the past season our *new* "Planned in Advance" Advertising and Sales Effort Campaign was used by a number of our clients. The results—both for the large and small manufacturers—were surprisingly gratifying; all plants showed an increased gallonage.

Ice Cream manufacturers are more and more coming to appreciate the value of a carefully prepared in advance campaign of Advertising and Directed Sales Effort as *the* means of increasing their Ice Cream Sales.

HAPHAZARD METHODS MUST BE DISCARDED!

The BURDICK-GARRISON Company's *new* "Planned in Advance" Campaign of Advertising and Sales Effort is *prepared with first consideration to the individual needs of every client.*

Our new "Planned in Advance" Campaign is not confined to any one feature. It covers every phase of Ice Cream advertising and is accompanied by a distinctive FOLLOW-UP SERVICE.

We are prepared to handle the largest accounts, but no account is too small to receive our most careful attention.

Write us TODAY. Inquiries will have prompt attention and you will be placed under no obligation.

THE BURDICK-GARRISON COMPANY
INCORPORATED

225 FOURTH AVENUE NEW YORK, U.S.A.

ADVERTISING CAMPAIGNS AND SALES PROMOTION MATERIALS

SPECIALIZED FOR ICE CREAM MANUFACTURERS AND THE DAIRY INTERESTS

THE NATIONAL DISH

Attention! Western Ice Cream Men

ALMOST important step toward the goal the ice cream manufacturers of the west are striving for is the annual convention of the Pacific Ice Cream Manufacturers' Association. The days you attend this convention you will not only be presented unfamiliar facts on the latest achievements of your industry but will also have the opportunity while there those three days to get out and view a little of the natural grandeur of Seattle and the surrounding territory. Nature gave vent to a feeling of leniency when passing through this particular country and it might be well to mention here what attractions and centers of interest lie in and about the city you visit November 14, 15th and 16th:

The Trip Extraordinary.

No visit to the Pacific Northwest is complete without having seen Seattle's most attractive spots. This special trip is designed to show the tourist sights unlike those in any other American city; to show the big outstanding achievements of this "miracle city" of the West. In the three hours of driving in luxurious automobiles you will be shown the United States government canal locks in Lake Washington, the largest in the world, except those at Panama. You will see just how the great ocean liners are lifted from salt to fresh water by the pressing of an electric button.

Then there is Lake Union, the only fresh-water tidal basin in the world within the corporate limits of a city—$50,000,000 worth of great wooden vessels, built to help whip the enemies of democracy, swing at anchor in the lake. Coursing along Lake View Boulevard, skirting the shores of beautiful Lake Washington, you will be shown the University of Washington, among the most picturesque sites in the country—the old Yukon-Pacific Exposition grounds, where a visit is made to the largest log cabin ever built, now a great museum—through the fashionable University residence district—the training station of the United States merchant marine—the gorgeous formal gardens and cascades—then along a parked boulevard to Green Lake and Woodland Park, with its stately forest monarchs and great zoological gardens, where a bison herd and other rare animals are confined—the route leads from there to the Lake Washington canal locks and Queen Anne hill, known as the Observation Tower of Seattle and from which a sweeping view of snow-clad mountains, shimmering Puget Sound and Seattle spreads out before you—circling the hill you see the ocean-going vessels of many nations coming to Seattle's wonderful harbor and leaving for far-spread marts in foreign climes—the government fortifications guarding the entrance to the harbor, and to the south that vast industrial district, where world's records for ship-building were made during the war. Returning to your hotel, your car passes the busy public markets, the Washington state armory and thence down into and through the heart of the retail district. After such a trip you may feel assured you have seen the "high spots" in the most remarkable city in America.



From Left to Right—J. H. Kugler, Field Secretary; J. E. Dunne, President, and B. H. Walker, Secretary.

Seattle prides itself on having the second largest canal locks in the world. The Lake Washington locks can accommodate the largest ships afloat with less than eighty foot width; cost $3,900,000, and is a piece of construction which is well worth seeing. Seattle has an area of 101 acres of wharves and four acres of dry docks. It contains the two largest docks in the world, the Port Commission Smith Cove docks; each one half a mile long, and the total cost of construction amounted to $4,500,000.

Other facts and places of interest are: (1) There are 1,062 miles of lighted streets which includes thirty-two miles of cluster lights. (2) Ten public libraries. (3) Two hundred ninety-four miles of paved streets. (4) Parks and playgrounds covering 1,820 acres. (5) Thirty-one miles of scenic boulevards. (6) For educational facilities it has sixty-nine grade schools, six high schools and 300 churches. (7) For accommodation of tourists and guests it has 75,000 hotel rooms and four transcontinental railways, 190 miles of water front and sixty-five steamship lines. (8) The Alaska exhibits, chamber of commerce, Arctic Building, State University, University Stadium and free museum in great Temple of Forestry; also the Washington Art Museum at 1417 Fourth Ave.

Side Trips of National Fame.

By short auto trips from Seattle one may see: (1) Mt. Ranier, a gigantic peak 14,408 feet high, with accommodations for tourists at Ranier National Park, just a 110 mile trip from Seattle and return. (2) The Snoqualmie Falls, three hundred and sixty-five feet high; a wonderful 33-mile trip either by train or auto. (3) Lake Crescent, Olympics. (4) Lake Cushman, in the Olympics. (5) Cedar Falls. (6) Green River Gorge.

From Seattle by boat: (1) Hood's Canal. (2) Victoria, B. C. (3) San Juan Islands. (4) The Bremerton Navy Yards, having the largest dry docks on the Pacific Coast; one hour's beautiful boat ride across picturesque Puget Sound. (5) Straits of Juan de Fuca. (6) Tacoma and Olympia.

You'll have spare time men during these three days, so take advantage of your opportunity and see some of these places of interest. Above all, don't forget us—Nov. 14th, 15 and 16th—and bring your plant men with you.

PACIFIC ICE CREAM MANUFACTURERS' ASSOCIATION, Seattle, Washington.

FROM POWDER CASES TO ICE CREAM CANS

WHEN William Bradford Williams, author of "History of the Manufacture of Explosives for the World War" wrote his book on "Munitions Manufacture of the Philadelphia Ordnance District," he called attention to the fact that "the short period of seven months of concentrated effort of the Philadelphia Ordnance District represented an expenditure of energy,



Range Boiler.



Powder Container.

effort and capital equal to that required to build three Panama Canals."

Pennsylvania, with her vast steel mills, furnished the raw material and its manufacturers made it into munitions of war. It is interesting to know that the entry of the John Wood Manufacturing Company of Conshocken, Pa., in the ranks of the ice cream supply industry was the aftermath of the work accomplished for the government in the world war. It was a step frim powder cases, of which some 1,000,000 were welded for Uncle Sam in less than a year, to electric weld rivetless-solderless ice cream cans, with a possible production of 500,000 per year with present equipment.

Visitors to the Eastern Exhibition of Ice Cream Supply Men at the Elmwood Music Hall, Buffalo, N. Y., will therefore see one of the products which resulted from the change from war to peace activities. Years ago, more than half a century, this company commenced the manufacture of electric weld range boilers, expansion tanks, air brake tanks and containers for high and low pressure work. From 25 range boilers per day the production increased to 2,000 range boilers per day and the demand continues from all parts of the country. The welded range boiler and container had swept the country in popularity long before the war proved the value of welding in such huge tasks as repairing crankshafts and machinery which heretofore had been thought to be beyond repair, and discarded as junk.

It was only natural that when the war came to its sudden end that the John Wood officials looked over the field to see if something similar to the small welded powder container could not be made. The powder container was leak-proof, air proof and met the most rigid specifications of the war department. It was only natural that the ice cream can would come in for first thought.

About this time Walter H. Richman, who after many years of experience in the retinning and manufacturing of ice cream cans, developed the seamless, solderless ice cream can. It was the development of an idea. Mr. Richman knew by experience that an ice cream can, to be

LOUIS F. NAFIS, INC.

is the only firm in the world that devotes its entire capital, equipment and energies to the manufacture of



Scientific Glass Apparatus

FOR

Testing Milk and Its Products

It is not a side line with us. It is our Specialty. The name *Nafis* is a guarantee.

Accuracy, Quality and Service

For sale by all dealers in NAFIS GLASSWARE

Louis F. Nafis, Inc.

Manufacturers of Scientific Glassware for Testing Milk and Its Products

542-548 Washington Blvd.

Chicago, Illinois

WE SPECIALIZE ON

Quality QS BRAND Service

Vanilla Flavors

Concentrated $24.00 Gallon

Regular Strength $4.50 Gallon

Discount on Season Contract

Factory Representatives
For TEXAS and OKLAHOMA

MILLIGAN-HIGGINS GELATINE CO.
Pure Food Gelatine

DAVIS-WATKINS DAIRYMEN'S MFG. CO.
Ice Cream Cans and Equipment

Ice Cream Pails—Liners—Cans—Gelatine in Stock Ft. Worth

Prall-Huff Co., Inc.

Extract Manufacturers

FORT WORTH TEXAS

sanitary as well as easily retinned, must be made without rivets and solder. In other words, it must be a tight, leak-proof as well as strong durable container built for many years of service.

In 1919 the plant started to manufacture the new type ice cream cans which proved a great success and now electric weld cans are in use in all sections of the country and have been specified as standard for use by the government because of the rivetless-solderless feature and the strong sturdy welded construction.

Ice cream manufacturers will realize how closely aligned the powder cans and ice cream cans are in the course of production as is shown in one paragraph of the story of "The Government's Largest Powder Container Plant" by W. B. Williams and many believe it will only be a matter of a few years before the same plant will be among "the world's largest ice cream can plant" just as this Pennsylvania corporation has earned its reputation "the largest range boiler manufacturers in the world".

Quoting from Mr. William's work on ordnance, he states: "In the manufacture of these cases, the steel sheets, just as they come from the rolling mills, each sheet approximately one-eighth of an inch thick, are sent direct to the trimming shears, where they are cut to the exact size and from there delivered to the sand blast, which, by means of sharp sand, forced under high pressure, all corrosion and scale were successfully removed from the ends of the sheets, in order that the electrical welding of the long horizontal seam might be effectively done. From the sand blast, the bending rolls form the plate in a cylinder shape, preparatory to the welding operation."

And quoting further from Mr. William's work, he states: "One happy sequal of the world war, indeed, is seen in the turnover which took place after the war work was shelved at the plant of the John Wood Mfg. Co. They figured that machinery which had made containers for explosives could be adapted to making an improved, seamless, tinned container for ice cream.

"Here again is seen the same versatility of American engineering and quick adaptation to the needs of the hour (as the marvels of American ingenuity had proven) that caused the kaiser to get Von Hindenburg on the long distance phone and make inquiries as to the possibilities of success, or failure, to hold back the Allies. Von Hindenburg "side-stepped" and, jealous of his job, sought to keep up the Kaiser's hope. How he was disappointed will very soon be read by the school children, in their study of the history of the United States of America."

The personnel of the John Wood Mfg Co. follows: Victor Mauck, chairman of the board of directors; Frank Sutcliffe, president; Herbert S. Mauck, vice-president; Morris H. Feldman, general manager of sales; Joseph Winter, works manager; H. Lee Koenig, assistant manager; Arthur Marland, superintendent; Walter H. Richman, manager of sales, ice cream can department; Joseph Montague, manager of sales, range boiler, tank and container department; George Hofstetter, Jr., manager of advertising.

The company will exhibit at Buffalo ice cream cans, ice cans, range boilers, powder containers and similar products.

A Heavy Heart

"I don't like your heart action," said the doctor applying his stethoscope. "You had some trouble with Angina pectoris, haven't you?"

"You're partly right, doc," answered the young man sheepishly. "Only that ain't her name."—Exchange.

PETER N. MILLER, Jr.
President
2213 11th Avenue
Birmingham, Alabama

DIXIE FLYERS

Address all communications to
T. J. STEWART
Secretary
Mercantile Library Bldg.
Cincinnati, Ohio

Mister Leacer, Pali House, San Francisco:

Dere Friend, i got the valve with i by from you alrite, and wy fo gods sake doan you send me no handle. i lose to me my customer shure thing. You don treet me rite, is my money not so good as the other feller. I waste 10 dase and customer he holler for water like hell by the valve. You know he is hot summer now, and the wind she blow. the valve she got no handlem, so what the hell i goan do. U doan sen me the handle pretty quick i send her back and i goan order some valve from Krain companee. good-by, your fran,

ANTONIO SCLANA IODUTRA

Since i rite these letter i find the d--m handle in the bocks so you excuse me.

Do It Now

If with pleasure you are viewing any work a man is doing,
If you like him or you love him, tell him now;
Don't withhold your approbation till the parson makes ornation
As he lies with snowy lilies o'er his brow;
For, no matter how you shout it, he won't really care about it;
He won't know how many tear-drops you have shed;
If you think some praise is due him, now's the time to slip it to him,
For he cannot read his tombstone when he's dead!

More than fame and more than money is the comment kind and sunny
And the hearty, warm approval of a friend,
For it gives to life a savor, and it makes you stronger, braver,
And it gives you heart and spirit to the end;
If he earns your praise, bestow it; if you like him, let him know it:
Let the words of true encouragement be said;
Do not wait till life is over and he's underneath the clover,
For he cannot read his tombstone when he's dead!

—From "Dipped from the Stream"

It is to be hoped that all of the Dixie Flyer Boys will meet together in Atlanta, Ga., at the Southern Exhibition Nov. 28th-Dec. 2nd inclusive and there is no doubt that there will be a large attendance at this show from the information that I gather over my large territory of the South-west. Mr. Everett our efficient secretary of the Association of I. C. Supply Men is leaving no stone unturned to make it one of the greatest meets that was ever held south of the Mason-Dixon line.

And the ice cream manufacturers seem to be very enthusiastic over this meeting and its location and no doubt there will be a record breaking attendance of the ice cream manufacturers. So come one and all and let's put Atlanta on the map with this great show.

J. W. MULLIGAN.

* * *

Chicago, October 5th, 1921.

Your S. O. S. of October 1st finds me just as your letter suggests—getting ready for the Dairy Show—

ESTABLISHED 1879

Gelatine is the most efficient of all stabilizers for Ice Cream

WHITTEN'S GELATINES Are Standard

Guaranteed to Comply with all National and State Pure Food Laws

STRENGTH, PURITY AND UNIFORMITY GUARANTEED

MANUFACTURED BY

J. O. WHITTEN COMPANY

Main Office and Works

Woolworth Bldg.
NEW YORK CITY

Winchester, Mass.

20 E. Jackson Boulevard
CHICAGO, ILL.

but practically devoid of ideas along the line that you want.

You ask for comments, plans, pet peeves. With the Dairy Show right in front of us, the only thing I can plan on doing is to get my work done so I can get away. Haven't any pet peeves that I can see, and can only think of the nice things that have happened in the past at the different exhibitions that I am reminded of by referring to the list of associations on the margin of your stationery.

This list reminds me of the different conventions we have held and how we look forward each year to meeting the people we made friends with at the last convention.

Have you ever noticed the camaraderie and courtesy among the supply men attending these conventions? Generally speaking they all try to pull together to help each other with their exhibits and while there may be a little scramble at the end of the show to locate one's own hammer or handsaw, each man there is not only interested in his own work but will lend a hand to other exhibitors. The friendly associations and exchange of ideas that are made possible by these conventions and exhibits are a nice thing to see and to look forward to. As far as my plans are concerned, I intend to attend as many of these conventions as I possibly can.

Personally, I feel that the coming season is going to be a very good one. A number of new ice cream plants are being contemplated, which will require equipment. In addition to that the prices on equipment of all kinds has been reduced considerably, and an ice cream manufacturer who needs equipment should not hesitate about ordering for the coming year.

With kindest regards, and looking forward to meeting you again, I am,

Yours very truly,

A. R. SPONOR,

Sales Manager, Dealers' Dept., Solar-Sturges Mfg. Co.

* * *

HOSTETTERS CREED.

We sent Brother Hostetter (Wyandotte), our S. O. S. and he came to our relief—and generously. We hope he didn't miss his train.

"I am just ready to catch a train and I hardly know when in a hurry like this what to write you, you stated that you wanted it rushed and I presume that I should get it right out in today's mail.

"I want to say to begin with that great preparations are being made to take care of the Southern Ice Cream Manufacturers when they get here in November, and I believe that it is going to be a record convention for the ice cream men. I believe that they are going to derive a great deal of benefit by coming together at this time, as well as have some fun along besides. Atlanta, as you are probably aware is one of the greatest convention cities of the United States, they know how to take care of their guests, and there is one thing, our climate is so affable and wonderful that it is always a pleasure to come to Atlanta, wether it is in the summer or winter, and I believe that it is the general spirit of the people, whether they are ice cream men or what they are to always make visitors welcome, and I believe that the folks who are interested in the ice cream industry will find it to their interest to come to Atlanta, in November, regardless of the part of the world they are located in.

"I have just come back from a three months' trip

through the Republic of Mexico and Cuba, and these countries are certainly going to be wonderful fields some day for the ice cream industry. People in these countries do not entirely drink alcoholic beverages, they are very fond of ice cream and frozen dishes of all kinds, in fact, I think the excessive drinking is done by visitors from dry countries. The natives and the regular citizens of the Republic of Mexico and Cuba really do not drink excessively, but prefer soft drinks and frozen drinks, especially like sherbets and ice cream. I do not recall seeing one clean, modern plant on my entire trip. Cuba is ahead of Mexico, but, of course, Mexico is to be excused after having ten years of revolution. They are seen in most sections delivering milk for instance, on a burro's back, a can on either side and a man puts a dipper into it and pours out what you want. There is a great deal of can milk used, some goats milk is used also, lots of it, but when it comes to ice cream in that country there is going to be wonderful opportunities, and modern plants will be welcomed and there will be a big field for it, of course I do not know until recognition comes that it would be wise for anyone to invest money in Mexico, but it is the field that the ice cream man should investigate as soon as the Obregon government gets recognition, which all people seem to think that they will have.

"Regretting that I can not write you some more news, but I only have a short time in which to make my train, trusting to see many representatives of your periodical as well as many folks from Milwaukee, and the North down here for the convention in November, I am Sincerely yours,

C. P. HOSTETTER,

Dist. Mgr J. B. Ford Co., 219 Hurt Bldg., Atlanta, Ga.

* * *

COURAGE AND COMMON SENSE APPLIED TO ICE AND OTHER THINGS

By C. W. Esmond

Director of Service for the "Servants to the Dairy Industry"

A certain well known Canadian manufacturer had always put up natural ice for packing his cream up until 1921. As the winter of 1921 wore on without bringing an ice crop he interviewed an ice manufacturer about securing his season's supply. He found that the cost would be approximately $35,000. But he knew that even if he made a contract for this ice, he might have difficulty in getting enough to carry him through and he might be forced to pay a ruinously high premium to get the supply he needed.

Se he interviewed his banker regarding financial help in putting in an ice plant. Despite the obviously big saving that the putting in of such a plant would make, the banker would do nothing. He next got the representative of an ice machine company on the job, gave their proposition quick but careful consideration and gave them the order to go ahead and install a plant, he to pay a nominal cash payment and to pay the balance in instalments over an extended period.

The ice plant was installed and working before the busy season opened. It practically paid for itself during the summer and in September the owner was selling from $75 to $100 worth of ice per day, this being the amount he could produce in excess of his requirements.

If he had taken counsel of fear, the ice manufacturers of his city would have had $35,000 of his money and he would have had nothing tangible to show for it. By taking counsel of courage, he has a fine efficient ice plant good for many years of service, in addition to having handled a record-breaking gallonage in 1921 and giving his customers a thoroughly satisfactory icing service.

This instance is typical of the character of the man. Out of practically nothing he has developed the largest business in his city, a business that he owns in its entirety. So-called 'hard times' have just one effect on him. They cause him to be more enterprising and aggressive; to achieve a stronger hold on public good-will when competitors are assuring themselves that 'this isn't the time to push for business'. He believes that the time to push for business is 'all the time' and that the best time is when the trade in general has taken to its dug-outs. His success proves the efficacy of his methods.

* * *

TRY IT NOW IN MILWAUKEE.

A cold and dreary March day, a Dixie Flyer, still wearing "ear tabs" and "mittens" met up with Pete Miller and M. E. Cutner, at Little Rock, Arkansas. "Ice cream suits" and straw lids were their attractive toggery. They were headed toward Texas. The assumption is that these regular go-getters in their midsummer attire were eager to put over the idea to our good Texas friends that ice cream days and incidentally buying time had arrived.

Hats off to the Dixie Flyers for their effective application of the principle of suggestion in selling.

* * *

WHY EVERS TOOK TO WADING.

Ft. Morgan, Colo., (Just following the recent Pueblo flood)—Dear Wallace: Had a novel experience here. Arrived at 4:50 a. m. Town is two miles from U. P. station and water was up so high no wagon or auto could pass over the road. Old and decrepit as I am, I had to wade over knee deep for ¼ mile. Had to leave my grips behind and this morning had the pleasure of another early morning dip. The water was fine!

L. H. EVERS,

P. S.—No restaurant on U. P. side is another reason I took to the water.—An excerpt from Cherry Pickings, July 1, 1921.

* * *

Louisville, Ky., Oct. 3, 1921.

I was very much surprised today when I received your letter saying that we only had one letter for publication in the supply men's department. It seems to me that our great organization of traveling men have lost sight of the fact that your valuable journal offers us to get in touch with our customers over the entire United States. In fact, I feel that our success along the lines of our organization is largely due to your interest and the space allotted us whereby we may tell our joys and sorrows to the ice cream manufacturing customers. I look upon it as somewhat of a personal letter from each and every contributor to his prospective customer and feel that a great deal more interest should be taken

MAILING FOLDERS
MAGAZINES AND HOUSE ORGANS
BUSINESS CARDS
CONVENTION PROCEEDINGS
LETTERHEADS
CATALOGUES
STATEMENTS
BILL HEADS
ENVELOPES
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LET US DO YOUR
PRINTING

High grade work at reasonable prices. Send us a sample of what you want and we will quote you prices.

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210 Sycamore St. Milwaukee

Custards *Flavors*

Maraschino Cherry Custard
Mothers Egg Custard

"Acme" Custards	An exact reproduction of the EGG or CHERRY.
Egg or Cherry	Contains all of Nature's delicate FLAVORS and BLENDED COLORS. A delicious Ice Cream of quality distinction. Working sample for 40-qt. freeze, 36 cents.
Bisque Ice Cream	An imitation of the real Walnut or Shelbark with a nutty flavor. Served to social and banquets as a special. Working sample for 40-qt. freeze, 60 cents.
Perfecto *(Trade-Mark)*	A tested smoother of special value in the making of smoothe and tough Ice Cream. Never fails to give satisfaction.
Concretes	Orange and Lemon Concretes are made from the finest fruits that grow in Northern Sicily.
Extracts *(Non-Alcoholic)*	36 different kinds of fruit extracts. Special blends of Vanilla.
Colors	Certified colors of all shades, highly concentrated.

ACME EXTRACT & CHEMICAL WORKS

Extracts HANOVER, PENNA. *Colors*

in this department, though we may be very busy. But a few minutes time, spent in jotting down items of interest will be of assistance to all interested. Now I hope that all or a large portion of our good men, for they are all capable, will contribute more freely in the future than they have in the past.

While the writer will not have the pleasure of attending the National Convention at Minneapolis due to business conditions in eastern territory, you can say to the boys that I am with them heart and soul in cooperation for the great event.

Speaking of the Atlanta Convention, we are going to make it a humdinger because old King Cotton is climbing in price. And if there is anything that makes the boys in the south feel good, it is to pick up the daily paper and see that cotton has advanced sharply, say from 30 to 60 points and it makes everybody feel good. From what I can gather regarding the business outlook the coming year will be one of the best that the south has seen for quite a while.

I have just had a communication from our national secretary, Roberts Everett. He is leaving no stone unturned for the absolute success of the meeting. And feel that fully 85% of the ice cream manufacturers of the southwest will be in attendance as well as many north of the Mason Dixon line who are interested in the manufacture of ice cream.

I speaking from a supplyman's standpoint I wish to say to any manufacturer who has never attended one of our southern association meetings, that if he will come down once and be with us we will show him such a good time that he will not miss any in the future. So here's hoping to meet all of my old friends and acquaintances as well as new ones. I am, yours truly,

J. W. MULLIGAN.

A BEAUTIFUL FOLDER

The Pacific Lunmber Company, 2099 McCormick Building, Chicago, has issued a beautifully illustrated folder emphasizing the many uses to which California Redwood is put.

The Pacific Lumber Company is the largest producer and distributor of Redwood in the country and an extensive advertising campaign is increasing the demand.

For certain products, either made wholly or in part of wood, Redwood has proved the ideal material, both in manufacturing processes and in service. Its advantages appeal to buyers of these specialties, among which are caskets, casket boxes, cigar boxes, candy and glace fruit boxes, incubators, brooders, ice cream cabinets, refrigerators, clothing boxes and chests, storage battery separators, kitchen cabinets, show cases and certain furniture items.

While all the qualities of Redwood are factors in its usefulness for manufactured specialties, its softness, fine texture, freedom from defects, minimum of warping and swelling, lightness of weight, freedom from odor, are considered most important by manufacturers who use Redwood.

Unusual resistance to wet or dry rot, fire retardant, minimum of swelling or shrinking, protection from acid and alkali solutions, lightness in weight, ample strength, clear, sound stock in needed widths and lengths, high insulating power, soft, workable texture, immunity from worm and insect destruction, excellent painting surface —these are Redwood qualities that determine its specification and use by engineers and industrial builders.

A man never really appreciates what it is to be alone in the world until his mother is dead.

Progress in Studying Causes of Sandy Ice Cream

Address of O. E. WILLIAMS, Dairy Manufacturing Specialist, U. S. Department of Agriculture, before National Association of Ice Cream Manufacturers, Minneapolis, Minn.

SANDY ice cream has given the ice cream manufacturers and dealers a great deal of trouble in recent years, and the growth of the industry may have been retarded considerably by this difficulty. For the benefit of those who may not be familiar with sandy ice cream, I will first explain the nature of it in a general way.

Ice cream is called sandy when it has something in it that resembles, to the sense of touch, very fine sand (hence the name), and which does not dissolve readily in the mouth. The kind and degree of sandiness varies. At times the sandy particles are coarse, and not very numerous, at other times they are exceedingly fine and numerous. The latter type is the kind of sandiness that is ordinarily met with, but both the large and the small particles cause the ice cream to be objectionable. When the particles exist in small numbers, they may not be very troublesome; on the other hand, when they exist in large quantities, the ice cream becomes decidedly unmarketable. Some manufacturers claim to have had hundreds of gallons of ice cream turn sandy before it has left the factory, but sandiness is usually found to occur in much smaller quantities of ice cream, after it is delivered to the dealers.

The irregularity in the size of the particles and in the occurrence of the trouble has been mystifying not only to the manufacturers but to many other men as well. To quote the words of two large progressive manufacturers, who have been in the business for a long time, one recently said: "For a while we thought sandiness was probably due to the fact that the cream was held in the hardening room for a longer period, but upon closer investigation, we discovered that that was not the cause, as samples that were held only a few days would turn sandy during the winter months, or between October 1 and April 1. I am just as far from having a definite solution as I ever was. It seems to come and go like a ghost in the night."

The other one said, "We got the professors from the colleges and took them into our own laboratories, and they took samples of our goods, and took them into their laboratories. We had eight weeks of that sandy condition, and it went just as it came, and we were no wiser after it left than we were before. We changed no conditions whatever."

Since the sandiness occurred without any apparent change in the kind and quality of the ingredients used, or change in the conditions of manufacturing, it has naturally been a puzzling matter. The origin of sandy ice cream , therefore, has been almost as bewildering to the manufacturer of ice cream as the causes of fishy flavors in butter have been to the creameryman.

The first time our attention was called to this difficulty was about eight years ago. That was a very bad case and as we did not hear any similar experience no investigations of an extended nature was made of it. Then about five years later we heard of several other cases of sandiness; consequently a preliminary investigation was started. This also consisted of superficial experiments. We soon found it necessary, however, to make a fundamental study of both the character and the causes of the so-called sand, and as we shall see, the results of this investigation have so far been positive as to identify and partially positive in regard to the causes.

Now the first question is, what is this sandy material? The answer is, milk sugar, or as it is technically caller, lactose. This fact has been definitely proven and explained by Mr. H. F. Zoller and myself in a recent article entitled, "Sandy Crystals in Ice Cream, their Separation and Identification," which appeared originally in the last number (August 15) of the Journal of Agricultural Research. A copy of this article from the Journal has been sent to all of the members of the National Association of Ice Cream Manufacturers, so I presume most of you are already informed about the identity of this sandy material.

Causes of Sandy Ice Cream.

The next question is, what causes the lactose crystals to appear in ice cream? This question is not easy to answer definitely, because there are many conditions on which it may depend. For instance, the amount of lactose in the mix; the amount of water present; the form in which the lactose exists; the presence of other solids; the temperature and its changes; and the time of holding, are all important conditions. There are also various theoretical factors that it may be necessary to take into consideration in determining the real cause of sandiness in ice cream.

So far, no one has secured sufficient data to show conclusively the significance of certain factors, such as the rate of freezing and the protein content on the crystallization of lactose in ice cream, or to tell what the physical constants of ice cream mixes of varying compositions are. In fact, the only work that can be taken into consideration, relative to the determination of physical constants, and bearing on the manufacture of ice cream, is that of Mr. S. C. Hudson. His results are published in the Journal of the American Chemical Society, volume 26, 1904, and volume 30, 1908. This work includes the determination of the freezing points, and the rate of crystallization, etc., of pure lactose solutions. Work is now being done on the freezing points of different ice cream mixes in two of our laboratories, and the results will soon be available. The fundamental causes of sandy ice cream can not be discussed, therefore, until we know more about these underlying principles.

From studying the conditions in a general way, however, we have found three major conditions to which sandy ice cream may frequently be attributed, namely, first, sandy condensed and evaporated milk; second, excessive lactose in the mixes; and third, fluctuation of temperatures, in the hardening rooms and cabinets.

In explaining these three general causes, it will be best to use the following outline of the general conditions studied:

1. The character of the milk products used in the manufacture of ice cream.

2. The composition of ice cream mixes and the methods of compounding.

3. The treatment of the mixes prior to freezing.

4. The degree and rate of freezing and hardening in the ice cream.

First in the Field—Still Going Strong

Dunn's Celebrated Ice Cream Gelatines

Guaranteed to comply with all State and National food law requirements.

TRIED, TESTED and PROVEN

When you want a stabilizer that never fails you, it's gelatine

THOMAS W. DUNN COMPANY

248 Front Street, New York

5. The temperature at which the ice cream is held while being marketed.

6. The length of time the ice cream is held.

General Condition No. 1.

In the use of materials containing lactose crystals we find the easiest and simplest way to produce sandy ice cream. It is well known that condensed and evaporated milk are commonly used and that both of these products are often sandy. The sand or crystallized lactose found in condensed milk is about one-tenth as soluble as cane sugar, hence when milk of this character is used there is danger of the crystals of lactose not being completely dissolved, and if they are not completely dissolved a sandy ice cream is formed.

General Condition No. 2.

In the composition of the mix there is another very common source of sandiness—the excessive use of milk solids not fat. Most of us know that in a large number of factories there is very little attention given to standardizing, and that the methods of calculating and assembling the ingredients are often crude. This, of course, is one reason why a great deal of variation occurs in the texture and composition of ice cream. It is also a reason for ice cream becoming sandy. According to the results we obtained last winter, we found that ice cream subject to exposure, as most ice cream is during the process of marketing, should not exceed 5.85 per cent of lactose calculated on the entire mix. This is equivalent to about 11 per cent milk solids not fat. Naturally, therefore, in all cases where milk solids not fat are carelessly substituted for a considerable part of the fat there is likelihood of getting too much lactose in the mix, which under certain conditions may result in a sandy ice cream. The conditions favorable to this result are explained later. In many cases an unusual amount of lactose is secured by taking the sand from the bottom of a can or barrel of sandy condensed or evaporated milk; the result of this is bound to be a sandy ice cream. Under the best conditions it is possible to use 12 per cent of milk solids not fat, but greater quantities are sure to bring trouble. If there is any doubt about sandy ice cream being produced in this way, just try to keep ice cream containing say 13 per cent of milk solids not fat for a week or ten days in an ordinary ice cream cabinet, and see what happens.

General Condition No. 3.

Under the third heading, treatment of the mix prior to freezing, there is a condition that is very important, namely, pasteurization. As stated before, in utilizing sandy condensed and evaporated milk the ice cream will be sandy if the crystalized lactose is not all dissolved. This danger we find can be overcome if the ice cream mix is pasteurized to 145 degrees F., held and kept slowly agitated for 25 minutes.

General Condition No. 4.

The fourth condition, that is, the degree and rate of freezing and hardening the ice cream is something we know very little about. We have not had facilities in the Dairy Division to properly study the effect of rapid freezing and hardening on a large scale, but we have made a few experiments on a small scale, and find that rapid freezing of mixes having a high lactose content hastens the formation of lactose crystals.

General Condition No. 5.

The temperature at which the ice cream is held after it is once hardened is undoubtedly one cause of much of our sandy ice cream. In our preliminary experiments we soon found that heat shocking, or the raising and lowering of the temperature, was conducive to the crystalization of the lactose in ice cream. This is the condition that commonly occurs in ice cream cabinets and in some hardening rooms where the refrigeration is very irregular.

The following experiment will illustrate the effect of temperature variations:

Effect of Variation in Storage Temperatures Upon Three Ice Creams With Varying Lactose Content. Composition of Ice Cream.

Mix. No.	Fat	Milk Solids Sucrose	Milk Solids not fat	Gelatin	Total Solids	Water
	%	%	%	%	%	%
1	14	14	6	½	34½	65½
2	8	14	12	½	34½	65½
3	4	14	16	½	34½	65½

Degree of Sandiness Observed Under Different Temperature Variations.

Mix No.	Per Cent of Lactose in mix	Method of Storing for Four Days Hardening Room	Cabinet (Normal)	Cabinet (Abnormal)
3	8.85	Trace 0°—5° F.	Considerable 6°—10° F.	Very bad 6°—17° F.
1	3.33	None	None	Slight
2	6.65	None	Trace	Bad
3	8.85	Trace	Considerable	Very bad

The milk solids not fat in the above experiment were obtained from a good quality of evaporated milk. The ice cream was held in the same cabinet in duplicate quantities, one set of cans being taken out each day and the ice cream being allowed to warm up to 17 degrees F. prior to repacking with ice and salt. This experiment was made several times, with the same results each time. Whenever the temperature fluctuated the lactose crystals formed ,and increased in quantity and size with the percentage of lactose in the mix. This experiment also substantiates what was said about the composition of the ice cream mix.

General Condition No. 6.

Holding ice cream a long time, especially when subject to wide changes in temperature, has proven to be favorable to the formation of sandy ice cream. The time required to produce sand will vary with the concentration of the lactose in the mix and with the amount of changing in the temperature, or of heat shocking. This is illustrated by the large number of instances where the dealers who handle the least ice cream are usually the first to complain of having it sandy.

Tell us what you want, or what you have that you don't want, and we'll fix up a little Ad. for you and insert it in the next issue of The Ice Cream Review. You just stay at home and wait for results. You'll soon have your hands full.



The place and time of the annual convention and dairy show of the Michigan Allied Dairy Association will be Saginaw, Feb. 14-17, both inclusive, according to action taken at the meeting of the Association's convention and show committee which met in Lansing recently and consisting of Messrs. H. D. Wendt, chairman; M. L. Noon, R. F. Frary, C. J. W. Smith, R. J. Ellwanger and D. W. Shiel.

The convention and show, based upon plans which are now being developed by the committee, will without question be the largest and most extensive of its kind ever produced in Michigan. There will be a complete line of commercial exhibits of dairy machinery, supplies and appliances of all kinds. Educational exhibits by the Michigan Agricultural College and the State Department of Agriculture will be featured. A dairy campaign in Saginaw to run for a week or more and ending with the convention and show is contemplated. In this such agencies as the Farm Bureau, the schools, Saginaw Board of Trade, etc., will be co-operating, the purpose of which is to bring about a more complete appreciation of the value and essential features of milk and milk products.

The Saginaw Municipal Auditorium has been made available for the use of the association by the Saginaw Board of Trade and is a building ideally suited for the purpose in question. The following sub-committees who will work with Mr. Wendt, who will be the convention and show manager, are as follows:

Program—M. L. Noon, Jackson.
Finance—R. J. Ellwanger, Grand Rapids.
Floor—C. J. W. Smith, Detroit.
Publicity—R. F. Frary, Lapeer.
Reception and Banquet—D. W. Shiel, Hillsdale.

* * *

OBSERVATIONS

The Andalusia Dairy Company of Salem, Ohio, has purchased the Supreme Dairy Company at Alliance, Ohio.

The Ideal Ice Cream Company at Dayton, Ohio, is installing a twenty ton refrigerating machine.

The Portsmouth Ice Cream and Bottling Company at Portsmouth, Ohio, has installed new refrigerating machines and made other improvements.

The Toledo Dairy Company sold their branch at Ida, Mich., to the Milk Producers Exchange.

The Wilson Ice Cream Company at Port Huron, Mich., will install an ice plant.

The Furnace Ice Cream Company at Fort Wayne, Ind., has enlarged their refrigeration plant.

The convention committee of the Michigan Allied Dairy Association met on Monday, October 3d, at Kern's Hotel at Lansing, Mich., to complete arrangements for

Glascote

White Glascote is the standard of quality and service in

THIS means not only the latest thing in glass lined tanks but the most modern and efficient design in performing equipment. It means saving to you in floor space, labor and time. It means sanitation and cleanliness.

A word from you will bring a list of Glascote users, including some of the largest ice cream plants in the United States who are well satisfied with our equipment.

Receiving
Pasteurizing
Ageing
Equipment

THE GLASS COATING COMPANY

NEW YORK, N. Y.
50 E. 42nd Street

CLEVELAND, O.
P. O. Box 25, Station H.

CHICAGO
220 So. State Street

next convention and show to be held at Saginaw, Mich., February 14-17, 1922.

The wonderful and successful National Dairy Show for 1921 is over and the ice cream men are now turning their attentions to the Ice Cream Supply Men's Convention at Buffalo and Atlanta, and after that the different state conventions, and they will have plenty to do from now on to attend these conventions, and we trust, they will be well attended for the ice cream business is getting larger every year and every one who is connected with the business is looking forward for a larger volume of business for 1922.

The Michigan Convention to be held at Saginaw, Mich., February 14-17, 1922 should be a good one as the Dairy Boosters are going to help entertain those who attend it and they can do so when they decide to do so—so leave it to them. The entertainment committee is a live one and will look after their end of the convention.

* * *

The old pioneer Paterson Parchment Paper man, A. T. Pratt hasn't missed a convention of the National Dairy Show or the Ice Cream Convention since both were organized (we haven't either Alex). He wrote: "I am looking forward to meeting many of my old friends." And he wasn't disappointed for all the old friends were there 100% strong.

⚜

NORTHFIELD, MINN. CREAMERY TO PRODUCE ICE CREAM

Northfield, Minn. made ice cream will soon be on the market.

The Twin City Milk Producers' association has made arrangements for the installation of a complete modern outfit of machinery and equipment for the making of ice cream in the splendid new milk plant which it erected the past year and actual manufacturing operations will begin in the near future.

The association has also engaged a Mr. Pitts of St. Paul, who has had 15 years' experience in the making of ice cream, to take charge of this branch of its production. Mr. Pitts is a past master in the art of making ice cream, and he will be able to put on the market a product which will be fully equal to anything known to the trade today.

Arrangements have already been made for supply of all the Northfield ice cream retailers, also those of Farmington, Lakeville, Dennison, and many other surrounding Minnesota villages. Contracts have also been made with some of the Faribault retailers.

"Northfield is a big market for ice cream, and those in touch with the trade declare that not even in the Twin Cities is the public so exacting in its demand for quality ice cream as right in this city," says a Northfield paper. "The colleges are of course a large factor in the ice cream business and at college functions particularly large quantities of high grade brick ice cream are in demand.

"The manufacture of ice cream is known to be of the most profitable branches of the dairy industry, and in launching into it the Twin City Milk Producers' association will provide another outlet for milk supply of its territory that should help to increase the farmers' return for his milk.

"In the Twin Cities retailers have recently organized a co-operative company for the manufacture of ice cream, and but for this project the Twin City Milk Producers' association might have entered the Twin City ice cream market also. The association will, however, supply this co-operative plant with its milk and cream.

JACK RABBITS
ELWIN F. WEIL, Secretary
514 New York Life Bldg.,
Kansas City Missouri



Kansas City, Mo., October 5, 1921,

The recent conference held at Washington to consider the unemployment situation, gives out a statement that should be seriously considered by the ice cream industry:



KARL R. ZIMMER

"During the period of drastic economic readjustment, through which we are now passing, the continued efforts of anyone to profit beyond the requirements of safe business practice or economic consistency should be condemned. One of the important obstacles to a resumption of normal business activity will be removed as prices reach replacement values in terms of efficient production and distributing cost plus reasonable profit.

"We, therefore, strongly urge all manufacturers and wholesolers who may not yet have adopted this policy to do so, but it is essential to the success of these measures when put into effect that retail prices shall promptly and fairly reflect the price adjustment of the producer, manufacturer and the wholesaler."

It is safe to say that nearly every ice cream manufacturer during the past season has made substantial reductions in the price of ice cream to the dealers. And it is interesting to note how few of the dealers have passed on to the consumer the benefit of these reductions. In a few cases the writer has noted, I find reductions at as much as 25c per gallon to the dealer without any change whatever in the price of fountain drinks.

Some of the ice cream men have reduced prices merely because their trade demanded it. But on the other hand most of them, no doubt, entered voluntarily into the spirit of the times and reduced prices with a view of making ice cream available to a greater number of people, and consequently increasing the consumption.

Lower prices to the consumer undoubtedly will increase consumption, but when the manufacturer is expected to bear the entire burden without the cooperation of his dealers, who is it that benefits? I have known of a few instances where the manufacturer would demand that fountain prices would be reduced, and in these cases they were able to report increased sales.

Brother White Caps and Jack Rabbits can be of service to their customers by talking with the fountain men and asking why their prices are not reduced. Try and show them that there are more people who will pay 10c and 15c for a soda or sundae, than there will pay 20c or 25 c. We are not interfering with our customers' affairs when we do this. On the contrary we are making that man more susceptible to demands which are bound to come sooner or later from the manufacturer himself, unless fountain prices are reduced.

It seems to me that this subject should be discussed at the coming conventions, and it no doubt will be. In the meantime let we "servants to the ice cream industry" gather what information we can and pass it on to our customers.

Jack Rabbits should not fail to be in Kansas City for the Kansas Convention. Nothing is being overlooked to make your visit here pleasant and profitable. If the writer can be of service to any of you in making hotel reservations or by furnishing information, I shall be pleased to do so.

KARL R. ZIMMER,
Kansas City, Missouri.

KANSAS MEETING, DECEMBER 15 AND 16.

St. Louis, Mo., Oct. 6th, 1921.

Editor Ice Cream Review.

Dear Sir:—The annual meeting of the Kansas Association of Ice Cream Manufacturers will be held in Kansas City, Mo., December 15th and 16th, and although not definite as to headquarters hotel at this time, we believe it will be the Baltimore. You will get more definite advice as to this later.

In view of the fact that President Manley yielded to our request to transfer the meeting from Topeka to Kansas City, and in this way added to our comfort as to hotel facilities. I believe that the Jack Rabbits should attend this meeting in larger numbers than ever and come filled with the spirit of good-fellowship, and in other ways show our appreciation for the consideration shown us by the Kansas Directors.

Those of you who were at Wichita last year know that we have got to go some to beat that convention, either in attendance, spirit of good-fellowship or entertainment.

Let's all try to make this next meeting bigger and better than ever, and appoint yourself a committee of one to help swell the attendance. Encourage the smaller manufacturers throughout the state to come, and tell them the meeting will not be complete without them. REMEMBER this in your calls, and also with personal correspondence, if necessary. Those who are not members of the Kansas Association of Ice Cream Manufacturers get them to sign up.

The ice cream manufacturers are not only co-operating with us supply men in the highest degree, but make our Association possible.

Boost for the Kansas Association, and keep at it.!

Yours very truly,

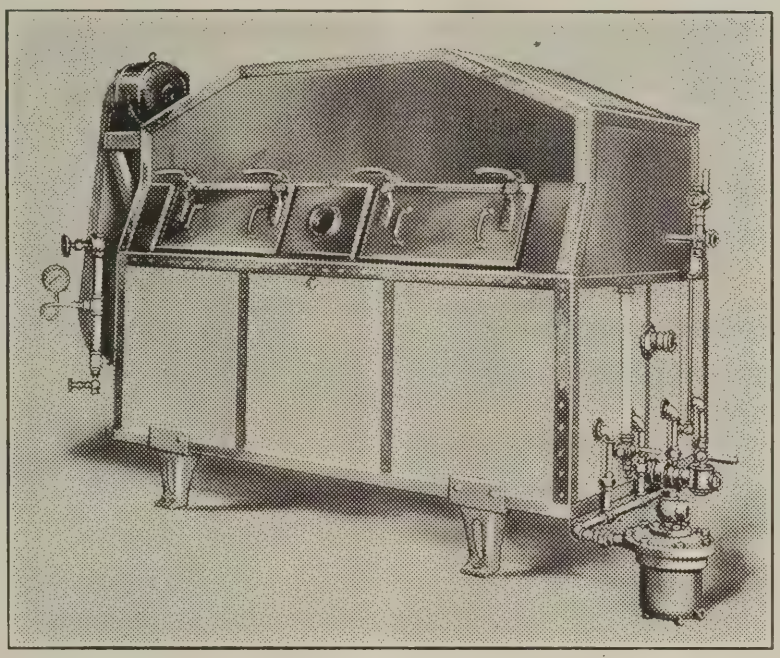
J. L. NELSON,
President.

IS ICE CREAM SHIPPED TO THE ORIENT?

Some time ago a Pennsylvania Newspaper published information to the effect that shipments of ice cream were being made to the orient in 500 gallon containers.

The Ice Cream Review has tried to obtain authenticity of this fact with the result of news received from several of the largest ice cream manufacturers on the Pacific Coast to the effect that no ice cream is being shipped from the coast in 500 gallon containers such as announced by the Pennsylvania newspaper. Transports, on ocean liners buy quantities of ice cream preparatory to trips to the orient. The ice cream is generally brick and is kept in cold storage boxes. San Francisco is said to have more business than either Seattle or Los Angeles, but the amount is not sufficient to attract particular attention.

Ruff Milk Condensing Evaporator



1922 Improved Model Motor Driven

The Ruff Process has no equal when you consider Quality and Economy.

CREAMERIES { STROUDSBURG, CHERRY VALLEY, SAND HILL

P. O. BOX 615

STROUDSBURG CREAMERY CO.

MANUFACTURERS OF
ICE CREAM AND CREAMERY BUTTER
PASTEURIZED MILK AND CREAM A SPECIALTY

STROUDSBURG, PA.

Sept. 10, 1921.

The Cream Production Company,
Port Huron, Mich.

Gentlemen:

Having used one of your Condensers for sometime, we are so well pleased with its merits and the product that it produces that we gladly recommend same to all that might be desirous of turning their skim and surplus milk into money.

At this time of the year we are using our whole milk and butter, and by condensing it slightly we get the finest mix, and the best ice cream ever produced.

We find that by using your Condenser that we are saving the money, you claimed we would.

Yours very truly,

Stroudsburg Creamery Co.
Fred H Dale
Treas.

Your correspondence solicited

THE CREAM PRODUCTION COMPANY

PORT HURON — *B. Trudell & Company, Montreal, Quebec Manufacturer and Jobber for Canada* — MICHIGAN

THE ASSOCIATION OF ICE CREAM SUPPLY MEN —A RECORD OF CONSTRUCTIVE WORK WELL DONE.

(Continued from page 12)

10—Simulating in one's own product the trade mark, trade name, cartons, slogans, advertising matter, or appearance of a competitor's product.

11—Converting raw materials of competitors to one's own use by diverting shipments through bribery, trickery or misrepresentation.

12—Depriving a competitor of transportation facilities through bribery of railroad employees, trickery, exercise of undue influence of any other means.

13—Refusal to accept advertising upon other than ethical grounds.

14—Threats to withdraw advertising unless competitor's advertising is excluded or unless certain discriminatory favors are granted.

15—Claiming or exercising a monopoly.

16—Obtaining estimates from competitors through bogus receipts by a third party.

17—Threats to withdraw patronage from a firm supplying raw materials if same raw materials are sold to competitors.

18—Bidding prices of raw materials to a point where business becomes unprofitable, for the purpose of driving out weaker competitors.

19—Purchasing a competitor's unusual goods, already sold, from a customer, and substituting one's own goods.

20—Threatening to force a competitor out of business unless he keeps out of certain territories.

21—Selling or offering to sell below cost or at less than a fair profit to force a competitor out of the field.

22—Making up and disseminating false cost sheets.

23—Payment of bonuses to jobbers' salesmen, with or without the knowledge of employers, for pushing of certain goods as against competitors' goods.

24—Giving away goods, other than customary samples, in large quantities to hamper and embarrass competitors.

25—Combinations of competitors to raise or maintain or bring about uniformity in prices, to divide territory or allot customers.

26—Offering goods through second hands for less than their direct sales price.

HARTIG WILL INCREASE CAPACITY.

The ice cream plant recently installed by William Hartig, in Watertown, Wis., has proved inadequate to the demands upon it and it was necessary to put in additional equipment so that the capacity of the plant would supply the demand. The present capacity is 500 gallons daily but within a week the demands reached over that amount.

For the betterment of the delivery service an up-to-date refrigerator has been added to the truck service, which will be a welcome innovation to dealers.—Watertown (Wis.) Times..

NEVADA WILL HAVE FINE NEW CREAMERY AND ICE CREAM FACTORY.

Following the campaign for increased dairying in Nevada, Iowa, and vicinity for the past several weeks by the Nevada Community Club, which has met with a marked interest by the farmers of the community, the launching of a large and modern creamery, cheese factory and ice cream concern is announced by A. Contri, a local business man.

Mr. Contri has purchased a large building in the business center of the city, known as the Boardman building, at one time the home of one of the largest egg and butter concerns west of Chicago, and has architects and dairy engineers working out plans for his establishment.

The building is 50x90, with a full basement and two stories above, all built for storage purposes and well adapted to being remodeled into an ideal plant for the purpose for which Mr. Contri has purchased it. Work will begin at once on the remodeling of the building and it is hoped to have the plant in operation by the early spring time.

When completed it will be one of the most complete plants of its kind in the state.

TO ERECT $100,000 MILK PLANT

Henry Gottselig, Ross Barley, B. M. Cramer, L. C. Gross and M. E. Keen, who have conducted dairy routes in the city of Lancaster, Pa., for a number of years, have been granted a charter for their corporation into the Lancaster Milk Products Co.

The object of this combination is to provide a milk service in Lancaster and will cover the distribution of grade A milk, together with Ideal buttermilk, and other dairy products, and to expand their service to include the production and distribution of Ideal ice cream.

For a building site the company has purchased the tract of land located at 623 to 633 Second street, for erection of a modern dairy and ice cream plant. The building when completed and equipped will represent an investment of $100,000.

A Diplomatic Refusal

First Boy—You're afraid to fight, that's what.

Second boy—No, I ain't, but if I fight you, my mother'll lick me.

First Boy—How'll she find out?

Second Boy—she'll see the doctor goin' to your house.—Edinburgh Scotsman.

LIST OF

Ice Tools

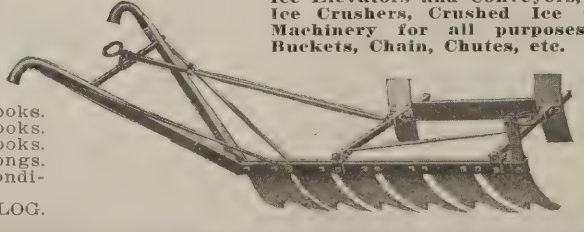
Suitable for Harvesting 500 Tons of Ice

1 No. 315 8-in. Ice King Plow.
1 No. 412 Plow Rope.
1 No. 422 5-ft. Ice Saw.
2 No. 444 Splitting Forks.
1 No. 457 Calking Bar.
1 No. 458 Bar Chisel.
1 No. 470 Floor Shaver.
1 No. 476 Ring Splitting Chisel.
1 No. 500 Line Marker.
1 No. 505 Scoop Net.
1/4 doz. No. 520 4½ ft. Ice Hooks.
1/12 doz. No. 520 6-ft. Ice Hooks.
1/12 doz. No. 520 12-ft. Ice Hooks.
1/12 doz. No. 540 24-in. Boston Tongs.
This list may be added to if conditions demand.
SEND FOR COMPLETE CATALOG.

Ice Tools Suitable for Harvesting 500 Tons of Ice

The Ice Cream, Soda Fountain and Confectionery Trade appreciate the value of a good cold storage and plenty of Ice during the summer. The set of tools suggested here are suitable for harvesting 100 to 500 tons of Ice.—Everyone gathering Ice can afford his own outfit.
Place your order early.

WE MANUFACTURE
Ice Elevators and Conveyors, Ice Tools, Hoists, Ice Crushers, Crushed Ice Carts, Conveying, Machinery for all purposes, Wagon Leaders, Buckets, Chain, Chutes, etc.



Gifford-Wood Co.

Hudson, N. Y.
New York Chicago
Buffalo Boston

MAY WE SERVE YOU BETTER?



A Bundle of the Finest Growth Mexican Vanilla Bean

QUALITY FIRST ALWAYS

Consumers show their Appreciation of these Flavors by demanding more—

Do you use them?

SUPERLATIVE VANILLA EXTRACT

A pure Vanilla Bean Extract producing a Velvet Cream Flavor unusually rich and pleasant.

Single Barrels per gal. - $6.50
Five Barrel quantities or more, per gal. - - 6.25

MAYFLOWER BRAND ICE CREAM FLAVORING

A compound beyond comparison for price and quality.

Single Barrels per gal. - $2.75
Five Barrel Lots or more, per gal. - - 2.50

Pleasing Flavors That Last—Try Them and Profit By Their Use

The Mayborn Food Products Co.

CLEVELAND, OHIO

ICE CREAM CONVENTION BEST EVER.

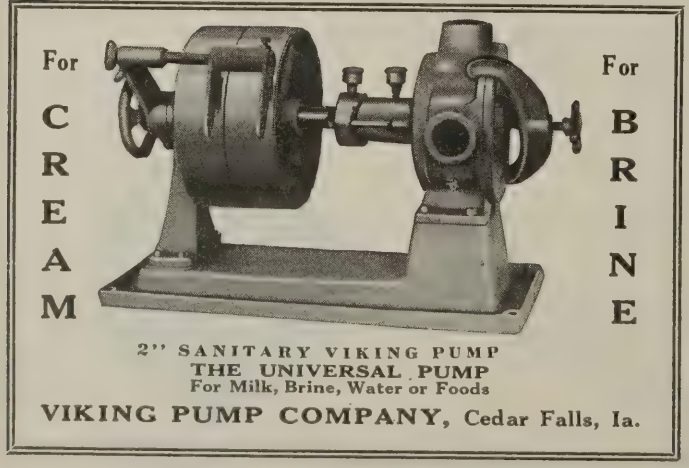
The twenty-first annual convention of the National Association of Ice Cream Manufacturers will go down in the history of the association as one of the best, if not the very best, ever held. The attendance was fully up to expectations and the proceedings high class. In later issues we will publish these proceedings in full.

Officers were elected as follows:

Chas. G. Morris, New Haven, Conn., President.
Morden Neilson, Toronto, Ont., Vice-President.
N. Loewenstein, Chicago, Ill., Secretary.
W. J. Weller, Brooklyn, N. Y., Treasurer.

The convention was held in the Radisson Hotel, in Minneapolis, and the program was arranged to give visiting delegates an opportunity to see the sights of the Twin Cities and to visit the "World's Greatest Dairy Show." A complete list of exhibitors at the dairy show follows:

Abbott Laboratories, The, 4753 Ravenswood Ave., Chicago, Ill.
Anheuser-Busch Sales Corp., 2367 Logan Blvd., Chicago, Ill.
Anker-Holth Mfg. Co., Port Huron, Mich.
Atlantic Gelatine Co., Woburn, Mass.
A. H. Arnold & Bro., 308 So. Canal St., Chicago, Ill.
Atlantic Bottle Co., Inc., 90 W. Broadway, New York, N. Y.
Allman Gas. Engine & Machine Co., The, 461 Canal St., New York City.
American Linseed Co., St. Paul, Minn.
Buffalo Foundry & Machine Co., Buffalo, N. Y.
Buhl Stamping Co., Detroit, Mich.
D. H. Burrell & Co., Little Falls, N. Y.
Bristol Co., The., 53 W. Jackson Blvd., Chicago, Ill.
Boerner-Fry Co., The., Iowa City, Iowa.
Blue Valley Creamery Co., 700 S. Clinton St., Chicago, Ill.
Blackmer Rotary Pump Co., Old Colony Bldg., Chicago, Ill.
Barber, A. H., Creamery Supply Co., 300 W. Austin Ave., Chicago, Ill.
Burpee Can Sealer Co., 215 W. Huron St., Chicago, Ill.
Buttermilk Equipment Co., 141 N. Clark St., Chicago, Ill.
Blanke Mfg. & Supply Co., 214 Washington Ave., St. Louis, Mo.
Baeder, Adamson Co., 111 W. Washington St., Chicago, Ill.
Baker Ice Machine Co., Inc., 304 Lumber Exchange Bldg., Minneapolis, Minn.
Bunn, B. H. & Co., 7329 Vincennes Ave., Chicago, Ill.
Beaverland Corp., The, successor to The Pa Pro Co., Lowville, N. Y.
Bohn Refrigerator Co., St. Paul, Minn.
California Central Creameries, 277 Broadway, New York, N. Y.
Canvas Products Corporation, Fond du Lac, Wis.
Cherry, J. G., Co., Cedar Rapids, Iowa.
Chicago Carton Co., 4433 Ogden Ave., Chicago, Ill.
Chicago Chemical Co., Chicago, Ill.
Chicago Dairy Produce, 136 W. Lake St., Chicago, Ill.
Crane & Ordway Co., St. Paul.
Creamery and Milk Plant Monthly, 327 S. LaSalle St., Chicago, Ill.
Creamery Package Mfg. Co., 61 W. Kinzie St., Chicago, Ill.
Cream Production Co., The, Port Huron, Mich.
Crystal Gelatine Co., 3630 Iron St., Chicago, Ill.



2" SANITARY VIKING PUMP
THE UNIVERSAL PUMP
For Milk, Brine, Water or Foods
VIKING PUMP COMPANY, Cedar Falls, Ia.

Curtis Pneumatic Machinery Co., St. Louis, Mo.
Cherry-Bassett Co., Baltimore, Md.
Continental Machinery Co., 111 W. Monroe St., Chicago, Ill.
Coster-Peterson Co., Chicago, Ill.
Cronholm Refrigerating Co., 1409 W. Broadway, Minneapolis, Minn.
Daigger, A., & Co., 54 W. Kinzie St., Chicago, Ill.
Dairy Record, The, 311 Metropolitan Bank Bldg., St. Paul, Minn.
Davis-Watkins Dairymen's Mfg. Co., North Chicago, Ill.
Dayton Moneyweight Scale Co., 101 N. 6th St., Minneapolis, Minn.
DeLaval Separator Co., The, 29 E. Madison St., Chicago, Ill.
Des Lauriers Metal Products Co., 311 Chestnut St., St. Paul, Minn.
Dickerson Co., The F. G., 549 Washington Blvd., Chicago, Ill.
Dominion Chemical Co., 1545 Kingsbury St., Chicago, Ill.
Doering, C. & Son, Inc., 1375 Lake St., Chicago, Ill.
Dunn Co., Thos. W., New York City.
Electric Milker Corporation, 703 Tower Bldg., Chicago, Ill.
Elyria Enameled Products Co., Elyria, Ohio.
Eddy Paper Co., 640 Plymouth Ave., Minneapolis, Minn.
Electro Chemical Co., The, Dayton, O.
Emerson Drug Co., 327 N. Wells St., Chicago, Ill.
Emery Thompson Machine & Supply Co., 271 Ryder Ave., New York, N. Y.
Empire Cream Separator Co., Bloomfield, N. J.
Fabric Products Co., The, Oshkosh, Wis.
Ford, J. B. Co., Wyandotte, Mich.
Foxboro Co., Inc., The, Foxboro, Mass.
Felt & Tarrant Mfg. Co., 2401 University Ave., St. Paul, Minn.
General Laboratories, Madison, Wis.
General Motors Truck Co., Pontiac, Mich.
General Tool & Mfg. Co., The, 382 4th St., Milwaukee, Wis.
Grand Rapids Table Co., Grand Rapids, Mich.
Greenhalgh, J. H. & Co., 4403 Sheridan Road, Chicago, Ill.
Glacifer Co., 102 Merrimac St., Boston, Mass.
Hansen's Laboratory, Chr. Inc., Little Falls, N. Y.
Heller, B. & Co., 40th St. and Calumet Ave., Chicago, Ill.
Hoard, W. D. & Sons Co., Ft. Atkinson, Wis.
Heath Mfg. Co., 11th and Monroe Sts., St. Louis, Mo.
Hudson Mfg. Co., 324 3rd Ave., N. Minneapolis, Minn.
Hudson Mfg. Co., The, 119 N. Union St., Chicago, Ill.
Heathmade Carbonated Products Co., 79 W. Monroe St., Chicago, Ill.
Hinman Milking Machine Co., Oneida, N. Y.
Ilg Electric Ventilating Co., Chicago, Ill.
Jensen & Son, P. W., Princeton, Minn.
International Sugar Feed Co., Minneapolis, Minn.
Independent Milking Machine Co., 2484 University Ave., St. Paul, Minn.
Impruv-Mix Co., 403 W. 24th St., New York City.
Jalco Motor Co., Union City, Ind.
James Mfg. Co., Ft. Atkinson, Wis.
Jensen Creamery Machinery Co., Bloomfield, N. J.
Kennedy & Parsons Co., 1309 Jones St., Omaha, Nebr.
Kimball, Fred L. Co., Waterloo, Iowa.
Kimble Glass Co., 402 W. Randolph St., Chicago, Ill.
King Ventilating Co., Owatonna, Minn.
Kampfer, C. W. & Co., St. Paul, Minn.
Keiner-Williams Stamping Co., 8746 123rd St., Richmond Hill, N. Y.
Kraft, J. L. & Bros. Co., 363 River St., Chicago, Ill.
Ladd, John W. Co., Detroit, Mich.
Leffel & Co., The James, Springfield, Ohio.
Larco Wrench & Mfg. Corp., 7800 Woodlawn Ave., Chicago, Ill.
Liberty Glass Co., Sapulpa, Okla.
Liberty Milker Co., Owatonna, Minn.
Louden Machinery Co., Fairfield, Iowa.
Laacke, R. Co., 543 Third St., Milwaukee, Wis.
Mangold Co., E. F., 437 E. 3rd St., Dayton, Ohio.
Manitowoc Plating Works, Manitowoc, Wis.
Manning Mfg. Co., Rutland, Vt.
Massey & Massey Co., The, 1214 Webster Ave., Chicago, Ill.
Mathews, Frederick C., Co., 63 Mullet St., Detroit, Mich.
Mayborn Food Products Co., 1303 Oregon Ave., Cleveland, O.
McLaughlin, Gormely King Co., Minneapolis, Minn.
Menasha Printing & Carton Co., Menasha, Wis.
Merrell-Soule Sales Corp., Syracuse, N. Y.
Meyer, Geo. J. Mfg. Co., 560 Clinton St., Milwaukee, Wis.
Midwest Engineering & Equipment Co., 617 Fulton St., Chicago, Ill.
Miller, H. H., Industries Co., Canton, Ohio.
Milligan & Higgins Gelatine Co., 222 Front St., New York, N. Y.
Milwaukee Dairy Supply Mfg. Co., 3002 Burleigh St., Milwaukee, Wis.

(Continued on page 147)

Here's a New One!

ROGERS' COMMERCIAL GRAVITY ICE CREAM BRICK MAKER

Science, Service, Sanitation in the Packaging of Ice Cream

Eliminates all ice shell on bricks.

Uniform mixture and texture.

Will positively maintain all overrun. It can't get away.

Neapolitan bricks made perfectly uniform — all flavors and colors equally distributed.



The latest and most sanitary way to make ice cream bricks.

Old process of brick mold hand filling is excessively inefficient—wasting labor.

Labor saving. will pay for it in a single season.

Direct motor drive.

CAPACITY

16 Quarts per minute—32 Pints per minute—8 Quarts and 16 pints per minute

Makes Single, Two or Three Flavor Bricks *See it at the BUFFALO SHOW*

DISTRIBUTION DIRECTED BY

JOHN W. LADD COMPANY

"Complete Outfitters to the Dairy Industries"

DETROIT, MICH. MARKETED THROUGH REGULAR VISCOLIZER JOBBERS CLEVELAND, OHIO

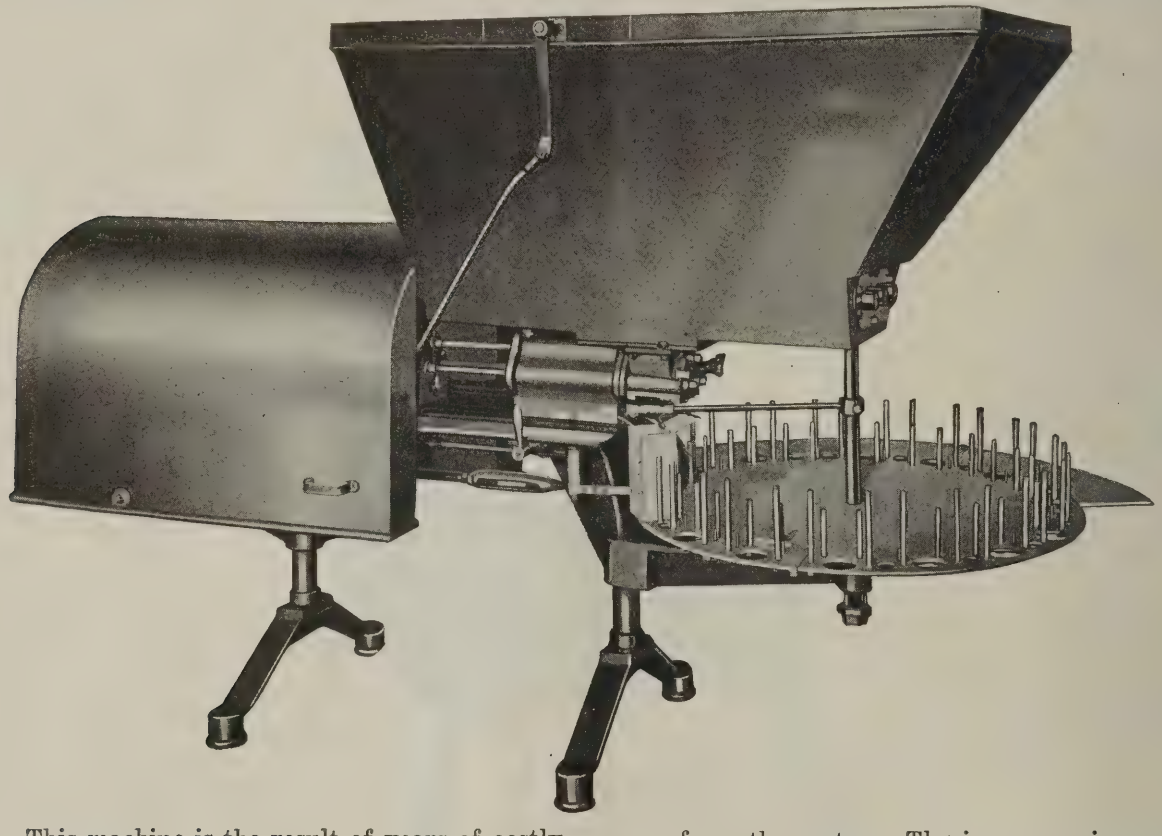
A New Era in Packaging Ice Cream

By TIMOTHY MOJONNIER, of Mojonnier Bros. Co., Chicago, Ill., before National Association of Ice Cream Manufacturers.

THE title to my paper was kindly assigned to me by Mr. Loewenstein. It is a pleasure to be able to discuss in the brief time alloted, a subject in which all the members of this influential association are keenly interested. The success of the ice cream industry is due in a large measure to the fact that in the past, new inventions of merit have been put into practice by the manufacturers as fast as their advantages were proved. This is the spirit that will continue to make the ice cream industry a great industry.

Ice Cream Packaging Machine.

The new era in packaging ice cream is made possible by the invention of the ice cream packaging machine which has been placed upon the market during the current year. This machine is the result of years of costly research and experimentation. The pioneer in this new art was Mr. E. J. Retzbach of St. Louis who spent many years, and the savings of a lifetime in the development of this idea, and to him was granted basic patents covering both the mechanical principles, and the process for packaging ice cream directly into the cartons.

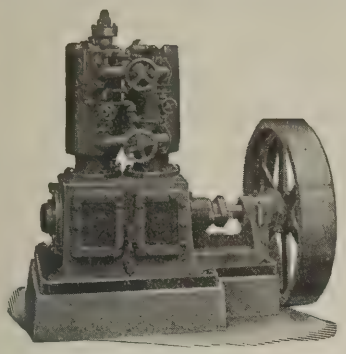


This new machine receives the ice cream just as it comes from the freezer, and while it is still in the plastic condition—packages it directly into the carton, one, two or three flavors at a time. The filled cartons are then transferred to the hardening room, and the ice cream is hardened in the carton, ready for delivery to the trade.

This machine operates entirely automatically. It can be located so that the contents of the freezers can be discharged directly into the three compartment hopper which is refrigerated and insulated, or the contents of the freezers can be discharged into suitable cans, and in turn, the cans be dumped into the respective compartments of the hopper.

From the hopper the ice cream passes through the machine, and into the cartons, in exact predetermined, measured amounts, of each flavor. The standard tuck-end type of carton is used. This is the type of carton now most commonly used, and it is the type that possesses the most advantages over all other types, both from the standpoint of the manufacturer and of the consumer. A parchment bag is inserted into the cartons before feeding the cartons into the machine. By experimentation and by consultation with a large number of manufacturers, we found that the use of the parchment bag was greatly desired. The majority of the manufacturers consulted, favored its use since this paralleled their present method of wrapping the hardened bricks in parchment liners. It helps to prevent leakage both at the time of filling, and at the time of removing the ice cream from the carton. The ice cream is more readily removed from the bag than from the bare carton. There is less slop and waste of ice cream, and but little muss upon the part of the consumer when cutting the brick. The practicability of this package was demonstrated in Chicago where it has been in constant use for several months by three of the leading ice cream plants. The plump, full measered brick has been complimented by both the dealer and the consumer.

After being filled by the packaging machine, the cartons are removed, inspected, sealed, transferred to the carry-out tray, and the tray removed to the hardening room. If so desired, the cartons can be passed through a tying machine after being filled. The brick molds now universally employed can be used to receive the cartons at the machine. The cartons are placed therein upon their ends. Other means can be used for handling the filled cartons. One used is meeting with fine success with a galvanized pan that holds thirty two quart cartons. In this pan the sides of the carton are well pressed in, and the bricks completely retain their square form while hardening. The bricks remain in the pan in the

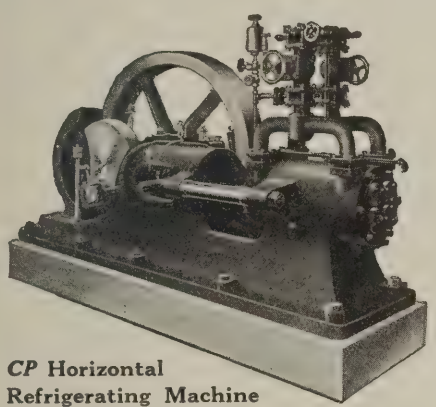


CP Vertical
Refrigerating Machine

Pays for Itself in 3 Years

Then Pays Dividends

ALTHOUGH the greatest benefits that accrue from a *CP* Refrigerating System to its owner are the freedom from dependence on the ice man, the convenience of the system, the steady, dry temperature and the cleanliness of the *CP* System, it is a fact that will be vouched for by any owner of a *CP* System, that the savings it effects by eliminating the ice bill alone will pay completely for the outfit in three years or less. From that time on your expenses for refrigeration will be the smallest single expense you have.



CP Horizontal
Refrigerating Machine

CP Refrigerating Systems are made Vertical or Horizontal as desired in a complete variety of sizes ranging from 3-4 ton up. *CP* Refrigeration machines have several features which make them peculiarly well suited to the refrigeration of dairy products which are fully explained in booklet, "The Story of Refrigeration." Its yours for the asking. Send for it.

The Creamery Package Mfg. Company

Chicago, Ill., 61-67 W. Kinzie St.
Buffalo, N. Y., 133-137 E. Swan St.
Kansas City, Mo., 1408-10 W. 12th St.
Minneapolis, Minn., 318-20 3d St. N.
Omaha, Neb., 113-15-17 So. 10th St.
Philadelphia, Pa., 1907 Market St.
Portland, Ore., 6-8 N. Front St.
San Francisco, Cal., 699 Battery St.
Toledo, Ohio, 119 St. Clair St.
Waterloo, Ia., 406-8 Sycamore St.

hardening room until they are delivered to the wagons.

This machine will fill either pint or quart size cartons of the common brick type. By making a slight change, it can be made to fill half pint, pint or quart size carry-home pails. Likewise it can be modified to fill round cartons of various sizes.

The standard model is geared to deliver twenty quarts per minute, or 1,200 quarts per hour. This speed can be increased or decreased if desired. Its limit is governed by the ability of the operator to feed in the cartons, or by the output desired.

The standard model of this machine will fill any flavors of ice cream that have passed through the freezers. For example, strawberry, cherry, peach or any of the other common fruits ordinarily used to flavor ice cream, if whipped in the freezer with the ice cream, can in turn be filled with the packaging machine. Likewise it will fill with fine results, sherbets of the proper composition and overrun, along with ice cream.

Advantages From A Manufacturing Standpoint.

We have considered what the machine is, how it operates, and what it does. Let us now consider some of its advantages to the manufacturer. Under the old methods at least twelve operations are necessary in order to produce brick ice cream. Each operation requires labor, or as the engineer would state it, the expenditure of a given number of motions. The manufacturer pays for each of these motions.

By means of the packaging machine, the total number of operations is reduced from twelve to seven. The exact saving in labor that is effected by the new method, will vary with the output of the plant, and the manner in which the work is organized. Based upon one experience to date in one plant making an average of about 1,000 bricks per day, the services of at least two helpers were dispensed with. In a large plant making as many as 8,000 bricks per day, upon the authority of the superintendent, the number of help required to produce this quantity of brick ice cream was reduced from twenty-two by the old method to seven by the new method. As the new method of making ice cream bricks becomes better understood; and the necessary operations involved, better organized, it may become possible to make further reductions in help. In any plant, whether large or small, the eight following labor operations are dispensed with, under the new method. (1) Labor of pouring the ice cream into the molds. (2) Transferring the molds to the hardening room. (3) Removing the molds from the hardening room to the cutting room. (4) Dipping the molds in a hot water tank. (5) Removing the ice cream from the molds. (6) Cutting the slabs into bricks. (7) Wrapping the bricks in the parchment liner. (8) Inserting the hardened brick into the carton.

The packaging machine makes it possible to rout the brick ice cream through the plant, by the shortest and most direct lines, thus saving both time and labor.

Another advantage from a manufacturing standpoint is the saving in ice cream, that is effected by the new method. Under the old method there is usally a loss of ice cream while transferring from the freezer to the molds, due to slopping. There is a loss due to the fact that the molds are frequently oversize, to allow for cutting. There is a loss in cutting the slabs. Conceding upon a most conservative basis, the total loss to be five per cent, upon an output of 25,000 gallons of brick ice cream per year, this means an aggregate loss of 1,250 gallons of ice cream. It is therefore evident that one of the greatest possibilities by the new method from a manufacturing standpoint is the savings in ice cream

that it is possible to make. A saving, which under the old method, receives itself into a sheer loss.

Several other manufacturing advantages could be enumerated. There is a considerable saving in floor space, as against the old method. The new machine occupies about the same room as one 80 quart freezer. It will gradually replace other equipment now used for making bricks, such as molds with covers; tables for filling the molds, dipping and cutting equipment, and tables for wrapping and packing the bricks. This all constitutes capital investment upon which the manufacturer writes off depreciation and pays taxes and insurance. It saves nearly half the space now used in the hardening room for making bricks, since the space now used for hardening the ice cream in the molds can be utilized for hardening the ice cream in the cartons. At the same time, there is a saving in the expense of refrigeration. What this amounts to has not been accurately determined, but it is bound to be a considerable loss. The refrigeration now required to cool the molds and the mold covers can all be saved. The loss of refrigeration that results when the molds are transferred into the hardening room can all be saved. There is a loss in refrigeration every time the doors leading to the hardening room are opened. With the new method, the loss of refrigeration from this cause is easily cut in two. Where the practice is followed of hardening the successive layers of ice cream in the molds, the loss is directly proportional to the number of times that the molds are put in, and taken out of the hardening room.

In removing the ice cream from the molds, the layer next to the mold usually melts to a considerable extent. When the brick has been returned to the carton after cutting, this softened layer must be hardened again, and this is done at the expense of the refrigeration. The manufacturer can double his brick business in the space required under the old method, or he can do the same volume of business in half the space. A large saving in refrigeration is effected in either case.

Advantages From a Sales Standpoint.

We will now consider the advantages of the new method from the standpoint of its effect upon the sales of ice cream.

The question in your mind is: What is the effect upon the quality of ice cream to package it by this new way? The new machine operates best when the ice cream is of heavy viscosity when fed into the hopper. As every observing manufacturer knows, this is the condition that will produce the best ice cream—a product free from large water crystals, and therefore smooth to the taste.

Under the old method, the layer of softened ice cream next to the mold surfaces, usually hardens into a coarse, icy or grainy crust, causing the defect commonly known as icy bricks. This is caused by the fact that no air can be incorporated into the water drops while the bricks are being rehardened. Under the new method, this difficulty is entirely eliminated. The water crystals are all of uniform size throughout the brick. The product is most pleasing to the taste. The texture and smoothness of the product is unexcelled when the ice cream is filled directly into the carton, by means of the packaging machine, and besides this result is accomplished without any shrinkage in the volume of the brick.

By the new way, the exposure to the air of the ice cream is reduced to a minimum. Its contact with hot water is entirely eliminated. The ice cream is not touched by human hands, and its possible contamination by contact with the tables, and other equipment ordinarily used is entirely avoided. The good flavors are all sealed in. The possible bad flavors are all sealed out. These are all arguments upon which the manufacturer can capitalize in his advertising, and in his sales promotion.

Packaging Bulk Ice Cream.

Another advantage is the large possibility that the new method offers to package bulk ice cream for the dealer. You are all familiar with the present method of handling bulk ice cream by the dealer.

We made a canvass among all the leading dealers of Oak Park, Ill., and also among a considerable number of ice cream manufacturers, in order to get the viewpoint of all concerned, in this problem. This investigation disclosed the following facts:

(1) The consumer buys bulk ice cream in preference to brick ice cream for two principal reasons. First, he believes that bulk ice cream has better flavor and better texture than brick ice cream, and in many cases the single flavors are preferred, and the same are not always available in brick form. I believe you will agree with me that this view is largely a matter of prejudice or of opinion, granting that the brick ice cream is made with the same care as is used in the preparation of the bulk goods. Second, the consumer believes that in buying bulk ice cream, he receives more for his money even if he pays a premium of from 30 per cent to 40 per cent for the same volume of ice cream. This view is not always correct. When the ice cream in the can is frozen very hard, it is difficult to avoid air pockets when filling the pail, so that in this case the consumer may get considerable less than the amount that he bought. The quantity in the carton is under the control of the clerk who dishes out the ice cream. One clerk may serve more, another less than the given volume. When the ice cream in the can is soft, the consumer benefits, but

B-K
Bacili-Kill

Eliminates Chance

Don't fool yourself just because you get by occasionally without sterilization. To be sure of high quality **all** the time, keep bacteria down with B-K all the time.

The doctors and hospitals say that in warm weather both pasteurized and certified milk are often seriously contaminated.

The daily use of B-K on all equipment and in patrons' cans reduces the bacteria that would otherwise contaminate your product. This practice continued year in and year out will keep your quality uniformly high and pay you many times the cost of the B-K. It will help increase confidence in your product and satisfaction of your customers.

Ask us for information on improving the quality of your product.

— Quality Pays —

At all supply houses.

Economize by using B-K
Ask for Bulletin No. 320 on
Better Dairy and Food Products.

GENERAL LABORATORIES
MADISON, WISCONSIN
Sole Mfrs. B-K

this is done at the loss, and at the expense of the dealer. Ice cream in this conditioin is seldom entirely satisfactory to the consumer.

The average consumer expects only the volume, or the weight of any product which he may be buying. The satisfied consumer is the one who receives uniform quality—that is flavor, texture, body, food value and uniform weight or measure. In other words, equal value for his money at every purchase.

(2) The dealer sells bulk ice cream from necessity rather than from choice. He discourages its sale by placing a price of from 15 cents to 20 cents per quart over the price of brick. He states that even at the increased price, his bulk business shows him a loss. One large dealer in St. Louis reported a cash loss of $3.50 in the sale of 70 gallons of bulk ice cream in one day. This did not take into consideration the loss in wages and in overhead. Had this been packaged at the factory, and sold at 10 cents a quart profit, he would have realized a profit of $28.00 for the day. Sales are lost during the time consumed in filling the cartons. An expensive clerk, or the owner himself have to give their valuable time to this menial operation.

The dealers interviewed were unanimously of the opinion that the logical place to package bulk ice cream is in the ice cream factory. One large dealer in Oak Park even now has his bulk ice cream put up by hand at the factory, and he stated that he would buy his ice cream only from a factory that would package his bulk cream. The majority of them believed that if they sold only bulk ice cream packaged at the factory, that the consumer would accept it, and be satisfied. It might take avertising and some educational effort to bring the consumer to this viewpoint.

With one exception, al the dealers interviewed were of the opinion that the standard pint and quart cartons could be used instead of the present carry-home pail to package bulk ice cream. The dissenting dealer believed that the carry-home pail should be adhered to. It would be very obviously an advantage even to the dealer if he could standardize upon one or two sizes and shapes of cartons. One important advantage of the standard brick carton over the carry-home pail is the fact that the ice cream can be served in more even portions and in more pleasing form when packaged in the brick carton.

Every dealer interviewed recognized that bulk ice cream packaged at the factory meant to him an assured profit per package, and more time to devote to sales. Ice cream is a product that represents a quick turnover. As a rule, the dealer receives the cash for the ice cream before he has to pay the manufacturer's bill. He can therefore sell it upon a close margin, and still make a very satisfactory earning. By handling bulk ice cream packaged at the factory he can make more sales in a given time, and this reduce his help and increase his profits.

(3) The manufacturers interviewed were somewhat divided in their opinions. One group assumed the attitude: "What do we care if the dealer loses by giving over measure? This means more gallons for us". Upon close analysis, I believe the majority of you will agree with me that this viewpoint may lead to an erroneous conclusion. The whole fabric of commerce, and of human endeavor in its many branches is predicted upon the little word "profit". If the dealer cannot make a profit in selling bulk ice cream, eventually the manufacturers will feel the effects of it. The fact that the dealer is even now charging from 30 per cent to 40 per cent more for bulk than for brick ice cream, must reduce the sale of the bulk. Increase the price and decrease the demand; or decrease the price and increase the demand, are the economic rules that govern the world over.

The second group which included the majority of the manufacturers interviewed recognized great possibilities in packaging the bulk ice cream for their dealers. Their bulk ice cream like their brick ice cream would reach the consumer under their label. By means of the packaging machine the bulk ice cream could be packaged at but little if any additional expense over the cost of handling bulk ice cream in cans. The wear and tear upon the cans, the handling and washing of the same would largely offset the carton cost. Increasing the sale of packaged goods would decrease the unit cost thereof. By constructive advertising the consumer would soon learn that bulk ice cream packaged at the factory has the same quality as bulk cream from the dealer's cans. Advertising packaged bulk ice cream to sell at the same prices as brick ice cream would be bound to increase the consumers demand. To realize the best possibilities would require close cooperation between dealer and manufacturer. The dealer would have to be provided with a good brick cabinet, and the manufacturer would have to keep the dealer supplied with fresh stocks. But this would pay, and it would lead to greater ice cream sales.

The same problem has been encountered in nearly all other food industries. It seems but a few years since packaged oatmeal, packaged soda crackers, packaged nearly everything else were unknown. Likewise with nearly all kinds of dairy products. Selling to the consumer in packages or containers is now the rule. The old order has been reversed. The new era is offering equal opportunities to the ice cream manufacturer.

Benefits From Standardization.

Permit me in closing to refer to another advantage that will accrue to the ice cream manufacturer—namely the advantages that will result from standardization in one department of this great industry, provided advantage is taken of this possibility. Investigation has revealed the fact that there are many different sizes and shapes of ice cream bricks. Pints which equal eight packages to the gallon. Fifths—five to the gallon. Quarts four to the gallon. There is a wide range in the capacity of these various sizes. One gallon contains 231 cubic inches. Therefore one quart contains 57.75 cubic inches. By actual measurement quart cartons from different manufacturers ranged in size from 57.85 cubic inches to 65.11 cubic inches.

The shape was likewise found to vary greatly. We have the Eastern and the Western bricks that are nearly alike. We have the brick most commonly used in other sections, and then a considerable number of shapes in between. Besides all of these we have a wide range of shapes and sizes of carry-home pails.

Now permit me to suggest that if your honorable body would appoint a committee on standards to study this problem, and then in turn recommend and adopt certain standards, it would revert to the good of the entire industry. This plan has been followed in other branches of the dairy industry with marked success, and to the advantage of all concerned.

The new package machine can be adapted to fill a wide range of shapes and sizes. However, broad standards would make possible larger production of the same sizes of cartons, bags, carryout trays, brick cabinets and other accessories. This would mean cheaper prices and better satisfaction all along the line. It would help to insure better deliveries, It would make it possible for manufacturers to interchange stocks.

So in concluding let me repeat that this new invention offers great possibilities to the ice cream manufacturer, to effect large economies in manufacture, and at the same time to greatly increase his sales.

Yes Sir, We'll Be There

By L. H. PAYNE, President, The Stout Crate Co., Milwaukee, Wis.

The trade that knows us personally need not be told that they will meet us at the Buffalo Show. They know we will be there because we are regular fellows and appreciate the opportunity for that more "spiritual," man-to-man contact with other regular fellows which such an occasion affords.

And so I feel when I board the train to attend such an occasion that I am stepping out of myself as it were to approach a new set of experiences with an open mind looking forward to the renewing of old acquaintances and to probably a better appreciation of the real "mind" of some other fellow who like myself has been immersed in the immediate problems of "daily making good" on other occasions when I may have met him burdened with the business cares of office or plant.



Stout Crate Company Exhibit at the 1921 National Dairy Show.

It is a good thing to get away from our places of business now and then—away from our respective establishments where our thoughts are prone to be turned too intently inward on the immediate daily problems that tease and beat us about, to meet the men we are accustomed to meeting only in that atmosphere on a footing more of human interest, less of personal selfishness.

I believe that the human elements I have suggested are alone sufficient to warrant the holding of these shows—but when one considers the material side in addition, one cannot escape the conclusion that in order to be up to date on the rapid movements of events in our chosen field, it is necessary to emerge from one's shell and survey the evidences of progress which such an exhibition brings in concrete, co-ordinated form.

As our contribution to this demonstration, we shall exhibit our augmented line of Stout-Schrooeder Perfection Cabinets and Stout Tubs—taking real pride and pleasure in explaining their features, into the perfection of which we constantly put our best thought and studied deductions from our close observation of the needs of those for whose service our product must be consistently adapted.

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CIRCULARS—LETTERHEADS
BUSINESS CARDS — BILL HEADS
STATEMENTS — ENVELOPES

HIGH grade work work at reasonable prices. Send us a sample of what you want and we will quote you prices.

THE OLSEN PUBLISHING CO., 210 Sycamore St., Milwaukee

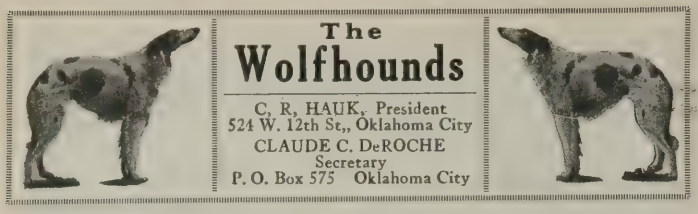
No human being has lived in vain so long as it can be said that his or her existance has at some time lightened the load of a fellow creature.

ICE CREAM CONVENTION BEST EVER.

(Concluded from Page 140)

Morgan Harvester Co., Minneapolis, Minn.
Mojonnier Bros. Co., 549 Washington St., Chicago, Ill.
Menasha Wooden Ware Co., Menasha, Wis.
Meyer Wagon Works, Buffalo, N. Y.
Meyer Dairy Equipment Co., 3rd and Vine Sts., St. Louis, Mo.
Molasses Feeds Co., 73 E. Indiana Ave., St. Paul, Minn.
Nafis, Louis F., Inc., 544 Washington Blvd., Chicago, Ill.
National Checking Co., 271 Chestnut St., St. Paul, Minn.
National Paint & Varnish Co., 8707 Kinsman Road, Cleveland, Ohio.
Nordhem Co., Ivan B., 8 West 40th St., New York City.
Northrup, King & Co., 15th Ave., N. E., and Jackson St., Minneapolis, Minn.
Northwestern Blaugas Co., Hampden Ave. and Charles St., St. Paul, Minn.
Nutting Truck Co., 1157 Division St. W., Faribault, Minn.
New Era Co., The., 146 Merritt St., Oshkosh, Wis.
New York Produce Review, 173 Chambers St., New York, N. Y.
National Cash Register Co., The, 352 Cedar St., St. Paul, Minn.
Olsen Publishing Co., 210 Sycamore St., Milwaukee, Wis.
Perfection Mfg. Co., 2125 E. Hennepin Ave., Minneapolis, Minn.
Pfaudler Co., The, Rochester, N. Y.
Pine Tree Milking Machine Co., 2843 W. 19th St., Chicago, Ill.
Perfection Mfg. Co., 2125 E. Hennepin Ave., Minne., Minn.
Pfaudler Co., The, Rochester, N. Y.
Pine Tree Milking Machine Co., 2843 W. 19 St., Chicago, Ill.
Porter, J. E., Corp., Ottawa, Ill.
Pyramid Oil Co., Minneapolis, Minn.
Papercan Corporation, The, Yonkers, N. Y.
Reid, A. H., Creamery & Dairy Supply Co., 69th St. and Haverford Ave., Philadelphia, Pa.
Rice & Adams Corp., Buffalo, N. Y.
Rogers, C. E., 8731 Witt St., Detroit, Mich.
Rapid Bottle Washer Co., Delphos, O.
Rosenfield Mfg. Co., The L., Baltimore, Md.
Sani-Dairy Products Corporation, Chicago, Ill.
Sheet Metal Products Co., 410 W. Lake St., Chicago, Ill.
Standard Cap & Seal Corp., 1200 Fullerton Ave., Chicago, Ill.
Stewart Motor Corporation, Buffalo, N. Y.
Stout Crate Co., 373 Broadway, Milwaukee, Wis.
Swift & Co., So. St. Paul, Minn.
Sealright Co., Inc., Fulton, N. Y.
Schaefer Mfg. Co., Berlin, Wis.
Sheet Metal Products Co., of Canada, Itd., Toronto, Canada.
Sharples Separator Co., The, West Chester, Pa.
Sinclair, Harold A., 160 Broadway, New York City, N. Y.
Smith-Hecht Co., Indianapolis, Ind.
Smith-Lee Co., The, Oneida, N. Y.
Solar-Sturges Mfg. Co., Congress and Green Sts., Chicago, Ill.
Specialty Brass Co., Kenosha, Wis.
Sprinkman & Son, Fred, Milwaukee, Wis.
Standard Conveyor Co., No. St. Paul, Minn.
State of South Dakota, Dept. of Immigration, Pierre, S. D.
Taylor Instrument Companies, Rochester, N. Y.
Thatcher Mfg. Co., 30 N. La Salle St., Chicago, Ill.
Toledo Bottle Cap Co., Toledo, Ohio.
Toledo Scale Co., Toledo, Ohio.
Torsion Balance Co., 92 Reade St., New York, N. Y.
Uebler Milking Machine Co. Inc., Vernon, N. Y.
Uhlmann-Kinsey Co., Inc., 1935 Ranstead St., Philadelphia, Pa.
Union Fibre Co., Inc., Winona, Minn.
Universal Milking Machine Co., 200 W. Mount St., Columbus, Ohio.
Union Brass & Metal Co., St. Paul, Minn.
Union Steam Pump Co., Battle Creek, Mich.
United Chemical & Organic Products Co., 4200 S. Marshfield Ave., Chicago, Ill.
United Iron Workers, Ridge Arcade Bldg., Kansas City, Mo.
United States Gelatine Co., Box 38, Milwaukee, Wis.
Universal Motors Co., The, Oshkosh, Wis.
Viehman Grain Co., Minneapolis, Minn.
Viking Pump Co., Cedar Falls, Ia.
Vilter Mfg. Co., Milwaukee, Wis.
Ward Motor Vehicle Co., Mt. Vernon, N. Y.
Webb Publishing Co., St. Paul, Minn.
Wellman Turbine Co., The, Oshkosh, Wis.
Wolf Advertising Co., 43-51 West 36th St., New York City.
Wildberg Box Co., 1029 Evans St., Cincinnati, Ohio.
Willhelm Oil Co., St. Paul, Minn.
Wood, John, Mfg. Co., Conshohocken, Pa.
York Mfg. Co., 1332 Monadnock Bldg., Chicago, Ill.
York Milk Machinery Co., York, Pa.





SOMEBODY SPILLED THE BEANS.

I have one little news item which I think will bear publication. I find our friend Hauk has advised the Wolf Hounds that the Chief of Police, our friend Glitsch, could furnish plenty of "wet" goods. I do not know whether it was due to the fact of this publication that the mayor of Oklahoma City asked for his resignation or not, but nevertheless the same is true. I see further that the mayor has rounded up the source of supply.

Jim Nelson, Bill Carpenter, Bulger and myself attended a meeting in St. Louis the other day taking up the subject referred to in this article. Thank goodness that the Sunday School which I attend does not read the Ice Cream Review. We intend to hold an indignation meeting in Minneapolis in which there will be a committee appointed to look after our friend Hauk.

Business has been very good in Texas and Oklahoma.

Instead of carrying "African golf balls" now, I notice that many of the boys are carrying "put and take" tops. Personally, I can say that you can put a plenty in; the top which I was introduced to had no "takes" on it for me.

Pleased to report that Buckner, champion of this district, is figuring on coming to Texas, and I understand that he has blood in his eye.

With kindest regards to all, and hoping that I will see you in Minneapolis, I remain,

Very truly yours,

F. J. PEALE.

* * *

Wolf-Hounds, Look and Remember.

That on December 12, 13 and 14, 1921, at Huckins Hotel, Oklahoma City, Okla., the Hounds will meet in convention with the Oklahoma Ice Cream Manufacturers in the biggest and most instructive meetings ever held by this growing, hustling body of business men, to thrash out the many big problems that are before them, and to pave the way for the most prosperous season of 1922. The outlook for this one great young state of Oklahoma is most encouraging. Oil has advanced in the past two weeks, with prospects of further advances shortly. Cotton has also advanced, and with these two staples up and going nothing can hold Oklahoma back from business prosperity, these conditions put a big smile on the ice cream men's faces, thus insuring big times ahead for the Hounds. So make ready, boys. Be here at the convention, ready for the time of your young lives. This goes for the ice cream men too. Our arrangements for the entertainment are about completed, and believe me, fellows, Hanks and the writer assure you that this year will surpass any show that we have ever put on. It is some big undertaking, but watch the Wolf Hounds go.

By the way, just one year ago tonight the youngest Wolf Hound in the world was given to us by our Great Heavenly Father, the little fellow has taken possession of our hearts and home, and the way he gets about and tries to talk, I am sure he will some day carry the grip, learn to play African golf, and the many other amusements of his brother Wolf Hounds.

Don't forget to wire, or write me for rooms for the convention, Dec. 12, 13 and 14. I will be glad to make reservations for all.

Mrs. Hauk joins Benj. and self in extending best wishes to all. Trusting to have your presence at convention, I am, Yours very truly,

C. R. HAUK, President.

* * *

J. S. May of the Blanke Baer Extract Company, St. Louis, Mo., wishes that he had been born triplets so that he could attend all the conventions that his firm would like to have him attend. He sends the following message to his friends who attend the conventions which he is unable to attend: "I'll be with you in the spirits (spirit, I mean)."

Mr. May has just returned from a three months' trip through California, Washington and Oregon and reports that business is picking up fine.

* * *

Shreveport, La., Oct. 10, 1921.

Business in general through Louisiana, Texas and New Mexico has been very good and the trade is also again booking futures which, of course, means only one thing, and that is we are over the desert and again on the business train full of steam and headed for a successful closing of the year 1921. Will see you at Fort Worth, Texas, December 7, 8 and 9.

Yours for success,

W. L. CASTLE.



ASSOCIATION OF ICE CREAM MANUFACTURERS OF PENNSYLVANIA.

To All Members:

There will gather in Erie, Pa., on October 31st and November 1st, 1921, for the purpose of exchanging ideas, a BUNCH of good fellows who's heart and soul are in their industry — Ice Cream.

Are you going to be one of that bunch?

The idea of having a set program, with the usual prepared papers on various topics, will be eliminated this year. Open discussion will be in order.

Bring along a list of subjects you would like information upon and see if there is not some one present who can and is willing to interchange ideas with you.

This will be your convention and it will be just as good as you help to make it.

"He Profits Most Who Serves the Best."

Do not come with the idea that you are going on a Joy Party, because the Erie boys are going to see that you have a good time, but come with the idea that you are going to get help and give help and that your going to do all you can to help make this fifteenth annual convention at Erie the BEST EVER.

Frank Biers of the Erie County Milk Association says that the calls for hotel reservations are coming in fine, so get in line and write Frank to make your reservation.

The Lawrence Hotel will be our headquarters. The date October 31st and November 1st. Last, but not least, the evening train to Buffalo, where the Association of Ice Cream Supply Men will hold their Eastern Exhibit from October 31st to November 5th, inclusive.

We welcome any one interested in the ice cream industry to meet with us.

ROBERT CRANE, President. J. W. NEUMAN, Secretary.

Big Southern Show will follow Buffalo Exhibition

WHILE the attention of the twenty-five or more states and of Canada is fixed on the big Eastern Exhibition of The Association of Ice Cream Supply Men which opens the last day of this month the ice cream men of almost as extensive a section have their eyes turned with just as much interest toward Atlanta, to be the scene of a southern exhibition from November 28th to December 2nd inclusive.

This southern exhibition will be practically as large and comprehensive as the eastern exhibition and will be under the same management. It is to be held in the service of the ice cream industry of the entire south and will be inspected by ice cream manufacturers of at least twenty states in the south and southwest.

Held in conjunction with it will be the annual conventions of the Southern Association of Ice Cream Manufacturers, the North Carolina Association of Ice Cream Manufacturers and the Tri-State Association of Ice Cream Manufacturers of South Carolina, Alabama and Georgia.

So, while the ice cream manufacturers of the Northern half of the country are packing their grips for Buffalo, beautiful, hustling, sunny Atlanta is preparing her welcome to be extended a month later to ice cream manufacturers from all the region where the sun shines brightest—and Atlanta is a real welcomer.

Atlanta is the capitol of Georgia and County of Fulton with a population of 250,000 and is the "Metropolis of the Southeast". Its climate is excellent, being situated 1,050 feet above sea level at the foothills of the Blue Ridge Mountains with an average temperature of 61 degrees, and the normal temperature in June being 76, July 79, August 77 degrees.

Atlanta is easily reached from all points east of the Mississippi River in an over night ride, and enjoys liberal stop-over privileges on both winter tourist tickets. Atlanta has ample hotel accommodation, having forty-four hotels with over three hundred rooms with numerous restaurants. Atlanta has the great Auditorium Armory, with a stage which accommodates yearly the elaborate setting for the Metropolitan Grand Opera and whose main room has a seating capacity for 8,000 people without crowding. There are, besides, various convention halls and committee rooms which are furnished for conventions. Atlanta is the financial center and central distribution point for commodities of the Southeast, the home of the Federal Reserve Bank, and of twenty banks and trust companies. It also is the headquarters for all government activities for the Southeast. It is the second largest Mule market in the world and the automobile center of the South.

Atlanta has 116 educational institutions, 272 churches including over twenty denominations. It has eighteen public parks and playgrounds. It has the largest ostrich farm east of the Rocky Mountains, open year around, with over 100 birds. It has an aeroplane landing field, a Robert Burns cottage—the exact replica of the famous poet's in Scotland. It has some of the most beautiful automobile roads in America, a zoo, historic battlefields, and Stone Mountain, the largest solid rock in the world, sixteen miles east of Atlanta, reached by trolley cars every hour.

The Southeastern Fair, one of the largest and best agricultural shows of live stock exhibits in the country, is held yearly at a permanent home in Atlanta.

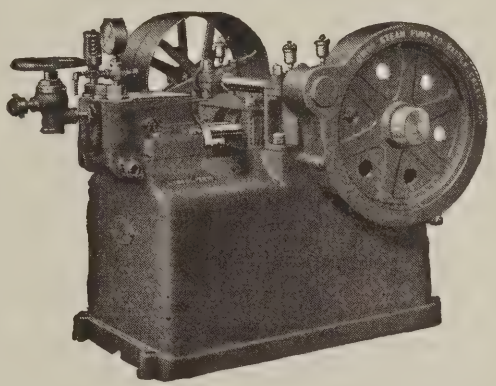
Atlanta has twenty or more buildings of the sky-scraper class and more are to be built soon. It has more than 500 factories turning out over 1,000 different

Good News

The big drop in prices of

The Viscolizer

adds one more splended argument in its favor.



Size	Capacity Per Hour	Horse Power	Stand. Mch. Belt Drive
No. 100	100 Gal.	5	$ 850.00
No. 200	200 Gal.	7½	1,000.00
No. 300	300 Gal.	10	1,250.00
No. 450	450 Gal.	15	1,500.00
No. 800	800 Gal.	25	2,000.00

Factory running to full capacity—prompt deliveries.

"There is a Viscolizer Jobber Near You"

John W. Ladd Co. DETROIT - CLEVELAND **Cherry-Bassett Co.** BALTIMORE-PHILADELPHIA

Complete Outfitters to the Dairy Industry

articles valued at $175,000,000 a year. Some of the other country-wide known features of Atlanta are:

Cyclorama in Grant Park, the only remaining picture of the Civil war. This mammoth painting of the Battle of Atlanta weighs nine tons, being four hundred feet around and fifty feet high.

Fort McPherson, Camp Jessup and Camp Gordon, the government army posts. Fort McPherson has a large and most complete government hospital; Camp Jessup the largest and best government mechanical repair shops, and Camp Gordon is one of the largest army reservations and training stations east of the Mississippi.

The famous Chattahoochee river, the source of Atlanta's water supply.

The Confederate Soldier Home, an institution operated by the state of Georgia for the Confederate veterans.

The Georgia School of Technology, one of the units of the state system of colleges and a government headquarters for teaching aeronautics; Oglethorpe University, a college of "before the war"; Agnes Scott, a college for young ladies and one of the south's foremost women colleges; Emory University of the Methodist Church of the South; and leading medical and scientific colleges.

Atlanta also has the distinction of being an athletic center and of being known as the Golf City of Dixie. Its six great golf courses are known the country over. From Atlanta come those three widely known golfers, Miss Alexa Stirling, national woman champion; Bobbie Jones and Perry Adair.

DIXIE FLYERS, GIVE THIS YOUR ATTENTION.

Birmingham, Ala., Oct. 8, 1921.

Editorial Department,
Ice Cream Review,
Milwaukee, Wis.

Dear Sirs:—I have your favor of the 1st. Note everything you write, and in every detail you are correct.

Yes, I am busy; have been on the go since August 1st trying to cover the territory which, as you know, is some territory, but I am not so busy but what I can, and will, with a good deal of pleasure answer your very kind letter.

The most important matter which is before us from now until the end of 1921 will be the various conventions of the ice cream manufacturers. The one which stands out most interestingly for this section of the country naturally is the Southern Exhibit, in connection with the Southern Convention, to be held in Atlanta, Ga., Nov. 28 to Dec. 3. This meeting will be a great outpouring of the ice cream men from all over the South and the southwest, the exhibits which will be put on by the Association of Ice Cream Supply Men will mean much to the southern ice cream manufacturers, and judging from the response which I have personaly received from these men all over the South and Southwest I know the record for attendance at an exhibit of this nature will be shattered.



ICE CREAM BRICK CUTTERS and CABINETS

Write for Circular and Prices

C. E. PHENICIE

111 East 34th Street TACOMA, WASH.

I have had assurance from the Texas ice cream manufacturers to attend. They will come to Atlanta in special car, and quite a number will be there from Oklahoma and Kansas.

It is a physical impossibility for the Secretary of the Dixie Flyers to get in touch with each individual member, therefore I, as the President of this body, wish to get a message to each of the boys at this time, and there is no better way to do this than through The Ice Cream Review.

It is the desire of the officers and the entertainment committee of the Dixie Flyers to get all matters so arranged before the Atlanta meeting that each and every detail will be perfect, the boys' time will be taken up during the day with the work which always goes with an exhibit of this kind, and as we now have plenty of time for the detail work, and have been assured by the Association of Ice Cream Supply Men that certain evenings and afternoons will be turned over to the Dixie Flyers we can work with more intelligence, and get our program in shape.

In order to have this done right it will be necessary for the members of the Dixie Flyers to mail to our Secretary, T. J. Stewart, Mercantile Library Bldg., Cincinnati, Ohio, a check for their dues, amounting to $10. In this way he can meet the bills which the Entertainment Committee will contract for the entertainment of the ice cream men and ladies in attendance. It will also take a great deal of responsibility on the part of the individual members of the Dixie Flyers as to how best to entertain his friends who will be there from all over the South.

A tentative program has been drawn up, but up to date nothing definite has been done, but we can assure every member of the Dixie Flyers that what the Entertainment Committee will put over will be a credit to each of the members.

We have a number of real live fellows in this organization, a lot of fellows with mighty good ideas, and as the Dixie Flyers is not a one-man, or a half a dozen men, organization, but one of many, and each and every member with the same idea in mind of making the Atlanta and Southern Association meeting a howling success, I feel it behooves each member to do his bit. Write the Secretary or myself, with suggestions; help us to get the best and the most for the money which you are spending. It is your money, it is your organization, it is your show, and it will be **your fault** if it is not a success. You will not have reason to blame others. No individual member can be blamed. Get busy now, and do not wait until it is time to go to Atlanta.

We have a good entertainment committee. They are willing workers, and nothing will be too tough for them to tackle, but at the same time you must remember they are like yourself, working every day among the ice cream manufacturers, selling them goods, but I have the assurance from them that they will take the time to get up a program which will be a credit to the Dixie Flyers, and you all know what that will have to be.

Your President has spoken—get busy. Mail your check to Tom Stewart. Send in any suggestion you may have in mind, and, above all, get in behind your ice cream men and see that they have their reservations in for accommodations at the hotels. Do not let them pass up the BIGGEST and BEST SHOW ever pulled in the SOUTHLAND.

P. N. MILLER, JR.
President Dixie Flyers.

Large New Catalog Coming

For Milk Dealers, Ice Cream Makers and Creamery Men

DURING the last year our General Advertising Department has been building a large comprehensive catalog in loose-leaf form. This is being used throughout our entire organization with such success that we have decided to issue it in book form about the first of January, 1922.

It will include more than three hundred pages of photographs-drawings, information and prices. It will show many pictures of Davis, Watkins Equipment in actual operation in milk plants, ice cream factories and creameries. It will illustrate and describe in detail the many machines constructed in our several factories. Also information as to how the most progressive men in the Dairy Industry do the work at low cost of operation.

This is a period of retrenchment. Not in the building of new plants, nor the purchasing of new machinery; but, in doing those things which must permit a reduction in the money spent in operating the "spread." Handling costs must come down. You can do this only in one way—by equipping and routing the work so as to shorten up the distance between cost and selling price.

That is what this NEW CATALOG is for—to help you plan your work; and handle it at low cost. To show you the modern automatic equipment which will handle your work at much less cost for labor, time and losses. To guide your selection of the machinery best fitted for your needs. To show you just how well equipped we are to give you a a SERVICE worth more than it costs.

We are now making up the mailing list for this NEW CATALOG. We want to know how many to print. If you think you can make good use of this book, write us on a postal card, or in a letter "Put my name down for NEW CATALOG"—sign your name, name of company, and address; and mail it to

Davis-Watkins Dairymen's Mfg. Co.

Room 1205—130 North Wells Street
CHICAGO, ILL.

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Attend the Southern Exhibition at Atlanta
November 28th to December 2nd, 1921

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The
ICE CREAM REVIEW

PUBLISHED THE FIFTEENTH OF EACH MONTH BY

THE OLSEN PUBLISHING COMPANY

H. P. OLSEN, President and Manager
E. K. SLATER, Secretary and Editor

Also Publishers of

"The Milk Dealer" and "Butter Cheese & Egg Journal"

210 SYCAMORE STREET - - MILWAUKEE, WISCONSIN

We claim no responsibility for the views or opinions expressed by contributors, nor for news sent us for publication.

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OFFICIAL ORGAN

Ice Cream Division Indiana Mfgs. of Dairy Products
Oklahoma Association of Ice Cream Manufacturers
Wisconsin Association of Ice Cream Manufacturers
Michigan Association of Ice Cream Manufacturers
Nebraska Association of Ice Cream Manufacturers
Southern Association of Ice Cream Manufacturers
Kansas Association of Ice Cream Manufacturers
Louisiana Ass'n of Ice Cream Manufacturers
Iowa Association of Ice Cream Manufacturers
Texas Ice Cream Manufacturers Association
Texas Ice Cream Supply Men's Association
Arkansas Ice Cream Manufacturers Ass'n
Poodle Dog Association of Iowa
National Order of White Caps
The Nebraska Cornhuskers
Indiana Hoosier Wild Cats
Wisconsin Badger Flyers
Michigan Dairy Boosters
Oklahoma Wolfhounds
Kansas Jack Rabbits
Missouri Mules
Dixie Flyers

NOVEMBER 1921

IN THIS issue we devote considerable space to the Southern Exhibition to be held in Atlanta, Georgia, and to the different association meetings held during the same week, in connection with it. The Southern Association of Ice Cream Manufacturers and the North Carolina Ice Cream Manufacturers hold their annual conventions in Atlanta during the exposition. Following will be the conventions of the Texas Ice Cream Manufacturers Association in Fort Worth on Dec. 7, 8 and 9, the Oklahoma Association of Ice Cream Manufacturers in Oklahoma City on Dec. 12, 13 and 14, and the Kansas Association of Ice Cream Manufacturers in Kansas City Dec. 15 and 16.

Affiliated with these different associations are The Dixie Flyers, The National Order of White Caps, The Texas Supply Mens' Association, The Oklahoma Wolf Hounds and The Kansas Jack Rabbits. These organizations, made up of the men who furnish the ice cream industry with supplies, help to make the conventions successful and are appreciated at the full worth. We are giving space to the likenesses of many of these men. Some are too modest to furnish us with their photographs while others have alibis of one kind or another.

The Ice Cream Review, as official organ of these various organizations, feels a keen sense of duty in an effort to contribute something to their success. The officers have given us splendid co-operation in our attempt to make this issue of particular interest to the men who have their reservations made for these different meetings and we owe them our sincere thanks.

And "the boys on the road!" We don't know how we would get along without them. They have not only "adopted" The Ice Cream Review through their organization, but each one has adopted it personally and are evidencing a paternal interest in their offspring which has made the paper what it is today—the youngest but largest of its kind.

The various organizations mentioned above represent a territory which has, perhaps, shown a greater development along ice cream manufacturing lines than any other section of the country. This, too, in spite of the fact that the problem of a suitable supply of raw materials has always been a perplexing one. While we have never considered the ice cream industry of the country by sections we have always felt a peculiar interest in this particular part of the country where ice cream manufacturers have had so much to contend with. We have kept in close touch with their problems and we have watched the rapid development of the industry in that section with interest and pleasure. The men who put the business across in that great section are among the country's biggest and best ice cream men. We make our best bow to them and felicitate them upon their success. The Review will be represented by one of us at Atlanta and by the other at Fort Worth, Oklahoma City and Kansas City. We are looking forward to a good time with a bunch of good folks.



WE HEAR many complaints to the effect that collections are slow in the ice cream business. Dealers in supplies report that never before have they had so much money "on the books."

We are wondering why this situation prevails. Who has the money? Is the retailer holding out on the ice cream manufacturer or is the latter doing business on the supply dealer's money? If it is a problem of "button, button, who has the button?" then it would seem wise to locate said button and get it into circulation.

The ice cream business should be a cash business all along the line. A highly perishable product is involved and manufacturers and dealers in other perishable products work on a cash basis only. There is no good reason why the ice cream business should be an exception.

We have always understood that the retailer pays cash for his ice cream. If we are right then he must be absolved from all blame for tardy collections. If the ice cream manufacturer is getting cash for his prod-

uct he ought to be prompt in paying his bills. Safety if nothing else should prompt him to pay bills when due. If he is not getting cash from the retailer he should take steps to get it. The retailer certainly gets the cash and he gets it within a few hours after he gets the product.

Possibly the supply man can change his methods of doing business so as to correct conditions. If he is not making it an object to the ice cream manufacturer to pay bills promptly perhaps he should do so. Establishing a cash discount on bills paid within a certain period of time has put many a business on a cash basis and made conditions better for all concerned.

The practice of permitting overdue accounts to drag along month after month is bad for any business. The ice cream industry cannot reach its proper development unless good business practices find favor among the men who are interested in the industry. Come on men, let's get the dollars in circulation and let them pay one another's overdue accounts.

⚜

THE folks who attended the Eastern Exposition put on by the Association of Ice Cream Supply Men in Buffalo a few days ago, had a good time. In the first place there were plenty of their kind to meet them, then too they were pleasantly surprised by the number and excellence of the exhibits. One could not fail to be impressed by the evidences of progress along ice cream manufacturing lines. The story of the wonderful advancement in the industry could not be told so well in words. The Buffalo Show goes down in history as the greatest of its kind.

⚜

WE ARE in a quandry. We have been going along month after month and year after year harboring the thought that ice cream manufacturers, as a class, are progressive, big minded business men. We want to keep on thinking so, but we are all upset.

A man who should know what he is talking about told us the other day that the ice cream men of this country could never get very far until they learned to pull together. And here we thought all the time that they were pulling together. He claims that as a class they are inclined to go it alone and are so fearful of competition that they will not travel in harness.

We know, of course, that this man is mistaken in his conclusion, at least it is not fair to condemn a class on account of the short comings of some individuals. But he is no doubt correct in his analysis of the attitude of some ice cream manufacturers. This man has raised an important question and we are wondering what percentage of the entire membership he is describing. How many are pulling back while the others are pushing ahead to dignify and promote the ice cream industry? The different associations of ice cream manufacturers are carrying on a work which is in direct contrast with the element which would go it alone. United effort is the object of these associations.

It does us good to get a jolt occasionally. This man has set us thinking about the lack of co-operation that exists in the business. We hope it is not as serious as he paints it, but it is probably serious enough to merit the attention of every man who has the best interests of the ice cream industry at heart. Let us all do everything we can, by word and by deed, to show the man who is pulling back that if the industry is to develop as it should he must help push.

⚜

GET your local newspaperman boosting ice cream, and you have won half your battle for a bigger winter gallonage. He can do you more good or he can do you more harm than any man in your town, and it pays to make friends with that kind of a fellow.

BULLETIN OF EVENTS

West Virginia Association of Ice Cream Manufacturers—Annual Convention, at Wheeling, W. Va., November 21st and 22nd. C. F. Jamison, Huntington, W. Va., Secretary.

Southern Exhibition—Association of Ice Cream Supply Men, Auditorium Armory, Atlanta, Georgia, November 28-December 2, inclusive. Roberts Everett, Secretary, 1328 Broadway, New York City.

Southern Association of Ice Cream Manufacturers—Ninth annual convention, Atlanta, Georgia, Nov. 29, 30 and Dec. 1, 1921. J. W. Clopton, Decatur, Ala., Secretary.

North Carolina Ice Cream Manufacturers' Association—Annual Convention, at Atlanta, Ga., in connection with Southern Exhibition, November 28th to December 1st. Headquarters, Ansley Hotel. A. E. Dixon, Fayetteville, N. C., Secretary.

Association of Ice Cream Manufacturers of New York State—Fourteenth Annual Convention, Arlington Hotel, Binghampton, N. Y., Nov. 30, Dec. 1, 1921. A. M. Le Messurier, Box 676, Syracuse, N. Y., Secretary.

National Association of Practical Refrigerating Engineers—Twelfth Annual Convention, Hotel Lorraine, Philadelphia, Pa., November 30, December 1, 2, 3, 1921. Edward H. Fox. 5707 West Lake St., Chicago. Secretary.

California and Southwestern States Ice Cream Manufacturers' Association—Annual Convention in connection with Pacific Slope Dairy Products Show, Armory Building, Stockton, Calif., Dec. 5-6, 1921. Robert J. Dryden, The Dryden Corporation, Oakland, Calif., Secretary.

Pacific Slope Dairy Products Show, California State Armory, Stockton, Calif., December 5-11, 1921. L. Diamond, Manager, Stockton, Calif.

Illinois Association of Ice Cream Manufacturers, Twenty-second Annual Convention, Hotel Sherman, Chicago, Ill., Dec. 6-7, 1921. N. Loewenstein, Secretary, 155 No. Clark St., Chicago, Ill.

Texas Ice Cream Manufacturers' Association—Fourteenth Annual Convention, Ft. Worth, Texas, December 7, 8, 9, 1921. Headquarters, Texas Hotel. H. F. Owsley, Dallas, Secretary.

Oklahoma Association of Ice Cream Manufacturers—Annual convention, Oklahoma City, Dec. 12-13-14, 1921. Secretary, M. T Cochran, Altus Ice Cream Co., Altus.

Indiana Manufacturers of Dairy Products—Annual convention, Claypool Hotel, Indianapolis, Ind., Dec. 14. A. P. Holly, General Secretary, Indianapolis, Ind.

Kansas Association of Ice Cream Manufacturers—Annual Convention, Kansas City, Mo., December 15, 16, 1921. B. T. Perkins, Pittsburg, Secretary.

Arkansas Ice Cream Manufacturers Association, Fourth Annual Convention, Jan. 10 and 11, 1922, Hotel Marion, Little Rock. G. A. Meyer, Stuttgart, Ark., Secy.

Wisconsin Association of Ice Cream Manufacturers, Annual Convention, Hotel Plankinton, Milwaukee, Wis., January 17-18, 1922. F. E. Caughey, Secretary, Madison, Wis.

Louisiana Association of Ice Cream Manufacturers—Annual Convention, New Orleans, La., Jan. 19, 1922. Headquarters hotel to be announced later. N. F. Manning, Monroe, La., Secretary.

Minnesota State Association of Ice Cream Manufacturers—Tentative dates for annual convention, Jan. 20-21, 1922. W. M. Paulson, 2830 Colfax Ave., So. Minneapolis, Secretary.

Association of Ice Cream Manufacturers of Iowa—Annual Convention, Cedar Rapids, Jan. 24-25, 1922. P. W. Crowley, 709 Citizens National Bank Bldg., Des Moines, Secretary.

Michigan Allied Dairy Association—Annual Convention, in Municipal Auditorium at Saginaw, February 14, 15, 16, 17, 1922. H. D. Wendt, General Secretary, Lansing.

Southern Ice Cream Week

THE south assumes this week the ice cream spotlight of the country.

The southern exhibition of the Association of Ice Cream Supply Men opens in Atlanta, Ga., in the Auditorium-Armory, Monday, November 28th and extends through Friday, December 2nd, of that week.

Nearly 100 supply houses from every section of the country excluding the Pacific coast will have displays in this mammoth exhibition. One hundred fifty different essential articles will be displayed. O. S. Jordan, president of the Association of Ice Cream Supply Men, says concerning the attendance, "Hotels in Atlanta reporting room reservations up to date tend to substantiate our expectations that at least 300 different ice cream plants in the south and southwest will register at the exhibition."

The southern exhibition, in other words, will be immeasurably the greatest ever held for the benefit of ice cream producers below the Mason Dixon line.

The exhibition will include displays of machinery, services, equipment and supplies. There will be refrigerating, mixing, freezing and every other sort of machinery in ordinary use in ice cream plants and, in addition, several recent machinery developments. Originators of many special services required by ice cream manufacturers will have displays—such services as those of engineering, merchandising, advertising, etc., etc.

Every variety of equipment will be demonstrated; equipment based on metal, that based on wood, paper-base equipment, equipment for every section and process in a plant, special packaging equipment, delivery equipment of all sorts, refrigerating equipment, and so on. The supplies displayed will include the full range of necessities in ingredients, supplies and accessories.

In fact, as recent folders describing the exhibition and mailed by some score or more member houses of the Association of Ice Cream Supply Men to ice cream manufacturers throughout the country, have characterized it, "it will be an industrial market place, a testing laboratory, an idea center for the owners, executives, buyers, managers, and superintendents of plants in twenty states," arraying in a single building everything used in a plant from the office door to the shipping platform.

The southern exhibition will bring together in five days of industrial stimulation four organizations, the Southern Association of Ice Cream Manufacturers, with a membership from eleven states, the North Carolina Association of Ice Cream Manufacturers, the Tri-State Association of Ice Cream Manufacturers of Georgia, Alabama and South Carolina, and The Association of Ice Cream Supply Men with its national membership of approximately 100 firms.

An added significance attached to the southern exhibition, beyond that of its bringing into co-operation for the common purpose of industrial stimulation so many associations is in its being the first attempt ever made on a large scale to cater to the needs of the ice cream industry of the south and southwest as a section. In effect, the holding of the southern exhibition is a recognition of the southern ice cream industry's having assumed a present and future importance equal to that of the industry in other sections of the country.

The daily press has paid the same attention to no other exhibition of the Association of Ice Cream Supply Men as its representative papers in the south are and have been to the forthcoming southern exhibition. Industrial development of all sorts is being striven for throughout the south where a realization of the tremendous natural resources of the section is becoming a common possession. Officials, editors and business leaders generally have been quick to see in the southern exhibition with its attendant conventions an epoch-making event in the further development of the ice cream industry in that section and hte importance of the Atlanta show is now, as a consequence, appreciated nearly as much by the southern public as it is by those directly interested, the southern ice cream manufacturers. Its recognized significance in the future development of the south is evidenced in the columns of reading matter devoted to it by newspapers in such important cities as Knoxville, Birmingham, Atlanta, Memphis, Chattanooga, New Orleans, Charleston, Spartanburg, Dallas, Athens, Mobile, Neuville, Nashville and Pensacola.

Not only has the south itself recognized the importance of the southern exhibition, but the association of ers generally have been quick to see in the southern exhibition with its attendant conventions an epoch-making event in the further development of the ice cream industry in that section and the importance of the Atlanta show is now, as a consequence, appreciated nearly as much by the southern public as it is by those directly interested, the southern ice cream manufacturers. Its recognized significance in the future development of the south is evidenced in the columns of reading matter devoted to it by newspapers in such important cities as Knoxville, Birmingham, Atlanta, Memphis, Chattanooga, New Orleans, Charleston, Spartanburg, Dallas, Athens, Mobile, Deuville, Nashville and Pensacola.

Not only has the south itself recognized the importance of the southern exhibition, but the Association of Ice Cream Supply Men has advertised the exhibition and the conventions held in conjunction with it very extensively throughout the ice cream industry of the south and southwest. As a result, a representative attendance

AN INVITATION.

New Orleans, La., Oct. 28, 1921.

Editor, The Ice Cream Review: I do not know who you are nor even your name, but by reading your most excellent publication I feel that we are sufficiently acquainted for me to first compliment you and to further extend to you a personal invitation to sit with us in session at our meeting of the Southern Association in Atlanta and if you will promise to visit, either on your way down or on your way home, the great second port of America, New Orleans, we will show you, not only one of the most interesting cities in the world, but one with many potential possibilities.

Hoping to meet you in person, in Atlanta, I am,

Very truly yours,

BENJAMIN C. BROWN, Pres.,

New Orleans Ice Cream Co.

WRITE FOR NEW LOW PRICES

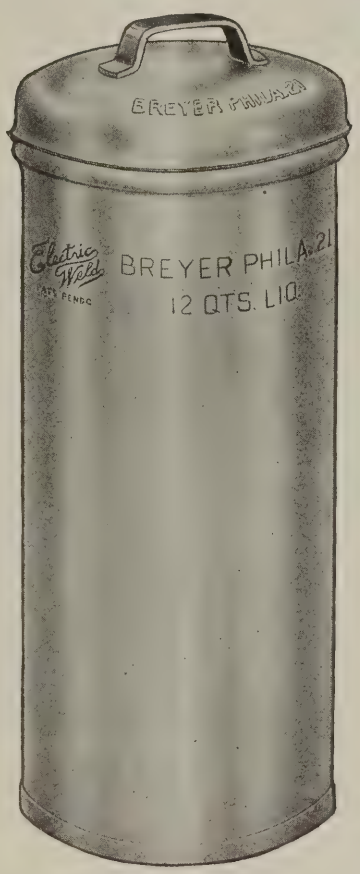
NO SOLDER Electric Weld NO RIVETS

Trade Mark, Registered

"Low Maintenance Cost" Ice Cream Cans
The Weight is in The Plate—All Steel and Tin

The Electric Weld GUARANTEE

1. That no solder, lead or rivets are used in the construction of Electric Weld Ice Cream Cans.
2. That all Electric Weld cans are made of a specially prepared copper-bearing, rust-resisting steel known as "tinning" or "dairy plate" and made of the same gauge material as specified in our advertising.
3. That all welds, being subjected to hammer and pressure tests, are sound and will not crack, break, leak or come apart.
4. That the can is completely assembled in the black before tinning and that it is coated by soaking the entire can in one piece in pure "straits" tin by the old-style hand dip, triple coating process.
5. That Electric Weld cans are of exact capacity and that each can is carefully examined and stamped by our Inspection and Test Department before shipping.



Patent Allowed.

The Electric Weld Ice Cream Can.

The Retinning Feature

Electric Weld Ice Cream Cans may be retinned over and over again at small cost. They are made complete in the black, leak-proof and ready for long service. Every time you retin an Electric Weld you can save approximately 30 cents. Write for prices, list of "Repeat order buyers" and other data pertaining to the **Solderless Can.**

The Non-Deforming Lid

Non-deforming edge keeps the lid round. THE RIM: One-piece expanded bead rim reinforces and protects the can from hard knocks and affords a positive grip for wet, slippery hands. SEAM: Butt welded, solid fusion of the joint that will not crack, break or leak. BOTTOM: A solid flanged leak proof bottom for hard wear and tear. No interstices or rolled edges to collect dirt. Affords a fine grip. Easy to clean. The strongest as well as the most sanitary bottom, three thicknesses soundly welded and solderless.

In 1920 the Horton Ice Cream Co., of New York, bought 2000; in 1921 a repeat order called for 5000 more. In 1920 the Breyer Ice Cream Co. of Philadelphia, Pa., bought 14,000; in 1921, 10,000. In 1920, Colonial Ice Cream Co., Philadelphia, Pa., 1000; in 1921, 30,000. Proof of quality and service in a nut shell.

John Wood Manufacturing Company

CONSHOHOCKEN — CANADIAN JOHN WOOD MANUFACTURING COMPANY TORONTO, CANADA — **PENNA.**

Branch Offices: Cleveland (1841 Carter Road) Brooklyn (No. 5 Bush Terminal Bldg.)
Chicago (320 E. North Water St.) Boston (78 W. 2nd St.)
Philadelphia (1223 Hamilton St.) San Francisco (268 Market St.) Los Angeles (1333 E. 7th St.)

Address All Communications to Home Office, Conshohocken, Pa.

is expected of ice cream men from Texas, Louisiana, Mississippi, Alabama, Georgia, Florida, South Carolina, North Carolina, Virginia, West Virginia, Kentucky, Arkansas, Missouri, Oklahoma, Arizona, Kansas, Illinois and Indiana.

"From our point of view the southern exhibition," according to O. S. Jordan, president of the Association of Ice Cream Supply Men, "is a clean-cut sales and expositional undertaking for the development of legitimate business by supply houses through the stimulation and ultimate expansion of the ice cream industry in a section blessed by nature with the most perfect ice cream seasonal conditions in the country. We are confident that we are doing the ice cream industry as a whole a service which will be more and more appreciated as the next few years witness the south occupying a more and more important position. The ice cream men at the exhibition will be not only members of the three associations of ice cream manufacturers which convene in conjunction with the exhibition, but will belong to still other associations and will include, doubtless, manufacturers who have not yet allied themselves with other state or sectional organizations of their fellow-manufacturers. Such a gathering of ice cream men from so many states, combining with the inspection of an exhibition that will reveal as nothing else possibly can, the extraordinary potentialities of the industry, will inevitably bring about increased and more profitable businesses for the ice cream men of what is really the true ice cream empire—the south and southwest."

W. M. Sidebottom, president of the Southern Association of Ice Cream Manufacturers, predicts that the Atlanta week will result in the greatest stimulus for ice cream manufacturers that his organization has ever had a part in. J. W. Clopton, secretary of the Southern Association has expressed himself similarly.

An entertainment program, exclusive of the exhibition and various conventions, has been arranged for the week.

NINTH ANNUAL CONVENTION PROGRAM.

Southern Association of Ice Cream Manufacturers. Hotel Ansley, Atlanta, Ga., Nov. 29-30, Dec. 1-2.

November 29, 1921—2:30 P. M.

Meeting executive committee and board of directors.

Evening.

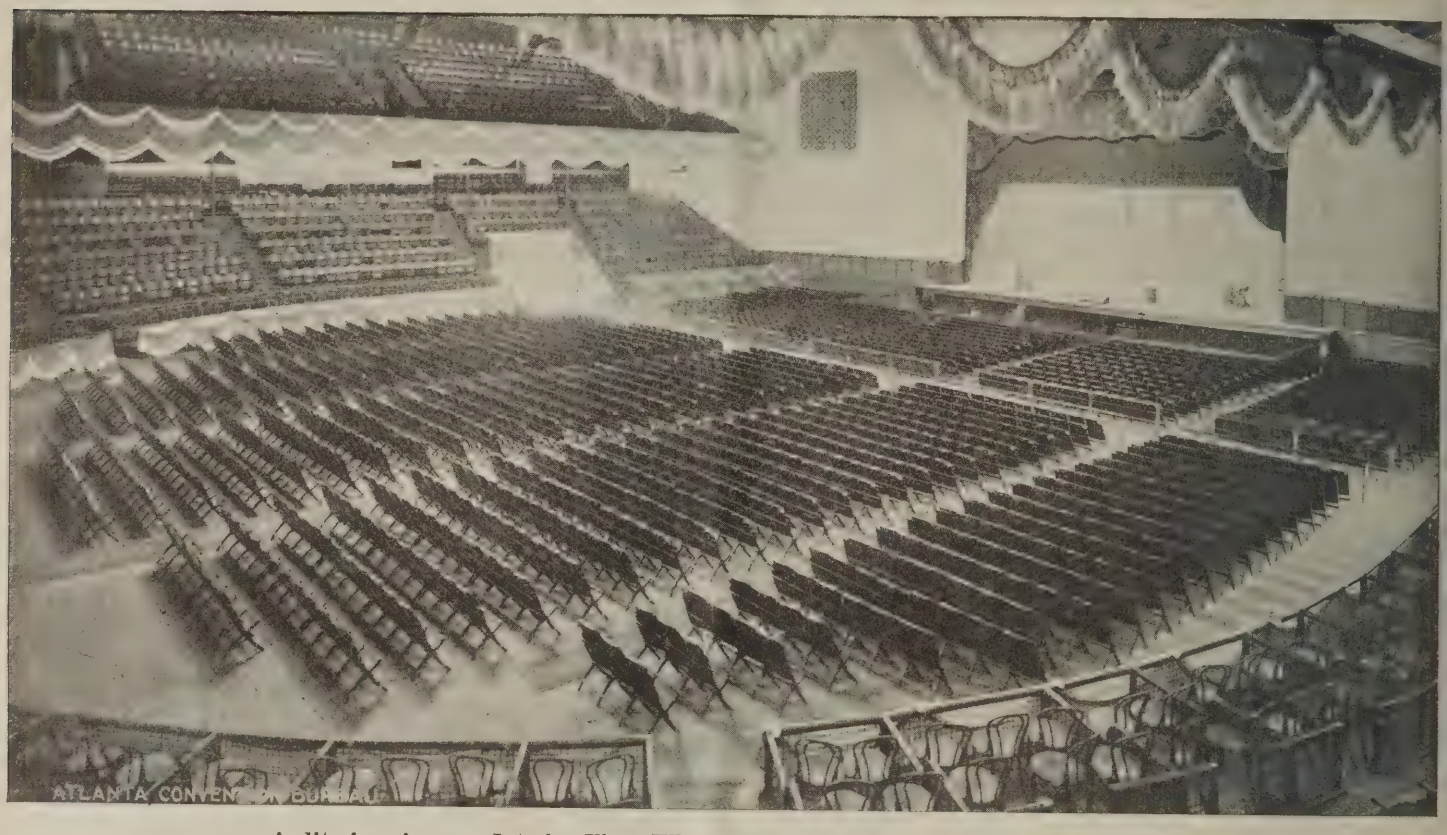
Dinner.—Dance. Courtesy Dixie Flyers.

November 30, 1921.—10:00 A. M.

Registration.
Address of welcome.—Mayor Keys.
Response.—Benjamin C. Brown, New Orleans, La.
Report of secretary-treasurer.
President's address.—Mr. W. M. Sidebottom, Nashville, Tenn.

11:30 A. M.

Address.—Mr. J. J. Brown, commissioner of agriculture.
The Ice Cream Situation and its Opportunities for the Future. —Prof. M. D. Munn, president National Dairy Council, Chicago.



Auditorium-Armory, Interior View, Where Convention and Exhibition Will Be Held.

12:30 P. M.—Adjournment.

Afternoon will be given to supply men, inspecting exhibits, etc.

6:30 P. M.

Barbecue in Auditorium-Armory. Courtesy Ice Cream Supply Men Salesmen Club.

Evening.

Initiation new member in Order of White Caps.

December 1, 1921.—10:00 A. M.

Improved Methods of Packing Brick Ice Cream.—Mr. Timothy Mojonnier, Chicago, Ill.

Increasing Ice Cream Sales in Winter.—Mr. J. R. Jones, Little Rock, Ark.

How to Standardize the Mix.—Prof. R. M. Washburn, Minneapolis, Minn.

Should a Butterfat Standard be Enforced?—Led by Mr. W. E. Drake, Nashville, Tenn.

2:00 P. M.

How can the Southern Manufacturer Increase Consumption of Ice Cream per capita to compare with that of the East. —Mr. W. J. Barritt, Tampa, Fla., Mr. C. A. Odom, Macon, Ga.

The Express Situation—Mr. W. W. Campbell, Shreveport, La., Mr. Geo. L. H. White, Raleigh, N. C.



The Talk of the Show

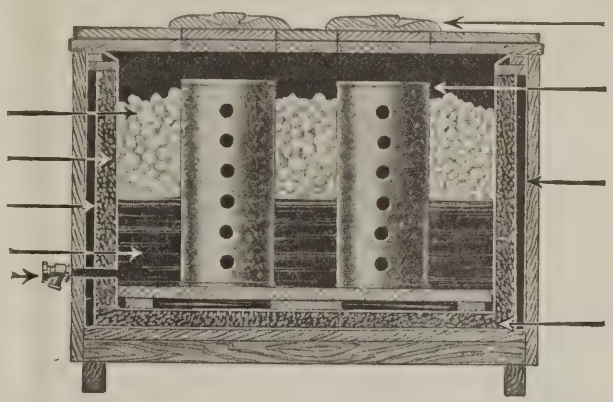
"Quality" Ice Cream Cabinets

have proven 50% more efficient than other cabinets owing to their special construction. They are insulated on all four sides and bottom with a solid wall of two-inch corkboard which is vastly superior to the granulated cork commonly used as there is absolutely no chance of settling down from the top. In addition to this there is a ***dead*** air space between the corkboard and the outer casing. This combination has proven the most efficient non-conductor of heat and cold. They are made in a modern furniture factory where quantity production assures low selling prices.

Write for illustrated circular and prices

"QUALITY" Ice Cream Cabinets surprised visitors at the Buffalo Exposition by their superior efficiency.

The practical demonstration of their refrigerating superiority throughout the Buffalo Exposition proved that they would keep sherbets and ices in perfect condition for many hours beyond what is generally considered possible.



Our Guarantee

We guarantee our cabinets to keep ice cream in perfect condition from 24 to 36 hours with one packing. If it does not, return at our expense and we will refund purchase price.

The Grand Rapids Table Company

GRAND RAPIDS MICHIGAN

Evening.

Banquet.—Auspices of Southern Association of Ice Cream Manufacturers and Association of Ice Cream Supply Men. Gov. Hardwich, speaker of honor.

December 2, 1921.—10:00 A. M.

Business meeting for members only.
Report of committees.
New business.
Election of officers.
Executive session for ice cream manufacturers only open for round table discussion.

Evening.—Open.

ENTERTAINMENT PROGRAM.

Tuesday noon. Nov. 29th.—All members Kiwanis Club will be guests of Atlanta Club at luncheon—Kimball House.
Tuesday evening. Nov. 29th.—Dinner-dance. Courtesy of Dixie Flyers.

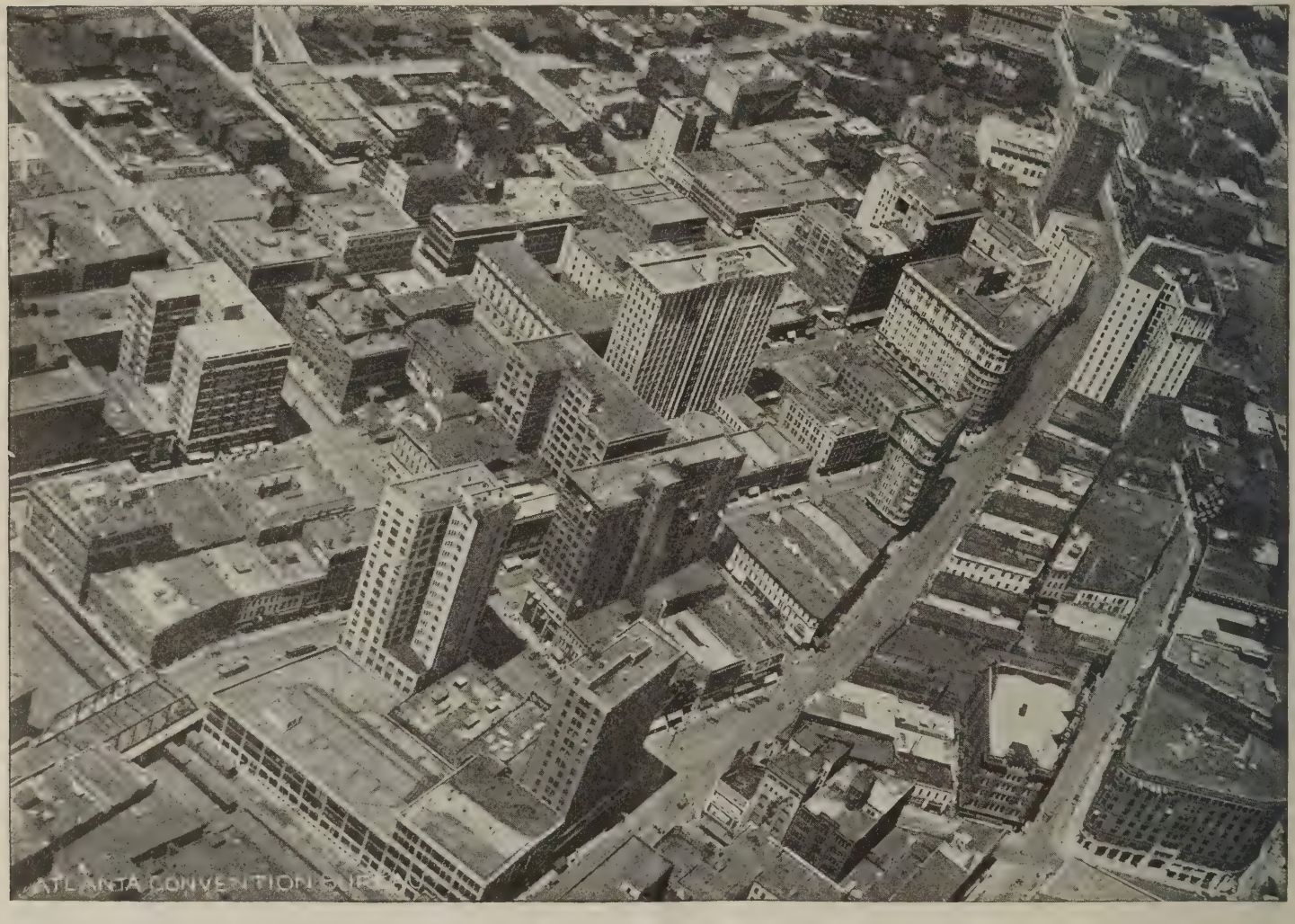
Wednesday evening. Nov. 30th.—Barbecue in Auditorium-Armory. Courtesy Ice Cream Supply Men's Salesmen Club. Band concert.
Initiation, National Order of White Caps, novices selected from membership Southern Association.
Thursday evening, Dec. 1st.—Banquet. Auspices of Southern Association of Ice Cream Manufacturers and Association of Ice Cream Supply Men.
The Rotary Club, Civilian Club and Kiwanis Club invites all the members to lunch with them during the week.

Monday to Friday inclusive the Association of Ice Cream Supply Men will serve a complimentary lunch in the Auditorium-Armory.

Conventions will be held in the Auditorium-Armory also, which can accommodate two or three meetings simultaneously in addition to housing the 120 booths of the exhibition. The building is the largest building used for such purposes in the entire south, and is located within five minutes' distance of the center of Atlanta's business district and of the various hotels at which ice cream men will stay. It is particularly easy of access from the Piedmont, Ansley and Winecoff hotels, the first names of which will be the hotel headquarters of the Association of Ice Cream Supply Men.

Booth holders to date include:

Allman Gas Engine & Machine Co., New York City.
Atlantic Gelatine Co., Woburn, Mass.
Ayer & McKinney, Philadelphia, Pa.
Baeder Adamson Co., Philadelphia, Pa.
Bessire & Co., Atlanta, Ga.
Burdick-Garrison Co., New York City.
Chalmers Gelatine Co., Richmond, Va.
Cherry-Bassett Co., Baltimore, Md.
Commercial Truck Co., Philadelphia, Pa.
Corrizo Extract Co., New York City.
Cosmopolitan Lithograph Co., New York City.
Creamery & Milk Plant Monthly, Chicago, Ill.
Crescent Mfg. Co., New York City.
Crown Fruit & Extract Co., New York City.
Crystal Gelatine Co., Boston, Mass.
The Daigger Corp., Chicago, Ill.
Davis-Cooperage Co., Martinsville, Ind.
James F. Drew & Co., New York City.
Thos W. Dunn Co., New York City.
Elryia Enameled Products Co., Elyria, Ohio.
Essex Gelatine Co., Boston, Mass.
J. B. Ford Co., Wyandotte, Mich.
Grand Rapids Cabinet Co., Grand Rapids, Mich.
Grand Rapids Table Co., Grand Rapids, Mich.
S. Gumpert & Co., Brooklyn, N. Y.

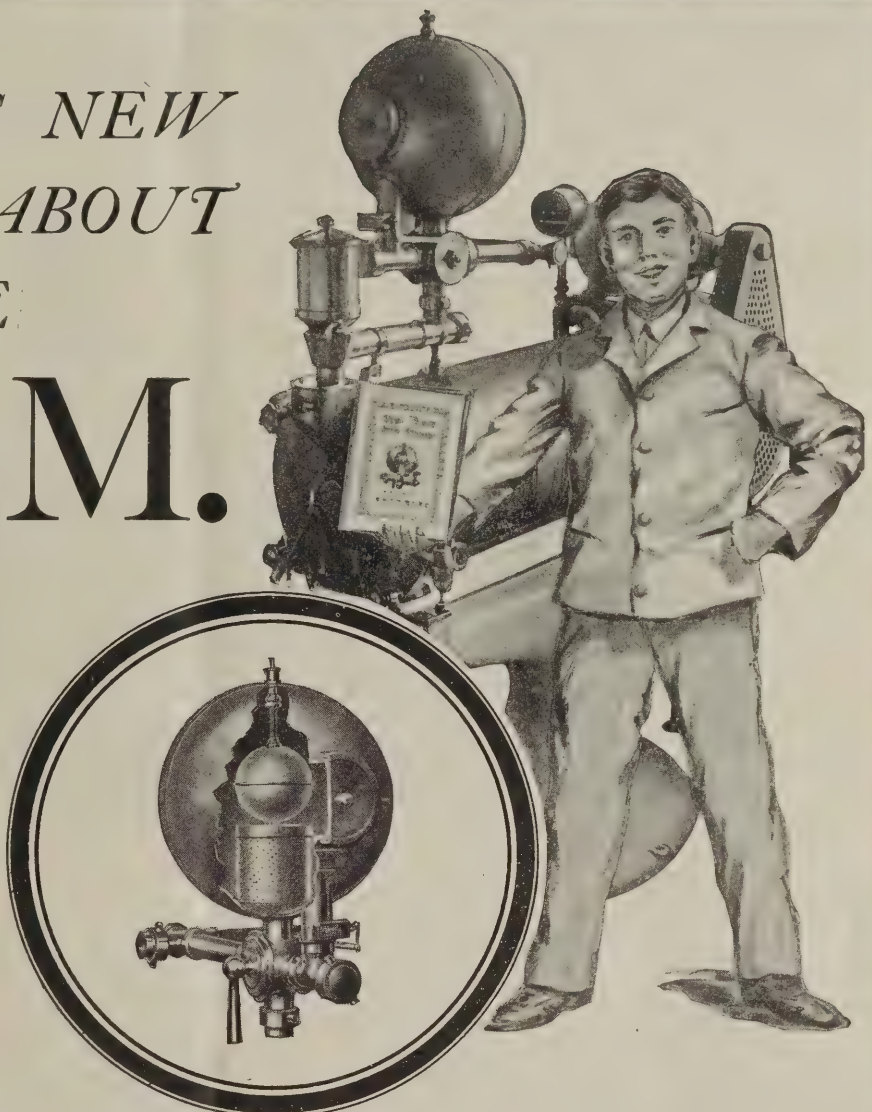


Airplane View of Atlanta's Business District.

THE C-B CALENDAR

GET THIS NEW BOOKLET ABOUT THE

T.B.M.



You want to know what this Thomas Batch Measure is, what it does, and how it works, don't you?

Our new booklet explains the operation of the Thomas Batch Measure, how it cuts down labor and material costs and provides a means of accurate checking, and also how we have improved it by placing the opening on the side. It shows photographs of ten different freezer rooms in plants located in almost as many states. In this booklet you can read what concerns who have them, think of them. Simply for your own education, send for a copy of this new booklet.

The secret of success in manufacturing anything in this age is automatic machinery, and the Thomas Batch Measure is the cleverest, most practical automatic device for ice cream manufacturing that has been developed within the last 5 years. Nothing has approached it in its simplicity, beauty, or accuracy.

Thomas Batch Measures make possible a totally enclosed system for handling your mix; this is absolutely exclusive.

One New York State manufacturer wrote: "Have used your Batch Measures five months and feel sure they have already paid for themselves." Think! Paid for in 5 months—all profit after that.

You want to know more, don't you? Send for this new booklet!



BALTIMORE
33 S. CHARLES ST.

CHERRY-BASSETT COMPANY

PHILADELPHIA
1106 ARCH ST.

Wm. A. Hazard Co., Chicago, Ill.
Homer Mfg. Co., Homer City, Pa.
Hudson Mfg. Co., Chicago, Ill.
The Ice Cream Review, Milwaukee, Wis.
Ice Cream Trade Journal, New York City.
Imprux-Mix Co., New York City.
International Dry Milk Co., Minneapolis, Minn.
International Salt Co., Scranton, Pa.
J. W. Ladd Co., Detroit, Mich.
Meyer Dairy Equipment Co., St. Louis, Mo.
National Paint & Varnish Co., Cleveland, Ohio.
Keiner Williams Stamping Co., Richmond Hill, N. Y.
Keystone Fruit Products Co., Cincinnati, Ohio.
Knox Maier Co., Atlanta, Ga.
Massey & Massey, Chicago, Ill.
Frederick C. Mathews Co., Detroit, Mich.
Menasha Printing & Carton Co., Menasha, Wis.

ATLANTA, CONVENTION CITY.

The prestige which Atlanta enjoys as a city of the first rank is discerned in the very appearance of the city, with its modern skyscrapers, its public buildings, its beautiful homes, and other evidence of municipal progress. There is a strong civic spirit among the peoples which manifests itself at all times for the welfare of the city. The "Atlanta Spirit" is of an enfectious nature and inspires all true citizens with a desire to advance the city and her interests whenever the opportunity affords. Although Atlanta was founded in 1837, it practically begun its existence after the Civil War. To rise from its ashes and attain



Terminal Station, Atlanta, Where They Will Meet and Greet You.

Merrell-Soule Co., Syracuse, New York.
Miller Industries, Inc., Canton, Ohio.
Milligan & Higgins Gelatine Co., New York City.
Mojonnier Brothers Co., Chicago, Ill.
C. Nelson Mfg. Co., St. Louis, Mo.
Ivan B. Nordhem Co., New York City.
Orange-Crush Co., Chicago, Ill.
H. H. Ottens Mfg. Co., Philadelphia, Pa.
Paterson Parchment Paper Co., Passaic, N. J.
Parker-Brawner Co., Washington, D. C.
Rex Extract Co., Brooklyn, N. Y.
Richmond Cedar Works, Richmond, Va.
Righter Mfg. Co., Jersey City, N. J.
K. W. Schantz, Inc., Buffalo, N. Y.
B. B. Scott, Providence, R. I.
Sealright Co., Fulton, N. Y.
H. A. Sinclair, New York City.
Curtis F. Sisco Co., New York City.
Solar-Sturges Mfg. Co., Chicago, Ill.
Standard Milk Machinery Co., Louisville, Ky.
Star Extract Co., New York City.
Stout Crate Co., Milwaukee, Wis.
Sweets, Atlanta, Ga.
Swift & Co., Chicago, Ill.
Taylor Instrument Companies, Rochester, N. Y.
Texas Barrel Co., Houston, Texas.
Emery Thompson Machine & Supply Co., New York City.
C. J. Van Houten & Zoon, New York City.
United Reinforcing Rim Co., Canton, Ohio.
Vilter Mfg. Co., Milwaukee, Wis.
Virginia Tub Co., Bristol, Va.
Walker Vehicle Co., Chicago, Ill.
White Co., Cleveland, Ohio.
J. O. Whitten Co., Winchester, Mass.
John Wood Mfg. Co., Conshohocken, Pa.
Wm. B. Wood Mfg. Co., St. Louis, Mo.

the forefront in the ranks of progressive cities within a half century is what Atlanta has accomplished. If there were any one thing needed to proclaim to the country at large the important position which Atlanta occupies both as a business and banking center, the need was filled recently when the United States government established a regional bank in Atlanta to serve Georgia, Alabama, Florida, and parts of Tennessee. Mississippi and Louisiana.

Atlanta's altitude is 1,050 feet above sea level. This elevation means a great deal, as it insures a fine atmosphere and good natural drainage. Atlanta is the second largest mule market, it is a great center of industry, railroads, finance, education, automobile, publication and commerce. The facilities for local transit include 369 miles of electric railway. Atlanta building record for the year 1920 showed that the "Pinnacle City" lead the U. S. A. in building and erecting all kinds of structures; totaling, $13,372,666.

Conventions almost without number have been held in Atlanta, to the efforts of the civic organizations of Georgia's metropolis much of the credit for securing these important assemblies of men and women is due, but there are others, and perhaps more potent reasons why Atlanta receives such frequent recognition. Atlanta is a modern and progressive city, with all features that the term implies, such as commodious public buildings, handsome streets, complete transportation facilities, fine hotels, and advanced methods in all



The Buyer's Page

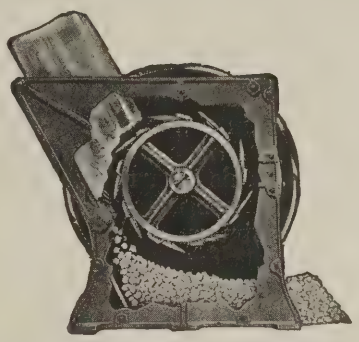


Standard Equipment for Ice Cream Plants

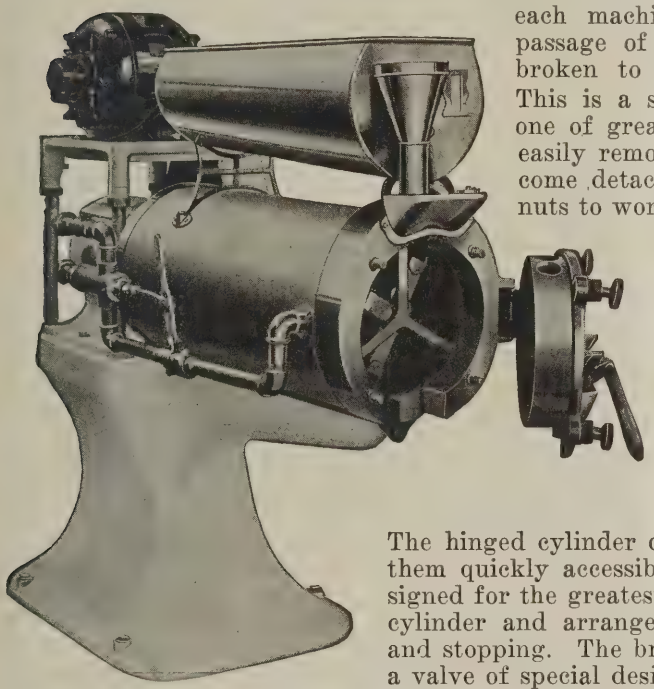
Immediate Shipment from Chicago or St. Paul

Creasey Ice Breaker

Every manufacturer of ice cream, large or small, needs this sturdy machine. Built over-size throughout—stands up under hardest service you can give it.



The size of the broken ice can be regulated by the use of fine or coarse combs—furnished with each machine—which prevent passage of the ice until it is broken to a certain fineness. This is a special feature, and one of great value. Picks are easily removed from drum when necessary, but they cannot become detached when in operation. No rivet heads or bolts or nuts to work loose.



More than 16,000 Creasey Breakers in use; why not put one to work in YOUR plant?

U. S. Brine Freezer

A large capacity freezer, heavily built throughout, with ample bearings and large gears. Furnished for either belt or motor drive, or can be converted from one to the other in your own factory when desired. Electric machine equipped with 3 H. P. motor.

The hinged cylinder cover is standard on all sizes of U. S. Freezers; makes them quickly accessible for cleaning. The brine jacket passages are designed for the greatest efficiency in cooling the cylinder and arranged to avoid all clogging and stopping. The brine flow is controlled by a valve of special design which gives complete control of the rapidity of the freezing process.

U. S. Freezers are made in 40, 60, 80, 100, 120, and 160 quart capacities; there is a size that will exactly meet your needs.

A handsome and practical machine that will pay for itself repeatedly in your plant. Let us give you further details and prices.



Have You This Catalog?



It is one of the most complete catalogs of ice cream machinery and supplies ever published. You will find between its covers the best of the things made by many of America's leading manufacturers —a valuable book for reference. We'll gladly send you copy on request —without obligation.

Twin City Branch: **2490-4 University Ave., St. Paul**

A.H.Barber Creamery Supply Co.
302 W.Austin Ave., Chicago, U.S.A.

A. H. Barber Creamery Supply Co., Chicago.
Gentlemen: Please send us complete information about:
☐Creasey Ice Breaker
☐U. S. Brine Freezer
☐Copy of your Catalog No. 72.
Name .....
Address .....

branches of public service. It is an attractive and interesting city, pleasing to the eye, with opportunity for amusement and diversion. It is a prosperous city with a population of 265,512, and, in a commercial and industrial way is quite remarkable. To sum it all up, very essential for an interesting visit is provided. Atlanta has one particularly interesting attraction in the way of a scenic freak of nature which might tempt the sightseeing visitor. Stone Mountain, which lies some sixteen miles eastward from the center of the city, is the largest single piece of granite in the world. This wonderful natural phenomenon is seven miles in circumference, at the base, and a mile from base to summit. It is bare of all vegetation, except intermittent pines and dwarfed oaks. The Stone Mountain granite is used very generously in southern and western cities for the paving and building material. From these quarries came the granite for the present post-office building in Atlanta, as well as numerous other public buildings throughout the country. In spite of the fact that this quarrying has been going on for years, competent engineers estimate that there remains not less than sixteen billion feet of workable granite.

The City of Atlanta and vicinity were the scenes of the hardest fought battles of the Civil War. It was here that Gen. Sherman began his famous march to the sea. In the commemoration of the events of those hostoric days a number of points are designated where certain important skirmishes took place, or this or that particular officer lost his life. The decisive battle before the fall of the city is very vividly portrayed by a cyclorama, maintained by the city. This is an immense circular painting four hundred feet in circumference and fifty feet high, weighing 9 tons. A Confederate veteran is constantly in attendance and points out the individuals in the picture and explains the very exciting events of that stirring July day.

Atlanta has some of the most beautiful residences in the South. Peachtree Road has long been famous for its magnificent homes. Druid Hills, a more recent settlement of an exclusive nature. Paces Ferry Road, Ansley Park, all are cities of homes, which are the last work in artistic beauty and magnificence. Street rides through these residence parks, particularly in the late afternoons are very delightful.

Visitors on pleasure bent, find Piedmont Park a very attractive spot. This park contains one hundred and eighty-five acres and was the site of the Cotton Exposition in 1895. It is now the property of the city and is maintained for public use. There are about a dozen baseball diamonds used by the amateur teams of the city, a dozen tennis courts, and a lake given over to swimming and boating. Grant Park is also the property of the city. There are a few athletic features in this park, but the shady nooks between the driveways are favorite resting places for those seeking quiet recreation. In this park is Fort Walker, a relic of the Civil War, a bit of history about which is that no shot was ever fired from it, as the forces attacking the city came from other directions.

The clubs of the city are great places of amusement and recreation. There are six golf clubs in the city, and it is said that Atlanta has more golf players than any town of its size in the world. The social life of the city centers around these clubs, and the atmosphere about them is always delight—gay.

Of no little interest to tourists and visitors are the handsomely equipped hotels of Atlanta. No city of Atlanta's size in the United States has such beautiful modern hotels, and few cities two and three times as large can boast of their equals. With oer one hundred hotels and restaurants, accommodations can be had to suit the pocket of the man of modern means, and the requirements of the most fastidious are easily met. In the heart of the city are sixteen leading hotels, with a total of about 3,000 rooms and 1,500 baths. Rates are as reasonable as could be desired, $1 a day and up.

Don't think of buying your ticket for your summer or winter trip, until you have considered the delightful attractions of the "Convention City of Dixie." Ask your ticket agent about stop-over privileges. Stop-overs are allowed on all winter, summer and all year tourist tickets, limited only to the time limit of your ticket. You will experience no trouble in checking baggage to Atlanta on these classes of tickets. If your agent can't give you satisfactory information, inquiries addressed to Atlanta Convention Bureau will receive prompt and careful attention.

Atlanta's hotels, places of interest and attractions to visitors have to be seen to be appreciated, and the Atlanta Convention Bureau extends a most cordial invitation to visit the "Metropolis of the Southeast."

ATLANTA'S BALMY CLIMATE.

Atlanta has an average November temperature of 52 degrees, and an average December temperature of 44 degrees. Its average mean temperature differs only one degree from that of Los Angeles.

"Atlanta enjoys weather almost exactly like that of the resort area of Switzerland to which thousands go every year," according to an official of the United States weather bureau.

"In latitude it is far enough south to reap all the benefits of a luxurious semi-tropical climate, yet its elevation of 1,100 feet gives it the healthy, rarified climate of a mountain region."

* * *

STONE MOUNTAIN: GRANITE WONDER OF THE WORLD.

Your visit to Atlanta will be incomplete without a visit to Stone Mountain. "There is but one Stone Mountain in the world, and that is near Atlanta," says a commentator on this natural wonder. "On a clear afternoon, with the sun at your back, one may see its gray bulk etched in detail against the blue sky. The visitor may go out by train, trolly or automobile and climb to its summit and look over that part of Georgia which lies within many miles around.

"It is a mountain of solid granite, the greatest monolith on the globe, 700 feet higher than the surrounding country, 1600 feet above sea level, measuring seven miles around its base, a relic of the ages. It is an inexhaustible store of granite. Man has been pecking at its base for two generations, quarrying stone to

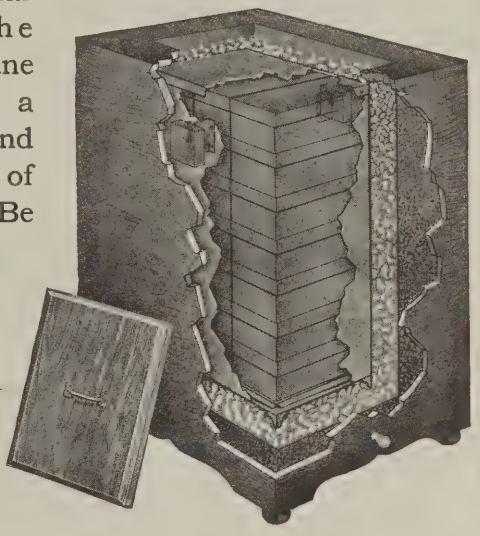


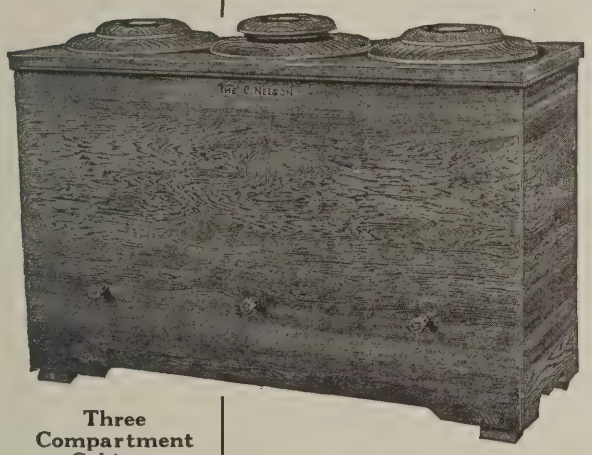
Nelson (Patented) Ice Cream Cabinets

"Confessed The Best When Put to Test"

are constructed along scientific and practical lines to conserve ice and salt supplies and keep the ice cream in perfect condition until sold. The manufacturers have devoted thirty years of study and experiment toward the building of the best possible ice cream cabinets for the manufacturing trade. Each particular make of cabinet of the Nelson line is sold with a guarantee and on a plan of "You Must Be Satisfied"

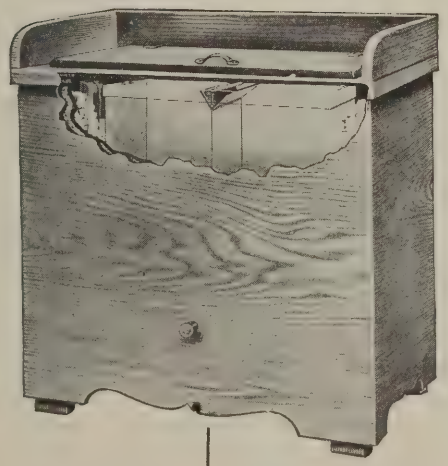
C. Nelson Brick Cabinet
Patented May 8, 1906





Three Compartment Cabinet

42 Qt. Brick Cabinet with Ice Rail



Patented Nov. 11, 1919—1321120

THE ASSOCIATION OF ICE CREAM SUPPLY MEN
MEMBER

This Proposition Will Interest You

Any responsible ice cream manufacturer—particularly wholesale ice cream manufacturers and dealers—may order from 1 to 100 Nelson patented Ice Cream Cabinets, place them in practical use, and after 30 days, if not entirely satisfactory, return at our expense for freight, both ways.

Can any manufacturer offer a more liberal or fair proposition? You owe it to yourself to thoroughly investigate the price, merits and construction of the Nelson Patented Ice Cream Cabinets before making any further purchase.

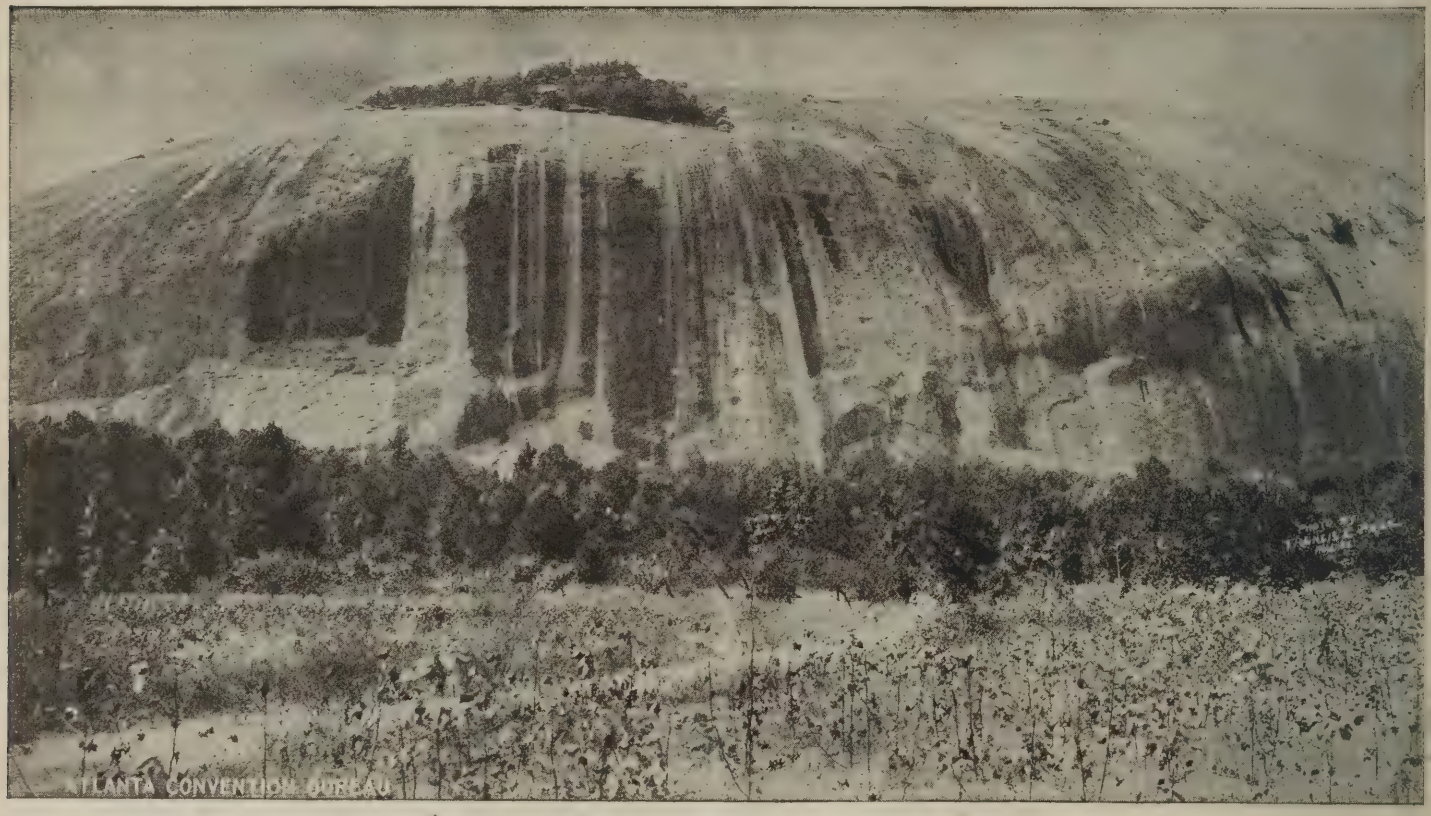
Plan on your season's requirements now, and have your supply on hand when needed.

C. Nelson Manufacturing Co.

2308 Division St. St. Louis, Mo.

build buildings and pave the streets in Atlanta, and for the same use in other cities, but he has made barely more than a mark. Some vegetation grows here and there upon it in little oases of disentegrated stone and accumulated humus, but principally it is bald rock. Thousands visit it annually.

"A clear defined path one mile long leads up the easy slope of a spur to its summit and a path has been worn in the rock by multitudes of feet, like no other path that man's feet may walk. Beside this trail, and sometimes in it under foot, are literally hundreds of epitaphs cut in the all-enduring monument, some so worn that the changing seasons of years have nearly obscured them, and others cut last week, perhaps, by the great grand descendants of the original climbers.



Stone Mountain, the World's Largest Monolith.

The philosopher will see in this rich food for thought upon that pathetic little trait of human nature which would stamp its identity somewhere so that it may not be lost in oblivion of time."

The United Daughters of the Confederacy have obtained a deed to the steep side of the mountain, which is almost perpendicular. There will be carved in relief a monument of the Confederate Hosts; a stupendous memorial to the South's heroes. A life time will be required for the work of carving this picture of Lee and Jackson at the head of their army. Stone Mountain will stand through the ages as a memorial to the brave sons of the South who sacrificed their lives, their himes, their all for The Lost Cause.

In the days when De Soto's discoverers were wandering through the wilderness around it, this mountain was an Indian landmark, bearing upon which many a trail turned. Sometimes an Indian girl would jump from its summit and sacrifice her life to please the Great Spirits.

Science has it that Stone Mountain was once a volcano and the part now seen was cooled off thousands of feet below the surface of the earth and brought to the surface by erosion.

FOR SOLVING LOCAL PROBLEMS.

The Kansas Association of Ice Cream Manufacturers will convene in annual convention at Kansas City, Mo., Dec. 15 and 16; headquarters, Baltimore Hotel.

It appears at this time that our coming convention is going to be the best yet, at least our fellows are talking that way so let every member of our association be there and see that any ice cream man not now a member, receive an invitation and at the same time explain the reasons why they should become a member.

While our National Association and meetings are essential and very beneficial to the industry at large, we have always found at our state and group meetings our local problems are more freely discussed where the men are directly interested in a competitive way.

Your attendance at this meeting is a duty you owe yourself and the industry. The good fellowship developed by coming in contact with your fellow manufacturers, is of much value and help. Our meetings we hope will be both instructive and entertaining.

Let us all boost and pull together to make it a great convention.

THE KANSAS ASSO. OF ICE CREAM MFRS.
L. R. Manley, President.



LOUISIANA ASSOCIATION OF ICE CREAM MANUFACTURERS DECIDE ON CONVENTION DATE.

The Louisiana Association of Ice Cream Manufacturers have definitely decided upon the date of their annual convention to be January 19th, 1922, at New Orleans. Definite instructions as to hotel accommodations will be announced in our December issue.



Don't miss a single copy of The Ice Cream Review. We'll see that you do not if you send us two dollars for a year's subscription.

Retains the Flavor

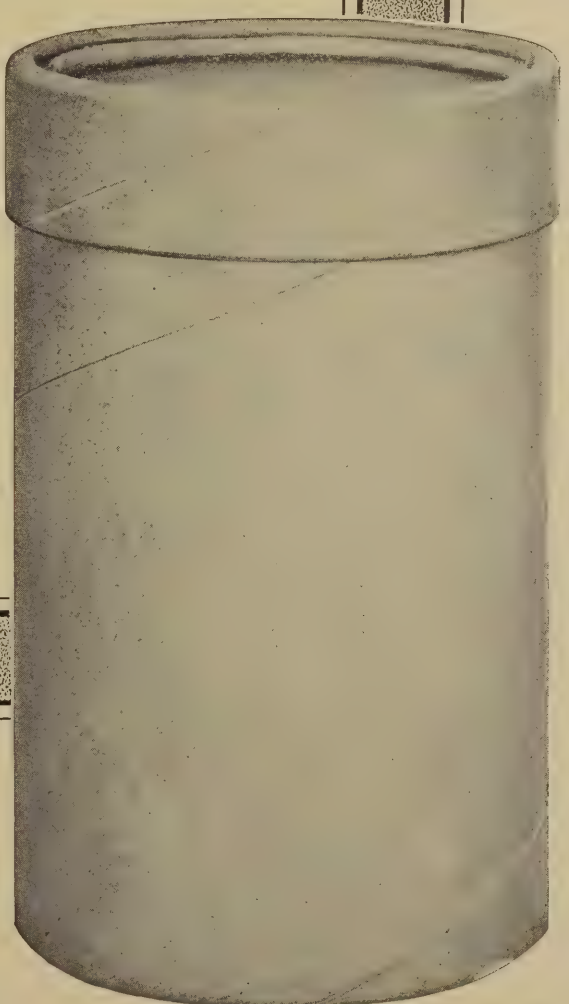
SEALRIGHT Liquid-Tight Paper Containers "hold in and keep" that important element in your good bulk ice cream, the FLAVOR. The air-tight feature of "Sealrights" prevents freezing out. Filled direct from the freezers and placed in the hardening room, "Sealrights" deliver your bulk cream in the same, identical perfect condition as when frozen. All the goodness retained and harmful factors kept out.

Furthermore

Sealrights are neat, attractive, sanitary, easy to carry, stimulate carry-home sales, eliminate the expensive brick method and keep ice cream in perfect condition longer and more effectively than any other known type of retail ice cream package on the market today.

Present Demands Require Millions — No Wonder

Order Thru Your Jobber — Write Us For Samples



SEALRIGHT CO., Inc.

Fulton - - New York

Largest Manufacturers in the World of Cylindrical Liquid-Tight Paper Container



Hudson's Vanilla Products

Meet Us At Atlanta—
Southern Exhibition
Booths Nos. 59-60.

have prominently maintained their leadership—always regarded and spoken of in that higher esteem associated only with high grade dependable products. This reputation came naturally—for in all these 33 years, Quality has always been paramount in our business.

Hudson's Famous Ice Cream Flavor Vanilla and Tonka Blend No. 52 Special and Hudson's Concentrated Vanilla No. 52 come to you backed by a guarantee of satisfaction—a guarantee religiously lived-up to for the past 33 years.

The Hudson Manufacturing Co.

(Incorporated)

GABE S. WEGENER, *President*

ESTABLISHED 1888

VANILLA PRODUCTS

119-121 North Union Ave.
(Corner Waldo Place)

CHICAGO, U. S. A.

Branches: *Vera Cruz, Mexico* *Windsor, Canada* *Dallas, Texas* *San Francisco, California*

IOWA DAIRY SHORT COURSE.

The Iowa ten day Dairy Short Course for experienced creamery buttermakers, managers, ice cream makers and operators of market milk plants is offered from February 8th to February 18th. Only such operators as have had several years practical experience will be admitted.

Men without experience or with a rather limited amount of experience may enroll for a three months' course, beginning January 2nd. This is a part of the regular six months course, but is conducted as a seperate unit. Those taking the three months' course should secure work in some creamery during the summer months so they may have the benefit of the practical experience if they decide to return the following fall to complete the course.

The work offered during the three months, from January 2nd to March 22nd, is as follows:

Dairy practice every forenoon. In the afternoons, lectures on the following subjects:

Buttermaking	1	hour	per	week.
Cheesemaking	1	"	"	"
Milk Testing	1	"	"	"
Factory Management	2	"	"	"
Judging Dairy Products	1	"	"	"
Market Milk	1	"	"	"
Dairy Bacteriology	2	"	"	"
Dairy Cattle Feeding and Mgt.	2	"	"	"
Farm Crops Production	2	"	"	"

Those who enter the course beginning January 2nd and desire also to take the additional three months' work offered during the fall will during the fall term work in the following subjects. Dairy practice every forenoon:

Buttermaking	2	hours	per	week.
Milk Testing	2	"	"	"
Manufacture of Ice Cream & Ices	2	"	"	"
Dairy Chemistry	2	"	"	"
Dairy Machinery	3	"	"	"
Dairy Cattle, breeds & judging	2	"	"	"

Fur further information, address Dairy Department, Iowa State College, Ames, Iowa.

⚜

THIS IS A NEW ONE.

Says the "Democrat," Onawa, Iowa:—Chris Nelson, formerly a teacher in the Onawa schools and later proprietor of the Royal ice cream parlors, is no doubt destined to become a wealthy man if nothing unforeseen happens. For several months, in fact nearly two years, Chris has been working on a new device to sell more ice cream. He had it so well worked out that he applied to the government for a patent on his invention and recently received word that the patent had been granted.

The machine Chris has been working on and which he now has a patent on is called an ice cream candy bar machine. The machine will make a candy bar of chocolate or any other flavor with the filling of same entirely of ice cream. It is claimed that the bars will keep several days without the ice cream melting. Already Mr. Nelson is receiving inquiries from all parts of the country regarding his invention.

It is understood that already the machines are being made and will soon be put on the market. One machine is capable of making about 15,000 bars a day.

⚜

A dollar judiciously spent is of more value than ten hoarded at the expense of health, kindliness or comfort.



Get Them From Your Supplyman

ALLEN'S ONE-PIECE SANITARY CAN LINERS

These Dealers Sell Them:

The Creamery Package Mfg. Co., Chicago, Ill., and Branches.
The Schmitz Supply Co. - - - St. Paul, Minn.
A. H. Arnold & Bro. - - - - Chicago, Ill.
N. A. Kennedy Supply Co, Kansas City, Oklahoma City
J. G. Cherry Co., Cedar Rapids, Ia., and Branches
A. H. Barber Creamery Supply Co. - Chicago, Ill.
The Dairy Supply Co. - - - - Minneapolis, Minn
Peaslee-Gaulbert Co. - - - Louisville, Ky.
J. W. Allen & Co. - - - - - Chicago, Ill.
Spurbeck Lambert Co. - - - - - Algona, Iowa
The Maas, Keefe Co. - - - - - St. Paul. Minn.
The Crandall Pettee Co. - - - New York, N. Y.
Dairymen's Supply & Construction Co., Pittsburgh, Pa.
Owatonna Creamery Supply Co. - Owatonna, Minn.
Davis Watkins Dairymen's Mfg. Co., No. Chicago, Ill. and Branches.
Meyer Dairy Equipment Co. - - St. Louis, Mo.
Liebers Farm Equipment Co. - - Lincoln, Nebr.
Dairy Machinery Co. - - - - Seattle, Wash.
Consumers' Gelatine Co. - - - St. Louis, Mo.
The Crane Co. - - - - - - - Chicago, Ill.
Cherry-Bassett Co. - - - - - Baltimore, Md.
The Hurley Co. - - - - - - Denver, Colo.
Hawkeye Supply Co. - - - Mason City, Iowa
The Hudson Mfg. Co. - - - - Chicago, Ill.
Chapman & Smith Co. - - - - Chicago, Ill.
Kennedy & Parsons Co. - - Sioux City, Iowa and Omaha, Nebr.
E. B. Adams Co. - - - - - Washington, D. C.
Monroe & Crisell - - - - - Portland, Oregon
El Paso Butcher & Dairy Supply Co., El Paso, Tex.
Gowing Dietrich Co. - - - - Syracuse, N. Y.
H. C. Schranck Co. - - - - Milwaukee, Wis.
Northwestern Bakers & Conf. Co., Minneapolis, Minn.

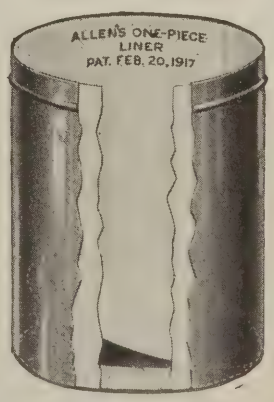
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THE ALLEN CANDY CO.

Sole Manufacturers

PONTIAC **ILLINOIS**

Samples and Prices on Request



Seven P'S of Perpetual Pro-Motion

By J. W. CLOPTON, Secretary, Southern Association of Ice Cream Manufacturers

Editor, The Ice Cream Review: The one big convention of the south will be held in the Hustling City of the South, Atlanta, Georgia, Nov. 29th to Dec. 2nd, inclusive. This has ceased to be news and has developed into the general topic of conversation among the manufacturers of the south, and I am pleased to say that quite a few of our fellow manufacturers of the north, east, west and southwest have expressed their decision to meet the boys of the Southern association in Atlanta.

While conditions have not been the best for the Southern manufacturer this season on account of readjustment of prices and conditions generally we are not at all discouraged and we are determined to go into next season with an idea of selling more ice cream and better ice cream than we have ever sold before.

With the assurance that the tax on ice cream cones, better known as the "nuisance tax," will be eliminated before another season, we can again go after the masses of small dealers who have been forced to discontinue the sale of ice cream as they were not prepared to keep correct records of their sales, causing many of them to get in "dutch" with the revenue department.

We have been very fortunate in securing very able men to handle the subjects on our program in Atlanta, and we have every reason to believe our program will be carried out to the letter. In this connection allow me to give a convention hint to the boys who are planning to go to Atlanta. I want you to "Mind your P's and Q's"—more especially your P's: Be Present; Be Punctual; Be Pleasant; Be Patient; Be Progressive; Be Prudent; Be Public-Spirited. Remember you are not the only fellow there and if you have an idea that is practicable, tell your fellow manufacturer about it. Don't be afraid to rub shoulders with him and discuss your problems freely with him, he might help you out.

Our good friends Fred Scanlon, George Moore and Harry Helmar have given us the assurance that we will have the key of the city, in fact Mayor Key will make the welcome address and the Key note of his address will be to the effect that Atlanta will be turned over to the ice cream men for a week, in behalf of the Southern Ice Cream Manufacturers, our old friend Ben Brown of New Orleans will accept this Key in his usual jovial manner and will hold it in trust during the week.

Not only will be have the Key of the City of Atlanta, but we will have Gov. Hardwick with us, who will welcome us to the great old "Goober Grabber" state of Georgia. If the boys are not satisfied with the city, Gov. Hardwick will just turn the state over to them. On our program are such men as J. J. Brown, of the State Department of Agriculture; M. D. Munn, President of the National Dairy Council, Chicago; Timothy Mojonnier, of Chicago; J. R. Jones, President, National Ice Cream Co., Little Rock, Ark.; W. E. Drake, President, the Union Ice Cream Co., Nashville, Tenn.; Prof. R. M. Washburn, of Minneapolis, Minn.; W. J. Barritt, President, the Tampa Dairy Company, Tampa, Fla.; Chas. A. Odom, President, the Odom Ice Cream Co., Macon, Ga.; W. W. Campbell, President, the Campbell Ice Cream Co., Shrevesport, La.; George L. H. White, President, the White Dairy Products Co., Raleigh, N. C.



W. M. SIDEBOTTOM, President.



J. W. CLOPTON, Secretary.



A. M. THORNTON, Ex-president.

Under Their Administration the Southern Association Has Accomplished Much.

Can you beat this bunch of fellows? You'll have to sight me if you can. Remember, "All roads lead to Atlanta" during Ice Cream Week, Nov. 28th to Dec. 2nd, 1921.

Tom Stuart and Pete Miller will tell you what the Dixie Flyers are going to do and Robert Everetts will give you the dope about the National Association of Supply Men. All these boys will be there at the same time and you can just bet your bottom dollar there will be something doing every minute. Let's go!

THEM'S MY SENTIMENTS 'XACTLY.

"I would as soon think of doing business without clerks as without advertising."—John Wanamaker.

* * *

"There is not a business that correct advertising cannot make better."—Arthur Brisbane.

* * *

"Success depends upon a liberal patronage of printing offices."—J. J. Astor.

Standardization of Ice Cream

By Weight Per Unit Volume



De Raef weight standardizer tells you at a glance the correct weight per gallon, while the ice cream is still in the freezer, giving the ice cream maker full control of a standard weight per gallon as well as a given over-run.

No weights—no charts—no counter balance—no telescopic cups — no adjustments — no magnifying glass to read dial—no figuring—always ready for operator—water proof and rust proof.

Works automatically—reading can be made ten feet away—large black figures on white dial. Will give correct weight per gallon of ice cream, regardless of weight per gallon of mix.



De Raef Ice Cream Weight Standardizer circular sent on application to the Ice Cream Department

N. A. KENNEDY SUPPLY COMPANY
KANSAS CITY MISSOURI

Reward Offered for Best Attendance

Beautiful Loving Cup for Southern State Registering Greatest Attendance at the Southern Show. **By GEORGE L. H. WHITE, President, North Carolina Ice Cream Manufacturers' Association.**

DO YOU remember your childhood days and the high tension of enthusiasm that filled and thrilled you around Christmas time? Well, the same degree of enthusiastic spirit, although of a somewhat different nature, seems to have gripped the ice cream men throughout our section of the Southland. We are counting the days to the hour of departure for the "New York of the South" where the Auditorium Armory will be bedecked in gladsome colors with a setting made complete by a host of supply men and their showing of various wares, topped with "soothing jazz," a combination irresistible for the ice cream man. Did you say crowd? No, there will be a mob—North Carolina always among the leaders in all lines of history making endeavors (oftime the leader—in production of moonshine and monkey rum, for instance,) will be conspicuously represented. Not in great numbers, perhaps, but in great variety, lean men and fat ones, tall men and short ones, but only **white** ones regardless of President Harding's recent statement in Birmingham. Let me assure you of one fact, when the curtain falls on the Atlanta Show everyone present will know the Tarheels were there, for we do not propose to lose our identity in the crowd, even if we don't wear bells. Some of our boys have suggested we might be lost in the crowd, but our ever alert and efficient Secretary, Arthur Eversharp Dixon, thought of this long ago and has had prepared—well, you fellows from other states will all wish you were from North Carolina in order to wear our festive ornaments, but for the reason it will tax the plant of Tiffany & Co. to its capacity to make sufficient quantity of these regalias for our own family, we would undertake to distribute them around.

The Tarheel aggregation has arranged for spacious quarters at The Ansley, and we want to offer the use of our quarters to the visitors for their convenience (and I have previously stated the line of endeavor for which we are particularly in the limelight) as we want a more extensive acquaintance among the fellows because some day we want to entertain the Show in The Land of Tarheels.

I want to appeal to the men who compose the ice cream industry of the South to make immediately their plans to visit Atlanta during the week of Nov. 28th to Dec. 3rd, and as an incentive I am going to offer a large loving cup to the Southern state registering the largest attendance during the first three days of the Show, North Carolina being excluded from this offer for the reason I know we will be there one hundred per cent, and I don't care for our bunch to be the recipient of a loving cup from myself. The state to whom this award is made will be asked to place the cup within the walls of their museum or hall of history until our next meeting, when it will be again awarded under the same conditions, until won twice in succession by one state.



A. E. DIXON, President.



J. W. MULLIGAN, Ex-President, Dixie Flyers.



GEORGE L. H. WHITE, Secretary.

There are quite a few men in Dixie engaged in the ice cream industry who have as yet not become regulars at the different ice cream conventions, but if we can persuade them out this once I am sure this Atlanta Show, with its Rebel hospitality and Yankee Bull (notwithstanding Durham, N. C., is the home of Bull and Bears) they will be regular attendants at future meetings.

Come now, all you fellows who make the national dessert, cast aside your B. V. D.'s and don your woolens for one grand, glorious, entertaining and instructive trip to Atlanta, ever mindful of the expense, energy and effort of the membership of The Supply Men's Association involved in these meetings for **your** pleasure and **my** pleasure, and it is them and kindred organizations and and publications that I am so deeply indebted for royal entertainment and instructive displays previously enjoyed.

Here's hoping, Dear Reader, I will make the acquaintance of most of you in Atlanta.

Wood's Gelatine

IT'S PURE

Guaranteed Food Products

Gelatine
India Gum
Kreamine
Fairy Cream Powder
Yum Yum (Ice Cream Flavor)
A-XXXX Vanilla
Grinders of Cocoa

The Most Complete Line on the Market

Write for Price List

W. B. Wood Mfg. Company

Manufacturing Chemists
ST. LOUIS, MO.

PETER N. MILLER, Jr.
President
2913 11th Avenue
Birmingham, Alabama

Address all communications to
T. J. STEWART
Secretary
Mercantile Library Bldg.
Cincinnati, Ohio

When the clans begin to gather in Atlanta the natives are going to acquire sore eyes and lame necks from seeing what they will see if they don't look out. For



Come on Boys, Meet Us at Atlanta.—Pete and Tom.

instance, here we have the genial president and secretary of the Dixie Flyers just as they will appear on the streets of the southern city looking for a "cop" to direct them to convention hall.

Miller will be smoking a cigar that he won on an election bet last fall and Stewart—a man with such "taking" ways that he carries an umbrella around with him on a sunny day, providing he finds one that isn't locked up.

The editor does not enjoy the acquaintance of either of these estimable gentlemen, but ever since we connected up with this job we have heard reports coming from the southland and the officers of the Dixie Flyers generally are mixed up in them. We understand that Miller is of Danish descent (H. P. claims a Dane can't descend) but we don't know whether he is of the domestic or imported variety. They do tell us though that serious international complications were at one time threatened on account of a dispute between the two countries concerning Miller. Both claimed him. Denmark claimed he belongs to the United States and the United States claimed he belongs to Denmark.

One of the boys tells a good story on Stewart. He took the Mrs. to a convention a year or two ago and between meetings took particular delight in showing her about town and made extra efforts to impress her with the fact that extensive travelling gives one confidence and a superior bearing. Meeting a young lady friend who smiled as she passed, Stewart turned to his wife and said: "See that girl smile at me? You know for why?" "That's nothing," replied Mrs. Stewart, "the first time I saw you I nearly laughed my head off."

That good lady is confronted with a perplexing problem, too. She says she promised the minister when she was married to Mr. Stewart that she would go wherever her husband went. Eventually she wants to go to heaven, but doesn't want to violate her marriage vows (of course there is yet time for friend Stewart to mend his ways and thus relieve his good wife from such an embarrassing predicament.) Possibly the Atlanta meeting will bring about the needed reformation. True Dixie spirit, mixed with several good orders, may send him home a changed man.

* * *

Reports from the various Dixie Flyers to the secretary would indicate that the attendance at Atlanta is going to be mighty fine, and this being the first exhibit in the sunny South, the ice cream manufacturers who attend this convention are going to leave there with the knowledge that they have learned many things that more than repay them for their trip.

The entertaining features have all been carefully laid out and are such that it will make the stay enjoyable to all who attend.

The Dixie Flyers are going to entertain on the evening of the 29th, which is Tuesday night. The entertainment committee are hard at work and they ad-



A. T. SPONAR,
Solar Sturgis Mfg. Co.,
A Dixie Flyer.



JAS. J. HARVEY,
Bessire & Co.,
A Dixie Flyer.



A. D. REYNOLDS,
Virginia Tub Co.,
A Dixie Flyer.

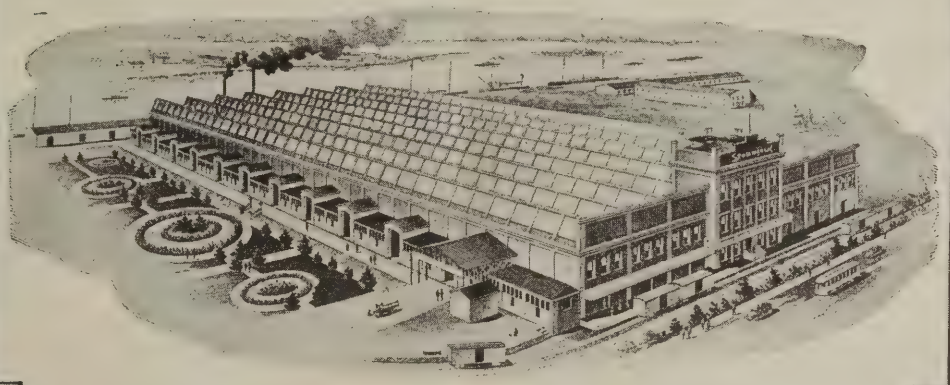
STOLLWERCK

COCOA POWDER

Quality, Flavor and Color unsurpassed. Best results in ice cream making can be obtained by the use of Stollwerck Cocoa Powder.

Prices and samples upon request

Packed in 25 and 50 lb. drums Also barrels and cases



PLANT OF THE STOLLWERCK CHOCOLATE CO.
STAMFORD, CONN.

BRANCHES:
NEW YORK BOSTON CHICAGO KANSAS CITY
SAN FRANCISCO SALT LAKE CITY SEATTLE PORTLAND, ORE.

vise the secretary that the Dixie Flyers' entertainment will be of the highest standard and a credit to the organization. Of course it's up to the Dixie Flyers to help and we are sure that they will more than do their share.

Those Dixie Flyers who are making the southern trip should certainly keep encouraging not only attendance at this exhibit of the Ice Cream Supply Men, but membership in the Southern Ice Cream Manufacturers' Association. Membership in this association does not only promote social interests but creates a friendly feeling among the various manufacturers, and at their meeting there are many good papers that will prove profitable to any ice cream maker whether he be large or small. There is no ice cream manufacturer who is too large to be a member, and at the same time there is none too small to gain advantage by its membership.

Your secretary had the pleasure of meeting Mr. A. E. Dixon of North Carolina, and here is a real enthusiastic secretary and the Dixie Flyers should take particuler pains to see that this bunch that come from the "tar-heeled" state have the opportunity of seeing the sights and getting real advantage of attending this show. Boys, they are a live bunch and those Dixie Flyers who travel that territory will surely back me up. Use your efforts to show the Carolinians that the Dixie Flyers are on the job.

Our one honorary member, Mrs. E. R. Harris, of New Orleans, is working hard for the Atlanta Show and she promises to attend and help the good cause along. Also boys, make note that her son, Sydney Prague, will be with us and this will be his maiden visit to a convention. I know that the Dixie Flyers will be glad to see him and will extend a hearty welcome.

Another bit of news, boys, the ladies of the Southern Ice Cream Association advise us that they have some money in the treasury and they want to spend it. It surely is the days of sufferage, when the women want to do the entertaining. God bless them, we like every one of them, but we are a wee bit old fashioned and cannot see the idea of the ladies entertaining us, but our President, P. N. Miller, does hope to have the pleasure of entertaining the ladies one afternoon. Some wag suggested that we entertain them the afternoon on which the stag affair occurs and make the entertainment so strenuous that they will be tired and go to bed early, but some of the married men advise me there is nothing to that, I guess we would rather have the ladies with us.

THEY ALL FALL, SOONER OR LATER. One of our entertaining committee has not been very active of late and investigation shows that he had a good reason, for it appears that on Monday, Oct. 17th, Harry E. Blanke took unto himself a bride. The fair lady being Miss Edna Hils, of St. Louis. I know the congratulations of the Dixie Flyers will follow the bridal pair and their best wishes for many years of happiness, and may their only troubles be little ones. The Dixie Flyers hope that Mr. Blanke will bring the bride to Atlanta and we promise to act in a decorous manner.

We hear that there is a carload of ice cream manufacturers coming from Texas. We understand that Mr. A. P. McLendon will lead this party. We will all be there waiting for them with our "hair in a braid."

Take time by the forelock and send your check for your dues to the secretary.

T. J. STEWART, Secretary.



C. J. W. SMITH,
Creamery Package Mfg. Co.
A Dixie Flyer.



CECIL P. HOSTETTER,
J. B. Ford Co.,
A Dixie Flyer.



ADOLPH SKINNER,
Creamery Package Mfg. Co.,
A Dixie Flyer.
He Flirts With Alligators.

* * *

MRS. HARRIS AGAIN.

Dear Boys:

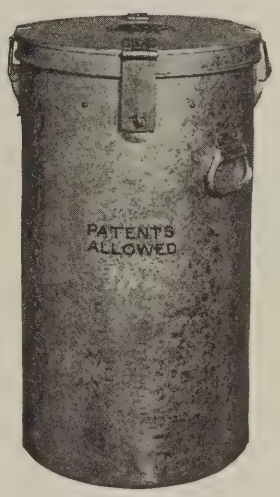
I have been reading our column with a great deal of interest lately and noted the message to me from our Mr. Mulligan. He had heard the "little Bill" manuscript while visiting our home therefore knew it had been cut off, well I'm sorry it happened and guess it must have been my fault for using both sides of the paper, the other side was not copied. I shall read it to you boys for you need that message and your wives will agree I'm right, I hope to meet you in Atlanta this year.

Have you ever heard the kiddies play the game of "Pigtail"—one says, "what's your name," the other says "Pigtail" where do you live, the answer is "Pigtail", who do you love, again its "Pigtail, so on and on. Well there's a new game called "Ice Cream" and it will be played in Atlanta, Ga. for three days and I want to urge you all to come and bring the lady folks to help us play the game. The ice cream men will meet

Saves 10c a Gallon

That is the saving a shipper just reports who uses the

D-C IceLess Express Container



Well hardened ice cream will keep in perfect condition in these containers for 12 hours. We guarantee that, and on the basis of the most trying conditions. In a fairly cool place, 24 hours without ice and still in perfect condition, is nothing extraordinary for ice cream in the D-C Iceless Express Container.

What Would it Save for You?

Their light weight gains a remarkable reduction in express charges. Saves ice, salt, tubs and the labor of packing.



D-C Refrigerating Cover

Converts D-C Shipping container into a cabinet. A practical, inexpensive device that serves a good many opportunities for savings and extending business.

Let us send you prices on these containers. We will also show you some practical ways in which they help to develop business.

Decy IceLess Express Container Co.

Incorporated

TIMES BUILDING Room 1001 NEW YORK, N.Y.

their best friends the supply men, you boys, and the visitors will witness a very interesting game, for in twelve months time they have all learned something good for each other to know. What's your name "ice cream", what's the best food for the community, "ice cream, what do you love, "ice cream". When you want the best food for the least cost what's the answer? I scream—ice cream. New flavors, new shapes, new methods of filling, etc., will be shown, you will even be shown how to make ice cream Heat (h) way.

I'm now visiting the plant in Gulfport of which our son is manager and by the way will be a visitor this year to the convention, this will be his initial trip so I want it to be a winner.

We ladies have some money to spend on a good time together so guess we will do it this year. Mr. Odom made it impossible for us last year having prepared so lavishly for us.

Until we meet in Atlanta, au revior.

MRS. E. R. HARRIS.

Wheeler, a member of the McLaren Ice Cream Co., is in charge.

A new ice cream plant and creamery has been established in Tallahasse, Florida, under the name of the Leon County Milk Co. The new firm has just opened for business. The entire ice cream equipment were furnished by The Creamery Package Mfg. Co. Mr. J. M. Burgess is in charge.

BYRON MORRIS.

* * *

A HOTEL FILLER FROM DIXIE.

If we only could frame up the future
In a picture that would come true
We would paint the part of the hotel sharks
In colors that he would rue
We would put a scowl on his features
Of fright in the future forseen
And a dream in his sleep to keep him awake
Because he had been so mean.



A. J. HICKS,
Bessire & Co.—A Dixie Flyer.



MRS. E. R. HARRIS.
A Dixie Flyer-ess.



O. M. PARRISH,
Richmond Cedar Works,
A Dixie Flyer.

HICK'S HEADQUARTERS IN THE LAND OF MOON.

A recent issue of the New South Baker announced that A. J. Hicks, the big hearted chap who formerly held sway over the southern stamping ground in the interests of Bessite & Co., of Indianapolis, has been transferred to Kentucky, where he will operate with Louisville as headquarters. O. M. Stroup succeeds him in the Atlanta territory.

A recent letter received from Bro. Hicks says in part:

"Had the pleasure of meeting our past president Mulligan (or was it secretary) here in Louisville. He was digging at the trade for business for the season of '22, and he had the nerve to tell me business was good. The writer hopes to be among his old friends in the southern pow wow at Atlanta in November. Will see you then."

* * *

GOOD NEWS.

Jackson, Miss., October 29, 1921.

The Ice Cream Review:

The McLaren Ice Cream Co., Tupelo, Miss., has purchased the ice cream and ice making plant of the Clarksdale Creamery Co., Clarksdale, Miss., and Mr.

We would make him pay $2.00 per
For a room without heat and a broken down chair
In a bed he should sleep, that sags in the middle,
And there let him wallow and swear.
With a blanket too short, and wait for service
Do without soap and towel,
And feel that we're justified
In making the rascal howl.

We would then put in the picture
Something to make him sick,
The sliding scale of the rate per day;
A scurvy hotel trick.
So much for the room, American plan
The meals are such and so—
In either case a bonus you pay
The (American?) plan that get your dough.

The screen of the future most feature
A hope that will banish this graft.
And the home of the traveler grow brighter
As he ponders the troublesome past,
When hotels will honestly cater,
And justly their patrons provide.
We then will make a picture
Where salesmen can live with pride.



The "Perfection" Imprint on Your

Ice Cream Cartons, Can Liners and Butter Cartons

is your assurance that the Buying Public is going to get the correct impression of the quality of goods that you have put in your package. INSIST on the best, it COSTS NO MORE

Write for Booklet

CHICAGO CARTON COMPANY

4433 Ogden Ave., Chicago

NEW YORK, 516 5th Avenue
CINCINNATI, Gwynne Bldg.

CHICAGO CARTON COMPANY

DALLAS, 601 Elm Street
DENVER, 1526 Blake Street
SALT LAKE CITY, 355 Pierpont Ave

MOULTRIE PLANT IMPROVED.

Extensive improvements have recently been made in the plant of the Moultrie Creamery and Produce Co., Moultrie, Ga. This company has recently installed a Mojonnier vacuum pan, two 300-gallon Cherry pasteurizers, coolers, and a 20-ton Vilter ice machine with ice storage room for same.

They will manufacture ice cream, condensed milk of all kinds; pasteurized milk and cream and butter. Their ice cream department has been increased to a daily capacity of one thousand gallons.

Milk is being received by baggage from Americus, Ga., a distance of 75 miles. The Georgia Florida Farms Corporation of Asheville, Florida, is also delivering their milk to this plant, same being delivered in a White truck, with flanged wheels, operated over the Georgia Northern railroad.

In years past cotton has been the principal crop throughout this section, but owing to the recent activities of the boll weevil and low prices, the farmers are looking more and more each year to dairying. This is a modern plant in every sense of the word and is the first of its kind in the state of Georgia. It is under the management of Sam Weichselbaum.

ROY S. JENNINGS.

* * *

IS IT WORTH WHILE.

In about three weeks you will be called upon to pack your grip, for a journey that will bring together a group of men that control one of the greatest industries in the South. They not only control the output of this wonderful product, but are in a position to multiply, extend and control its future and destiny for all there is in it.

This journey they contemplate is for the purpose of furthering their interests, and the question that is uppermost in their mind is, what I can do to make the trip "worth while." And right here is where I want to say, **make your plans to go,** and when you get there be prepared to make "Worth While."

There are a dozen reasons, any one of which should take you to the Atlanta convention, and you should prepare your brief and be ready to state your case in a well thought out way.

You have been worrying, no doubt, regarding the unfair methods utilized by some of your competing neighbors. This is your opportunity to meet them and adjust your differences. The chances are that you will find them altogether different than you had imagined. Isn't it "Worth While" to get acquainted?

You will hear talks, see new departures, from old ideas you have followed. In a word, you will be in touch with matters absolutely essential, from a financial and monetary standpoint.

You may be paying too much freight, or not have the right price on some product, you may be long on something, and through a new acquaintance, find an outlet for it.

Don't get the idea that you are paying too much for the show, you must always pay your way if you travel, and since you are one of the company, it remains to be seen whether you are a credit to the organization. You must help make it a success, and the dividends that you receive will be commensurate with your efforts, and the first cost will be absorbed in the short cuts to success, you gain through the medium of good fellowship, as rubbing shoulders, hand shakes, not to speak of "Tangle Foot" and other attractions, that hang over such aggregations, like a fog over a mill pond, and knowing a good many of you fellows, and being pretty good at prognostication, its a safe bet, I believe, that you will become so inoculated with the spirit of the occasion that you will go home with an enthusiasm that will not need any shock absorbers to help you over the rough places of 1922.

The writer knows how the ice cream man feels regarding the past season, and he thinks he must husband his resources by staying at home.

But, should you by staying at home, miss **some advantage presented at the convention** that your **competitor** gained, whereby he was able to make a saving of 5 or 10 per cent by employing some new process, you would have to make a charge to profit and loss, against false economy.

So shine your shoes
And brush your hair;
Pack your grip,
But don't you dare
To make the trip
With all its strife,
Unless you bring
Along your wife.



R. S. JENNINGS,
Mojonnier Bros. Co.,
A Dixie Flyer.



L. F. BROWN,
St. Louis Gelatine Co.,
A Dixie Flyer.



H. W. BLACK,
The Widlar Co.—A Dixie Flyer.
A Dixie Flyer.

200 Manufacturers For Cleaner, Purer, Better Ice Cream!

Approximately 200 ice cream manufacturers of the United States and Canada are pledged to make cleaner, better, purer ice cream.

They are heeding the United States Department of Agriculture admonition that air is a disastrous ingredient. So, they are making their ice cream without air.

A chain is only as strong as its weakest link. A manufactured food product is only as pure as its least pure ingredient.

Air is loaded with dirt, dust and germs. Whip filthy air into your 100% pure mix and you do **not** purify the air, but you **do** contaminate the mix.

It was an epidemic caused by infected ice cream that started Prof. W. P. Heath experimenting to find a way to make ice cream without air. That epidemic was fatal to two and nearly so to one hundred others. Yet, the plant where this happened was one of the cleanest, finest, most modern ice cream factories in the world. But it happened, just the same.

The advantage in making ice cream the HEATH-WAY is not alone a question of improved flavor — although that counts. It is not alone a question of greater advertising value — although that helps. It is not alone a question of finer texture and better standing up quality — although they count. It is primarily a question of WHETHER OR NOT YOU WANT TO CONTINUE MAKING ICE CREAM WITH AIR THAT IS NEVER CLEAN AND OFTEN DANGEROUSLY IMPURE.

You owe it to yourself to protect your product. You owe it to your dealers to protect their product. You owe it to the people who eat your ice cream to protect them — all of them — from this lurking danger which exists in the air you are whipping into your freezers.

TWO HUNDRED progressive manufacturers have seen the light. Surely you also want the latest that science offers.

Then get in touch with us. You have much to learn about Heathmade Ice Cream. Let us tell you about our method. It does not require any change in your present methods of manufacture or mix. Write to us NOW.

Heathmade Carbonated Products Co.

Sole Licensors of Heath Patents for Making Heathmade Carbonated Ice Cream

618 Wrigley Building
400 North Michigan Boulevard

CHICAGO

CANADIAN OFFICE
Carbonated Products, Ltd.
510 McKinnon Bldg. Toronto, Can.

There's things she
Will see and do
That will save
You quite a few;
And although she
Will spend a pile,
I'm sure you'll
Find her "Worth While."

Yours truly, O. M. P.

* * *

Keep on Calling.

He said he didn't need a thing—
That he was loaded to the neck
With coffee, soap, and Boston beans
And sugar by the peck.
He had enough of all my stuff—
But I kept on calling.



S. A. SMITH,
Elyria Enameled Products Co.,
A Dixie Flyer.



C. E. ROGERS,
He Ought to Be a Dixie Flyer.



C. T. HOLLINGER,
Hudson Mfg. Co.—A Dixie Flyer.

Each trip the same old song and dance—
"Can't buy a thing today."
He liked my line—he liked the house,
But nothing came my way.
I used to swear at that old bear—
But I kept on calling.

One day I almost passed him up.
"That bird's a hopeless case"
Says I, "I'm wasting time with him,
I'll scratch him from the race.
I'll let that guy run off and die"—
But I kept on calling.

And finally he came across,
I got him single-handed.
You'd be surprised now how he buys,
He's the best account I've landed.
And so I'm glad—almighty glad—
That I kept on calling.—The Salt Seller.

* * *

Heard at the Dairy Show.

A Supplyman: "My love for you is like a flowing brook!"

The Blonde: "Dam it!"

NORTH CAROLINA SECRETARY ACTIVE IN EFFORT TO ELIMINATE "NUISANCE TAX"

Bulletin No. 16.

Emphasizing Bulletin No. 12 issued on August 9th, we cannot too urgently emphasize the fact that concerted and insistent action is necessary for the elimination of the tax on ice cream sales, which is vital to the industry, not only in this state but to the whole country. Supplementary to Bulletin No. 12, we give below a copy of a letter from Mr. H. E. Cartland of the Arctic Ice Cream Co. of Greensboro, N. C., which covers the situation:

"Conditions are changing hourly in the U. S. Senate, and there is hope that the nuisance tax on bottlers and ice cream dealers will be eliminated entirely, but to get this done we must have concerted action. A great many former dealers of ice cream are not handling on account of this tax, and without doubt the tax is cutting into the volume of the manufacturers.

Would suggest that you request every member of the N. C. Ice Cream Manufacturers Association to wire Senators at once, demanding the repeal of the tax law. Concerted action now will get it, but if we go to sleep on the switch we will find a sign stuck in front of our noses reading: Pay 10 per cent of your sales in taxes —A LOST OPPORTUNITY GONE. I have already made my plea, not once but half a dozen times, last, as of this date, by wire.

Write or wire your senator and representatives, urging them to do everything possible to remove the tax on the sales of our product.

Sincerely yours,

A. E. DIXON, Secretary.

⚜

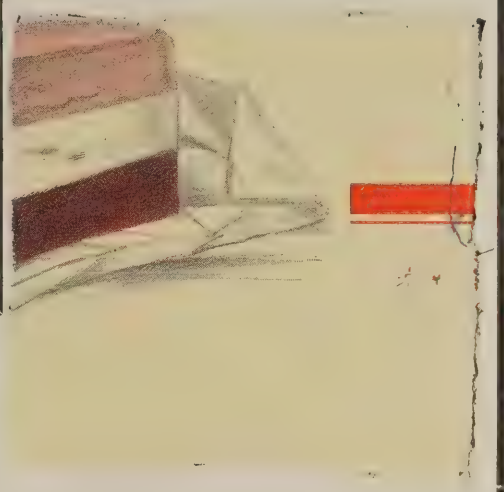
JOHNSTON JOINS NORDHEM.

Mr. Frank Johnston, well known in the ice cream industry, has been appointed western representative for the ice cream syndicate department of the Ivan B. Nordhem Company to succeed Mr. E. B. Conliss. Mr. Johnston will make his headquarters in Los Angeles, Calif.

The Grand Rapids
ICE CREAM CABINET OF QUALITY


STYLE No. 5


Construction of Our "Zero Brick" Cabinet



An Important Part of Your Equipment

IT is to the advantage of any manufacturer to recognize the true importance of the ice cream cabinet and the necessity for employing only the kind which will afford perfect preservation of his product on an economical basis.

For many years, Grand Rapids Ice Cream Cabinets have demonstrated in actual service that they are the answer to the ice cream cabinet question. They are constructed with a thorough understanding of the qualities which a cabinet must have in order to effect ice conservation and withstand the action of the refrigerating agents.

Standardizing on Grand Rapids Ice Cream Cabinets is a step which leads to saving expense and promoting all around satisfaction.

See Our Exhibit at the Ice Cream Supply Men's Show

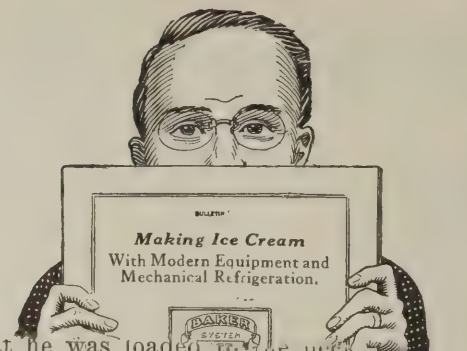
Atlanta, November 28, December 3

GRAND RAPIDS CABINET COMPANY

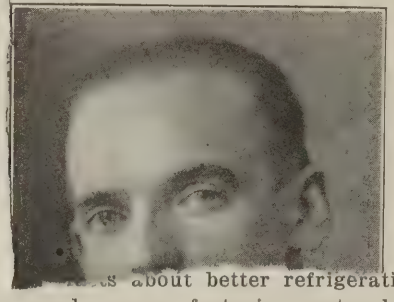
Successors to CHOCOLATE COOLER COMPANY

55-59 Alabama Avenue N.W. GRAND RAPIDS, MICH.

New England Sales Office and Warehouse, MERROW BROS., Inc., 44 N. Market St., BOSTON, MASS.
South Eastern Sales Office and Warehouse, CHERRY-BASSETT CO. { 33 So. Charles St., BALTIMORE, MD. / 1106 Arch Street, PHILADELPHIA, PA.
North Western Sales Office and Warehouse, A. C. BLACK, 515 Lumber Exchange, MINNEAPOLIS, MINN.



That he was loaded to the neck
With coffee, soap, and Boston be
And sugar by the peck.
He had enough of all my stuff—
But I kept on calling.



lletin

should
re using
r cream.

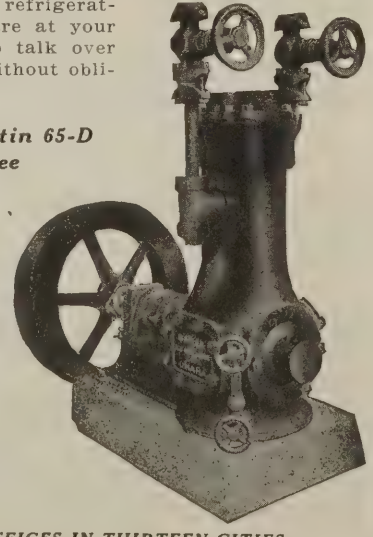
mation—
about better refrigeration—how to reduce manufacturing costs—how to eliminate spoilage and shrinkage—how to improve factory conditions.

BAKER SYSTEM
Mechanical Refrigeration

Baker Systems are designed by expert refrigerating engineers to meet individual requirements in the most efficient and economical manner. There are hundreds of Baker Systems giving their owners genuine service—perfect refrigeration in the general storage room—mixing room, machinery and vats—for the freezers—and a zero temperature in the hardening room, as well as the manufacture of ice for packing and shipping.

Baker expert refrigerating engineers are at your service—glad to talk over your problem without obligation.

Ask for Bulletin 65-D
It's Free



Baker Ice Machine Company Inc.

Omaha, Nebr.

BRANCH OFFICES IN THIRTEEN CITIES

ILLINOIS ASSOCIATION OF ICE CREAM MANUFACTURERS.

The 22d Annual Convention of this Association Will Be Held at Chicago, Hotel Sherman, on Tuesday and Wednesday, December 6th and 7th.

To the Members:—In connection with the above announcement, please note the following quotation from a statement made by the late Theodore Roosevelt:

"Every man owes a part of his time to the upbuilding of the profession to which he belongs."

You owe part of your time—your active support and co-operation—to the upbuilding of your association, which means your industry.

Let's all get together at this convention and thresh out our problems. That's what the convention is for, and, incidentally, you will get out of it just what you put in.

Tentatively, our progress stands about as follows:

Mr. A. Hanby Jones, the newly appointed superintendent of the Division of Foods and Dairies, will favor us with an address.

Our old friend, Mr. F. W. Holmes, of Manteno, will give his ideas on "Getting Better Acquainted."

Former President W. A. Schwindeler, of Quincy, will talk about "Service" as applied to the ice cream industry.

Vice-President L. W. Roszell, of Peoria, will deliver an address on "Depreciation, as Applied to Ice Cream Equipment."

Professor H. A. Ruehe, head of the Department of Dairy Husbandry, University of Illinois, will also favor us with a talk.

Mr. Allan D. Cunningham, Chicago, will give some very interesting information about "Refrigeration."

Mr. Z. G. Gassmann, of Olney, will have some authoritative data to pass on to you on the subject of "Viscolizing the Ice Cream Mix."

Mr. Charles Snow, of Bloomington, is certainly well qualified to handle his very interesting subject—"Motor Trucks—their Care and Lubrication." The life of your motor truck depends on your care of it. Get some new angles in this connection.

Professor A. S. Ambrose, Department of Dairy Husbandry, University of Illinois, was one of those in charge of the association's exhibit at the recent State Fair at Springfield. Professor Ambrose will make a detailed report of activities in connection with the exhibit, and you will find his statements particularly interesting.

Mr. W. W. Talcott, advertising manager of the Hydrox Co., Chicago, will give some very valuable tips in relation to "Increasing Ice Cream Sales in Winter."

We shall also have several other speakers, who will deal with subjects of practical interest to you.

The ladies are also invited to attend the convention, and all visitors will be entertained on Tuesday evening, Dec. 6th, at a dinner dance at the Hotel Sherman.

The time spent at the convention will be a gilt-edged investment. You would not pass up such an offer in other lines—don't in this.

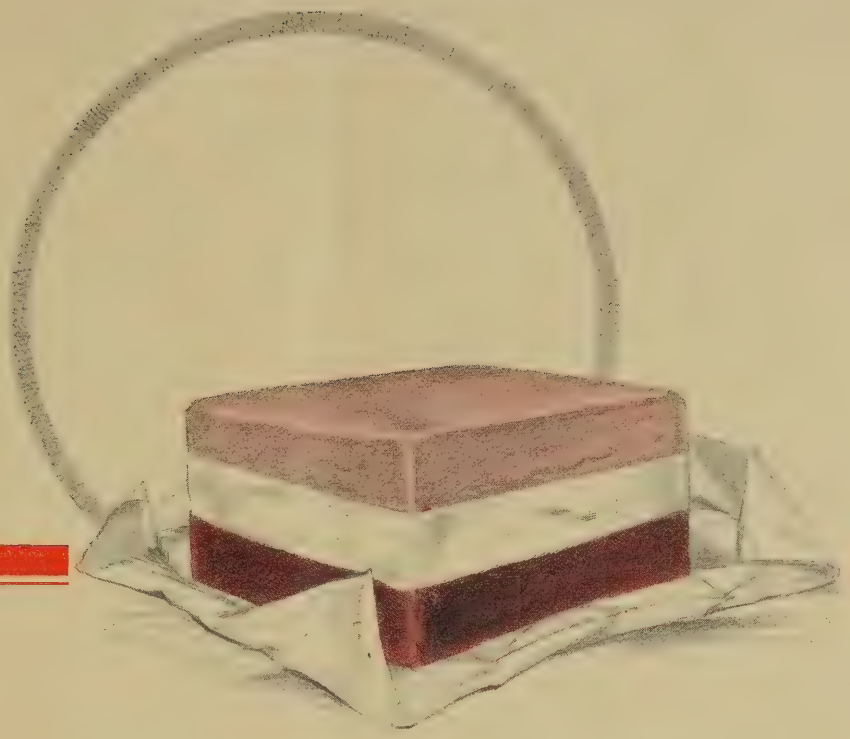
N. LOEWENSTEIN, Secretary.



There are few people who really believe that individually they will ever die.

* * *

People who amount to anything generally have all the room essential to their development.



It is most gratifying

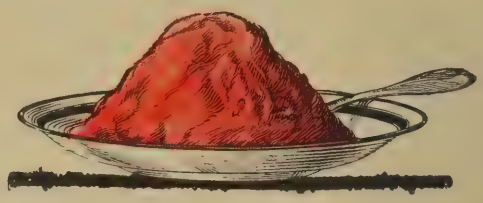
to experience meeting our trade personally as we did at the National Dairy Show last month . . . . . We feel, now, that we understand in a far more significant way how genuinely appreciative folks are . . . . . Of course, we have always felt that B-F Flavors and Colors won on their merits . . . . . Nevertheless, it sort of "warmed the cockles of the heart" to have our visitors voluntarily tell us how much they appreciate the high character of our products and our way of doing business.

The Boerner-Fry Company, Iowa City, Iowa

MANUFACTURERS OF HIGH GRADE EXTRACTS

Ward's

ORANGE-CRUSH
LEMON-CRUSH
and
LIME-CRUSH



Ice Creams and Sherbets

greater gallonage per year

IF you can secure exclusive rights in your territory on "Crush" Ice Cream Compounds you can be sure of new and better trade, greater prestige and increased gallonage each year.

Ice Creams and Sherbets flavored with the "Crushes" are fast gaining a popularity equal to that of the famous "Crush" drinks. Each week more and more manufacturers adopt these flavors as standard. In regular daily trade, or featured as specials, in bricks or bulk, the "Crushes" are easy sellers and rapid repeaters.

The "Crush" compounds are genuine fruit flavors of first grade, imparting to ice creams and sherbets the color, fragrance and flavor of oranges, lemons and limes. They are uniform, giving you full control of flavor and color, and *will not freeze out.* With the "Crushes" no additional color is required.

Of all fruit flavored drinks in the world the "Crushes" are the best-known, most-advertised and fastest selling. The "Crush" ice cream compounds are of the same quality. When you sell "Crush" ice creams and sherbets you are backed by all the past and present advertising of these famous flavors.

The same public that buys the "Crush" drinks in preference to all other fruit flavored beverages will eagerly welcome these flavors in ice cream and sherbets.

There still remain some open territories where we will grant *exclusive rights* to manufacture Orange-Crush, Lemon-Crush and Lime-Crush Ice Creams and Sherbets. These openings are fine opportunities for trade and profit that no progressive ice cream man can afford to overlook. Perhaps *your* territory has not already been taken. It will pay you to write at once for full particulars.

For particulars about Exclusive rights, *SEND THIS COUPON*

"Your Orange-Crush Compound is fine. Our trade is pleased with it." SCHMIDT BROTHERS.
Elkhorn, Wis., June 27, 1921.

"We have had wonderful success with your Orange-Crush, Lemon-Crush and Lime-Crush."
THE WEBER ICE CREAM CO., John J. Weber, Pres.
Jefferson City, Mo., June 22, 1920.

ORANGE-CRUSH COMPANY
314 West Superior Street, CHICAGO.

Plant and Laboratories, Chicago. Research Laboratory, Los Angeles, Calif. English Address: 47 Gt. Tower St., London, E. C. 3. In Canada: Orange-Crush Co., Ltd., Winnipeg.

Fill Out Coupon and Mail It Now

ORANGE-CRUSH COMPANY
314 W. Superior St., Chicago

Send us, without obligation, details regarding exclusive rights in our territory on Ward's Orange-Crush, Lemon-Crush and Lime-Crush Compounds for flavoring Ice-Cream.

Name .....

Street and No. .....

Town and State .....

ICR11

THE ICE CREAM MANUFACTURERS' ASSOCIATION OF WEST VIRGINIA.

Huntington, W. Va., Oct. 31st, 1921,

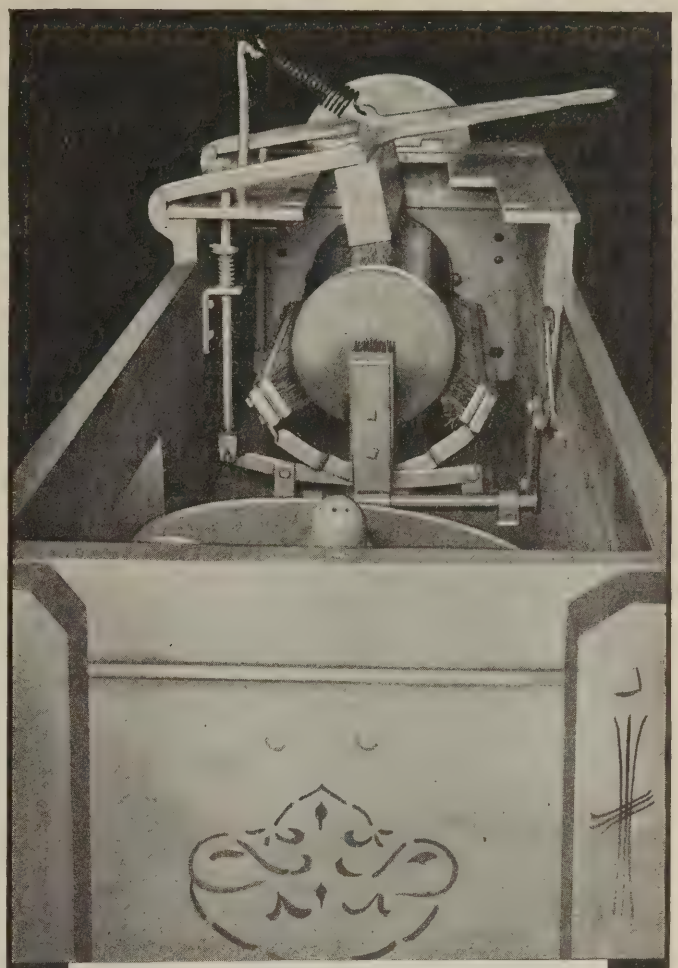
The Ice Cream Review:

The Ice Cream Manufacturers' Association of West Virginia is preparing this year, at its Eleventh Annual Convention to be held at Wheeling, November 21st and 22nd, at the Hotel Windsor, to care for the biggest and best convention West Virginia has ever staged; and the boys of The Mountain State have an individual way of entertaining their members and guests.

The officers of the association are hoping and endeavoring to have a 100 per cent attendance of ice cream manufacturers from within the state, and also a number from bordering states who affiliate with us.

Our program will be complete and the discussions will include those subjects and themes applicable to the ice cream industry, and in addition to the sober and somber part of the convention, the Wheeling committee have provided some eats, music and entertainment that is distinctive and will be dispensed in royal style. I want to insist, and urge upon every ice cream manufacturer in the state that they attend the convention.

C. F. JAMISON, Secretary.



THE washer that *grips the can*, and scrubs it clean, inside and out. And not only that, but the cans are rinsed and sterilized as well.

The patented expanding washing mechanism handles any sized ice cream can without a change.

One man and a Manning does it all.

Used everywhere because it's liked everywhere!

MANNING MANUFACTURING COMPANY

Rutland Vermont, U.S.A.

MANNING EQUIPMENT

WHO ATTENDED THE CONVENTION OF NATIONAL ASSOCIATION OF ICE CREAM MANUFACTURERS?

Four hundred and sixty-two active members, representing 233 firms.

Ninety-eight associate members.

Seventy-four visiting ice cream manufacturers, representing 34 firms.

Sixteen guests.

Five trade associations.

Five trade papers.

NEW ICE CREAM FACTORY FOR BEAVER DAM.

The Storck Brewing Company of Schleisingerville, Wis., has purchased the building on Rowell street now occupied by the Beaver Dam Bottling company from R. H. Martin and in the spring will open an ice cream factory in the city of Beaver Dam, Wis.

It is the plan of the company to install packing machinery only for the freezing and packing of the cream at Beaver Dam, the mixing being done at their plant at Schleisingerville and the cream shipped to Beaver Dam for freezing.

IT COULDN'T BE DONE.

The teacher was teaching a kindergarten class and was making her pupils finish each sentence to show that they understood her. "The idol had eyes," she said, "but it could not—"

"See" cried the children.

"It had ears but it could not—"

"Hear" was the answer.

"It had lips but it could not—"

"Speak" once more replied the children.

"It had a nose but it could not—"

"Wipe it," shouted an enthusiastic pupil.

Booth 186 Grows Reminiscent on the National Dairy Show

Howard W. Black, that nice looking Widlar Company representative from Cleveland, Ohio, enjoyed the National Dairy Show, in fact, he enjoyed it to such an extent that he forgot to write to a certain address back home and he had to make up for it on the last day in St. Paul by purchasing an expensive bundle of "pink fluffies" and sending them via parcels post to pave the way for his return home.

Forrest Harwood, of the John W. Ladd Company, was very much surprised to have someone look over his shoulder on the train enroute to the show and say, "Lend me $50.00, please." But he was right there, willing and ready and immediately produced his wallet, to the great chagrin of the party who asked for the loan. But that party is wondering if a certain parlor "A" didn't have something to do with the willingness of the loan—in other words good "spirits" made borrowing easy for the other fellow. But to the rest of the world we tell the tale—we didn't take advantage of Forrest's kind offer.



D. H. GUNDRUM,
Kilner-Williams Stamping Co.,
A Dixie Flyer.



J. DEVOS,
Sethness Co.—A Dixie Flyer.



P. E. HOOTEN,
Meyer Dairy Equipment Co.
A Dixie Flyer.

C. A. Rogers, that blue-eyed son of C. E. Rogers, Detroit, Mich., in giving an account of a black eye at the National Show explained that it was not a black eye it was just a birthmark. Charlie was told that a birthmark had never been noticed before on his eye and he set out to explain that he got it by trying to get into the wrong berth on the way over. No mention was made as to whether it was a mark of violence from a brunette or a blond. We are pretty good guessers—we think it was a brunette.

John W. Ladd, of the John W. Ladd Company, of Detroit and Cleveland, was seen in the morning passing through the Ice Cream Special from the East and disappeared in parlor "A" from whence he was not seen to emerge the long day through until his exit in St. Paul. But we'll say this for him — the glorious autumn sunset lowering in the beautiful Minnesota hills had nothing on his florid complexion when he was seen to grab a breath of fresh air at Red Wing, Minn., off the back end of the coach. We imagine the air in parlor "A" was stifling—you know—a crowd of men smoking AND!!!!!!!

Harry M. Coleman, the Boston assistant manager of sales for the Essex Gelatine Company, of Boston, Mass., was first found in existence on the excursion boat en route to Witch's Gulf in the Wisconsin Dells. Of course his rolling eastern accent immediately made a hit with the ladies and from then on he was a popular man. We shall never forget what a wonderful pullman pillow this man was either—ask him for details. A humorous story you all ought to be let in on was that Harry, one dark and stormy night, in the Radisson Hotel at Minneapolis, took a "bawth" and after said bath was taken, he paused to read for a few moments, rose from his chair and took another bath—in other words he was physically made doubly pure that night—he forgot he took the first bath. Lawdy! Harry, she must have had an awful effect on you.

F. W. Babcock and his charming wife, Mrs. Vander-Bie Babcock, were discovered on the Ice Cream Special, having met the delegation from the East in Chicago. Mrs. Babcock was a very capable hostess during the Ice Cream Men's Convention in Minneapolis, and made a hit with both the ladies and gentlemen. Mr. Babcock—well we'll say this for him—at that Curtis Hotel dinner dance on Monday night, in Minneapolis, we didn't find a better dancer in the place.

C. E. Rogers, Detroit, Mich., "Daddy" Rogers to Don and Charlie, has got them all skinned for youth, vim, vigor, looks, jollity, altruism and the "pal" spirit. He's the fellow that can get up and make the speeches and the funny part of it is, he can "spooch" for an hour and never say a word about himself — that's wherein he's a wonder. Dad Rogers was the guest also of parlor "A" enroute on the special, and we have absolute proof that he held up his end of the good fellowship which seemed to abound there.

C. T. Hollinger, of the Hudson Manufacturing Company, of Chicago, Ill., was the handiest man at the whole show. In fact, we never met a man so accommo-

More Money In Every Sale

There's more *profit for you* when you sell ice cream out of an ECONOMY CABINET—because it costs you less for icing. Then it costs less in the first place and wears longer than most other cabinets, so it saves you money all the time.

"THE ECONOMY"
Ice Cream Cabinet

is fast taking the place of more expensive styles because it appeals to careful dealers. Made in mahogany and other finishes and coated with waterproof varnish. Insulation is finely graded granulated cork, protected by waterproof felt. Picture shows an Economy Metal Lined Cabinet. Made in from one to four compartments, 12 to 20 quarts. Ask about "Economy" Packing Tubs.



Write or wire for catalog and prices. Prompt shipment if you order at once.

HOMER MFG. CO.

HOMER CITY PENNA.

dating—and he likes the ladies, too. He may not know beans about the proverbial "Boston beans" but he knows vanilla beans to a fare-the-well, at least that's what we heard one lady report.

W. J. Northgrave, managing director of the City Dairy Co., Ltd., Toronto, Canada, was at the Show. They sure make them prosperous looking in Canada. Mr. Northgrave has been with the company for several years, has stuck with them through adversity as well as prosperity and has finally reached a very fine position. A crew of his plant managers were his guests at the National Show and a pleasant trip is reported by all. Mr. Northgrave made an excellent host at a dinner party given at Sheiks in Minneapolis on the evening of his return to Canada. The party was sorry to lose his company at an early hour, due to his return home.

Harold M. Gully, right hand man of Mr. Northgrave of the City Dairy Co., Toronto, Canada, paid his respects to booth 186 and brought with him something which will always be cherished by the recipient. If any of you fellows ever meet Harold down this way again, don't forget to ask him how he enjoyed the scenery on a beautiful moonlight night when an auto excursion motored out the Fairbault road. We are with him in saying it was as enjoyable as any evening we ever spent, and our only regret is that it does not come oftener.

Robert Harbison, of the Patterson Parchment Paper Company, was one of the fellows who wore that cane to perfection which was given away at the Sharples booth for a souvenir of the big show—dear me, that man certainly knows how to dress. Booth 186 was all smiles when Bobbie came that way and brought that Georgie Mayer, of the Paterson Company, with him. Each time they handed that temperature taker, the most popular souvenir at the whole show, given out by C. Doering & Sons, Chicago, to the light complexioned part and the dark complexioned part of 186, the thing registered "Furious". So they know how they stand in that locality.

C. A. Gates, of the King Ventilating Company, of Owatonna, Minnesota, must have sold lots of ventilators during the Show—at least, if he only had the chance to sell them to ladies we know the company would have had to build larger quarters to fill the orders—for he was the perfection of gentility, immaculateness and everything that was good looking and nice. Our only regrets are that we did not have the opportunity of tripping the light fantastic with him, for we heard he was excellency itself at that art, and that they built Owatonna, Minn., so far away from Milwaukee. We hope we see him again sometime.

Don Rogers, the brown-eyed son of C. E. Rogers, Detroit, Mich., was THERE at the show—you know, we'll say he was. No wonder the Rogers booth was so popular at that show, when Dad Rogers can produce products like Don and Charlie for exhibition in his booth, the stuff ought to sell, and it did too, they did a rousing good business and no wonder. If you ever get stuck, boys, and want to think up a good fib for ditching a dinner party when you think there is too much "Helen" it—ask Don—he knows. We liked him better for it too. Much more prosperity and success to you, Don.



C. G. MEYER,
Meyer Dairy Equipment Co.,
A Dixie Flyer.



C. S. MORRIS,
Blanke Baer Extract & Preserving Co.—A Dixie Flyer.



W. PAUL HEATH,
A Good Prospect.

Chas. W. Russ, of the Crown Fruit and Extract Co., Inc., New York City, was at the show, kittie-corner from 186 and he wasn't hard to look at either. In fact, when all other wiles failed in the procuring of one of the Dunn key ring souvenirs, Charles came to the rescue and got one for us. We feel that he must be the boy who put the Crown in the Fruit and Extract Company and we hope he pays us a visit soon, as he promised.

David C. Babcock, sales manager of the Atlantic Gelatine Co., Woburn, Mass., occupied a booth on the mezzanine floor. David likes good eats and we'll let you in on a little story. A fine dinner was all spread out on a dainty table in an adorable booth at a certain Mandarin not far from the Radisson in Minneapolis. David was all set for an enjoyable repast and up the wall came Mamma Cockroach, Papa Cockroach and all the little Cockroaches in an unbroken stream. Of course part of the party squealed and part of the party had to be heroes and in order to forget his disappointment, David got up and and danced. He says they grow them lots larger in the North than in the East. Ask David, you fellows who bump into him, if he ever regretted that the took that "nip" in Mandarin No. 2.

To Make Sanitary Ice Cream

There is No Machine so Easy to Keep Clean and Free from All Contamination as the

U. S. Heavy Duty Freezer

CLEANLINESS is an important factor affecting the flavor and consequently the sale of ice cream. No matter how good the quality of the materials used, a large quantity of ice cream may be spoiled or acquire a very bad flavor because of small traces of material remaining in the machine to sour and decay after the preceding day's work was done.

The greatest care has therefore been taken in the design of the U. S. Line of Heavy Duty Freezers to make them in every respect easy and convenient to clean and flush out.

Fruit and cream passages and valves are made large, simple, and easily accessible.

The hinged cover, which is now standard on all sizes, eliminates the danger from contamination on account of laying it on the floor. It is always in a position convenient for washing at the time that the cylinder is flushed out.

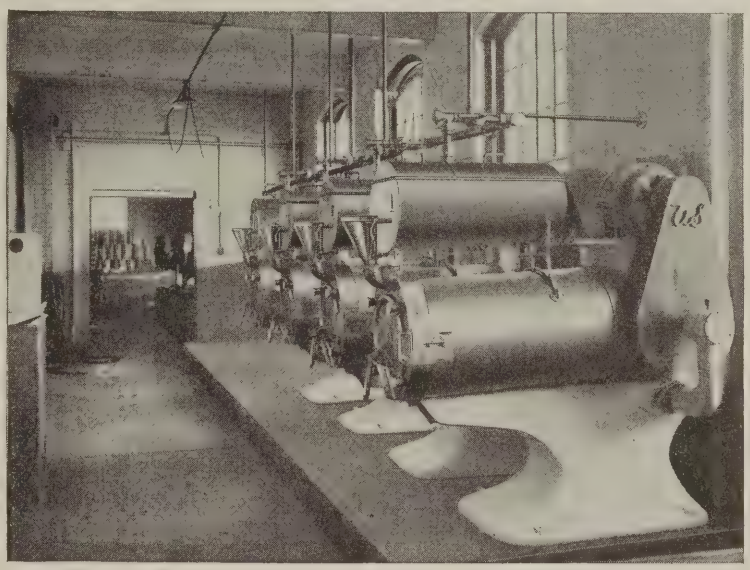
There is no connection between the front end bearing of the whipping device and the cover of the U. S. Heavy Duty Freezer. The advantage of this is readily seen. It makes removing and replacing the cover so easy.

By the use of the improved drive, the difficulties ordinarily attending the removal of the whipping device for cleaning are eliminated. No parts of the shaft bearings or bushings are exposed or pulled out when removing the whipping device, and there is therefore no possibility of polluting the inside of the machine with dirty oil.

To clean the cylinder and whipping device after the day's work is done, the cylinder cover is unlocked by simply turning four milled hand nuts requiring no special tools whatsoever, and is drawn away from the cylinder head and swung back on its hinge. The patented removable bronze bearing and support for the front end of the dasher is easily slipped out, and the whipping device —spaddle and scraper combined— is pulled out after turning it back about a sixth of a turn to disengage it from the driving shaft. If desired, the dasher of the whipping device may be separated from the scraper yoke by merely slipping out a hollow bushing.

Everything to promote saving labor, time, space and power has been embodied in these up-to-the-minute freezers. No other machines are so easy and convenient to handle, so reliable, so economical in power, so durable, so saving in space. On account of their simplicity of operation, they do not require such skilled, high-priced labor to operate them as old-fashioned freezers do. With the larger sizes the same labor may turn out considerably more ice cream with U. S. Freezers.

U. S. Heavy Duty Freezers lower the cost of manufacturing ice cream, and will help both the small and large manufacturers to meet all competition without lowering the quality of their ice cream.



The Experience of a New England Manufacturer with U. S. Heavy Duty 100-Quart Ajax Freezers

IN the plant of the Main Creamery Company, Providence, R. I., where the photograph herewith was taken, they have installed altogether 4—100 quart Ajax U. S. Heavy Duty Freezers. They first installed one U. S. Ajax 100 quart Freezer on trial, and after fair tests of this put in the other three. This installation is therefore the result of the good service rendered by their first U. S. Heavy Duty Freezer. In a recent letter to us regarding these freezers, they say, "They are very satisfactory—do more and better work than we anticipated." They say further that the only "Trouble?" they had was in **keeping down the swell!** This of course, was easily overcome by regulating the brine.

U. S. FREEZER & MACHINE CORPORATION

Union Avenue and Frost Street **BROOKLYN, N. Y.**

Representatives and Distributors in All Parts of the United States and Canada.
May we not arrange to have one call on you?

Jack Hickey, the Chicago man for Elyria Enameled Products Company, of Elyria, Ohio, was a busy boy at the National Show—wow! boy! if this son of Erin could only have sold to ladies instead of men, Jack would have sold more of those milk trucks displayed in their booth than the entire truck companies of the United States sold to the government during the period of the world war. No. 186 didn't have a blow-out with the Elyria booth, but we heard that young Andy Green (the inventor of the Green Gauge) and "Hickey Bub" broke several hearts over in Minneapolis during the course of the week. The Elyria boys put up at the Minneapolis Athletic Club and reported fine treatment there. We hope Jack doesn't forget our telephone number is Grand 764 when he gets to Milwaukee, for he sure is a sight for sore eyes and we saw so much at that show that we have been sightless ever since. Page the eye doctor.

R. E. McFarland, the "big boy" Chicago representative for the Essex Gelatine Co., of Boston, Mass., was not on the Ice Cream Special going over to Minneapolis, guess they were afraid to let him on when they thought of Parlor "A," so they sent him ahead to the city to meet the delegation. Someone was heard to ask Mac one day if he had anything on his hip and he was heard to reply: "Naw, nothin' but a pimple." But whether he was on the special or not, he wasn't forgotten for at least half a dozen introduced us to him by telling us about him and we want to tell you, when we met him—well, he sure came up to expectations. Mac traveled around our way one day with John Mulholland and we noticed quite a crowd followed them away—suppose they were trying to locate where they got "it."

C. L. Berger, sales manager for the York Milk Machinery Co., York, Pa., played some joke on booth 186, but anyhow, the line of talk he got back told him just what the demonstrator thought of our magazine. He knows his firm is advertising in the right paper and he still owes us a box of candy for the way he fooled us; not that we admit that we are easily "strung," but this chap looks as solemn as an owl and we began to think first crack that he was a "feeler" until one of those well-known grins broke over the sedate countenance and spread sunshine where we thought shadows lurked, and honestly, if we hadn't liked him so well and had had a cabbage handy, we would have sure enough flung it at his head for fooling us.

Fred Morris, St. Louis man for the Elyria Enameled Products Co., of Elyria, Ohio, was there in a pretty nifty gray checked suit. We thought at first he was a demonstrator for Kuppenheimer, but we really found out that he has an honest-to-gosh job with Elyria—my, the thought of those "fashion plate" boys in that booth makes the heart in us beat faster—and they were darn nice chaps, too, all of 'em. A novel device in their booth was a phonograph which was hitched up to an electric current connected with a big tank, and one night, shuh, don't speak above a whisper, booth 186 danced with the Apollo Freddie, and pink snakes and purple rabbits, could that boy dance! We expected it of him anyhow; somehow you could just tell from his looks that he could dance. Hope we see him again some time, and he's going to get that handkerchief we promised him, too.

E. H. Huesener, general manager for the Universal Motor Co., Oshkosh, Wis., was up in the corner on the mezzanine floor with his Unimote outfit. Did a lot of business, too. Did you ever meet a tall, nice looking young man who wore his clothes well and had a dear little Cole 8 sport model and a house boat and loves hunting, etc., up Oshkosh way, girls, and not fall for him? We did, and hard. He left us before the show was over, but he came to say goodbye—somehow or other we just hate that word goodbye—it's awful hard to say sometimes. Thanks to the God of Favor, Oshkosh is quite close to Milwaukee and we expect to see him some time in the near future. Ask him, boys, if he thinks he would enjoy a nice duck dinner on a houseboat—then tell him to get busy and invite us to one.

Herbert Barrett, of Hoard's Dairyman, Ft. Atkinson, Wis., came over on short notice and got acquainted with 186 and we want to say that he had the crowds around his attractive booth, and we don't blame the buyers either. It's a fine paper and deserves a big circulation, which we know it already has. He always had some sweet hidden in his pocket for the fair sex and it was muchly appreciated. We almost lunched with him one day and then something happened and we were the ones who were cheated by losing his company. When it comes to the point where a man can sell to another man without any trouble, you know he must be good.



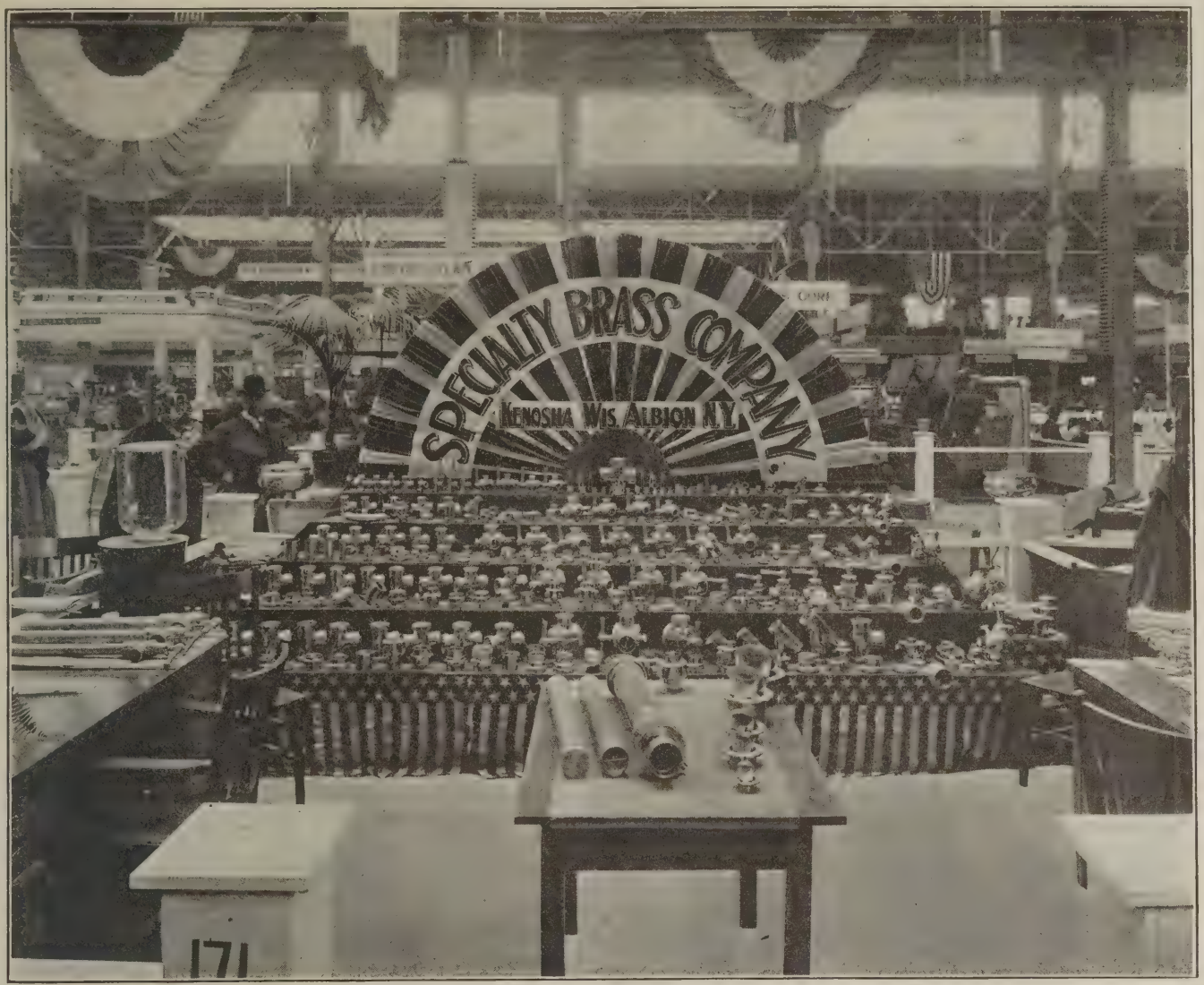
C. W. ESMOND,
Frederick C. Matthews Co.,
A Dixie Flyer.



SALLY MAHONEY,
Hudson Mfg. Co.,
A Dixie Flyer-ess.



L. H. EVERS,
J. G. Cherry Co., Chairman Entertainment Committee—A Dixie Flyer.



Display of
Specialty Brass Co.
National Dairy Show
St. Paul 1921

Everything in Sanitary Piping and Fittings

OUR connections and specialties are distinctive in design and operation—in other words—labor savers—obtainable at nominal cost, an acquaintance with which is worth while.

Let us tell you more about the "Specialty Line"

Write us for your Requirements.

SPECIALTY BRASS COMPANY

KENOSHA, WISCONSIN ALBION, NEW YORK

We wanted him to invite us to come over to his booth to play with that cute little exhibit of a dairy farm he had there and we don't know whether or not we would have left those papier mache cows intact or not, for they were enticing enough to "swipe." Another nice thing Mr. Barrett did was to bring us the pleasure of a personal visit from young Hoard from Ft. Atkinson, who sat down for a few minutes for a pleasant chat.

Walter and Howard Cherry of the J. G. Cherry Co., Cedar Rapids, Ia., were there strong with their able salesmen and they had lots of floor space and they did lots of business—wonderful stuff they had, too. "Abe Lincoln" Cherry helped the tyro in her interview with Gus Ludwig, for which we wish to thank him. Abe Lincoln was a wonderful man in history, but we think Walter Cherry is just as wonderful only he has the handicap of not being quite as nationally and historically known as Abe, but we feel sure that if the Cherry equipment keeps on selling as it did at the show, he will go down in history yet. Walter and Howard may be named "Cherrys," but we think they are really "peaches." 186 sends their regards to that particular salesman who faced our booth—we didn't get his name—careless of us, too—but anyhow we liked him.

Jim "Goo-goo" Simpson of the Elyria Enameled Products Co., is the boy, did you meet him? Well, you missed it if you didn't. We bet all the girls met him—if he couldn't throw the goo-goo eyes through those horn-rimmed glasses no one ever could. And wait! Did you see the steps they had built up real high to that milk truck? Well, goo-goo was seen to strain one eye one evening when some of the inquisitive fair sex climbed thither to see it from the "outside in." Wonderful truck that—see it? Ask Sim where he got the pen he carries so guardedly in his inside pocket. See if he answers with a roll of his eye and then tell us all the good things he says about the member of 186 who is in some way or other connected with the story.

Wyandotte, the J. B. Ford Co., of Wyandotte, Mich., had some booth, all decorated up, with a real live Indian for attraction. The Indian sent a ring over to our booth to our brunette one day—guess her hair was so black he thought she belonged to the light-footed race. That nice blue, and that nice black-eyed salesman from the Ford booth were frequent and constant visitors over at 186 and we like the pins and feather pens they brought to us. We treated the rest of the office force with souvenirs from Fords and they liked 'em. We met Mr. and Mrs. O'Brien, too, from the Ford Co. Nice people, both of 'em.

Jas. A. Fisk, the manager of the Butter Department, with headquarters at St. Paul, Minn., for the Great Atlantic & Pacific Tea Co., was just the nicest big man at the show. He certainly treated the fair sex right at 186. On Tuesday at the show he brought over the customers and all we had to do was sell subscriptions as fast as he brought the victims—but it's all right, they all got a smile free with every subscription and a dinged good magazine besides, so they all got value received. And you know, the day after when Mr. Fisk was missing, business got so dead for a few minutes that we yelled "Prescription" for sale, and you ought to see the crowd we had in a minute's time.

A. L. Baylor, manager of the Engine and Boiler Department for the James Leffel & Company, Springfield, O., will never be forgotten by the light complexioned part of the booth—he's a man of his word and he gave the advertising tyro therein a nice order and it was greatly appreciated, too, for it instilled pep and encouragement therein and the tyro straightway stepped forth from 186 the next morning and sold $1,000 worth on the strength of the encouragement of Mr. Baylor. We think the Jas. Leffel Company have in their personnel an invaluable man in Mr. Baylor—a man of personality and a man commanding the respect of all who know him.

C. J. Bruns, Sales Manager of the Toledo Bottle Cap Co., Toledo, Ohio, was a valuable party to meet at the show—do you know why? Because they gave pens away over there at their booth that were about the nicest souvenirs at the whole show. We'll say, as a message from 186, that she's no piker—we don't want to give her away—but we think her a pretty liberal and good-hearted lady and we'll see that they get those extra copies of our publication that were promised them—one good turn deserves another—and say, by the way, we never wrote with a nicer pen and we think of C. J. Bruns every time we use it, which is almost every minute in the day.

W. B. Wenham and his charming wife were the star furniture people at the National Show. Wenham is a good sport, he helped the novice along in the advertis-



G. E. GERST,
Massey & Massey Co.'s Representative on the Pacific.



PAT HAYDEN,
Solar-Sturges Co.—A Dixie Flyer.



PAUL C. MOJONNIER,
Mojonnier Bros. Co.,
A Dixie Flyer.

At Booth 82 Atlanta Exposition

Where makers of Good Ice Cream may become acquainted with that necessary requisite, Boston

CRYSTAL GELATINE

GRADES

EXTRA B EXTRA B1 EXTRA B2 or LJ

Before contracting for 1922 allow us to submit working samples and quote prices that will compel your attention.

CRYSTAL GELATINE COMPANY

121 BEVERLY STREET BOSTON, MASS.

NEW YORK 14 Ferry St. | PHILADELPHIA 418 Arch St. | CHICAGO 3630 Iron St. | ST. LOUIS 408 Elm St. | SAN FRANCISCO Fairfax Ave. and Rankin St.

Glascote

White Glascote is the standard of quality and service in

THIS means not only the latest thing in glass lined tanks but the most modern and efficient design in performing equipment. It means saving to you in floor space, labor and time. It means sanitation and cleanliness.

A word from you will bring a list of Glascote users, including some of the largest ice cream plants in the United States who are well satisfied with our equipment.

Receiving
Pasteurizing
Ageing
Equipment

THE GLASS COATING COMPANY

NEW YORK, N. Y. 50 E. 42nd Street | CLEVELAND, O. P. O. Box 25, Station H. | CHICAGO 220 So. State Street

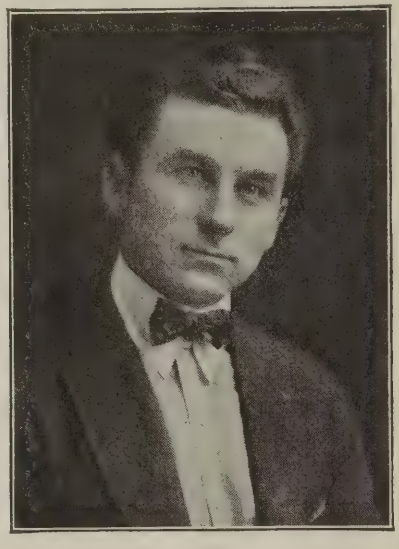
ing line and showed his good spirit and intentions. We'll say this for Wenham—he can either make a party or break it—ask the Roger boys if you don't believe it. A large percentage of the furniture in the booths at the show was furnished by the Chicago Safe and Merchandise Co., with whom the Wenhams are connected.

Melbourn Goodwin, of the Elyria Enameled Products Co., who is the Detroit representative for that concern, just caused the members of 186 to sigh when they looked him over. Wasn't he the clean-cut youth, with the prettiest teeth, and the best looking clothes, and we even liked the way he wore his watch—snap—class—just a darby, that's all. We all wanted to claim that Ford ride before he got away, but we never had the time to get it, for we were a pretty busy booth during the day, and somehow at night, some other girl must have got him. We don't blame him, but it makes us jealous just the same. We sure hope we see him again sooner than that.

Andrew H. Green, of the Green Gauge Co., of Chicago, Ill., was sticking around between the Elyria and the Mojonnier booths. They are going to market the gauge for young Green and it was a peach, too—ought to go big. Andy is a good looking youth, very clever (you all must know that for he invented the gauge), and has pretty hair, although it is getting to the point where he has to use discretion in parting it. On the last day of the show Andy was so tired that he almost forgot his "brought up" and (nearly) peacefully slept while there were ladies in the Elyria booth. We hope he has unlimited success on his invention and we'll give him a boost whenever we can.

Roscoe H. Shaw, manager, Scientific Department of the Louis F. Nafis, Inc., Chicago, Ill., had the booth next to ours. We have come to the conclusion that he must be a smart man to be able to tell all those little tubes







Above—R. W. KELLEY,
A Jack Rabbit.

Left—R. J. MASSEY,
A Dixie Flyer.

Right—O. A. KLINE,
He Belongs to All of Them.

Part of the Massey & Massey Force.

Gus Ludwig, manager of the Butter Department of the Great Atlantic & Pacific Tea Co., Jersey City, N. J., was there life size. Of all the Elks we ever met in our lives we think he is about the nicest one. He's got a beautiful diamond pin, wonderful Elk's tooth charm (about the prettiest we have ever seen, that he dug up himself in the west), and a darling set of diamond cuff links, but he's got a sweeter smile and a more charming manner than any of the men we met at the show who are over 35 years old. When you meet him, boys, kid him along about something that took his eye in booth 186. If he tells you, it's all right, if he doesn't, you'll never know.

W. P. Heath of the Heathmade Carbonated Products Co., Chicago, Ill., paid us a visit at 186, but we were sorry that we didn't know him when he appeared in front of the booth. He's one of those men who goes about in an unassuming manner and does not let you know that he is a really great man. At any rate, we wished we had known before he left us, who he was, for we would have liked to thank him for the lovely dishes of "bully" ice cream that a nice young fellow over in the corner, where they manufactured ice cream all week, brought to us and it was Heathmade Carbonated Ice Cream, too—guess that was why it was so lickin' good.

apart—they put us in mind of our chemistry class back in high school days when we never had our lesson down "pat" and shivered in our boots for fear the old "prof" would call on us and we didn't know the answer to what took place in an experiment we had just finished. We made an awful mistake concerning marital affairs that wasn't solved until almost the last day on board ship. Ask him what it was and watch him laugh.

Charles B. Goudey, sales manager of the Allen Candy Co., Pontiac, Mich., was one of the most popular men at the show—but, between you and me, if he'd have brought samples and distributed them promiscuously throughout 186 and otherwise, he'd have been superpopular. He came to our booth and said, "Don't smile at me, I'm a woman hater." The Brunette said, "So am I." And straightway he changed his mind. By the way, Charles was in that same Mandarin where we thought it was going to be our party until the cockroaches invaded and made it their party instead. If you run across him, ask him if he practiced any of the steps he saw at a certain dance emporium on Wednesday evening of the Dairy Show week, and if he looks out of joint you won't have to ask him, for you'll know he's been practicing them all right.

Custards *Flavors*

Maraschino Cherry Custard
Mothers Egg Custard

"Acme" Custards	An exact reproduction of the EGG or CHERRY.
Egg or Cherry	Contains all of Nature's delicate FLAVORS and BLENDED COLORS. A delicious Ice Cream of quality distinction. Working sample for 40-qt. freeze, 36 cents.
Bisque Ice Cream	An imitation of the real Walnut or Shelbark with a nutty flavor. Served to social and banquets as a special. Working sample for 40-qt. freeze, 60 cents.
Perfecto *(Trade-Mark)*	A tested smoother of special value in the making of smoothe and tough Ice Cream. Never fails to give satisfaction.
Concretes	Orange and Lemon Concretes are made from the finest fruits that grow in Northern Sicily.
Extracts *(Non-Alcoholic)*	36 different kinds of fruit extracts. Special blends of Vanilla.
Colors	Certified colors of all shades, highly concentrated.

ACME EXTRACT & CHEMICAL WORKS

Extracts HANOVER, PENNA. *Colors*



Manufacturers of Pure Food Gelatines

BUILT on all the LATEST, UP-TO-DATE, LABOR SAVING LINES to produce ALWAYS a uniform ARTICLE.

Our RAW STOCK supplied by our OWNERS assures THIS.

Our Grades are of the HIGHEST QUALITY OBTAINABLE, clear to the point of TRANSPARENCY, SWEET, FREE OF ODOR, and GUARANTEED to comply with all STATE and NATIONAL PURE FOOD LAW REQUIREMENTS.

ITS USE INSURES GOOD TEXTURE AND A SMOOTH CREAM.

A TRIAL ORDER will convince you that these are the best grades of GELATINE in proportion to price that can be secured.

You are cordially invited to visit us at our Booth No. 39 Southern Exhibition of the Association of Ice Cream Supply Men, Atlanta, November 28th to December 2nd.

ATLANTIC GELATINE COMPANY

HILL STREET, WOBURN, MASS.

BRANCHES:

NEW YORK
Room No. 3415
Woolworth Building

CHICAGO
Suite 510-11
118 No. La Salle Street

BALTIMORE
1012 Union Trust Bldg.

SAN FRANCISCO
Suite 240 Hansford Block
268 Market Street

W. P. Abel, president and manager of the Impruv-Mix Company, New York, N. Y., came around every little while to "rest his eyes" at our booth. Incidentally he came often and stayed long and gee, we were glad. One day we overheard him invite a certain pretty matron in our booth to take dinner with him at the "damage sheet" pavilion and said lady had to decline on account of having had a previous engagement. We sighed and wished he had asked us. But lo and behold, he came back again another day and that time we fell for the invitation. Well, the outcome of it was, that he was a good waiter, but not good enough, for the boss didn't show up for two hours that day and the "getting hungrier every minute" specimen of health had to miss the pleasure—but we'll give him this much credit—he waited an hour and a half and then gave up in despair to the wailings of his stomach.

Mike Conant, of the John W. Ladd Company of Detroit and Cleveland, got a fine start for the National Show on the train in parlor "A" with the rest of the gang. He's a gretty good looking fellow and he made

C. R. Fairbairn, manager of the Blackmer Rotary Pump Co. of Petoskey, Mich., was on the mezzanine next to Bristol. Nice dark-eyed chap, too, and we wish we could have his wish about the advertising we spoke about and we won't be a back number if we can help him out in any way. We just feel that if a lot of these chaps we met were only the advertising managers instead of salesmen, presidents, vice presidents, secretaries and what-nots, all on their way up the ladder of success, we would have had to buy one of those trucks on display to carry home the orders we would have captured.

Jim Nelson, son of the C. Nelson Manufacturing Company, St. Louis, Mo., was first spied on Sunday afternoon on the mezzanine. We looked askance with wonderment in our minds as to who the distinguished, ministerial personage might be. But you know—it was mutual—for five minutes afterward we knew it was Jim himself. Somehow or other we had a dance booked with him at the dinner dance at the Curtis, but we got lost in the crush and didn't find him until next day.



L. O. THAYER,
Delft Gelatine—A Jack Rabbit.



T. BLAKEMORE,
Morton Salt Co.—A Jack Rabbit.



E. H. PAGE,
Morton Salt Co.—A Jack Rabbit.

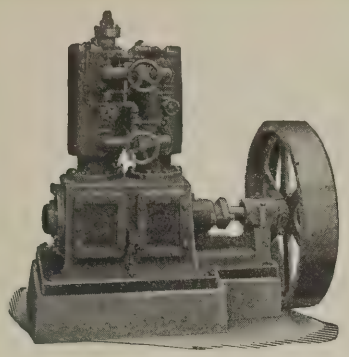
an excellent rival for a few others 186 met on the train. But he stuck to the ship gallantly and he made rather a good showing when he got off the train at St. Paul. We guess it's because he's used to the gaff and he isn't a bit of a give-away to himself. He handles packages and sales nicely and being so gifted he ought to be an asset to the firm.

F. K. Merkley, of the Saginaw Dairy Products Co., appeared at 186 one day and we're a "holy, pink-toed prophet" if he didn't walk away unconquered. What do you think? Did you ever meet a fellow that you just thought must have a nice smile hidden around the corners of his mouth somewhere and then just itch until you saw it break? Well, "Goodie" Elyria brought him back next day and we'll gently murmur that that boy fell that time. He renewed his subscription. Still again a third day he didn't cheat at all, he just smiled often and oftener and then he knew for sure we liked him fine.

L. L. Greeley, of the Bristol Co., of Waterbury, Conn., was on the mezzanine floor and if you didn't meet him you missed the polite, convincing talk this rising young salesman gave on electric pyrometers. He called at the booth and bid us goodbye and we'll say for him, he's all business (even though we wish he hadn't been every minute) and he'll get there.

W. W. Birnstock, general manager of the York Manufacturing Co., York, Pa., stopped at 186, picked up a copy of The Milk Dealer and said, "Best and most comprehensive dairy paper in the world!" That was music in the boothkeeper's ears, and although she didn't know at the time who the donor of such a good-sounding statement was, she soon found out and put it down on her "pier of memory" for future use to which she is now putting it.

John Mulholland, of the John H. Mulholland Co., Philadelphia, Pa., was there. Did you see him? We did, and oh, boy, he was having some time, too! We are still wondering where he got it. He came to our booth one afternoon and they don't perform that operation any better in France when they pinned on the Croix de Guerre, only his slipped a little from the cheek and landed on a dusty neck (you see it was the latter part of the afternoon and that's the condition we found most necks to be in at that time of the day). And say, we met him in the Radisson lobby one night and he stopped to tell us a sad, sad story of how his friend had bought an expensive hat for his wife and she walked into the lobby and no one looked at the hat. Of course, woman fashion, she was bitterly disappointed for she had sunk a few iron men into that bauble. To her husband she



CP Vertical
Refrigerating Machine

"Just Turn A Handle and Whistle"

—are the words in which one writer described the ease of operation of the modern mechanical refrigeration system.

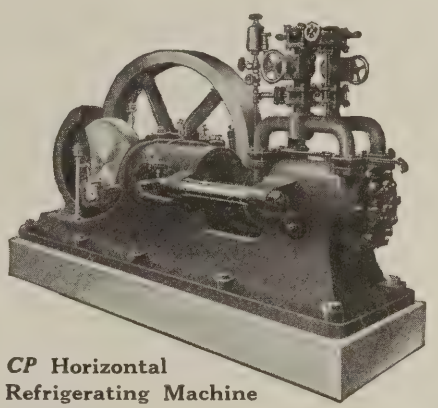
Because of the simplicity of construction of the ***CP*** Refrigerating Systems any employe in your plant can operate it.

Over 5000 ***CP*** Refrigerating Systems have been installed to date and it is unquestionably the most popular system for ice cream plants. It can be obtained in either the enclosed vertical type or the horizontal type in sizes from ¾ ton up.

Learn more about this efficient refrigerating system. Catalogues on request. Address:

The Creamery Package Mfg. Company

Chicago, 61-67 W. Kinzie Street
Buffalo, N. Y., 133-137 E. Swan Street
Kansas City, Mo., 1408-10 W. 12th St.
Minneapolis, 318-20 Third St. N.
Omaha, 113-15-17 S. Tenth Street
Philadelphia, 1907 Market Street
Portland, Ore., 6-8 N. Front St.
San Francisco, 699 Battery Street
Toledo, Ohio, 119 St. Clair Street
Waterloo, Ia., 406-8 Sycamore St.



CP Horizontal
Refrigerating Machine

ESTABLISHED 1879

Gelatine is the most efficient of all stabilizers for Ice Cream

WHITTEN'S GELATINES Are Standard

Guaranteed to Comply with all National and State Pure Food Laws

STRENGTH, PURITY AND UNIFORMITY GUARANTEED

MANUFACTURED BY

J. O. WHITTEN COMPANY

Main Office and Works

Winchester, Mass.

Woolworth Bldg.
NEW YORK CITY

20 E. Jackson Boulevard
CHICAGO, ILL.

CLAIMS—PROOF

The **Viscolizer**

Positive Performance Proven

Claims Mean Nothing.
Proof Shows Up the Truth

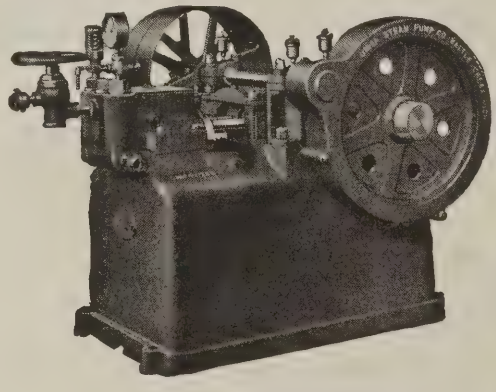
Mr. Ice Cream Manufacturer —Mr. Milk Dealer:

You are very close to your business and know of those men who have made a great reputation and some profit on quality products.

Chances are 3 to 1

The **Viscolizer**

is responsible more than any other piece of apparatus, or method, for the superior product and increased profit.



Never mind what we claim—write us for list of users—prove to yourself the merits and advantages of *The Viscolizer* by writing to those who have had long and varied experience with it.

Write for the list of users—it is yours.

Other Ladd Specialties:
Blue Line Pressure Washer
International Milk Filter
Rogers Brick Maker
Electric Branding Iron

John W. Ladd Company
DETROIT CLEVELAND

Cherry-Bassett Company
BALTIMORE PHILADELPHIA

said, "Dearie, why do you s'pose no one looks at my new hat?" He replied, "Why don't you wear 'em longer and give 'em a chance?"

Anyhow the show is over and we had the time of our lives as well as the satisfaction of having done a very, very good business for the company, and gee, we just wish from the bottom of our hearts that we meet you all again in the near future.

BY THE BLONDE AND THE BRUNETTE.

⚜

BUFFALO EXPOSITION A BIG SUCCESS.

More Exhibits and a Larger Attendance Than Ever Before.

The Buffalo Exposition, put on by the Association of Ice Cream Supply Men, Oct. 30 to Nov. 5, was the best in all particulars ever held by the Association. Elmwood Music Hall was an ideal location and the show was artistic as well as complete.

Ice cream manufacturers were in attendance from many states, and a liberal number came from Canada. The different entertainment features were well attended and enjoyed. The complete list of exhibitors is as follows:

H. H. Miller Industries Co., Canton, Ohio.
Commercial Truck Company, Hunting Park & Rising Sun Aves., Philadelphia, Pa.
Baeder Adamson Company, Philadelphia, Pa.
Wolf & Lavenson, Mt. Vernon & Fifteenth Sts., Philadelphia, Pennsylvania.
Emery-Thompson Machine Co., 271 Ryder Ave., New York.
Ward Motor Vehicle Company, Mt. Vernon, New York.
Auto Car Company, Ardmore, Pa.
The Glacifer Company, 102 Merrimac St., Boston, Mass.
G. R. Ryan Mfg. Co., Rochester, New York.
John J. Grothe Co., Woburn, Mass.
Grand Rapids Table Company, Grand Rapids, Michigan.
Sealright Company, Fulton, New York.
Ivan B. Nordhem Company, 8 W. 40th St., New York.
Mojonnier Bros. Co., 739 W. Jackson Blvd., Chicago, Ill.
Cherry Bassett Company 1106 Arch St., Philadelphia, Pa.
Wolf Advertising Company, 43 W. 36th St., New York.
Sanitary Tinning Co., 3757 E. 93rd St., Cleveland, Ohio.
Grand Rapids Cabinet Co., Grand Rapids, Mich.
Star Extract Works, 8 W. Broadway, New York.
Patterson Parchment Paper Co., Passiac, New Jersey.
Virginia Tub Company, Bristol, Virginia.
Henry H. Ottens Mfg. Co., Inc., 129 S. Front St.. Phila., Pa.
Frederick C. Mathews Co., 63 Mullett St., Detroit, Mich.
Rex Extract Co., 257 Pacific St., Brooklyn, N. Y.
Meyer Wagon Works, 216 Elm St., Buffalo, New York.
J. B. Ford & Co., Wyandotte, Mich.
Allman Gas Engine & Machine Co., 461 Canal St., New York.
Emery & Company, 36 India St., Boston, Mass.
Walker Vehicle Company, 87th & State Sts., Chicago, Ill.
Harold A. Sinclair, 160 Broadway, New York.
The Schuster Company, Clevelond, Ohio.
United Reinforcing Rim Company, Canton, Ohio.
Orange Crush Co., 314 W. Superior St., Chicago, Ill.
Buffalo Foundry & Machine Co., Buffalo, N. Y.
Carbondale Machine Co., Carbondale, Ohio.
Buffalo Cabinet Company, Buffalo, N. Y.
Beacon Advertising & Sales Co., E. Merrick Road, Freeport, New York.
S. Gumpert & Company, Bush Terminal, Brooklyn, N. Y.
Edison Storage Battery Co., Orange, N. J.
Hudson Mfg. Co., 119 N. Union Ave., Chicago, Ill.
C. Nelson Mfg. Co., St. Louis, Missouri.
Wm. A. Hazard & Company, Chicago, Ill.
Merrell-Soule Sales Corporation Syracuse, N. Y.
Oakes & Burger Co., Cattaraugus, New York.
Swift & Company, Chicago, Ill.
John W. Ladd Company, Detroit, Mich.
Rice & Adams Corporation, 166 Chandler St., Buffalo, N. Y.
Corrizo Extract Co., 211 W. 20th St., New York.
Milligan & Higgins Gelatine Co., 222 Front St., New York.
Dominion Chemical Co., Syracuse, N. Y.
The McSavaney Company, Springfield, Ohio.
Crown Fruit & Extract Co., Inc., 418 W. Broadway, New York, N. Y.
The Wisner Mfg. Co., New York.



Our Dairy Engineering Department Can Answer That Pumping Problem. Is Your Name On Our Mailing List? Ask for Bulletin Number 57.

VISCOLIZERS TOO!



Tags slip in easily

TAG-BAKS
WILL
Bring your tubs back

FURTHERMORE, TAG-BAKS tell you just who have the tubs that do not come back as quickly as they should.

TAG-BAKS are an economical appliance easily fastened to shipping tubs. They become a part of a practical working system that accurately checks up tub returns, shipments and orders.

Our circular tells in detail what Tag-Baks are and what they can do for you. Get one.

TAG-BAK

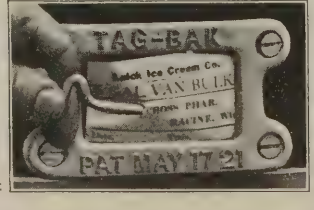
183 Ogden Avenue

MILWAUKEE WISCONSIN



This "projection" on back prevents tag from slipping out

Only a sharp pointed tool deliberately inserted can remove tag



Sanitary Products Corp. of America, Philadelphia, Pa.
Davis Cooperage Company, Martinsville, Ind.
The Ice Cream Trade Journal, 171 Madison Ave., New York.
Richter Mfg. Co., 144 Provost St., Jersey City, N. J.
Chalmers Gelatine Sales Corp., Richmond, Virginia.
Keiner Williams Stamping Company, Richmond Hill, N. Y.
Brown & Shaw, 29 Broadway, New York.
John Wood Mfg. Co., Conshohocken, Pa.
H. Kohnstamm & Co., 83 Park Place, New York.
Crescent Mfg. Co., Occidental Ave. & Jackson St., Seattle, Washington (New York City).
Homer Mfg. Co., Homer City, Pa.
Thomas W. Dunn Co., 248 Front St., New York.
B. B. Scott, 24 Ormsbee Ave., Providence R. I.
K. W. Schantz, Inc., 76 Main St., Buffalo, N. Y.
David Michael & Co., Inc., Ridge Ave. & Green St., Phila. Pa.
J. A. Whitten Co., Winchester, Mass.
The Daigger Corporation, Chicago, Ill.
Essey Gelatine Co., 40 N. Market St., Boston, Mass.
B. Heller & Co., 40th St. & Calumet Ave., Chicago, Ill.
Menasha Printing & Carton Co., Menasha, Wis.
Cosmopolitan Lithographing Co., 141 E. 25th St., New York.
H. A. Johnson Co., 221 State St., Boston, Mass.
C. J. Van Houten & Zoon, New York—Chicago.
Davis Watkins Dairymen's Mfg. Co., 130 N. Wells St., Chicago, Illinois.
Cone Company of America, Long Island City New York.
Douglas Walters Mfg. Co.
Solar Sturges Mfg. Co., Congress & Green Sts., Chicago, Ill.
Creamery & Milk Plant Monthly, 327 S. La Salle St., Chicago, Illinois.
The August Maag Co., 509 Lombard St., Baltimore, Md.
The Crystal Gelatine Co., 121 Beverly St., Boston, Mass.
Sweets, 803 Central Bldg., Atlanta, Ga.
Curtis F. Sisco Co., Inc., 10 E. 43rd St., New York.
John H. Mulholland, 145 N. 12th St., Philadelphia, Pa.
The Widlar Co., 740 Bolivar Rd. S. E., Cleveland, Ohio.
Elyria Enameled Products Co., Elyria, Ohio.
National Paint & Varnish Co., 8707 Kinsman Rd., Cleveland, Ohio.
York Mfg. Co., York, Pa.
Parker-Brawner Co., Washington, D. C.
Richmond Cedar Works, Richmond, Va.
The Everhard Container Co., 1128 Munsey Bldg., Washington, D. C.
Steuben Advertising, Canisteo, New York.
The Cleveland-Akron Bag Co., Cleveland, Ohio.
Anheuser-Busch Sales Corporation, 2367 Logan Blvd., Chicago, Ill.
Smith-Hecht Co., Indianapolis, Ind.

"PERSISTENCY."

"The constant drop of water
Wears away the hardest stone,
The constant gnaw of 'Towser'
Masticates the toughest bone,
The constant, cooing lover
Carries off the blushing maid,
And the constant advertiser
Is the man who gets the trade.

—The Trumpeter.

...LET US DO YOUR...
PRINTING

MAGAZINES AND HOUSE ORGANS
CONVENTION PROCEEDINGS
MAILING FOLDERS—CATALOGUES
CIRCULARS—LETTERHEADS
BUSINESS CARDS — BILL HEADS
STATEMENTS — ENVELOPES

HIGH grade work at reasonable prices. Send us a sample of what you want and we will quote you prices.

THE OLSEN PUBLISHING CO., 210 Sycamore St., Milwaukee



WHAT are you doing to make the women congratulate your dealer on his ice-cream and his service and his up-to-dateness?

It certainly gives the drug-store man a nice, warm glow around the heart when a woman steps into his store and says: "You've got us all into the habit of eating ice-cream right through this cold weather!" or makes some other comment of appreciation.

And he knows that he owes it to your co-operation and creative salesmanship because he couldn't possibly afford to work up the ice-cream appetite in his neighborhood unless you got behind and pushed.

There is a Mathews way of getting the women doing this very thing; no hot-air about this statement; we've already accomplished it in some cases where the ice-cream manufacturer himself wasn't what you'd call a live-wire.

So—what could we do for you? Echo answers *"what?"* Let's do it! And *now* is the Accepted time! Write us today when you'd like to see a Mathews man.

FREDERICK C. MATHEWS COMPANY
"SERVANTS TO THE DAIRY INDUSTRY"
P. O. BOX 834 DETROIT, MICH.

THE ASSOCIATION OF ICE CREAM SUPPLY MEN
MEMBER

This four-page insert was produced complete by the Frederick C. Mathews Company



Put this and other appealing illustrations over your dealers' fountains

MEMBER

FREDERICK C. MATHEWS CO. P. O. BOX 834 DETROIT, MICH.

"Servants to the Dairy Industry"

MEMBER

ICE CREAM A PRODUCT OF HIGH FOOD VALUE.

The following article was written for the Milwaukee Sentinel by Stuart T. Todd, milk and dairy sanitarian, who has just completed an analytical survey of conditions affecting the ice cream supply especially as related to sanitary conditions and methods employed in handling. The article has been written with a view to the encouragement of greater consumption of ice cream.

"Ice cream, 'a food, not a fad,' is a product the high food value of which is not sufficiently well known or too often ignored. It, like milk, is cheap in Milwaukee, ranging from 10 to 25 cents cheaper per gallon wholesale than in most other cities. In butter fat content it is richer than the average, state law requirements assuring a product of at least 12 per cent. Other states are as low as 8 per cent, and the prices are considerably higher. Yet this year's ice cream consumption in Milwaukee will be almost a gallon per person less than during 1920.

Blame Retailers for Price

The retail dealer to some extent is responsible for this shrinkage. The manufacturer long ago recognized the tendency of the times toward price reduction and when the cost of raw material to him was shaded he almost immediately passed it on to the dealer. But the dealer was backward in letting the consumer in on the reduction. Only recently has any perceptible decrease in retail prices been shown here. This has had a tendency to hold back consumption, the public refusing to buy as formerly at prices it believed unwarranted.

Many people look upon ice cream as a confection, losing sight of the fact that it is one of the most wholesome and desirable of foods. Too many mothers discourage the "ice cream habit" in their children, because they do not appreciate its value as a builder in youth. Every child should be given as much ice cream daily as it will eat. It will save "piecing" and aid vigor and growth, at the same time cutting down the necessity for other foods of less nutritive value and more expensive. As a desert ice cream tops off the meal with a wholesome and delicious dish, and the housewife, by using it more frequently on her table, will lighten her labors and reduce her household budget materially.

Ice cream in the quantities designated below equals in food value any of the portions of foods shown, and contains in addition a vital food substance essential to growth and health not found in others except eggs and milk:

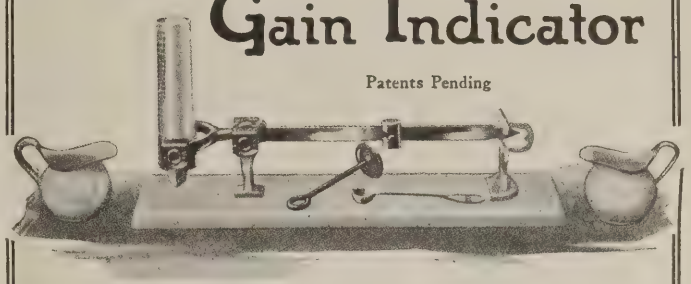
	Ice Cream (1 quart)
Beefsteak (round)	1 2/3 pounds
Chicken	3 3/4 "
Ham	4/5 "
Eggs	14 "
Codfish	3 4/5 "
Beans	1 3/4 "
Peas	4 1/3 "
Tomatoes	10 3/4 "

Expenditure for Food

	Now (pct.)	Should be (pct.)
Meat and fish	35	12
Milk and its products	20	44
Bread and cereals	15	13
Fruits and vegetables	13	17
Eggs	6	6
Sugar	5	3
Miscellaneous	6	5
Total	100	100

Petersen's Ice Cream Gain Indicator

Patents Pending



A simple and reliable device for determining the freezing gain or "over-run" in ice cream

A tester of exceptional value as a means of checking freezer efficiency. Shows deficiencies caused by improper refrigeration or handling of mix. Under normal conditions it enables ice cream makers to control freezing gain in accordance with solids content of raw material,—producing a finished ice cream uniform in texture and food value.

Absolutely fool-proof. No adjustment to make. Easy and quick to operate.

The durability, simplicity and reasonable price of Petersen's Ice Cream Gain Indicator entitles it to a place in every ice cream plant. **Fully guaranteed as to materials, workmanship and efficiency.**

Order to-day through your supply house or direct from us.

Coster-Petersen Co.

2531-33 Homer St.

Chicago, Ill.

Powdered Milk Market Report for October, 1921

By Bureau of Markets and Crop Estimates, United States Department of Agriculture.

Prices Paid for Raw Material Delivered During October, 1921, F. O. B. Factory.

Geographic Sections	Whole Milk			Buttermilk per gallon	Skimmilk per cwt
	Price per CWT	Butterfat Basis	Allowance 0.1 p. c. fat		
New England	$1.91	3.5	4—5	...	8
Middle Atlantic	2.00—2.47	3.5	4—5	...	8
South Atlantic	.....	...	....	...	...
E. North Central	1.50—2.00	3.5	4—5	...	8—40
W. North Central	2.00—2.03	3.5	3	¾	8—40
South Central	.....	...	....	...	8
Northwestern	1.85—2.15	3.5—3.8	5	....	...
Southwestern	2.00—2.10	3.5—4.0	....	...	...

Manufacturers' Wholesale Selling Prices During October.

The wholesale prices given below are based on reports of manufacturers covering actual sales made to jobbers, wholesale grocers, and similar buyers on basis of cash or short time credit with freight included to distributing point in each section.

Prices in the column headed "Range of Prices" are the highest and lowest reported by all firms. Those given under "Bulk of Sales" are the highest and lowest reported by different firms as the "bulk of sales" prices.

Geographic Sections		Whole Milk Powder		Skim Milk Powder		Buttermilk Dried	
		Range of Prices	Bulk of Sales Prices Fresh Goods	Range of Prices	Bulk of Sales Prices Fresh Goods	Range of Prices	Bulk of Sales Prices Fresh Goods
N. E.	Case	.....	.....	10½–25	10½	11.9	11.9
	Bulk	26–34	27–34	9–14½	10–13	6.4–11½	8–11.5
M. A.	Case	42	42	20	20	9–11.9	9–11.7
	Bulk	28–34	28–34	7–13	7–13	6¼–12½	7½–11.5
S. A.	Case	.....	.....	.....	....	.....	.....
	Bulk	28–34	28–34	9–13	10½–13	11½–12½	11½–12½
E. N. C.	Case	36–50	36–50	10½–11½	10½	9½	9½
	Bulk	25–43	28–34	7½–13	7½–13	5–12½	7.3–11½
W.N.C.	Case	.....	.....	.....	....	11½–13½	12½
	Bulk	28–34	28–34	7–13	7½–13	3½–12½	3½–11½
S. C.	Case	.....	.....	.....	....	10½	10½
	Bulk	28–55	28–34	9–13	9½–13	6½–12½	6½–11½
N. W.	Case	.....	.....	.....	....	10½	10½
	Bulk	28–35	28–35	6–14	7¾–14	11½–12½	11½–12½
S. W.	Case	.....	.....	.....	.....	10–10½	10½
	Bulk	28–35	28–35	9–14	9–14	6–11½	6–11½

NOTE—Bulk goods includes that sold in barrels and drums. Case goods includes that sold in tin containers.

NOTE–Skimmilk powder for export trade was reported at 8½c to 13c per lb., f. a. s. Atlantic seaboard and 13c per lb., f. a. s. Pacific seaboard.

New England (1)—Maine, New Hampshire, Vermont, Massachusetts, Rhode Island and Connecticut. Middle Atlantic (2)—New York, New Jersey, Pennsylvania. South Atlantic (3)—Delaware, Maryland, Dist. of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia and Florida. East North Central (4) Ohio, Indiana, Illinois, Michigan and Wisconsin. West North Central (5)—Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska and Kansas. South Central (6)—Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, Oklahoma and Arkansas. Northwestern (7)—Montana, Wyoming, Idaho, Washington and Oregon. Southwestern (8)—Colorado, New Mexico, Arizona, Nevada, Utah and California.

(Continued on Page 60)

PLEASE MENTION THE ICE CREAM REVIEW WHEN WRITING TO ADVERTISERS



Just Come Right In—

The "Welcome" Sign Is On Our Door
at the
Hotel Ansley, Atlanta, Georgia
Southern Association of Ice Cream
Manufacturers Convention

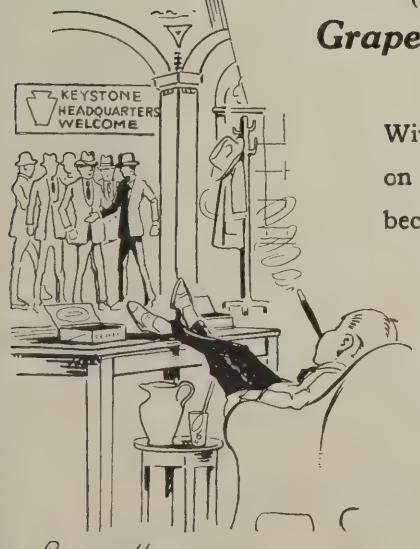
Make Your Xmas Merrier

By Having a Good Supply of Holiday Specials

By ordering now, you'll prevent all worry later. Deliveries will be made promptly. Service will be sure to satisfy—and you'll be able to get started in plenty of time.

Order Now—

Orange Pineapple (the original) ***Raspberry Pineapple***
Grape Pineapple ***Tutti Frutti***



RIGHT AT HOME

Without question, the most delicious preparations on the market. Go farther than most others because of their richness and special processing.

Dept. IC-2

Keystone
Fruit Products Co.
CINCINNATI OHIO



FAVORS

Condensed and Evaporated Milk Market Report

By Bureau of Markets and Crop Estimates, U. S. Department of Agriculture.

Manufacturers Wholesale Selling Prices of Condensed and Evaporated Milk (October)

The wholesale prices given below are based on reports made by manufacturers covering actual sales of condensed and evaporated milk to jobbers, wholesale grocers and similar buyers, delivered at manufacturers' distributing points on basis of cash or short time credit. Foreign prices are given as F. O. B., or F. A. S., points of export in section in which sales were made.

Geographic Sections	Sweetened Condensed, Bulk, Per Cwt. Unskimmed	Sweetened Condensed, Bulk, Per Cwt. Skimmed	Unsweetened Evaporated, Bulk Per Cwt. Unskimmed	Unsweetened Evaporated, Bulk Per Cwt. Skimmed
New England—				
Range	8.90—11.00	4.51—7.50	.....	4.00—4.75
Average	10.10	6.15	....	4.38
Mid. Atlantic—				
Range	8.90—11.00	4.74—7.50	8.25—12.22	2.26—7.40
Average	10.08	5.54	9.96	3.96
So. Atlantic—				
Range	8.90—11.00	5.00—7.50	.....	3.67—4.00
Average	9.97	6.29	10.30	3.84
E. N. Central—				
Range	8.90—11.00	4.00—9.00	6.45—10.50	2.50—6.45
Average	9.77	5.97	8.06	4.36
W. N. Central—				
Range	8.90—11.00	4.50—7.50	8.33—8.71	.....
Average	9.91	6.30	8.52	3.88
So. Central—				
Range	8.90—11.00	6.00—7.50	.....	.....
Average	9.96	6.72	.....	3.50
No. Western—				
Range	8.90—12.00	6.66—8.00	.....	4.28—4.50
Average	10.73	7.43	.....	4.43
So. Western—				
Range	8.90—11.00	6.66—7.50	.....	.....
Average	9.95	7.08	10.00	.....
United States—				
Range	8.90—12.00	4.00—8.00	6.45—12.22	2.26—7.40
Average	10.04	6.15	9.10	4.15

New England—Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, Middle Atlantic—New York, New Jersey, Pennsylvania. South Atlantic—Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida. East North Central — Ohio, Indiana, Illinois, Michigan, Wisconsin. West North Central—Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas. South Central—Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, Oklahoma, Arkansas. North Western—Montana, Wyoming, Idaho, Washington, Oregon. South Western—Colorado, New Mexico, Arizona, Utah, Nevada, California.

CONDENSED AND EVAPORATED MILK FACE LIGHTER DEMAND.

With export business a diminishing factor and domestic demand offering comparatively little support, condensed and evaporated milk markets have again assumed an unsatisfactory position. This growing lighter demand, in the face of quite heavy supplies accounts for lower selling prices which during September were reduced to both foreign and domestic trade. But with prices for milk used in manufacturing remaining practically unchanged, even up through the current month, per case costs have been relatively higher and some manufacturers report that prices quoted were almost at cost. The heavy export movement during August and September was largely composed of shipments for relief purposes, and it is stated that practically the last of these orders have been filled or will be filled during October. Other export business has assumed small proportions compared with what many dealers have expected, and the general situation is not regarded as encouraging. It is expected that the more commonly known brands will be the last to feel the pressure of the dullness which appears prevalent.

August and September Exports Heavy.

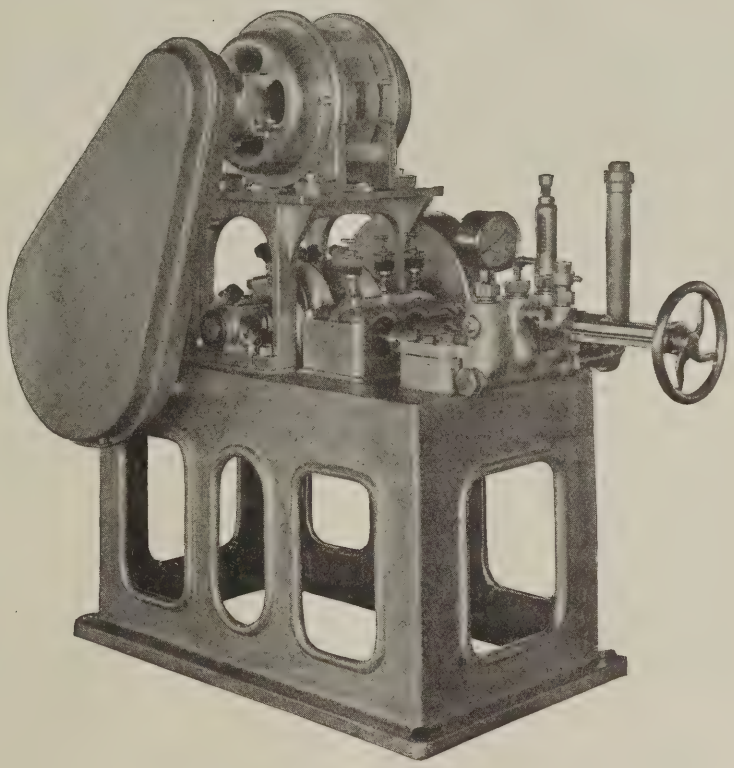
Evaporated milk again constituted the bulk of exports during September, and total shipments of this class of goods were 6,000,000 lbs. heavier than during August. September movement of evaporated milk into export channels amounted to almost 29,000,000 pounds, over three times the amount of condensed milk shipped from domestic ports. The excessively heavy movement of evaporated goods is said to be due to sugar prices, which in Europe, where beet sugar is obtainable, are relatively lower than in this country. By purchasing evaporated milk there is a saving not only through a lower per case price, but also because of the absence of sugar which can be supplied cheaper and without the addition of freight costs. European countries, the United Kingdom, France and Germany were the heavy receivers of both evaporated and condensed milk during September. The combined exports for the first nine months of this year were over 137,000,000 lbs. less than during the same period in 1920, and it was only during August and September that this year's movement was heavier than corresponding months a year ago.

Stocks Backing Up.

Statistical reports from manufacturers confirm what has been said regarding the general condition of the market. While the latest available reports of stocks are as of October 1, current comment suggests no material

(Continued on page 60)

"—My Gaulin Homogenizer has worked long hours every day *for 10 years*, and I wouldn't change it now for a new one of another make"



IT'S not unusual for a Gaulin Homogenizer to be in active operation for ten years or more. Such plants as Abbotts Alderney Dairies, Philadelphia; Ives Ice Cream Co., Minneapolis; Tait Bros., Springfield, Mass.; McBride Bros. and Knobbe, Chicago; Waterloo Ice Cream Co., Waterloo, Iowa, and many others have used their Gaulins and kept them mighty busy for more than ten years each, and the machines are as efficient as they ever were. And their upkeep costs have been negligible.

Although it is not surprising that a Gaulin Homogenizer lasts indefinitely, considering the fact that it was properly designed in the first place and then made of the best material by skilled workmen, yet it is a fact that other machines purporting to do what the Gaulin does are ready for the scrap heap in 3 or 4 years' time.

In addition to giving long service, the Gaulin turns out superior goods. Each particle homogenized must pass through the Gaulin Spring Homogenizing Valve, which crushes it under pressure of 3000 lbs. Furthermore the spring valve feature prevents clogging of the valve as is the case with rigid spring machines.

Manufactured by

THE MANTON-GAULIN MFG. CO., 11 Elkins St., Boston, Mass.

Distributed by

THE CREAMERY PACKAGE MFG. COMPANY

CREAMERY MACHINERY
MILK AND CREAM HANDLING MACHINERY
CHEESE MAKING MACHINERY

SALES BRANCHES—(Write to nearest one)

Chicago, Ill., 61-67 W. Kinzie St. **Philadelphia, Pa.,** 1907 Market St.
Buffalo, N. Y., 133-137 E. Swan St. **Portland, Oreg.,** 6-8 N. Front St.
Kansas City, Mo., 1408-10 W. 12th St. **San Francisco, Cal.,** 699 Battery St.
Minneapolis, Minn., 318-20 3d St. N. **Toledo, Ohio,** 119 St. Clair St.
Omaha, Neb., 113-15-17 So. 10th St. **Waterloo, Ia.,** 406-8 Sycamore St.

ICE CREAM MAKING MACHINERY
REFRIGERATING SYSTEMS
DAIRY MACHINERY AND SUPPLIES

MANUFACTURERS UNSOLD STOCKS OF CONDENSED AND EVAPORATED MILK

Includes all stocks held by manufacturers which were not sold or under contract for delivery on unfilled orders.

Commodity	Total Unsold Stocks Oct. 1, 1921		Comparison of Unsold Stocks For Same Firms Reporting			% Inc. or Dec.
	Firms	Pounds	Firms	Sept. 1, 1921 Pounds	Oct. 1, 1921 Pounds	Oct. 1, 1921 over Oct. 1, 1920
Condensed Case Goods	11	24,859,158	11	21,916,386	23,707,518	— 61
Condensed Bulk Goods	42	15,865,432	35	18,686,936	13,509,867	+153
Evaporated Case Goods	35	69,079,525	30	53,320,503	61,281,999	—48
Evaporated Bulk Goods	22	409,094	19	517,419	383,374	—32
Total	..	110,213,209	..	94,441,244	98,882,758	—46

UNFILLED ORDERS FOR CONDENSED AND EVAPORATED MILK

Includes the amounts of each commodity for which orders have been received by manufacturers whose orders were in excess of their unsold stocks.

Commodity	Total Unfilled Orders Oct. 1, 1921		Comparison of Unfilled Orders For Same Firms Reporting			% Inc. or Dec.
	Firms	Pounds	Firms	Sept. 1, 1921 Pounds	Oct. 1, 1921 Pounds	Oct. 1, 1921 over Oct. 1, 1920
Condensed Case Goods	..	.....	1	339,000	.....	—100
Condensed Bulk Goods	..	.....	..	.....	.....	.....
Evaporated Case Goods	9	4,461,297	8	6,997,089	4,461,297	+356
Evaporated Bulk Goods	..	.....	..	.....	.....	.....
Total	..	4,461,297	..	7,336,089	4,461,297	+111

MONTHLY POWDERED MILK MARKET REPORT.

(Concluded from Page 56)

Manufacturers' Total Stocks of Powdered Milk.

Includes all stocks held by manufacturers reporting whether manufactured by them or purchased from others; whether on their own premises; in storage; or in transit (unsold) for warehouse consignment; and whether sold or contracted for sale but not delivered.

TABLE I.

Total Stocks of Powdered Milk Products.

Commodity	Code	Pounds Oct. 1, 1921	Pounds Oct. 1, 1920
Whole Milk Powder	Case	312,612	713,370
	Bulk	987,520	1,417,009
Skim Milk Powder	Case	168,082	491,212
	Bulk	7,935,914	11,374,217
Park Skim Milk Powder	Case	.....	.....
	Bulk	3,391	.....
Cream Powder	Case	.....	.....
	Bulk	98,690	83,833
Dried Buttermilk	Case	84,000	.....
	Bulk	2,510,420	1,279,051

Manufacturers' Unsold Stocks of Powdered Milk.

Includes that portion of stocks reported in Table 1, not covered by current sales or future delivery contracts.

TABLE II.

NOTE—Bulk goods includes that sold in barrels and drums. Case goods includes that sold in tin containers.

Unsold Stocks of Powdered Milk Products.

Commodity	Code	Pounds Oct. 1, 1921	Pounds Oct. 1, 1920
Whole Milk Powder	Case	312,612	.....
	Bulk	890,770	855,866
Skim Milk Powder	Case	168,082	150,000
	Bulk	6,703,104	5,800,552
Part Skim Milk Powder	Case	.....	.....
	Bulk	3,391	.....
Cream Powder	Case	.....	.....
	Bulk	98,690	10,000
Dried Buttermilk	Case	84,000	.....
	Bulk	2,029,433	799,873

*Do not include stocks of one large firm included last month.

EXPORTS OF CONDENSED AND EVAPORATED MILK FROM THE UNITED STATES.

	Condensed Lbs.	Evaporated Lbs.
Total, September, 1921	9,341,922	28,719,540
Total, September, 1920	17,709,527	3,692,786
Jan. September, Inc., 1921	72,003,133	145,079,197
Jan.-September, Inc., 1920	238,812,105	115,644,170

EXPORTS OF POWDERED MILK FROM THE UNITED STATES DURING SEPTEMBER, 1921.

Total exports, September, 1921 ..... 2,115,065 pounds
Total exports, September, 1020 ..... 22,223 pounds
January-September, Inc., 1921 ..... 7,186,119 pounds
January-September, Inc., 1920 ..... 2,208,654 pounds

CONDENSED AND EVAPORATED MILK FACE LIGHTER DEMAND.

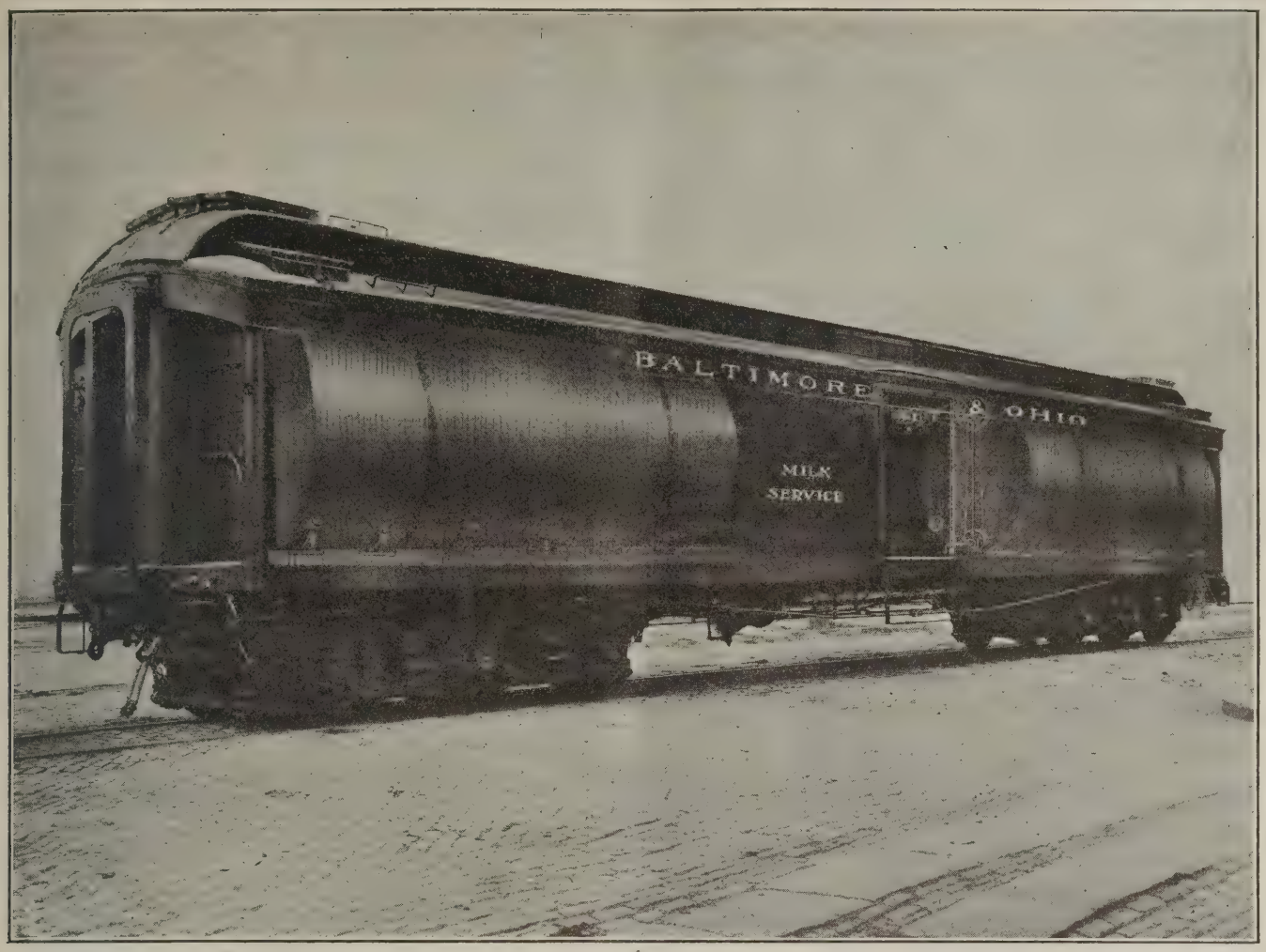
(Continued from page 58)

improvement in the situation. On a comparative basis October 1 stocks of all classes of goods were lighter than the previous months. This would be expected following the fairly heavy movement during September, and the seasonal decrease in production. But the fact that condensed goods were sluggish even during September is shown by the fact that stocks of this particular class increased slightly during that month. Manufacturers' unsold stocks also increased during September, and unfilled orders decreased. These statements apply principally to case goods, as bulk goods manufacturers, many of whom depend more or less upon local or nearby demand as an outlet, carry much smaller stocks in reserve and have more of a tendency to divert raw material into other products when the market begins to show signs of becoming stagnant.

"Wot was the last card Oi dealt ye, Moike?"

"A spade."

"Oi knew it! Oi saw ye spit on yer hands before you picked it up."



Phantom view of one of three Pfaudler Tank Cars, used by the Harmony Creamery Co., Pittsburgh, Pa.—One of these cars was exhibited at the National Dairy Show.

Do you want to Reduce your Transportation Costs?

Undertaking to find some effective means of reducing Transportation Costs, the Harmony Creamery Company of Pittsburgh consulted Pfaudler. The result was the new type of glass lined tank car, which has proved so successful in operation.

This dairy will save at least $53,000 during the first five years that they use these Tanks. Note the following outstanding features of this installation:

1. They now use only three cars instead of seven to handle same capacity formerly handled in cans.
2. Loss of only 2 degrees Fahr. temperature in a run of 106.7 miles with thermometer at 88 degrees, for a period of 8 hours.
3. Enormous saving in refrigeration, as initial cooling is only cost. Maintains low temperature, with no refrigeration expense en route.
4. Has thus far done away with services of seven men, and one 3½-ton truck, formerly used to haul cans to railroad cars. The Company further expects to do away with two more men; and labor expense saved here in one year will approximate two-thirds the cost of car tanks.

The engineers who solved Harmony's problems can be of equal service to you.

Car Tanks, Truck Tanks, Pasteurizers, Storage Tanks, Starter Cans, etc.—whatever your interest, write us. There is no obligation.

The PFAUDLER CO.

The World's Largest Makers of Glass Lined Steel Equipment

ROCHESTER, N. Y.

NEW YORK CITY CHICAGO SAN FRANCISCO
LONDON, England SYDNEY, Australia

Pfaudler

An Interesting Exhibit

Mojonnier Bros. booth at the National Dairy Show was headquarters for visitors interested in the new development along dairy manufacturing lines. They exhibited the following items:

Mojonnier Vacuum Condensing Unit for condensing milk in the vacuum pan and for making the mix at the same time; Mojonnier Ice Cream Brick Packaging Machine for packaging one, two and three layer ice cream automatically in cartons; Mojonnier Overrun Tester for determining the amount of overrun in ice cream while it is still in the freezer; The Mojonnier Milk Tester for accurately determining the amount of total solids and butterfat in any milk produce; The Mojonnier Culture Controller for the continual propagation and control of pure lactic cultures for either butter milk, butter or ice cream mix; The Mojonnier Oil Immersed Butter Print Scale for weighing butter prints; Frohring Ox-Zonizer for making in any milk plant their own germicide deodorant and disinfectant and The Green Gauge for automatically weighing of milk in tanks.



The last two named are distinctly new items and were exhibited for the first time at the Dairy Show. In addition to the above they exhibited milk metal fittings, thermometers and other laboratory accessories.

We design your new plant to fit or make your present one fitter

A thorough knowledge of ice cream making, together with our wide experience in industrial plants, enables our staff of engineers to design a low cost high efficiency plant for you, or to increase production in your present one. One of our engineers will call on request, without obligation.

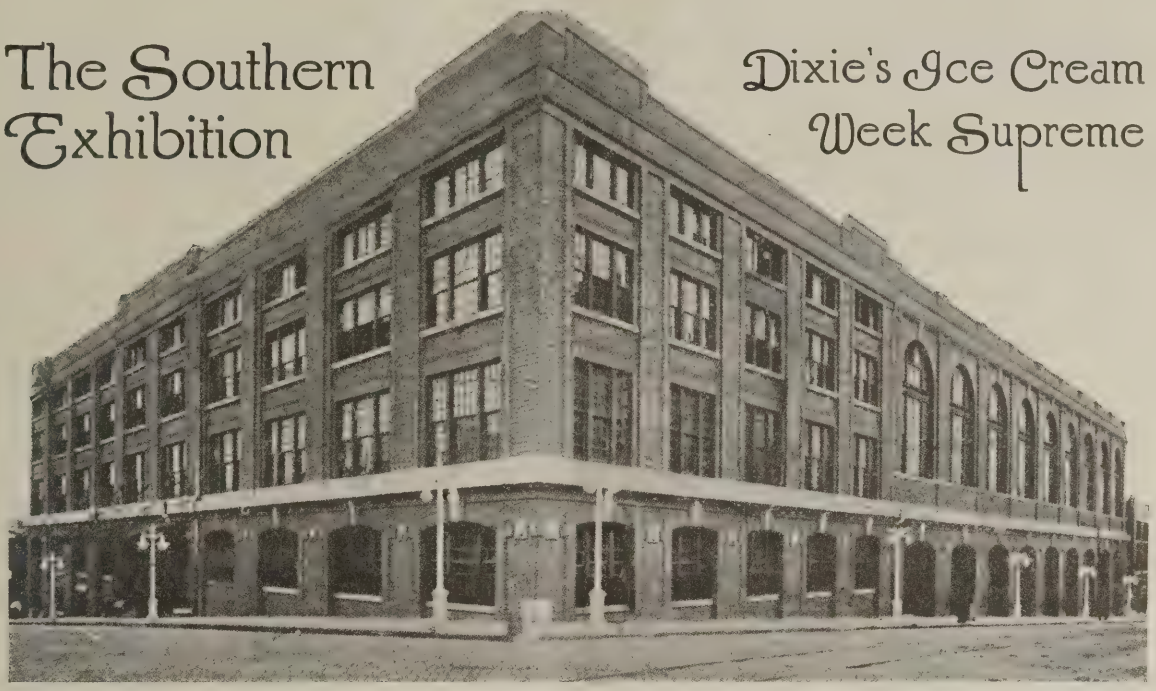
CHICAGO
645 N. Michigan Avenue

FRANK D. CHASE, Inc.
ENGINEERS—CHICAGO

ST. LOUIS
Railway Exchange Bldg.

The Southern Exhibition

Dixie's Ice Cream Week Supreme



The Auditorium-Armory, Atlanta

There will be entertainment for ice cream men and their families

150 articles and services —100 separate exhibits

The Governor of Georgia will inspect the exhibition

The ice cream men of twenty states are making hotel reservations now (The Piedmont, Ansley, Winecoff and Georgia Terrace)

An exhibition saving an ice cream manufacturer months of time, hundreds of dollars, scores of opportunities otherwise lost—revealing to him methods and means evolved throughout the entire country

THE South, land of sun and illimitable future, this year comes into its own in ice cream.

A SOUTHERN EXHIBITION arraying everything in machinery, services, equipment and supplies used by ice cream manufacturers will be held in Atlanta, November 28th to December 2nd inclusive.

The Southern, North Carolina and Tri-State Associations of Ice Cream Manufacturers will hold their annual conventions in conjunction with it. All ice cream manufacturers are welcomed guests to the South's greatest building for displays—to Dixie's greatest Ice Cream exposition.

THE ASSOCIATION OF ICE CREAM SUPPLY MEN
1328 BROADWAY NEW YORK CITY

The Stockton Show

By L. Diamond, Manager Pacific Slope Dairy Products Show.

The dairy industry of California and the Pacific Coast has very rapidly grown and developed in recent years, but on account of lack of organization and the complex nature of the business, no one, not even of those actively interested, has actually realized its present size and importance, its bearing upon our other industries, and its essential importance to the physical and economic welfare of our people. The business of transforming cow's milk into the several kinds of dairy products that are demanded by the public has rapidly brought into existence numerous manufacturing activities which, in turn, have been the cause of the creation of a great line of manufacturers of machinery, equipment and supplies. At first, the men engaged in these activities scarcely realized that they properly were a part of the dairy industry. The words 'dairy industry' to them meant only the dairy farmers and breeders of dairy cattle. Manufacturers of special products, such as ice cream, condensed milk, and others, regarded themselves as separate and distinct, and, until quite recently, could not see that they were factors in the industry.

All this is changed to-day, largely through the efforts of the National Dairy Association which has, from its beginning, fostered the National Dairy Show. That great institution is now recognized by the United States and all state governments, by scientists and educators, and by the commercial world, as being the pulsator of one of the nation's greatest industries. Its annual shows are now the center of attraction and the recognized meeting place for every kind of organization which deals in any way, no matter how remote, with the numerous problems of the dairy industry. The Pacific Coast occupies a peculiar situation with respect to this national gathering. The National Show must necessarily be held somewhere in the Mississippi Valley or the Eastern states. We are separated by a distance of 2,000 miles, a great range of mountains, and a wide desert. The expense of sending cattle is almost prohibitive, and the cost of traveling prevents a considerable number of our people from making the journey.

There are more than a million head of dairy cows in the Pacific Slope states, and the value of the manufactured products is in excess of 150 million dollars annually. California alone produces over 70 million pounds of butter per year, and consumes about 15 million gallons of ice cream annually.

Moreover, an infant dairy industry is developing in the Hawaiian Islands, in Mexico, and on the west coast of South America.

It is hard to visualize all this, and impossible to do so unless a general annual gathering can be had here on the Pacific Coast. The Pacific Slope Dairy Products Show that will be given in Stockton, December 5th to 11th next, is the first effort to bring together the organizations that exist here but which heretofore have held their convention separately and apart from each other, and to assemble a comprehensive exhibit of the various and numerous dairy products manufactured in the states west of the Rocky Mauntains. The purposes of the Show are:

1. A display of progress in dairying.
2. To further a spirit of co-operation for the promotion of all interests that are dependent upon the dairy cow.
3. To show to ourselves and the public something of the scope and importance of the industry and its numerous activities.

Those who will participate are:

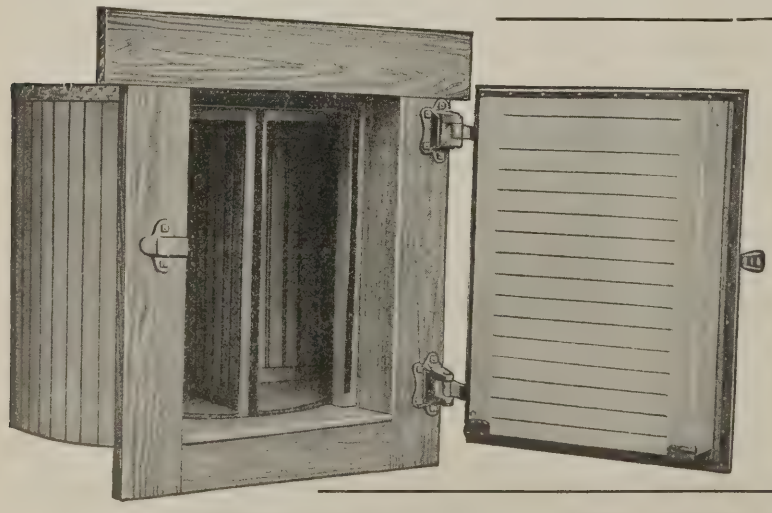
1. Manufacturing organizations.
2. Milk distributors.
3. Exhibitors of dairy products machinery, equipment and supplies.
4. University of California.
5. State Department of Agriculture.
6. United States Department of Agriculture.
7. California Dairy Council.

To the directors of California Dairy Council should be given all the credit for the conception of the idea and the effort of its realization. That organization has, in a remarkably short time, arisen to a position of strong influence in the industry. Its rapid growth and valuable service are explained by the fact that it is a harmonizing organization, is exclusively educational in character, and deals only with fundamental questions affecting the industry. Under the guidance of the far-seeing men who direct its activities the Dairy Products Show should be a brilliant success.

There will be scoring contests in butter, cheese, ice cream and market milk and cream. Attractive official medals and ribbons will be awarded by the Show itself, and many handsome cups and cash prizes will be donated to medal winners.

The Show will be held in the California State Armory, which is conveniently located and well adapted to the needs of such an affair.

The success of this Show depends upon the co-operation of all dairy interests in the Pacific Slope States. No private or personal gain should be expected. This,



JAMISONS'

"NOEQUAL" REVOLVING DOOR

is making can-passing easier in Ice Cream Plants and Creameries everywhere.

It passes Ice Cream and Milk Cans back and forth without loss of temperature—and requires but one person to operate when fitted with unloading device.

Standard 5-Gallon sizes in stock.

Send for Catalog No. 10 and Prices

Jamison Cold Storage Door Co.

Formerly
Jones Cold Store Door Co.
HAGERSTOWN MARYLAND, U. S. A.

JENSEN

Your Ice Cream Cans

Should be Sterilized and Dried with our

Can Sterilizer and Drier No. 6A
Capacity 250 Cans per Hour

Insures Bacterial Control and Reduction.

Provided with special Double Port Valves and additional tables —HANDLES SIX CANS AND COVERS AT THE SAME TIME.



Treats cans of ten, five, three gallons and smaller size.

PREVENTS RUST.

LENGTHENS LIFE OF CANS.

No Odor—Sweet smelling Cans.

You cannot afford to operate your plant below its highest point of efficiency.

Jensen Equipment is in use in many of the largest plants in the country. Jensen Equipment accomplishes the best results most efficiently, in the shortest possible time, at the lowest maintenance cost.

Detailed information will be gladly furnished.

Write us today.

Jensen Creamery Machinery Company

Builders of "Equipment of Practical Efficiency"

BLOOMFIELD, N. J. OAKLAND, CALIF.

"Mark of Merit"

Southern Representative

BLANKE MFG. & SUPPLY CO., St. Louis, Mo.

the first effort of its kind west of Chicago, must be the foundation upon which to build greater Shows throughout the succeeding years.

Members of all branches of the dairy industry, your duty is clear — Exhibit in the Stockton Show! Boost for it, and go to Stockton and participate in its many activities! Remember there are to be five big conventions during the week. You are surely interested in some of them.

The dates — December 5 to 11, inclusive.

The place — California State Armory, Stockton.

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A LIVE BUNCH.

What do you do when a delegation of good fellows break into your office without advance notice, put their feet on your desk and proceed to make themselves at home? You make them believe you like it, don't you?

That is just what happened a few days after the close of the National Dairy Show when "Henry W.", with A. Daigger & Co., Chicago, Dr. W. L. Wright, of the Sealright Co., Fulton, N. Y., and R. J. Decy, with Emery Thompson Machine and Supply Company of New York City took possession of the Review office for a half hour's visit. They were on their way to Chicago by motor from the National Dairy Show. They visited several Northern Wisconsin towns, combining business with pleasure. "Henry W." as chaffeur, looked rather solemn and we suspect that the rest of the crowd had been driving from the rear seat, and making remarks about his car, his eye sight, etc. At least Decy and Wright were jubilant and were having the time of their young lives. They are still wondering where Detour, Wisconsin, is located. They report that they saw several sign boards labelled "Detour", but each time they followed directions they got off the main road and finally gave up looking for the place. They quite fell in love with Northern Wisconsin.

We enjoyed their visit very much and we hope to have them "repeat".

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REVENUE OFFICERS FIGURES.

Minneapolis, Minn.—Business in ice cream has been more brisk than in nearly any other commodity in this section for some time. The collector of internal revenue for Minnesota stated Oct. 19th that people of the state spent over half a million dollars for ice cream in September, the government taxes aggregating $53,457.28.

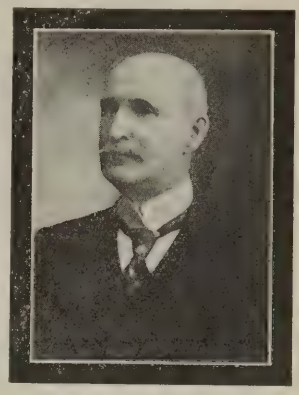
⚜

Teacher: "Boys, why are you hurting the poor little fellow?"

"He let us copy his 'rithmetic an' it was all wrong."

THE INTRODUCTION OF GELATINE TO THE ICE CREAM INDUSTRY.

The use of gelatine in the making of ice cream is quite commonly practiced now by ice cream manufacturers. Very little has been said, however, as to how this practice was introduced in the ice cream manufacturing industry. We are in receipt of information given us by the Thomas W. Dunn Company concerning the late Mr. Dunn's personal experiences at the time gelatine was looked upon as an article unfit for human consumption. Mr. Dunn many times narrated to friends how he had to wait until all customers were out of the ice cream establishment before he dared to approach the prospective customer with such a "low-life" and "lawless" article as gelatine.



THOMAS W. DUNN

The first buyers of gelatine did not dare receive it under its real name but such names as "paste," or "glue" would be used, for many times neither the employees of the ice cream manufacturer or the freight handlers knew that gelatine was being shipped in and used in the manufacture of ice cream. Mr. Dunn when visiting these manufacturers carried small quantities of gelatine in bags in his pockets and a 5 pound bag in a hand bag as he did not deem it wise to make it known to the public he was endeavoring to make sales of this "stuff" to prominent concerns.

Mr. Dunn first conceived of the idea of using gelatine in ice cream through his successive dealings with buttermakers who in those days were permitted to manufacture oleomargarine butter. As this industry died out and buttermakers catered somewhat to making ice cream on the side, this suggested the idea of using gelatine for stabilizing ice cream.

Up until 1900, the Thomas W. Dunn Company was practically the only company in the whole United States who specialized in ice cream gelatine.

Today gelatine or gum is used by all the successful ice cream manufacturers. The average amount of gelatine running from 1 to 4 ounces to the 100 pound mix.

⚜

There is as much true honor in being the best shoveler on the job, as there is in being the ablest advocate of the bar. Each is at the head of his class.

Vanite
THE HYGIENIC CLEANSER

NOT only loosens dirt, fatty films and grease,— but softens the hardest water—dissolving the particles quickly, rinses perfectly and leaves everything sweet and clean with little effort and at small cost.

Write for prices and free trial offer

PYRAMID OIL COMPANY
ENDURING LUBRICANTS
MINNEAPOLIS MINN., U. S. A.

USEFUL INFORMATION

for manufacturers of
ice cream and water ices
who want to make their products BETTER

GUMPERT'S ICE CREAM IMPROVER

Ice Cream ripened by the usual methods alone cannot reach the same degree of excellence as ice cream in which Gumpert's Improver has been used. This product is as beneficial in aged mixes as in fresh mixes.

Gumpert's Improver is not a *substitute* for natural ripening but a *supplement* to it.

Like Nature, Gumpert's Improver softens and breaks down the coating of albumen, casein, ash and other milk solids that surround the globules of butter fat in cream; but does it far more quickly and more thoroughly than natural aging alone.

The higher proportion of butter fat thus released gives the ice cream a richer, finer taste.

The complete softening of the milk solids by Gumpert's Improver permits the air, when whipped in, to form small, numerous and regular shaped cells. An even, soft, velvety texture is produced in the ice cream.

TEXTOR

A STABILIZER FOR WATER ICES AND SHERBETS

Textor eliminates the roughness and the uneven grain found in ordinary water ices and sherbets.

It produces a wonderfully smooth, even, luscious texture, delightfully free from lumpiness and crystalization.

Textor-stabilized ices and sherbets, no matter how often repacked, harden smoothly and uniformly. The sugar, water, fruit and flavor are held in perfect suspension from the first dipper full till the last scraping at the bottom of the can.

Textor, when dissolved, is colorless, odorless, tasteless. Simply mix it with the sugar dry, add the water, then the fruit, and freeze.

The consumption of water ices and sherbets is far smaller than it would be if the ices were better made. Textor brings about much of the improvement which is so essential to the development of this profitable business.

Note, Particularly

S. GUMPERT & CO., *Bush Terminal*, BROOKLYN, N. Y.

Refrigerated Delivery

Address of J. H. SCHINDLER, of Telling Belle Vernon Company, Cleveland, before the National Association of Ice Cream Manufacturers

The production of refrigeration by artificial means is centuries old. It is only in the last few years, however, that cold storage methods have been extensively applied.



J. H. SCHINDLER

History shows that ice was used for domestic purposes as early as the time of Nero. It is also thought that they used salt and ice for freezing just as it is being done today. We think we have made wonderful advancement in the process of cooling, but really it's old, yet very efficient if properly applied, and easily and economically produced.

The principle of refrigeration for delivery bodies has been solved. I believe however, that some improvement can still be made that would make for maximum efficiency.

First, it is a great saving of time on account of the accessibility to the driver's load.

Second, cans do not get wet from melted ice and do not show the uncleanliness which is often the case by the cans covered with ice and salt.

Third, ice for packing purposes is of much greater value and shrinkage reduced to a minimum by refrigerated delivery method.

One of the most important factors in refrigerated delivery is the proper insulation of the storage compartment. The very best materials should be used in their construction, as you gentlemen all have had more or less experience with faulty insulation. Special attention should be given the construction of doors and hinges to insure airtight compartments and at the same time provide for the hard usage to which they are subjected.

I trust and believe the manufacturers of refrigerated delivery bodies will strive to improve in their construction. One item I wish to mention, and that is the elimination of weight as much as possible. The weight of loaded vehicles is quite a serious problem in some states and cities where laws and ordinances have been enacted governing maximum loads permissable on highways.

We have had about a year's experience with refrigerated delivery on auto trucks, and without an exception it has been very satisfactory. Our drivers claim that the work is much easier and enables them to serve at least fifteen to twenty per cent more customers in the same period of time than it does by the old method of packing in salt and ice. During the month of July this season the drivers who were operating refrigerated units returned no soft cream. Our experience in suburban delivery proved just as satisfactory.

We intend to refrigerate all our horse drawn ice cream wagons as quickly as possible. In addition we have refrigerated delivery bodies on semi-trailers transporting bottle milk from the main plant to our suburban stations with excellent results. I believe it unnecessary to comment any further as to their practicability, economy, or otherwise.

In conclusion I desire to say that we are strong for refrigerated delivery. While we will have no data on costs until the end of the year, comparison at intervals versus the old method reveals a great saving in ice, salt and time which you all realize is a big factor in the cost of delivery.



ICE CREAM PLANT ADDING NEW IMPROVEMENTS.

Resumption of work on the building as was originally planned by the Ortonville Ice Cream and Butter Company, Ortonville, Minn., was commenced by contractors.

When completed the building will be 40x100 feet and will be strictly fire-proof. It will have full basement of concrete and tile. The upper part will be constructed of brick.

Present operations will be limited to the completion of the basement which was begun last year, Fred Pflueger, president of the company, said, with the hope that the rest of the work may be undertaken in the course of a few months.

Extensive operations of the company in that part of the state and along the Milwaukee Line west into South Dakota has resulted in an increased demand for ice cream manufactured by the company which necessitates more floor space.

SOUTHERN TINNING COMPANY
Johnson City Tennessee
RETINNERS

We solicit your correspondence and business on the basis of PROMPT SERVICE, BEST OF WORKMANSHIP AND MATERIAL, REASONABLE CHARGES AND THE SAVING WE CAN MAKE FOR YOU. We will gladly retin a sample can for you, free.

"WE MAKE NEW ONES OUT OF OLD ONES"

ESSEX

INCORPORATED 1903

"His Standard Measure"

"When buying gelatine each year we still use the ESSEX product as our Yard Stick."

This is the expressed opinion of a large and nationally known ice-cream manufacturer.

ESSEX earned this reputation because of its purity, uniform qualities and splendid value.

1 2 3 4 5 6 7 8

ONE

26 29 30 31 32 33 34 35 36

YARD



ESSEX GELATINE COMPANY

BOSTON *Manufacturers* MASSACHUSETTS

Warehouses for Service

NEW YORK PHILADELPHIA CHICAGO ST. LOUIS SAN FRANCISCO

MEMBER THE ASSOCIATION OF ICE CREAM SUPPLY MEN

GO TO THE NATIONAL DAIRY SHOW.

No, this is not an article left over from the pre-show period. The National Dairy Show referred to in the following is held in London, England:

A storehouse of information
About the dairy cow,
The best of machinery
And methods up to now;
A place to get ideas,
To learn the latest way,
To meet others in your business,
To study the great display;
The place to gain knowledge
Of the things you ought to know,
From the cow to finished product
At the London Dairy Show.

See the finest dairy cattle
Representing every breed
The kind that make the profit
And the kind that you will need;
Learn of vitamines in milk,
That build muscle and bone,
Necessary to human growth
Though chemically unknown.
See results of health studies;
And then you will begin
To have a better, prouder notion
Of the business you are in.

Talk to men of experience,
The experts in their lines,
Who have studied out the problems
Whose minds are richest mines.
They'll tell facts that they have proven,
Show you the proper way.
Point out the leaks and tell you
How to make your business pay
They'll all be there to aid you,
So surely you will go
To Islington in October
And the London Dairy Show.

—The Dairy.

⚜

Wanted—information concerning

1. Where Ouija boards.
2. Why we cannot set-e-phone from an airship.
3. Speechless wives, barkless dogs, songless cats, noiseless phonographs or kickless mules. They made the drinks all kickless why not mules and bronchos?

RE-TINNING MILK AND ICE CREAM CANS

A SPECIALTY

MAKE YOUR CAN SANITARY

Now is the time to have your old cans retinned, all double coated, so do not throw your old cans away, sent us a sample so we can show you what we can do to it.

SANITARY TINNING & MFG. CO.

3757 E. 93rd St., CLEVELAND, O.

KIRK-MAHER RE-ORGANIZATION.

Clarence E. Kilburn Succeeds F. Roy Kirk.

At a meeting of the Kirk-Maher interests, held at the company's head offices in Malone, N. Y., recently Clarence E. Kilburn, heretofore vice-president of the company, was named as president to succeed the late F. Roy Kirk, whose death occurred in St. Paul on October 15th.

Mr. Kilburn has been with the Kirk-Maher organization since the close of the European war, in which he served as a captain of infantry. Returning to this country he entered the employ of the Kirk-Maher Company as sales manager and has worked himself through the successive executive position to the chair of president, in which position he will have active supervision over the four plants bearing the Kirk-Maher name at Massena, Malone, Plattsburg and Watertown, and the four affiliated companies controlled and operated by the Kirk-Maher interests at Montreal, Utica, Oneonta and Binghamton. All of these plants are engaged exclusively in the manufacture of Purity ice cream.

Mr. Kilburn is a Cornell graduate, and during the time he has been associated with the Kirk-Maher organization has taken a place among the prominent young men in the ice cream industry. His elevation to head the above organization has met with the full satisfaction of the stockholders and public generally. Mr. Kilburn is a director of the People's Trust Company, of Malone, and vice-president of the Malone Chamber of Commerce.

E. B. Lewis is Vice-President.

Associated with Mr. Kilburn under the re-organization is a man whose name in the ice cream industry is known from coast to coast, in the person of E. B. Lewis, president of the Horton Ice Cream Company, of New York City. Mr. Lewis has long been a stockholder in the Kirk-Maher Company, and has for many years been a warm personal friend of its late president. Mr. Lewis' election to the post of vice-president cements an important business affiliation which adds strength to the entire Purity chain in its future development.

Mrs. Elizabeth Kirk, widow of the late president, was named as a director of the company and as chairman of the board. Associated on the board of directors besides Mrs. Kirk and Mr. Kilburn, is N. Monroe Marshall, treasurer of the State of New York, president of the People's Trust Company, of Malone, and widely known in the political, financial and business life of northern New York. Other officers are George H. Frechette, secretary and treasurer, and E. M. Berry, assistant treasurer.

The policies inaugurated by the late F. Roy Kirk, who founded the Purity Ice Cream enterpises, will be continued and carried out by the new organization.

⚜

WILL PUT UP NEW CREAMERY AND ICE CREAM BUILDING

The Laurens Co-operative Creamery Company, Laurens, Ia., has purchased the entire equipment of J. G. Hinn.

As soon as possible the new firm will build a modern building to house an up-to-date creamery, ice cream factory, and pasteurizing plant. Until the new plant is completed, the new firm will operate the creamery business in the old creamery building.

Stock is now being subscribed for the new firm. They have already made plans for the building, and promise to make it one of the most modern plants in Laurens.



"Um Yum! But It's Good!

"—so smooth and velvety it just seems a 'feller' can't get enough of it." Of course, it's made with

Ucopco Pure Food Gelatine

that most efficient ice cream stabilizer and uniform distributor of moisture and flavor.

There's a grade for every purpose.

Let us tell you more about them.

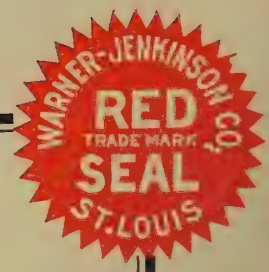
The United Chemical & Organic Products Co.

4200 S. Marshfield Ave. Chicago, Ill.

217 Broadway New York City

"UCOPCO Comes Sealed in Red Drums"





WARNER-JENKINSON CO.

ST. LOUIS

Manufacturers of Ice Cream Makers' Supplies and Certified Food Colors

They come and they go, but PURITY ICE CREAM POWDER holds fast. You can't get away from it; when you want a good reliable cream stabilizer you have to use Purity Powder. Should any difficulty be experienced when homogenizing by the mix becoming too thick, simply replace Purity by Red Seal Special Homo-Powder.

Ice Cream makers looking for quick and certain action in the Ripening tank use RED SEAL RIPENER. One ounce of Ripener to every fifty pounds of mix does the work. Just throw the "Ripener" in the holding tank and then stir it in.

RED SEAL GIANT VANILLA makes new friends every day. No one who uses Giant wants to try anything else.

RED SEAL COLORS. All shades.

LIQUID, PASTE, POWDER. Satisfaction guaranteed.

RED SEAL TRUE FRUIT FLAVORS. Ideal for ice cream.

ST. LOUIS

WARNER-JENKINSON CO.





WE are not interested in selling C.W. Brand Vanilla to the manufacturer whose only selling argument to his customers is that his ice cream is cheaper than his competitor's product.

We do want to sell C. W. Brand Vanilla to manufacturers who depend upon quality rather than price to keep their freezers going.

C.W. Brand Vanilla will make your present mix taste infinitely better because C.W. Brand Vanilla is as good as it is humanly possible to make it.

Would you not be willing to spend a fraction of a cent more per gallon of ice cream for flavor if you were assured that this were possible?

The Widlar Company of Cleveland, Ohio who manufacture C. W. Brand Vanilla will be glad to show you that your ice cream really can be made to taste better.

Depreciation of Ice Cream Equipment

Address of C. F. EURICH, Auditor, J. M. Horton Ice Cream Company, New York.
Before the National Association of Ice Cream Manufacturers

I wish to thank the president of this asscoiation, as well as the members of it, for the privilege of addressing this meeting.

I also wish to express my gratitude with the other members of this convention for being the guest of this beautiful and hospitable city.



C. F. EURICH

A joy has been produced that knows no bounds.

I feel something like the colored man, who was asked to deliver an oration on patriotism.

He was standing on a molasses barrel, and the head broke in. When he came up, he exclaimed, "Oh, that I had a thousand tongues to do this subject justice."

This subject of depreciation is not a serious one, nor am I going to attempt to treat it as such, knowing full well that it is usual in every industry.

Depreciation, of course, will always exist with material things.

I wish, however, I could offer a remedy for it, and thus eliminate, from our activity, a source of great loss.

A great deal has been said and written on the subject of depreciation of late.

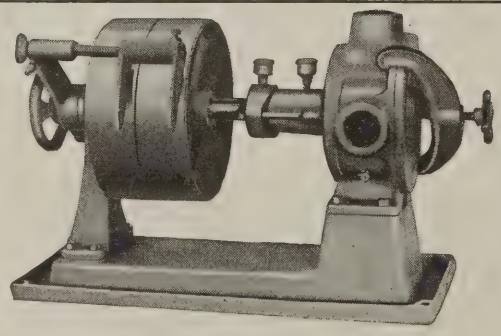
Right now many books on the subject are being published.

The federal and other government authorities are directing their thoughts along these lines.

So much of the subject is in the very air that I perhaps had better confine my remarks more to the principle governing its application, rather than to the various methods of its use.

Anyone present wishing to discuss with me some question relative to this subject, I will be very glad to do so after this meeting, to give some concrete examples which are not possible in this address; feeling that it will be of mutual benefit and advantage to all concerned.

For CREAM



For BRINE

2" SANITARY VIKING PUMP
THE UNIVERSAL PUMP
For Milk, Brine, Water or Foods
VIKING PUMP COMPANY, Cedar Falls, Ia.

Depreciation may be defined as the impairment of the value of an asset, or the decreasing in value of an asset, by reason of wear and tear, due to its use or lack of use, and to inadequacy or obsolescence, resulting in inefficiency or uselessness of the asset; also through the exhaustion thereof.

It does not apply to inventories or stock in trade, nor to the land apart from the improvements added to it.

In the contemplation of this subject, it is essential to consider the following factors:

1. Improvements and Betterments: To this account should be charged such amounts as enhance the value of an asset.

2. Renewals and Replacements: To this account should be charged such amounts as continue the use or life of an asset.

3. Repairs: To this account should be charged such amounts as are merely incidental in keeping the assets in efficient operating condition.

It can be readily understood, where a concern has kept its plant and equipment in the highest possible state of efficiency, by reason of continued expenditures for improvements, replacements and repairs, that lower rates of depreciation would apply than where this policy has not been pursued.

It will be observed from the above statements that fixed or standard rates of depreciation to apply to all industries would not only be untheoretical, but would be entirely impractical.

This would likewise follow in industries along similar lines in the same locality, due to operating under conditions peculiar to its separate management and policy.

Consequently the rate at which depreciation may be claimed is contingent in a greater or less extent, upon local conditions, the use to which the property is put, and the probable lifetime of the asset under normal business conditions.

No specific rates at which depreciation may be claimed have ever been established by the federal authorities or by any other legal ruling.

The law states that a reasonable allowance may be taken.

Experience in any particular business by which knowledge is acquired as to the wear and tear to which the property is put, is the only practical means of arriving at a reasonable rate of depreciation.

What would be reasonable for one company might be most unreasonable for another.

Hence the depreciation deduction with respect to any property is such an amount as, in the aggregate, when the property as a whole is worn out, will replace it or will return to the business the capital invested in it.

The effect of past wear and tear and inadequacy can be ascertained within reasonably narrow limits.

The future effect of wear and tear, etc., although it cannot be anticipated with entire certainty, may also be determined, with a reasonable degree of accuracy, from the result of past experience.

The elements necessary to compute depreciation according to any scientific method are:

(1) The original cost.
(2) Residual, salvage, or scrap value—and
(3) The life of the asset.

Having determined these elements, the residual value, if any, having been deducted from the original cost, and the balance divided by the number of years esti-

This is one of a series of newspaper advertisements produced for the Supplee-Wills-Jones Company of Philadelphia to stimulate the sale of Ice Cream. It is part of a general campaign consisting of posters, display signs, window trims and other forms of attention compelling advertising that have helped make "Supplee" one of the largest selling Ice Creams in Philadelphia.



Supplee

Chocolate ICE CREAM

WHAT a fine rich flavor there is to Supplee Chocolate Ice Cream! It's always fresh, the quality never varies and you can get it every day in the year because it's always seasonable. Thousands of Philadelphians will enjoy Supplee Chocolate Ice Cream today. *Will you have some?*

The fine flavor is obtained by skilfully blending two different cocoa beans, a dark Brazil bean and a lighter one from the East Coast of Africa. A combination of the two, frozen with rich, thick cream, produces that fine color and lasting flavor that has made Supplee Chocolate Ice Cream famous in the Philadelphia district.

You can get it anywhere in town or the surrounding territory. Over three thousand dealers are selling it now. Supplee Ice Cream is made by Supplee-Wills-Jones, an organization that all Philadelphia knows for the excellence of its Gold Medal Dairy Products.

It's Easy to Carry it Home

Try this Delightful Sundae - *Ask for Supplee Chocolate Ice Cream with Crushed Pineapple. It is one of the most wholesome and satisfying Sundaes you ever tasted.*

SUPPLEE
ICE CREAM
Made by
SUPPLEE-WILLS-JONES

Advertising Service to Increase the Sale of Ice Cream

IF you are located in a territory we do not already serve we shall welcome the opportunity to prove that you can use part or all of the advertising service now being employed by more than seventy clients to increase the sale of Ice Cream. Our 1922 Campaign is now ready. A request for information will not obligate you in any way.

BARKER, DUFF & MORRIS · PITTSBURGH, PA.

mated to be the life of the asset, a result is obtained which gives an amount chargeable each year as depreciation.

This method is known as the straight line method or percentage method, and, from its very simplicity, makes it the most practical.

Another well known method—one also which is very practical—is the reducing balance plan, a constant percentage on the decreasing balance of the asset being charged off each year.

This inequality of charges is offset by the assumption that repairs and renewals cost least during the first few years, increasing as the years go on, and consequently tend to make the total cost of upkeep and depreciation more uniform.

The amount of the depreciation deduction thus ascertained should be credited to a Depreciation Reserve account.

Against this account should be charged the cost of renewing or replacing the specific property with respect to which depreciation is claimed.

Since a depreciation reserve is intended to take the place of the investment value which has been lost through wear and tear, etc., it would appear that if any considerable sum of money were spent on the property to take the place of some worn out part, such expenditure should be charged to the reserve, and not charged as an expense to the repairs account.

When the time comes to replace an asset, the depreciation reserve should be such an amount as will enable the business to charge off the old asset at its original cost or present book valuation to this account.

This is accomplished by an entry crediting the old asset and charging depreciation reserve.

This entry removes the old asset from the accounts and also closes the depreciation reserve account insofar as that particular asset is concerned.

Any expenditure that is made, enhancing the value of an asset, is an improvement or betterment, and should be treated as such.

Repairs in the nature of renewals and replacements, to the extent that they arrest deterioration and appreciably prolong the life of the property, should be charged against the depreciation reserve.

The expenditure for repairs, which do not add to the value of the property, but merely keep it ordinarily, in an efficient operating condition, may be taken as an expense of operation.

The repairs just mentioned refer only to such repairs as are incidental to the operation of the property, and as will not, if continued, while the component parts wear out and are restored, extend the life of the property.

At this point attention is called to the need of a careful distinction among improvements, renewals and repairs.

Automatic Cone Machines

with which you can make a better cone, at a less cost, than with any other known device.

Prepare now for 1921 cone business.

We also have several automatic machines of another make, as good as new, on which will make attractive prices.

Will thank you to write us.

The Cream Cone Machine Co.
CLEVELAND, OHIO

Only a clear definition of the terms and a strict adherence to an adopted policy can prevent endless confusion and misleading results.

In reaching a decision as to the rate of depreciation to be applied to the different classes of assets, it cannot be considered from the attitude of a closed plant or what these depreciable assets would bring at a forced sale; but must be considered from the attitude of the business being in continuous operation.

Neither should the fact that taxes are high or low, or that profits are large or small, influence the motive, but should be determined purely and exclusively on the basis of principle.

If thus considered, a result will naturally and inevitably be obtained which is just and equitable, not only for taxation purposes, but also for a correct determination of the cost of the product (which is very essential) and likewise for any financial purpose.

For your information and guidance I shall state here a number of assets, together with the general rates of depreciation pertaining to the ice cream industry.

The rates of depreciaiton, however, are only to be used insofar as they may reasonably apply to your need.

Building:	Per Cent per Year
Steel and stone structure	1½ to 2
Brick and stone	2 to 2½
Brick buildings	2 to 3
Brick and frame	3 to 3½
Frame buildings	4 to 5

Equipment:	
Automobiles, heavy type	12½ to 20
Automobiles, light type	20 to 25
Harness	16⅔ to 20
Horses	12½ to 15
Machinery	7 to 10
Milk Cans	20 to 25
Office Furniture and Fixtures	10 to 15
Refrigerators (cabinets)	16⅔ to 20
Tins	25 to 33⅓
Tubs	20 to 25
Wagons	12½ to 20

Each rate that I have just given is based on an estimated life of each asset, wherein all expenditures for repairs are assumed to be charged as an expense.

Depreciation rates on machinery are affected by so many factors, that the ideal method would be, to apply a particular rate to each machine, or part of equipment, which go to make up the machinery and equipment account.

With respect to milk cans, tins and tubs, I understand that a number of companies are charging the expenditures for these, direct to the expense account.

If at a subsequent time it develops that the rate of depreciation is too low or too high, a modified rate should be established, so that the extinguishment of the book value will occur with the elimination of the utility of the asset or assets.

It would be well to bear in mind, however, that the effort should be made to determine a rate in the beginning if possible so that no modification will be necessary.

Because changes of this character tend to influence the cost of the product, a haphazard method may prove costly.

The best that can be done is to make a fairly liberal estimate, based on past experience, and trust that it will be sufficient to keep the book value of fixed assets always well within the limits of actual value.

If the false impression and seeming confusion created when the subject of depreciation is discussed, were elimi-

FLAVOR YOUR ICE CREAM WITH

Cremilla

"CREMILLA" is better, smoother, creamier and of richer flavor than the finest grade of pure vanilla; and it's more economical.

"CREMILLA" is so concentrated as to make it the best flavor to use with homogenized cream; one-third to one-half oz. flavors perfectly 10 gallons of cream (one to one and a half pints for 500 gallons.)

Trial gallon by express on request. After fair trial, if you don't like it, send back what's left and pay us nothing.

National Fruit Flavor Co.
NEW ORLEANS, U. S. A.

nated, and the facts of the situation or conditions viewed impartially, and at no time be influenced by the size of the profits or losses, the terror of depreciation would be largely eliminated.

We all know that depreciation will depreciate with improvements in material things, as invention and research are bringing to light many ideas every day, which tend to serve the human race more efficiently.

DAVIS-WATKINS MACHINERY AT THE NATIONAL DAIRY SHOW.

One 12,000 pounds per hour Davis pasteurization outfit finished in white enamel with nickel trimmings.

One 600 cans per hour can washer, the same as recently installed and now working satisfactorily in the plant of the Crescent Creamery Co., Los Angeles, Calif.

One large pressure bottle washer, with automatic feed and special hot water sterilizing attachment.

One group of Model 5 rotary bottle fillers and cappers, with automatic feed and discharge unit.

One small Davis bottle washer.

One small Progress can washer.

One 8,000 pounds per hour flow type pasteurization outfit including: Economy holding tanks, economy heaters and coolers, Progress milk pumps and small Davis rotary bottle filler and capper.

One 800 gallons per hour Progress homogenizer, fully equipped with automatic oiling device and water drip for cooling the pistons.

Complete ice cream equipment, including: Progress batch mixers, Progress pasteurization vats, four sizes and styles of Progress ice cream freezers and Progress tubular cooler, etc.

Complete creamery outfit, including: The largest combined Disbrow churn and worker ever manufactured, having a capacity of 1,600 pounds of butter at a churning; Progress starter cans, Progress cream ripeners, Davis tubular cooler, Babcock testers, etc.

Two large Glascote milk holding tanks.

Complete display of dairymen's milk cans, ice cream cans, cheese cans, city delivery cans, etc.

The Davis-Watkins space was not as large as last year, and yet it contained more machinery. You will appreciate from this that the booth was quite crowded, still it was an exceptional exhibit because all of this machinery was white in color with nickel trimmings. It was very impressive, extremely attractive, and the booth was crowded most of the time.

The two Davis rotaries connected with automatic feed and discharge, and large Davis pressure bottle washer were operated for several hours during the day and evening by men from the plant of the Franklin Cooperative Creamery Association in Minneapolis. Hundreds of visitors made it a point to go over to Minneapolis and watch all this Davis equipment in actual operation in the Franklin plant. It may interest our readers to know that this large Franklin plant, which is, by the way, the largest milk plant in Minneapolis, was built up from nothing to sixty-nine wagons in five months' time. This is especially interesting, in view of the fact that they pay the same price for milk to producers, pay the same wage to their drivers, and sell milk for the same price as the other milk dealers in their city. This company is also working closely with the other dealers, and under the same bottle exchange arrangement.

WISCONSIN ASSOCIATION OF ICE CREAM MANUFACTURERS.

To Our Members and Associate Members:

Dear Sir:—Arrangements have been completed for our annual convention to be held at the Hotel Plankinton, Milwaukee, Wisconsin, January 17th and 18th, 1922, and I want every member to make arrangements to be in attendance, as it is for your benefit and the success of our association that you do attend. We do not want you to only pay your dues but want you to be present and lend your assistance at the convention.

I want at this time to ask every member to write to President D. D. Smith, Fond du Lac, Wis., making any suggestions they have for subjects or for people they would like to have on the program. These suggestions will all be given consideration and as many of them as possible used. Have all your suggestions in **not later than November 20th.**

Make your reservations now with the Hotel Plankinton and avoid any chance of its being overlooked.

The management advises us they are reserving the entire mezzanine floor, and for the information of associate members I would say that rooms on this floor for display purposes will be $10 per day.

Respectfully yours,

F. E. CAUGHEY,
Secretary-Treasurer.

Philosophy of the Street

It is a mistake to suppose that coloring the hair produces softening of the brain. The thing works the other way; it is softening of the brain that inspires the use of the dye.

PURE VANILLA EXTRACT

ATLANTIC IMPORTING CO.
617-623 Eleventh Ave., New York City

B4



The "BIG 6" of the 1922 Ice Cream Season

If your name and ice cream were a familiar sight on the poster boards,

If they could attract the public's attention by their size (19x9 feet) and their striking color harmony,

If they could hold this attention thru their artistic design and individuality,

If your advertisement on the boards could be changed each month for a new one equally good,

If no other manufacturer in your territory could use such posters as these,

—Your sales would take a big jump, wouldn't they?

Every one of these "if's" can come true for you. Just write for full information on the newest Nordhem art posters—every one an original Nordhem poster de luxe—

and every one a "Bell-ringer"!

IVAN · B · NORDHEM COMPANY

Poster Advertising, Painted & Electrical Displays in the United States & Canada

Chicago · 8 West 40th Street · · · New York City Pittsburgh

The Fifteenth Annual Show of the National Dairy Association Is History and What Wonderful History it Will Be!

By W. R. McEWEN

SO FAR as the J. G. Cherry Co. is concerned it was, by far the most successful exposition in which we have ever participated. We take this opportunity of publicly expressing our appreciation of the excellent manner in which the show was conducted by the management and to congratulate the various dairy organizations of the Northwest for the whole-hearted support they gave to the show which played so important a part in making the exposition such an emphatic success from every angle. We are frankly enthusiastic over the reception accorded our exhibit which was visited by hundreds of interested friends and customers. The keen interest shown throughout the entire week in the Cherry equipment on display amply repaid us for the considerable expense we incurred.



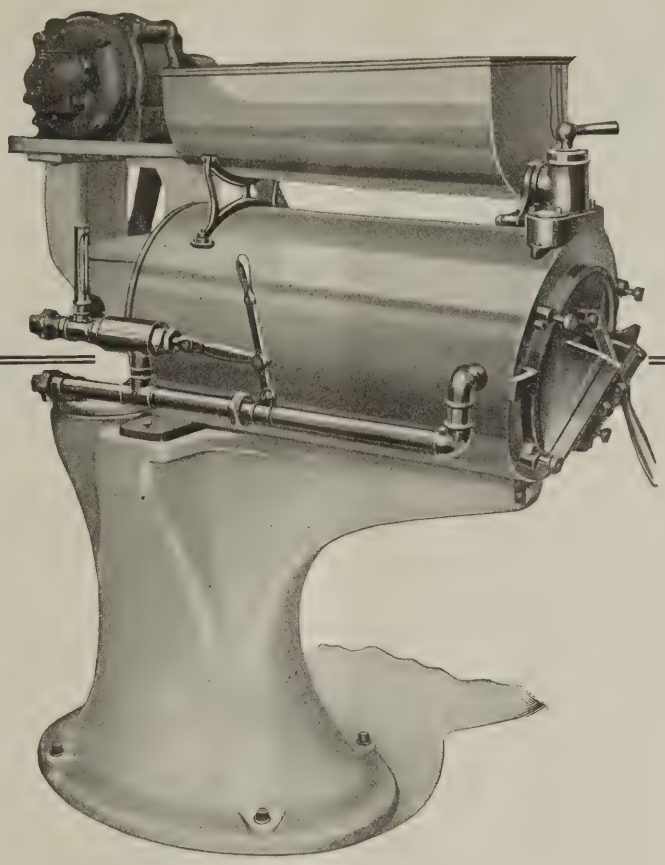
This view shows the installation of the Cherry Gravity System of Pasteurization which was operated continuously throughout Dairy Show week. (2) This part of the exhibit was just across the aisle from the main display and was fitted up with comfortable chairs and settees as well as a row of private offices in the rear. (3) A view taken under the balcony which formed a part of the Cherry Gravity System of Pasteurization.

The Cherry Gravity System of Pasteurization.

Without doubt the feature about the Cherry exhibit which attracted the greatest share of attention was the Cherry Gravity System of Pasteurization which was operated continuously throughout the show. A special elevation or platform had been erected on which was installed three 300-gallon Class B-2 Cherry pasteurizers. Here also was located the Cherry 3-in. tubs preheater, which is such an important part of this system. The milk was seen flowing over the preheater, through a clarifier, thence to the pasteurizers and from there directly over a Cherry 2-in. tubular cooler (fitted with dust shields.) This cooler was set up on the main floor level. From the cooler the milk passed through a Milwaukee bottle filler and then back and elevated again by a motor driven Viking pump to the preheater where the same course of flow was repeated. The system and its operation was graphically shown by this continuous flow of the milk and, as previously stated, attracted probably more attention than any other feature in the huge machinery hall. A substantial stairway was provided for visitors to ascend to the upper or pasteurizing level and this platform was always filled with an interested group watching the gentle, positive agitation of the Cherry twin coil on the vat content as it passed through on the way to the Cherry tubular cooler.

The Dreadnaught Churn.

The massive beauty of the Cherry Dreadnaught churn always attracts many interested spectators and the two Dreadnaughts shown at the show this year proved no exception. One of them was the standard



Higher Efficiency adds to Greater Economies

RIGHT at the beginning of the time to be preparing for putting in Brine Ice Cream Freezers, the EMERY THOMPSON comes forward with the 1922 improvement on greater brine circulating space and drawn nickel silver cylinders, giving the scraper true and accurate surface for freezing the smoothest and finest quality Ice Cream.

These are the kind of ideas in brine Ice Cream Freezer development which has maintained in the Emery Thompson freezer its long and noteworthy reputation.

Our machines will be shown at the Atlanta and Buffalo Fall Conventions, and we cordially invite you to call on us and see our big fine, heavy production freezers.

"Write for catalog and prompt delivery"

Emery Thompson Machine & Supply Company

271-275 Rider Avenue 6-8 Canal Place (Bronx) NEW YORK CITY

churn equipped with direct motor drive. It was a beautifully white enameled machine with dark blue trimmings. It was operated continuously throughout the week and many comments were made upon the noiselessness of the churn when in motion. How such a heavy piece of machinery can run so quietly is always a mystery to the uninitiated.

The other Dreadnaught churn was a special one, shorter than the regular machine with the end opposite the gearing partly cut away to show the position of the shelves and the famous Cherry single roll feature with which this churn and the Cherry Perfection are equipped.

The space occupied by the Cherry Co. included not only a large area in the open space of the machinery hall but just across the aisle and under the mezzanine or balcony was a reception enclosure along the back of which were a series of small offices, each completely equipped with desk and comfortable chairs where many important conferences were held during the week and where customers could meet salesmen of the company in the utmost privacy. It was an arrangement that was appreciated by the many who made use of this convenience.

Other Machines in the Cherry Exhibit.

Included in the complete line shown by the Cherry Co., in addition to those machines already mentioned, were three Model 60 Dreadnaught freezers, two of them direct motor drive and the other belt drive. One of these freezers was also equippd with the Thomas batch measure which is so rapidly becoming popular with the ice cream manufacturers. The other freezers were the Cherry Model 50, both motor and belt driven, and the Model 40 in both the belt and motor drive.

There were five different types and sizes of Cherry ice cream batch mixers shown. The largest was a 500 gallon Class B-1 steel body mixer equipped with self-circulating tank and finished in white enamel. There was also a 200-gallon machine of the same classification and fitted for belt drive. Then there was a 100 gallon Model A upright batch mixer equipped with direct connected ¼ H. P. motor drive. The other upright batch mixers shown included a 75 gallon Model B and a 50 gallon Model C mixer. All were finished in a beautiful white enamel.

Included in the other ice cream machinery shown was the Cherry ice cream can washer and sterilizer. This was also fitted up for direct motor drive and attracted much favorable attention.

New Types of Coil Machines.

Of course, there was a complete showing of the Cherry line of coil machines. Besides the three pasteurizing machines already mentioned there was on display a 1,000 gallon steel ripener and pasteurizer (Class B-2); a 600 gallon Class C ripener and pasteurizer. This was a glass lined machine, steel body, fitted with a 2-inch Cherry twin coil and finished in white enamel. Then there was a 500 gallon Class D pasteurizer with direct motor drive. This was a vitrified enamel body, copper lining and the Cherry twin coil. The 300 gallon Class E pasteurizer shown was a glass lined machine with a vitrified enamel body and was direct connected with motor.

One of the newer types of Cherry coil machines was the Class F pasteurizer. The size exhibited was a 500 gallon capacity. It was a belt driven machine finished in white enamel. The Class F pasteurizer is a skeleton frame machine which supports a glass lining. The gearing is mounted on strong steel supporting iron which is fastened securely to the heavy "bridge iron" which forms the skeleton framework. This new addition to the Cherry line of coil machines has been designed to provide a less expensive glass lined coil vat for the cream, ice cream plant and city milk plant. It can be furnished as a ripener, pasteurizer or batch mixer just the same as any other class or model.

The Cherry Condensed Milk Cooler.

Unquestionably the feature directly responsible for the keen interest displayed in the Cherry two coil condensed milk cooler displayed is the very evident saving of time in cooling which can be effected with this machine.

The two coils with which this cooler is equipped have much to do, no doubt, with its cooling efficiency. Another feature which has a great bearing on this matter of cooling is the special circulating tank which is a part of this outfit. This tank is fitted with a set of three brine or ammonia coils, assuring a temperature of circulating water as low as the operator wishes to take it. In an actual test made where 10 degree brine was used it was found possible to repeatedly cool a product containing 8 per cent fat and 33 per cent solids from 130 degrees to 44 degrees in the remarkably short time of two hours flat. This test was made with 600 gallons of product.

The cooler displayed was a 700 gallon capacity machine and was complete with the special circulating tank as shown.

Other Equipment in the Cherry Exhibit.

Other equipment shown by the Cherry Co. included a 500 gallon Cherry buttermilk machine of 500 gallons capacity. This was a steel body machine equipped with special blades on the coil and was fitted with the Cherry two-speed clutch pulley drive.

In addition to the cooler included in the Cherry



CHICAGO
NEW YORK
PHILADELPHIA
BUFFALO
ST. LOUIS
MILWAUKEE
LOS ANGELES
SAN FRANCISCO

Clarkson Gelatine Works

Manufacturers of

FOOD GELATINES

Write Us Regarding Our Supreme Pure Food Gelatine
No Better Stabilizer

Superior in Purity *Odorless and Tasteless*
Economical in Price *Uniformity Always*

WE GUARANTEE TO SHOW YOU A SAVING


EASTERN PATTERN MILK CANS


WESTERN PATTERN MILK CANS


REFRIGERATOR CANS


ICE CREAM TUBS


ICE CREAM CANS


CITY DELIVERY CANS

Huge Production Cuts Cost of Solar-Sturges Ice Cream Cans


ICE CREAM PAILS

THE bringing together of Sturges & Burn Mfg. Co. of Chicago and Solar Metal Products Company, Inc., of Columbus, Ohio, has resulted in direct benefit to every user of Ice Cream Cans. Better cans—at better prices—and nation-wide distribution are factors which no one who uses or deals in cans of this sort can afford to overlook.


BRICK TANKS


BRICK SLABS

BELOW is shown a can assembling room at our Bellwood, Ill. plant. The other view shows one of a battery of 175 modern toggle presses—each of which turns out thousands of pieces every day.


STEEL CHURNS


ENAMELS

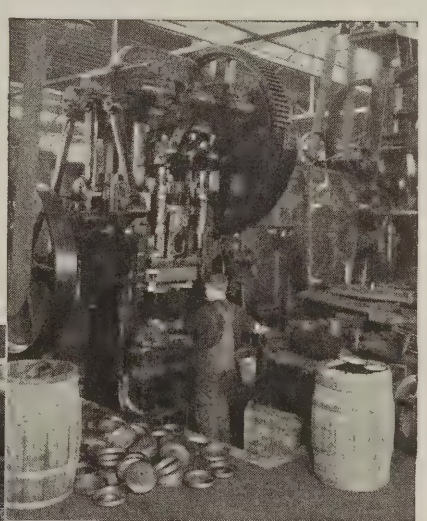
Solar-Sturges Mfg. Co.

General Offices: Congress and Green Streets, Chicago, Ill.

WAREHOUSES

Chicago, Ill.	**Modesto, Calif.**	**St. Paul, Minn.**
New York, N. Y.	**New Orleans, La.**	**San Francisco, Calif.**
Atlanta, Ga.	**Binghamton, N. Y.**	**Syracuse, N. Y.**
Cincinnati, O.	**Pittsburgh, Pa.**	**Tacoma, Wash.**
Mason City, Ia.	**Portland, Ore.**	**Columbus, O.**


SELF-CLOSING RECEPTACLES





IF you are a user of Milk Cans, Ice Cream Cans or small churns write today for full details regarding the complete Solar-Sturges line.

gravity system of pasteurization was a 2-inch Cherry tubular cooler and a 1½ inch tubular cooler.

Of course, the Friday printer was shown as well as the Capper paraffiner, Haugdahl starter can, the new style end dumping Cherry forewarmer, and No. 6 Cherry continuous cream pasteurizers.

A Small Pasteurizing Outfit.

Without question that part of the Cherry exhibit of greatest interest to the smaller milk dealer was the Cherry Junior pasteurizing outfit. This is a complete pasteurizing and cooling unit. It includes an upright pasteurizer similar to the Haugdahl starter can in appearance, a tubular cooler of the right size, and a bottle filler. The pump for elevating the milk from the pasteurizer over the cooler is mounted direct on the pasteurizer. Included in the outfit are all the necessary sanitary fittings and the jack shaft for belting from the motor to the pasteurizer. It is a complete unit in every detail and a mighty attractive as well as inexpensive outfit for the smaller dealer.



The Booth on Our Right at the National Dairy Show.

The Cherry Banquet.

As in past years, the Cherry exhibit at the show this year was under the direct supervision of S. J. Van Kuren, the head of the factory sales department. He had assisting him throughout the week fifty men from the sales and production forces and even then there were many visitors who were not given the attention the company would like to have given them. Mr. Van Kuren asked us particularly to apologize for any inattentions which may have arisen. It was simply impossible because of the immense attendance to give each individual who visited the exhibit the attention he deserved.

On Wednesday evening, October 12th, the executives of the twenty-five companies who have the exclusive sale of Cherry equipment in all parts of the United States and Canada were the guests of the company at an excellent dinner provided for them by a famous St. Paul chef at the Northland Country Club, about ten miles north of the city. Automobiles were in readiness at five o'clock and whisked the party off through the beautiful parks and over the fine country roads to a destination none of them knew a thing about. In issuing invitations to the dinner Mr. Van Kuren had only made the statement that they were to be ready at the appointed hour and that the affair was to be different than previous banquets. He certainly was right. It was different. It was a keen pleasure to take that drive into the country and to arrive just in time for a wonderful dinner. There were no after dinner speeches. When the meal had been consumed (and it was, with a relish), the rest of the evening was devoted to any amusement the members of the party saw fit to indulge in, and it was not until midnight that anyone thought of the hour and started back to the city. It was indeed different and thoroughly enjoyed by every member of the party.

Transporting Milk 140 Miles in Elyria Glass Enameled Tanks

THE efficiency and economy of Elyria Glass Enameled Tanks in transporting milk is well illustrated by the results accomplished by the United Milk Company of San Fransisco. Five tanks [two mounted on trucks and three on trailers] are used to haul milk from the receiving station at Soledad to the main plant at San Fransisco—*a distance of* 140 *miles.* Observations made under working conditions prove *beyond shadow of doubt* —that transportation in Elyria Tanks is the only practical, efficient and economical method for the modern milk plant to use.

Results Effected

Thirty-three hundred gallons of milk carried in one trip as against three thousand under old method; thirteen hours time required to make trip; time saved loading and emptying tanks; increase of only two degrees in temperature compared with 15 degrees when milk was hauled in cans; no loss of milk due to spillage or careless handling; rehandling of cans eliminated; help maintain higher quality of product; increase efficiency and simplify operations; prevent contamination.

We shall be glad to send you complete details of the United Milk Company plan of operation and show you how Elyria Tanks will serve you profitably and well. Write for proof of Elyria superiority in Milk and Ice Cream plants—large and small.

ELYRIA ENAMELED PRODUCTS COMPANY
ELYRIA, OHIO

Pittsburgh New York Chicago San Francisco Los Angeles
Canadian Milk Products Limited, Toronto



ELYRIA GLASS ENAMELED STEEL EQUIPMENT

WHAT BANKERS THINK OF ICE CREAM MANUFACTURERS.

Perhaps you've never quite thought of it this way, but, it does matter a whole lot to the industry as a class, and to you, as an individual; what Mr. Banker thinks both of the industry and of you as an individual.

In this connection we believe the following extracts from a statement made by a certain banker may interest readers of this publication.

Briefly summed up, you'll gather that this particular banker (and there are many like him) expects the ice cream manufacturer to be a good merchandiser of ice cream as well as a good maker of it.

His statement is, in part, as follows:

"Whenever we are dealing with other people, we are placed in the position of servants. If we make goods which we intend to sell, we must put the best quality in these goods that conditions will permit.

"Unless we are honest in the work we do, unless we are honest in our desire to serve, we have not laid a single stone in the foundation of our achievement. Some ice cream manufacturers are perhaps building a structure that they mistake for a success, but it is only a superstructure—they have neglected the foundation.

"During a season when the trade is forced to come to them they may show remarkable money-making results, but in another season, when they have real competition their houses of cards will have fallen.

"Some ice cream manufacturers believe that when they give their dealers excellent delivery service they have completed the service end of their requirements, when as a matter of fact they have just begun. They have just touched upon the important service end of their business, or the main foundation stones.

"When your ice cream is delivered to a store it must be dispensed properly by the dealer or two things may happen; first, the public will not like your goods; second, the dealer will not consider the ice cream business profitable. The majority of ice cream manufacturers neglect their dealers. They assume that their dealers know all about ice cream, how it is made, how to take care of it after it arrives and how to sell it; whereas, facts show that a great many dealers do not know how to take care of it and the great majority of them certainly do not know how to sell it.

"Ice cream today is largely sold by the weather. As a matter of fact, it should be sold by good merchandising in all kinds of weather, bad, indifferent or good. This fact is proven clearly and is demonstrated daily by those small number of dealers who understand how to sell ice cream and who sell it continually, winter and summer, rainy days or beautiful sunshiny days.

"A dealer of ice cream should be considered as your salesman, not as some dealer. He should be coached in selling. He should be taught the importance of selling more ice cream. He should be given hints and suggestions on how to make his soda fountain and soda parlor inviting. He should be told the cost of advertising material furnished him so that he will not waste it. He should be shown the value of displaying this advertising material properly.

"But so many ice cream manufacturers say, "Yes, this is true. He should be shown, but can he be shown?" Please remember that every dealer is as anxious to make money as you are and that if your salesmen who go from your plant to his store know how to sell not only ice cream, but your merchandising and advertising service, that dealer will appreciate your ideas because your ideas make him money.

"How many ice cream plants have thoroughly instructed their own salesmen how to sell the dealer? From my investigation as a banker I find there are very few manufacturers of ice cream devoting anywhere near enough attention to this great work.

"I know of a case where an ice cream manufacturer paid from $2.50 to $3.50 for a handsome cut-out and sent it out to one of his dealers to display. Twenty-four hours afterwards he went up to see the display and it could not be found, after a search this display card was found at the bottom of a paper bailer, destroyed. I blame the ice cream manufacturer more than I do the dealer. If that ice cream manufacturer had sent a salesman or gone himself to the dealer and told him something as follows this would not have happened. He might have told the dealer: 'Mr. Jones, here is one of the most beautiful cards that we have ever purchased. The cost is approximately $3.50. It should be good for a place in your store for the next thirty days. If we are willing to pay $3.50 for this placard to display your store to sell more of your ice cream for you, we know you will be willing to give us a space and keep the placard in that space."

"If this dealer had been sold the advertising on the idea that it would produce results for him and on the idea that this advertising costs money he would have either taken the placard and kept it in its place, or advised them that he had too many placards and could not use it at present. He would not have put it in the paper bailer. What is the use of purchasing large supplies of advertising material unless your own sales organization tells dealers how to get it displayed."

It is a matter for congratulation that the ice cream industry is served by a number of concerns of a very high type, and, ranking high amongst these is the Frederick C. Mathews Company of Detroit, Michigan. This



The new way—a child's play

Adds Years to Life of Your Condensers

Braun Condenser Paint is sold only in original trade-marked packages with labels attached. It is a PERFECT SCALE REMOVER.

5 and 10 Gal. Cans, $2.50 per gal.
Bbls. and Half Bbls., $2.25 per gal.
Put up in 5 and 10 gallon cans, barrels and half barrels.

MANUFACTURED BY

The American Paint & Button Company
ARKANSAS CITY, KANSAS
DISTRIBUTING POINTS

The Vilter Mfg. Co., Milwaukee, Wis. The Ruemmeli Dawley Mfg. Co., 3900 Chouteau Ave., St., Louis, Mo.
Chas. Zoller Co., 205 Prince St., New York City The Doermann-Roehrer Co., 318 E. 3rd St., Cincinnati, Ohio.

An Everlasting Asset

A NEW plant or the modernization of an old one—is a broad stroke of business progress. It is the fulfillment of an ambition and an investment expected to serve present needs and future expansion requirements. To make certain this ambition and investment will be an everlasting asset —not a continuous expense—justifies extreme care in the selection of plans as well as in the construction specifications and erection details.

McCormick ARCHITECTURAL and ENGINEERING Service

first of all, is an assurance that your plant will operate at a minimum cost for labor; it protects you from expensive blunders and miscalculations; it relieves you of the mass of intricate details incident to construction; it removes all uncertainties and speculative factors, and delivers the completed plant exactly as you want it and according to the plans and specifications worked out and approved before starting the work.

A remarkable feature of McCORMICK SERVICE is its low relative cost. It invariably pays for itself the first year. No matter how large or small the job, you will find the McCormick organization of experienced ice cream and dairy engineers can be of valuable and economical service to you.

You may find out what McCORMICK SERVICE can do for you without any obligation whatever. A letter of inquiry is sufficient.

THE McCORMICK COMPANY, Inc.

ARCHITECTS and ENGINEERS for the ICE CREAM and DAIRY INDUSTRY

PITTSBURGH
Century Bldg.

NEW YORK
41 Park Row



Smith & Clark Company, Scranton, Pa.

Construction Executed by Your Own Local Contractor Under the Direction of Our Visiting Superintendents

concern has had a most phenomenal growth, rising, in a few years, from small beginnings, to a business of very great annual volume. The founder of the business is himself recognized as a foremost exponent of ice cream merchandising methods and he is sufficiently broad-gauged that he has gathered around him a number of very able lieutenants who are constantly going up and down the breadth and length of the land and making themselves helpful to the trade by merchandising advice and suggestions of immense practical value.

To those of our readers who would benefit (and they are numerous) by coming in contact with this live organization we suggest a call at the booth which this company will have at the forthcoming exposition of Ice Cream Supply Men, where a notable displayer of material will be shown and where several of the "Mathews" exponents will be in attendance.

This booth will be a center where ideas may be exchanged and where the ice cream manufacturer with almost any kind of merchandising problem may meet with the most intelligent kind of receptiveness and receive suggestions for plans for merchandising which will impress him as sound, practical and productive.

CHAPMAN & MORRIS SELL OUT.

Geo. A. Chapman and A. D. Morris have disposed of their interests in, and severed their connections with the Peerless Ice Cream Co., of Kansas City, Mo. Mr. Lewis H. Aines is the new proprietor and general manager.

Ice Cream, Present and Future

Makers of ice cream who assembled here from all parts of the country visualized in a very impressive way the scope of this industry in the United States.

As George Ade might put it, ours is "the ice cream eatingest country in the world". Consumption of this food delicacy has grown amazingly. The process has been facilitated, say the manufacturers thereof, by the prohibition laws. A still more important stimulus, in all probability, is to be traced back to the man who first thought of and put forth the ice cream cone, whoever he may have been. That device far antedates the coming of prohibition as a countrywide policy.

The ice cream cone has come to be looked upon in the realm of American childhood as veritably "the horn of plenty". It has its immense following now among the grown-ups. Any summer-time gathering in the land where ice cream figures as a commercialized article would be an anomaly if it were lacking in cones filled with ice cream. For a goodly part of the year these cornucopias of sweetness enter largely into the business of the corner grocer, the druggist, the candy maker and others.

Ice cream lies at the base—figuratively speaking—of the soda water fountain, and it is at the soda fountain better than elsewhere that the reflex effect of prohibition on the ice cream traffic is observed.

We speak of this product as a food delicacy. The words are most fitly chosen. Ice cream, if properly made, is an admirable food, and there is no question of its ability to please the palate of baby, youth or adult. More often than any other so-called dessert it plays a role at banquets, in hotels and cafes, and for home dinners.

It is good to be told that one of the aims of the convention of manufacturers in Minneapolis was to create a countrywide sentiment for the making of ice cream which shall be purer in content and richer in food values.



Ice Cream Containers, Milk Bottle Caps, Big Dishes of Ice Cream and Hearty Welcomes Were Their Specialties. 1921 National Dairy Show.

Whether there shall be still further enlargement of ice cream consumption both as a gustatory delight and as a nurturing thing for the human body depends largely on the manufacturers—on the quality of the product and the means used to make the virtues of the output known to the public. The limit of the possibilities of the business has not yet been reached. The field spreads out far and invitingly. Science and hygiene are frankly on the side of good ice cream—Minneapolis, Minn., Tribune.



Buy from the Originator

We are the originators and patentees of this quality ice cream tub cover. No royalties to pay—no infringements to guard against. All good reasons why

Schott Brothers
Quality Tub Covers
Are Lower in Price

The fact that after six years as users, original buyers of *Quality Tub Covers* send in repeat orders each season for new tub covers, should be proof enough for you to investigate the quality, price and serviceability of Quality Tub Covers.

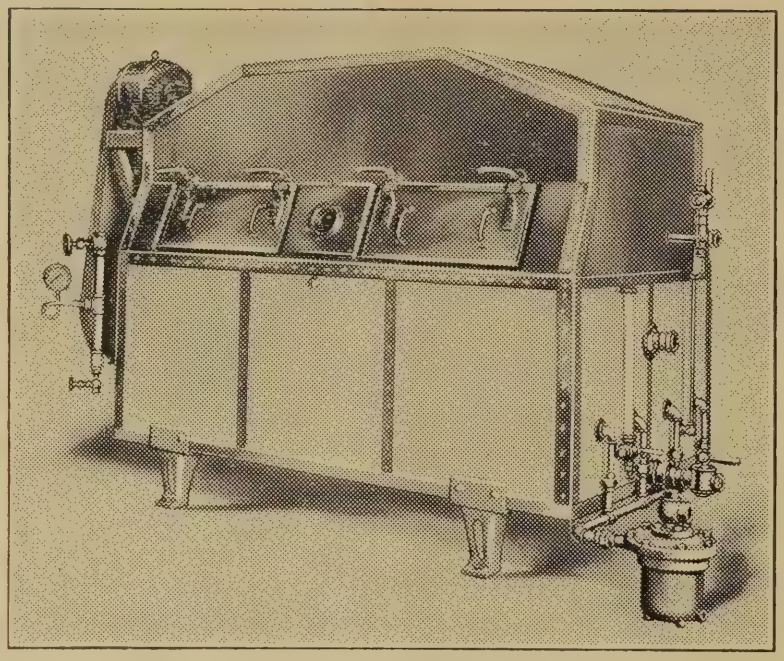
THE QUALITY TUB COVER COMES TO YOU COMPLETE WITH STAPLES, TIE STRINGS AND YOUR ADVERTISEMENT

Write for Prices Now

THE SCHOTT BROS. COMPANY

WEST SALEM *"If Made from Canvas We Make It"* OHIO

Ruff Milk Condensing Evaporator



1922 Improved Model Motor Driven



CREAMERIES { STROUDSBURG
CHERRY VALLEY
SAND HILL

P. O. BOX 615

STROUDSBURG CREAMERY CO.

MANUFACTURERS OF
ICE CREAM AND CREAMERY BUTTER
PASTEURIZED MILK AND CREAM A SPECIALTY

STROUDSBURG, PA.

Sept, 10, 1921.

The Ruff Process has no equal when you consider Quality and Economy.

The Cream Production Company,
Port Huron, Mich.

Gentlemen:

Having used one of your Condensers for sometime, we are so well pleased with its merits and the product that it produces that we gladly recommend same to all that might be desirous of turning their skim and surplus milk into money.

At this time of the year we are using our whole milk and butter, and by condensing it slightly we get the finest mix, and the best ice cream ever produced.

We find that by using your Condenser that we are saving the money, you claimed we would.

Yours very truly,

Stroudsburg Creamery Co.
Fred K Dale
Frds.

Your correspondence solicited

THE CREAM PRODUCTION COMPANY

PORT HURON

B. Trudell & Company, Montreal, Quebec
Manufacturer and Jobber for Canada

MICHIGAN

DELFT

The World's Best Food Gelatine

HAROLD A. SINCLAIR 160 Broadway NEW YORK

Some of the
REASONS WHY
you will want
DELFT GELATINES

Bacteria	**GONE**
Odor	**GONE**
Chemicals	**GONE**
Sandiness	**GONE**
Shrinkage	**GONE**
Troubles	**GONE**
Uniformity	**HERE**

"Price is a relative term—quality always a concrete fact."

There are two classes of gelatine, DELFT—and others.

When you have once used Delft you will forget the others.

Meet us at Booth No. 6
Atlanta Show
November 28th to December 2nd.

Middle-Western Distributors
ROCKHILL & VIETOR
FRANK Z. WOODS, Manager.
180 N. Market St., Chicago, Ill.

South-Western Distributors
BLANKE MANUFACTURING & SUPPLY CO.
St. Louis, Mo.

50% of Your Ice Cream Count Goes to Flavor
of Your Ice Cream Production is Vanilla

Philadelphia, the greatest ice cream consuming city in the world, gets its results with Mexican Vanilla Powder. Do it the Philadelphia way — with

MICHAEL'S MEXICAN
THE ORIGINAL
VANILLA POWDER
With and Without the Bean Showing

DAVID MICHAEL & CO.
INCORPORATED
MILLERS AND MANUFACTURING CHEMISTS
GUMS AND FLAVORING EXTRACTS
RIDGE AVE., GREEN & CLAY STS.
PHILADELPHIA

THE FLAVOR THAT MADE PHILADELPHIA ICE CREAM FAMOUS!

IT ALWAYS PAYS To Retin Milk and Ice Cream Cans

There is no need of repeating about the excellence of our work and service.

Twelve years of experience and the best equipped tin-plating plant, assures quality and service.

Write for new price list

Alois Aufrichtig Copper & Sheet Iron Mfg. Co.

Third & Lombard Sts. St. Louis, Mo.

VAN-MUL

The King of Ice Cream Vanilla Flavors

Made of **Mexican Beans** and Fortified

Will Not Freeze or Cook Out.

¼ Oz., 7c. Flavors, 5½ Gal. Mix of Ice Cream
3 Drams, 10c. Flavors, 100 Pounds of Candy

Many Satisfied Users

Packed	Price Per Pint
1 Pint Bottle	$5.00
5 Pint Bottles	4.50

ORDER NOW

Guaranteed to please or money back

Downey-Turnquist & Co.

Manufacturing Chemists and Importers

Makers True Fruit Extracts
SODA WATER FLAVORS

537 N. Dearborn St. CHICAGO, ILL.



PROF. BAER'S INQUIRY DEPARTMENT

Dear Sir:—We are having some complaints on our ice cream. The dealers say it has a slight starchy taste when it begins to soften up. We use the following mix:

Thirty-five gal. 3.5 per cent milk, 50 lbs. butter, 34 lbs. sugar, 55 lbs. sweetened condensed (or 5 gal), 3 lbs. gelatine, 9 oz. Meloine, 32 oz. creamex, 25 lbs. water. This makes about 49 gals. mix which freezes out from 90 to 93 gals. ice cream after aging about 20 hours.

Please figure this mix and state whether or not we come up to the state standard. Any criticism or suggestion you have to offer on this mix will be greatly appreciated.

If it is convenient for you I would be glad to ship you a sample of our cream and have you score it.

Yours very truly, A. C. R.

Reply: I have analyzed your ice cream mix and you will find the calculations given below in Table No. 1:

Table No. 1.

Ingredients	Fat	Serum Solids	Total Solids
301 lbs. 3.5% milk	10.5	25.99	36.49
50 lbs. 84% butter	42.0	.....	42.00
34 lbs. sugar	...	.....	22.30
55 lbs. sweet cond. milk	...	14.85	36.85
3 lbs. gelatine	...	.....	2.85
2.5 lbs. Meloine and Creamex	...	.....	2.37
25 lbs. water	...	.....	.....
470.5 lbs.	52.5	40.84	152.86
Per cents	11.17	8.7	32.52

The slight starchy taste which you state your dealers object to is caused by the large amount of ripener which is used in your mix. I think if you will cut out about three-fourths of the Meloine and Creamex and use a little more gelatine you will find that your trade will not have this objection.

We are hardly in a position to score a sample of your ice cream at this time. You probably remember, however, that we have a one weeks' short course for ice cream makers, which will be given this year beginning the week of December 26th. We shall be very glad to have you come to this course this winter, and also to have you bring a sample of your ice cream to be scored. Last year we had a very interesting score contest and we hope to have it much better and more interesting this year.

* * *

Dear Sir:—We submit herewith formula for ice cream mix which is causing us trouble with sandiness:

637 pounds 15 per cent cream, 20 gals. condensed skim, 30 lbs. skim milk powder, 70 lbs. sugar, 35 lbs. glucose, 6 lbs. gelatine.

The above is the contents of the mix, which we are at present using, and causing us much trouble with sandy ice cream after it has been kept for some time. This mix is pasteurized to 165 degrees, viscolized at 120 degrees F. We obtained 100 per cent overrun and keep it at that all the time.

Would appreciate very much if you could show us wherein the fault lies. Is it in the mix itself, or the temperature at which the finished ice cream is held after freezing, which caused the sandiness?

Very truly, C. C. CO.

Reply: I have analyzed your formula and you will find the calculations given below in Table No. 1:

Table No. 1.

Ingredients	Fat	Serum Solids	Total Solids
637 lbs. 15% cream	95.55	47.35	152.90
180 lbs. cond. skim 30%		54.00	54.00
30 lbs. skim milk powder		28.50	28.50
70 lbs. sugar			66.50
35 lbs. glucose			24.50
6 lbs gelatine			5.70
958 lbs. mix	95.55	129.85	332.10
Per cent	9.55	13.5	34.5

Per cent sugar, 9.36.

I can easily see where you have had trouble with sandy ice cream. You are using too high a percentage of milk serum solids. I have never recommended the use of more than 11 per cent milk serum for ice cream containing about 10 per cent butterfat. You will also notice the percent of sugar you are using is very low. I am presuming that the 20 gallons of condensed skim milk which you are using does not contain any sugar because if this was the regular sweet condensed milk you would again have too large amount of sugar and over 40 per cent total solids. You can easily remedy your trouble by changing your formula. I suggest that you reduce the amount of skim milk powder from 30 lbs. to 10 lbs. and also you increase your sugar to 12 per cent, which means you would have to have 30.4 lbs. more sugar. I am suggesting a completely revised formula for you in Table No. 2:

Table No. 2.

Ingredients	Fat	Serum Solids	Total Solids
637 lbs. 15% cream	95.55	47.35	152.90
180 lbs. skim condensed		54.00	54.00
10 lbs. skim powder		9.50	9.50
100.4 lbs. sugar			95.38
35 lbs. glucose			24.50
6 lbs. gelatine			5.70
31.6 lbs. water			
1000	95.55	110.85	341.98
Per cents	9.55	11.08	34.19

Per cent sugar, 12.0.

In case you have any further trouble, or if there is anything which you do not understand, I shall be glad to have you write me again.

* * *

Dear Sir:—Please send formula, worked out in gallons, for a 150 gallon mix, using 4 per cent milk, 20 per cent cream, and 8 per cent condensed, carrying 8 per cent butterfat and 34 to 36 total solids or whatever is required to make a good smooth cream. Also send rules so I can figure per cent of butterfat and total solids in ice cream mix. A. A. R.

I am suggesting below in Table No. 1 a mix containing the ingredients which you stated in your letter. You will notice that this mix calls for a large amount of condensed milk. I hardly know whether you would want to use such a large amount. You will notice, however, that the total solids, even with 14 per cent sugar, amounts to **31.6 per cent**, and not 34 to 36 per cent, as you wanted it to. You have to use too large an amount of skim milk to make an 8 per cent butterfat ice cream testing 36 per cent total solids.

Table No. 1.

Ingredients	Fat	Serum Solids	Total Solids
185 lbs. sugar			175.75
6.6 lbs. gelatine			6.20
396 lbs. condensed	31.68	71.28	102.96
208 lbs. 20% cream	56.00	19.94	75.94
452.4 lbs. 4% milk	18.09	38.65	56.74
1320 lbs. mix (150 gallons 8.8 lbs. to gal.)	105.77	129.87	417.59
Per cents	8	9.9	31.63

Speed Up
Your Brick Cutting Dept. with a "New Era"

Cuts standard ice cream slabs from moulds into quarts, pints or any size desired, as fast as the operator can release the ice cream from the moulds.

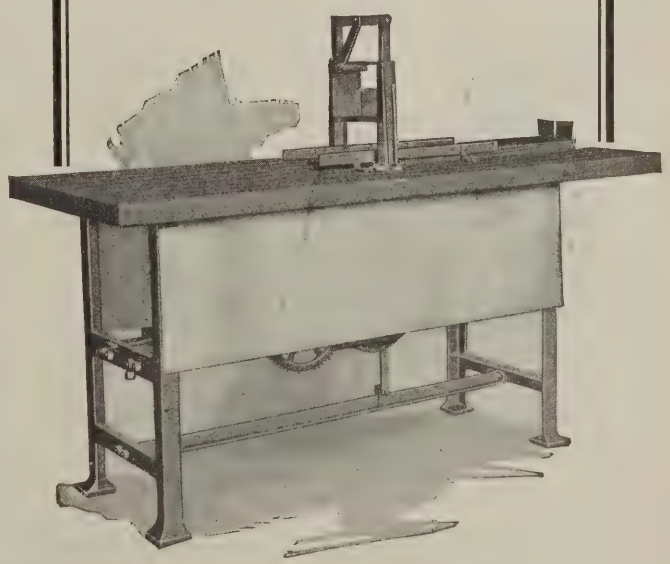
Absolutely Uniform

and unfailingly accurate is the "New Era" Ice Cream Brick Cutter. It's simplicity, speed and accuracy.

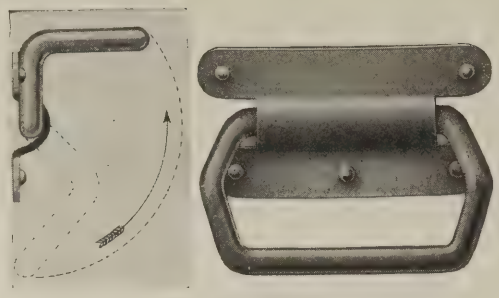
Reduces Costs

Our circulars tell all about this simple, practical machine. Get one.

The New Era Company
146 Merritt St. Oshkosh, Wis.



BEEHLER



NO. 85 HANDLE

HARDWARE
FOR
Ice Cream Tubs

HANDLES, CLAMPS, LOCKS,
CARD HOLDERS, CLEATS

Electrogalvanized Finishes

Beehler Steel Products Co.
ST. LOUIS, MO.

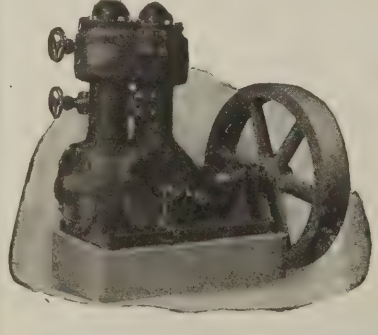
Do ONE THING Well

That's the "York" Maxim

We are Refrigeration Specialists—not Jacks of all Trades.

Why not consult us about your problems?

The experience of over 13000 users is yours for the asking.



YORK
The
Ultimate
Ice
Machine

Westerlin & Campbell Company
CHICAGO, ILL.
J. G. HAMMERSCHLAG, *Wisconsin Manager*
1011 Majestic Bldg., Milwaukee, Wis.

I suggest that you try out this formula and let me know what you think of the product. You could possibly use skim milk solids in the form of skim milk powder instead of the 8 per cent butterfat condensed milk.

I should be glad to hear from you again, and suggest another formula to you using skim milk powder.

* * *

Dear Sir:—We wish to produce ice cream that will give a butterfat of between 8 and 9 per cent. We wish to use skim milk, condensed, 3.5 per cent milk, and cream. What per cent cream would be required and what proportions of each should be used in mixing 5 gallons of the raw product? We use a brine freezer, but have no homogenizer nor viscolizer.

Yours truly, D. I. C. CO.

Reply: I am glad to suggest to you below in Table No. 1 a 100 -pound ice cream mix made from the ingredients which you suggested in your letter. This mix will make 20 gallons of ice cream testing 9 per cent butterfat. I am sure you will have no trouble in securing a satisfactory product from this mix:

Table No. 1.

100 lbs. mix, 20 gallons ice cream, 9 per cent fat.

Ingredients	Fat	Serum Solids	Total Solids
14 lbs. sugar	....	.....	13.30
1 lb. gel. and flavor, 10 oz. gel.		.....	.60
16 lbs. cond. skim milk	....	5.44	5.44
25 lbs. 30% cream	7.50	1.52	9.02
44 lbs. 3.5% milk	1.54	3.64	5.18
100 lbs.	9.04	10.60	33.54

* * *

Dear Sir:—Would like to have your opinion on using whole milk sweetened condensed testing 8 per cent butterfat, sugar 43 per cent, total solids 73 per cent. In place of evaporated whole milk cond. fat 8 per cent, total solids 30 per cent. We seem to have trouble in getting the whip. We use 620 pounds to a 800 gallon batch of finished cream. Using milk, cream, butter and condensed. We are aiming to have a 12 per cent cream with 35 per cent solids. When we use the plain condensed we have no trouble in getting 100 per cent overrun, but just as soon as we use the sweetened condensed we seem to have trouble. We can get the 100 per cent all right but it takes too long to whip, using the same formula in both cases. So I can only lay it to the sweetened condensed.

Yours respectfully, C. S. P.

Reply: I am not able to suggest just what is causing your trouble, as we do not seem to have this trouble here in Oklahoma where we use sweetened condensed milk to a large extent. I suggest that you give me an outline showing all the ingredients of your mix and I shall be glad to look into the matter further and try to locate your trouble.

It is possible that if you aged your mix a little longer that you would secure the overrun more easily. You are probably using the mix with a higher solids contents when you use the sweetened condensed milk than when you use the plain condensed milk and this may be the reason for the difficulty in securing the overrun. I know that it is possible to handle the sweetened condensed milk so that you should experience no difficulty.

* * *

Dear Sir:—Allow us one question to begin with: Using powdered skim milk, instead of condensed milk what formula do you recommend for a 100-pound mix to make a 12 per cent ice cream, using a 25 per cent cream? Yours very truly, W. E. & SON.

Reply: I am glad to suggest to you below, in Table No. 1, a formula for a 100 pound ice cream mix testing 12 per cent butterfat, using powdered skim milk instead of condensed milk. I suggest that you try out this mix, and if you do not find it satisfactory just tell me what the trouble is and I shall be glad to offer further suggestions:

Table No. 1.

100 lbs. mix, 12 per cent butterfat.

Ingredients	Fat	Serum Solids	Total Solids
12 lbs. sugar	....	.....	11.40
1 lb. gelatine and flavor	....	.....	.75
4 lbs. skim milk powder	....	3.80	3.80
42 lbs. 25% cream	10.50	2.85	13.35
41 lbs. 4% milk	1.64	4.38	6.02
100 lbs.	12.14	11.93	35.32

* * *

We are making our mix as follows: 1300 lbs. milk testing 3.3, 335 lbs. sweetened skim milk condensed 40 per cent sugar, 105 lbs. sugar, 300 lbs. sweet butter 84 per cent, 3 lbs. Meloine, 67 lbs. gelatine, water and flavor (gelatine 12 lbs.).

We are homogenizing, temperature 160, pressure 2500 lbs. with a Mantin-Gaulin Homogenizer, aging about 36 hours before freezing. We get an overrun of 90 per cent. We always keep our freeze room below zero.

We are troubled with our ice cream falling down in the can. This is not noticeable at the time we are making shipment but when it arrives at destination. The cream does not get soft or watery but is hard in the can when it falls. What would you suggest to remedy this? How much total solids have we in the above? Would you recommend any change in the ingredients? Very truly yours, K. P. CO.

Reply: I have analyzed your ice cream mix below in Table No. 1. You will notice that you seem to have plenty of total solids and I hardly know what should be the cause of your ice cream falling down in the cans when shipped. I am wondering whether you have this condition in all of your cream, or just an occasional can. It is possible that the cans are not filled properly when the ice cream is drawn from the freezer. If drawn too rapidly into a can you are liable to have air pockets of considerable size which will cause it to fall. It is also probable that you are securing more overrun than 90 per cent as you state. You should not get over 470 gallons of ice cream from the 2110 lb. mix if your overrun is as much as 90 per cent or less. Your ice cream should not weigh less than 4.5 lbs. to a gallon. If it does your overrun is higher than 90 per cent.

Table No. 1.

Ingredients	Fat	Serum Solids	Total Solids
1300 lbs. 3.3% milk	42.9	111.88	154.75
335 lbs. condensed	....	90.45	224.45
105 lbs. sugar	....	.....	99.75
300 lbs. sweet butter 84%	252.0	.....	252.00
3 lbs. meloine	....	.....	2.70
12 lbs. gelatine	....	.....	11.40
55 lbs. water & flavor	....	.....	.....
2110 lbs.	294.9	202.33	745.08
Per cent	13.9%	9.5 %	35.3 %

Per cent Gelatine .56%
Per cent Sugar 11.3%
Gallons ice cream 460—90% overrun weighs 4.5 lbs. to gal.

I suggest that you go over this matter very carefully and see if you can locate the trouble. If not, I would be glad to have further details as to just how much trouble you have. You might try using a little more gelatine and a little less of the meloine if you continue to have the trouble.

Increases Winter Business



Think what it would mean to you to ask thousands of customers their first choice of fruit, and flavors, and then offer those same customers a combination of a dozen or more of those first choice fruits and flavors, made into a **Supremely Delicious Ice Cream.**

Blanke-Baer Honey Fruit Salad

The Marvelous Fruit Combination means much in overcoming Winter Selling difficulties as Honey Fruit Salads adds to your Ice Cream just the Fruit and Flavor your customers want.

Put up in gallons cans, 10 gal. kegs, ½ bbls. and bbls.

Don't lose time or wait for sample. Order TODAY a case (6 gal. cans) of this heavenly mixture. You'll be surprised at wonderful results and low cost.

Blanke-Baer Extract & Preserving Co.
3230 South Kings Highway
ST. LOUIS, MO.

WE SPECIALIZE ON

Quality QS BRAND Service

Vanilla Flavors

Concentrated

$24.00 Gallon

Regular Strength

$4.50 Gallon

Discount on Season Contract

Prall-Huff Co., Inc.

Extract Manufacturers

FORT WORTH TEXAS

TAG HOOKS

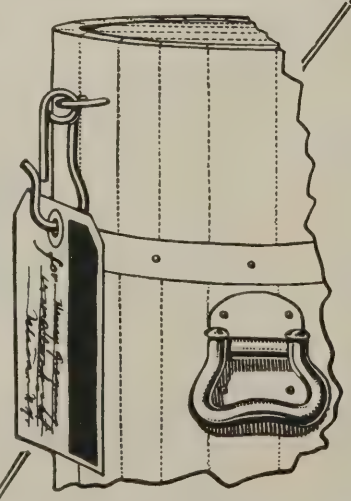
Save Dollars

Why use expensive, untidy, time-losing strings or wires while tagging your tubs or pails of ice cream?

SNAP 'EM ON

and use our rust-proof tag hooks.

SAVE TIME—Figure the cost of strings or wires. Then think of the value of a man's time while tying the tags on your tubs.



CAN'T RUST

Our new type of hooks are made of SPECIAL SPRING BRASS. They sell at $1 95 per hundred, including staples. Besides a 10 per cent discount in lots of a thousand or more. Samples on request.

DALY BROS.

SCHENECTADY N. Y.

Dear Sir:—A friend of mine told me he made his cream that you admired so much with 4 oz. of pure gum tragacanth to the 10 gal. mix, and through a secret process get it all in the mix. I would like your opinion as to whether or not it is possible to put that much gum into a mix. Yours truly, D. W. P.

Reply: Many ice cream factories prefer to use gum to gelatine, and it is easily possible to incorporate 4 ozs. of gum to a 100-lb. mix. The usual method of handling this gum is to mix the finely powdered material thoroughly with the sugar and then stir it into the mix with sufficient agitation to thoroughly incorporate.

* * *

Dear Sir:—When you were here you said you were experimenting with a 12 per cent B. F. 35 per cent T. S. mix. I would like very much to know what your results were.

I have been experimenting with a 14 per cent B. F. 36 per cent T. S. mix made from sweet butter and find that I have some trouble in keeping it from churning in the freezer after it has been through a viscolizer.

I would appreciate any information as to whether you can get a true emulsion of butter in a 14 per cent mix, as I have not gotten good results.

Yours truly, C. E. K.

Reply: We are getting very excellent results from our ice cream mix, which has a composition of 12 per cent butterfat and 34.5 per cent total solids. We are securing an overrun of about 100 per cent continually and our product is more satisfactory than the 10 to 32.5 per cent was last season.

I can see no reason why you should not secure good results with your 14 per cent mix. If your mix is properly emulsified or viscolized and at a low enough temperature when entering the freezer, you should have no more trouble with the possible churning back of the mix than you would with a 14 per cent mix.

* * *

Dear Sir:—We are having considerable trouble with our ice cream becoming soft in the bottom of the can, and we are sending you our formula, and if you can give us any information to eliminate this trouble we will greatly appreciate it:

Ingredients	Fat	Serum Solids	Total Solids
744 lbs. 4½% milk	33.4	63.95	97.35
84 lbs. butter	70.5	.....	70.5
120 lbs. sugar	....	.....	114.0
4 lbs. gum	....	.....	.....
4 lbs. extract	....	.....	6.0
72 lbs. milk powder	....	68.40	68.40
	103.9	.....	356.25

Gallons manufactured, 228; brine temperature, 12 degrees; time taken to freeze mix, 14 minutes; temperature of brine in storage tanks, 20 degrees above zero.

We run the entire mix, with the exception of extract through the emulser after it has been pasteurized to 150 degrees and held 30 minutes. We are using a Simplex Emulser, which operates about like a De Laval. The disc runs around 12,000 to 14,000 revolutions per minute, anything that will go through the milk pump will go through this machine. We also find that in cooling down the batch after it is emulsified, it will not freeze to the coils on the mixer, when the temperature of the mix is as low as 30 degrees, or 2 degrees below freezing. By using a mix that has not been run through the emulser we freeze the mix on the coils at a temperature of 32 degrees. We are wondering if the emulsification of this cream has any effect on the freezing in the storage tank, we have no

trouble in freezing the mix in the freezers. The mix is drawn from the freezer at a temperature of 28 degrees. We freeze our mix up 2 hours after it has been emulsified as it takes about that long to cool it down to 40 degrees. We find by holding it 12 hours we are unable to control our overrun. We get too much. Last year we did not pasteurize or emulsify our mix, but we find we are using considerable more ice and salt this year to keep our cream in good shape, than we did last year. However, we did not use as much milk solids last year as we are using this year. Our mix last year run 10 per cent fat, 30 per cent solids, and 75 to 85 per cent overrun.

Should ice cream with 100 per cent overrun have a lower storage temperature than cream with 75 per cent overrun, to keep it in good condition? Does emulsified cream take a lower temperature than cream made from pure milk and cream, in order to keep it in good condition? What proportion of salt and ice should be used in packing ice cream? Does the heating of gum have any effect on it, as to decreasing its strength?

Yours respectfully, K. C.

Reply: You have calculated your mix correctly and you should have no trouble in securing a satisfactory ice cream form this mix.

The soft ice cream in the bottom of your cans is due to too high a temperature of the brine in your packing box. Twenty degrees above zero is too high a temperature to hold ice cream. You should have a temperature of at least 10 degrees in your brine box. Your trouble is undoubtedly caused by the brine which you think is 20 degrees getting considerable warmer, perhaps 30 degrees or more, which will melt the cream in the bottom of your container. It will remain hard farther up in your container because your can is not setting in the brine like it is in the bottom. If you will reduce the amount of brine in your packing box you will have no more trouble in that respect.

Ice cream with 100 per cent overrun requires a lower hardening temperature than does one with 75 per cent overrun. It will, however, remain hard easier than one with lower overrun and emulsified ice cream does not require a lower temperature of storage than a cream made from pure milk and cream.

It is hardly possible for me to give you the correct proportion of salt and ice to use to keep the cream in good condition in your packing box. You will have to experiment yourself just how this must be done. However, I believe if you will keep the brine out of the bottom of your box or at least reduce the amount you will have no further trouble.

The heating of the gum will have no effect on decreasing it's strength, and you can easily mix your gum with the rest of the mix before pasteurizing and emulsifying.

* * *

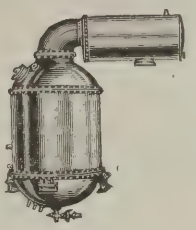
Dear Sir:—We are desirous of obtaining information which will help us to solve a problem which we very often have to contend with in ice cream mixes. In the preparation of commercial ice cream it is desirable to use a high proportion of serum solids. This, however, is apt to approach a critical point at which "sandiness" develops.

We have made investigation, both practical and chemical, and we are anxious to secure all possible additional data which will enable us to meet the situation. Will you, therefore, kindly furnish us with such information as you may have available along the lines embodied in the attached questionnaire:

1. In you opinion, what is the cause of "sandiness" in ice cream?

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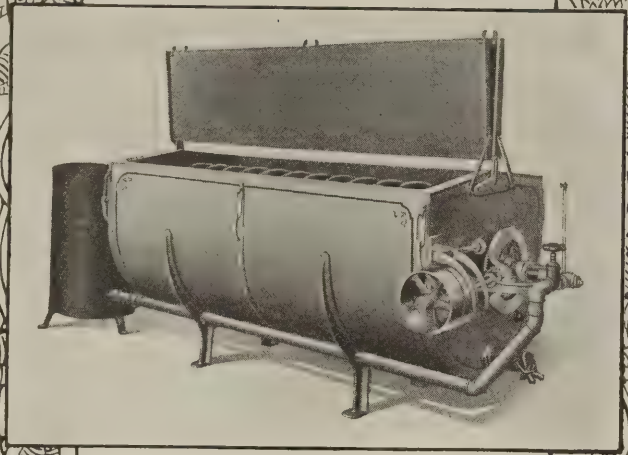
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MANNING MANUFACTURING COMPANY
Rutland, Vermont

MANNING EQUIPMENT

2. What investigation have you made to determine the cause?

3. Have you determined that lactose in super-concentration in ice cream is responsible?

4. In determining lactose in mix what method did you follow?

5. Has acidity, the presence of other sugars, improvers or thickeners, any value in checking "sandiness"?

6. At what concentration at freezer temperature does lactose crystallize out?

7. Have you data showing variation in the proportion of lactose to solids-not-fat in cow's milk?

8. Is this variation affected by the feeding, season, or lactation period?

9. In your opinion how may "sandiness" be avoided?

10. Can you refer to any other authority for additional information?

Very truly yours, S. T. N.

Reply: I have made some investigation upon this matter and we also have this matter under further study at this time.

My conclusions at this time are that the "sandiness" was caused by a super-concentration of lactose or milk sugar in the ice cream mix. This is, of course, due to a high per cent of milk serum solids in the mix. We have found that when 11 per cent or more of the milk serum solids are used in a formula containing 12 per cent sugar and 10 per cent butterfat with one-half of one per cent gelatine the "sandiness" does not appear. When, however, the serum solids are increased above that point there is danger of securing "sandiness" in the ice cream.

In my opinion gelatine, on account of its perfect collodial properties, assists greatly in preventing the re-crystallization of the lactose. Larger amounts of gelatine added to the ice cream mix would prevent "sandiness", even if more than 13 or 14 per cent milk serum solids was used but you understand it is impossible to increase the gelatine above a certain per cent, as it would not make a satisfactory ice cream.

* * *

Dear Sir:—Would you please send me a sample of the liquid used to determine whether or not the mix is sweet enough to be pasteurized without curdling? Also tell me where I can get some, and what to order.

J. F. C.

Reply: We are making up a one-half or one gallon of this alkali solution for you, and will ship it by express to-day. In using this solution you take a measure full of the alkali solution and mix it with an equal measure full of milk or cream to be tested. If the color of the mixture remains a light pink it will pass pasteurizing all right. If the color of the mixture turns white it is too sour to pasteurize. I suggest that you secure the alkaline tablets and all the necessary apparatus to make up the solution. The tablets may be ordered as Farington's Rapid Acidity test. I suggest that you get a box of 1,000 tablets, which will easily last you for several seasons. In making up the solution use two tablets to one ounce of water. This would mean 32 tablets to a pound of water. The water should be nice clean rain water or distilled water.

* * *

Dear Sir:—We increased our jeline 2 ounces on the 100-lb. mix and this helped us on our overrun, so we are having no trouble now. Also just received a scale so know what our machines are doing.

Is there any way to get away from using glucose?

When we did try to do without it cream appeared watery after freezing.

I am working entirely in mixing room, but soon hope to get in on the freezing end of the work, as I am anxious to become a first-class ice cream maker.

In taking a solids test of ice cream what condition is the cream to be in, a dark brownish color or nearly black? Also in making test for fat in ice cream at what temperature do you need your hot water bath, or is it best to shake bottle over alcohol lamp blaze? Will the fat separate entirely if heated over lamp before placing test in a Babcock tester? Also, in making a record of pasteurizing milk after temperature is recorded on a recording thermometer in heating, is it best to show a record of your cooling, with water down to 60 to 70 degrees before sending milk over cooling coils? It is required by the health department of Chicago to record cooling temperature as low as possible.

How many pounds of salt is required to hold 5 gallons of cream in good condition in shipping, provided it is in first-class shape when coming from storage room. Yours very truly, I. S. O.

Reply: There is absolutely nothing wrong with your mix, as it is up to the standard in all respects and you should have no trouble in making a satisfactory ice cream.

Regarding the use of glucose for part of your sweetener, there is absolutely no reason why you should continue its use. You are only supplying the equivalent of 18 lbs. of sugar which, in my opinion, will have no effect on the smoothness of your cream. You could easily substitute 18 lbs. of sugar for the 22 lbs. glucose in making the solids test for ice cream. The sample should be dried until it has a very light brown color and **not** until the sample is dark brown or nearly black.

I do not quite understand what you mean in your letter where you state you heat the test bottle over an alcohol lamp before placing in a Babcock tester. I should like to have you tell me just how you make this Babcock test and the kind of acid you use before giving you any advice.

Regarding the use of a record thermometer for indicating the temperature of pasteurizing and cooling of milk there is no law in this state which compels you to show the rapidity of cooling the milk on a chart. If you run your milk over the cooling coil after pasteurizing it is best to do this immediately after your milk is held instead of trying to cool it part way first and then running it over the coil. You not only save time this way but you also will get a better cream line on the milk and not as much of a cooked flavor.

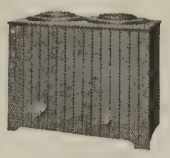
Answering your inquiry regarding the amount of salt to mix with ice to hold a five gallon packer of ice cream in good condition, I may state that I can hardly give you correct information on this point because that will depend upon the hardness of the temperature of the cream when first shipped, and the distance to be shipped. Some ice cream factories do not use over two pounds of salt while others would use three or four. I suggest that you try this out yourself and see which will be most satisfactory.

* * *

Dear Sir: I want to use sweet butter, 4 per cent milk, 8 per cent Carnation cream in my mix. How much gelatine do you suggest to use? I have Purity powder on hand, do you think that I should use it or not?

I have no hardening room. I use an Emery Thompson 40 quart brine freezer, a 30 gallon Riley Hauk mixer. Can you tell me why a small manufacturer can't make

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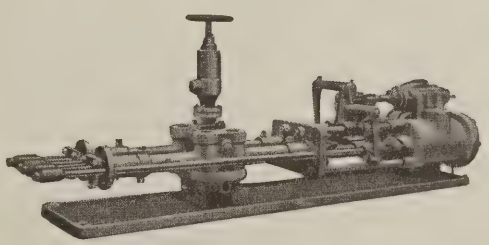
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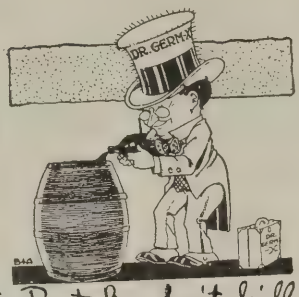


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We desire to announce that Mr. T. M. Ditman, who, for some years past has been conducting the National Audit Company, has associated himself with the Richards Audit Company in order that he may be in a position to devote more time to the interests of his clients.

Mr. Ditman is well known among the Milk and Ice Cream Producers, having designed and installed numerous cost and accounting systems which have proven satisfactory.

We shall be pleased to furnish details of this service and arrange for conference.

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as good ice cream as the large manufacturer. I would like to have your formula for a strawberry ice cream.

L. E. P.

Reply: I am suggesting below in Table No. 1 and Table No. 2 two 100 pound ice cream mixes either of which wil make a satisfactory ice cream if handled correctly.

Table No. 1.

100 lbs. mix; 8 per cent fat, 31 per cent solids.

Ingredients	Fat	Serum Solids	Total Solids
14 lbs. sugar			13.30
1 lb. gelatine and flavor, 12 oz. Gel., 4 oz. flavor			.75
20 lbs. 8% evap. milk	1.6	3.60	5.20
5 lbs. 84% sweet butter	4.2		4.20
60 lbs. 4% milk	2.4	5.12	7.52
100 lbs.	8.2	8.72	30.97

Table No. 2.

100 lbs. mix; 10 per cent fat, 33 per cent solids.

Ingredients	Fat	Serum Solids	Total Solids
14 lbs. sugar			13.30
1 lb. gel. and flavor, 12 oz. Gel. and 4 oz. vanilla.			.75
20 lbs. 8% evap. milk	1.60	3.60	5.20
8 lbs. 84% sweet butter	6.72		6.72
57 lbs. 4% milk	2.28	4.90	7.18

You will notice that the mix in Table 1 contains only 31 per cent total solids while that in Table 2 contains 33 per cent. The mix as shown in Table No. 2 will make a better ice cream than that in Table No. 1 and will also make a higher overrun possible. In case you desire to do so you can substitute some of your Purity Powder for a part or all of the gelatine given in the formula. You must, however, use this powder according to directions and it takes a great deal more powder to have the same effect as a certain amount of gelatine.

To make strawberry ice cream or any other fruit ice cream you just use the same vanilla mix, except you would color the mix pink and add the fruit flavor and crushed fruit just before you draw the cream from the freezer or mix it using a wooden paddle or stirring rod, after you have drawn it from the freezer.

There is no reason why a small ice cream factory should not be able to produce as good ice cream as that made by the larger manufacturers.

* * *

Dear Sir:—We are having a little trouble with holding our chocolate ice cream smooth. It seems to get grainy or flakey so much quicker than the other cream.

Now, in preparing our chocolate, we are using three-fourths to one pound of cocoa and one pound of sugar to three and four pints of water. We put this in a double cooker and cook for about three-fourths to one hour until it forms a thick syrup. We then put this into the other mix when it is about one-half frozen.

Could you give us anything that would improve this any? We add enough heavy cream and milk powder to bring up the fat and solid contents according to what water and cocoa we are using.

Yours very respectfully, B. T. P.

Reply: I have your letter of recent date stating some trouble you are having in getting a smooth chocolate ice cream. I do not quite understand why you should get this, but suggest that you could eliminate this trouble by using a little more gelatine in your mix or a little improver of some kind. There is no technical reason why the chocolate syrup when added to the cream should cause it to become grainy or flakey, providing it is introduced into the ice cream at the right time.

Dear Sir:—I find in using 14 lbs. of milk powder in my 300 lb. mix that the cream is too pasty and they have trouble in keeping it hard at the fountain. It has a rubbery effect. Would you please analyze the following formula as I cannot have any success with the milk powder: 100 lbs. mix, 12 lbs. sugar, 1 lb. gelatine and flavor and color, 16 lbs. condensed skim milk (unsweetened), 30 lbs. 30 per cent cream, 42 lbs. 3½ per cent milk, 1 lb. milk powder.

I have tried this out and it makes a fine cream. I get the condensed milk from DeCoursey at Wichita, Kansas. They claim that it is 33 per cent solids (milk). I have no way of finding out, but the standard for the condensed milk is 25.5 is it not?

I want to make the formula 10½ per cent butterfat so I can add my fruit and nuts.

Respectfully yours, A. M. & CO.

Reply: I have analyzed your mix below in Table No. 1:

Table No. 1.

Ingredients	Fat	Serum Solids	Total Solids
12 lbs. sugar	...	.....	11.40
1 lb. gelatine and flavor	...	.....	.75
16 lbs. condensed	...	5.28	5.28
30 lbs. 30% cream	9.0	1.87	10.87
42 lbs. 3.5% milk	1.47	3.60	5.07
1 lb. milk powder	...	.95	.95
102 lbs. mix.	10.47	11.70	34.12
Per cents,	10.2	11.4	33.5

You state this was to be for 100-lb. mix but you will notice that it figures out 102 lbs. This will, of course, reduce the percent of butterfat to 10.2 per cent. If you desire to have your cream test 10.5 per cent it will be necessary to use about two pounds more cream which would mean, of course, that you would use the corresponding amount less of milk. You have plenty of serum solids so that you could even omit the one pound of milk powder and still have 20 per cent milk solids.

I might say regarding the composition of condensed milk that the solids will vary from 25 to 35 per cent, depending on the concentration. If De Coursey gave you 33 per cent as the solids in the skim condensed it is undoubtedly correct. The ordinary 8 per cent evaporated milk which you buy in gallon tin cans contains about 26 per cent total solids and 18 per cent serum solids.

* * *

Dear Sir:—I have made ice cream for 15 years and never have had the trouble that I have had for the last three months. My cream is good when it comes from the machine, but after it is a week old it gets sandy. I keep it well frozen so it don't get icy. For my small mix I put in 10 gallons of 23% cream, 10 gallons milk, 10 gallons bulk condensed, 40 lbs. sugar, 1 lb. gelatine, ½ lb. Velvet powder. This runs out 60 gallons, weighing 5 lbs. per gallon. A. W.

Reply: I have analyzed your mix as best I could from the data which you gave in your letter and you will find it given below in Table No. 1.

Table No. 1.

Ingredients	Fat	Serum Solids	Total Solids
10 gal. or 83 lbs. 23% crm.	19.09	5.69	24.78
10 gal. or 86 lbs. 4% milk	3.44	7.39	10.83
10 gal. or 90 lbs. bulk cond. skimmilk	...	24.30	24.30
40 lbs. sugar	...	.....	38.00
2 lbs. gelatine, filler & vanilla	.....	.....	1.50
301 lbs. mix.	22.53	37.38	99.41
Per cent	7.4	12.4	33.0

Per cent sugar, 13.3.

You stated that your ice cream became sandy after about a week's storage in your hardening room. This



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This has been a record year for the sale of Mapleine to ice cream manufacturers. Plants that previously ordered by the gallon now buy by the keg, while some of the keg customers have become barrel purchasers.

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Get Mapleine Ice Cream started with customers this winter and you will find it one of your popular flavors next season.

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sandy condition is caused by too large a quantity of bulk condensed skim milk. You will note that your formula analyzes 12.4% serum solids. I believe that if your serum solids are reduced by using less condensed milk you will not have the trouble with the sandy cream. I would suggest that you could very materially improve your formula by using more cream to increase the butterfat content to about 9 per cent and reduce the condensed so as to lower the serum solids to 11 per cent. This would still give you a total solids content of 33 per cent and I am sure would produce a much better ice cream.

* * *

Dear Sir:—We are starting up a new plant and have a viscolizer, batch mixer and cooler together with a cooler room and hardening room for ice cream. We have an ample supply of sweet skimmilk available. We wish to make as fine a grade of ice cream possible and want a formula giving us the necessary solids if possible without the use of milk powders. Expect to put out about a ten per cent butterfat cream, using gelatine and flavors.

I find many using "Impruv-Mix" and we have been using Meloine. If by using sweek skimmilk without milk powders, our cream is short of solids, we could add our per cent of butterfat. J. J. F.

Reply: I am suggesting for your information two 100-lb. mixes below in Tables No. 1 and No. 2.

Table No. 1.

Ingredients	Fat	Serum Solids	Total Solids
12 lbs. sugar	...	.....	11.40
1 lb. gelatine and flavor	...	.....	.75
87 lbs. cream and skimmilk	10.0	6.85	16.85
100 lbs. mix.	10.0	6.85	29.00

Table No. 2.

Ingredients	Fat	Serum Solids	Total Solids
14 lbs. sugar	...	.....	13.30
1 lb. gelatine and flavor	...	.....	.75
85 lbs. cream and milk	12.0	6.50	18.50
100 lbs. mix.	12.0	6.50	32.55

You will notice that the first mix containing 12 per cent sugar and 10 per cent butterfat has a total solids content of only 29 per cent, and this mix would not, in my opinion, make a satisfactory ice cream unless additional milk solids in the form of skimmilk powder or condensed milk is used to bring the total solids to about 32.5 per cent. I am suggesting in Table No. 2 a formula increasing the percentage of sugar and butterfat. This formula will make a satisfactory ice cream without the additional milk solids, but I do not believe will be as good as a mix containing the extra solids.

* * *

Dear Sir:—I make cream in 50 lb. batches at a time, when made weigh 5 lbs. to the gallon. After it is made sometime it don't come up in the swell the way it should, or else it becomes mealy or sandy and I find butter sticking to my paddle. I get all my milk and cream from a creamery and they are very anxious to try and suit me so I thought perhaps you could suggest something for me to do to alter this. My formula is as follows: 3 gallons milk 4 or 4½ per cent, 1 gallon cream 40 per cent, 1 can of Van Camp's evaporated milk (8 lbs.), 6 lbs. of sugar, 4 ozs. gelatine, 90c to $1 pound, 4 ozs. of flavoring.

Audel's "Answers on Refrigeration"

A practical treatise for engineers. This book is the most complete work on the subject of refrigeration and ice making on the market today. 690 pages. Half leather binding.

Sent Prepaid on Receipt of $2.00.
OLSEN PUBLISHING CO.
210 Sycamore St. Milwaukee, Wis.

Reply: I have analyzed your mix and you will find the results given in Table No. 1:

Table No. 1.

Ingredients	Fat	Serum Solids	Total Solids
3 gal. or 25.8 lbs. 4% milk	1.03	2.21	3.24
1 gal. or 8.2 lbs. 40% cream	3.28	.45	3.73
8.0 lbs. evaporated milk	.64	1.44	2.08
6.0 lbs. sugar	...	.....	5.70
.25 lb. gelatine	...	.....	.24
.25 lb. flavor	...	.....	.03
Per cent	10.2	8.5	30.9
48.50	4.95	4.10	15.02

You will notice that the total solids of your mix are a little low, due to a low per cent of milk serum solids. In my opinion a good ice cream should have at least 20 per cent milk solids. You could very easily improve on your mix by adding a little skim milk powder. About 1½ lbs. of powder will bring the total weight of your mix up to 50 lbs. and would add the necessary milk solids.

The trouble you have had with the swell is undoubtedly due to the viscosity of your mix before freezing. I suggest that you could use a quarter of a pound more of gelatine and also that you hold your mix for at least twenty-four hours at a temperature of 40 to 45 degrees.

You also mention the fact that you have had trouble with the mix churning in the freezer. Whenever this occurs you cannot possibly get an overrun as the mix does not whip. You are probably introducing the mix into the freezer at too high a temperature, or are freezing too soon after pasteurizing.



DOLLY MADISON'S NEW DESSERT.

By Fairfax Davis Downey in Milwaukee Journal.

Flanked by the silver's glistening array.
All on a field of snowy napery,
China with eagle crest and "U. S. A."
Bedecked the white house board in finery.
A dozen sat at table. Every guest
Was of a station notable in life.
A few the President with talk address'd;
The others, Dolly Madison, his wife.

Old negro butlers steaming viands bore:
Pick of Virginia's toothsome, tender hams,
Maryland's turkey from her goodly store,
Sweet Indian corn and luscious golden yams,
"Dishes American!" the hostess said,
A merry twinkle in her eyes.
Those who the pretty look a-right had read
Knew then the feast would hold a surprise.

Time for dessert arrived. Then came that pause
Which feel bon vivants when they're nigh replete.
A period when hunger no more gnaws,
But palates crave for something light and sweet.
What could it be, a pudding? Something hot?
Some crispy pastry by a French name styled?
'Twas in a frosted bowl—a heaping lot.
At looks of wonderment the hostess smiled.

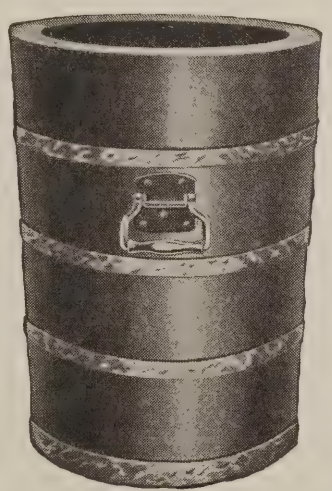
Most curious, all plied their spoons in haste
The dish's coolness gave some headaches slight;
But then the lingering sweetness of its taste
Resolved each guest in praise of its delight.
Each gave fair Dolly an approving beam.
And pressed her with, "What do you call it, pray?"
So Dolly dubbed the novel dish "Ice Cream."
And that is what they call it to this day.

"STAY-ON"
TUB COVERS

BEST IN EVERY TEST

SOLD BY ALL DEALERS

CANVAS PRODUCTS CORPORATION
FOND DU LAC, WISCONSIN



THE TEXAS BARREL COMPANY manufactures the most durable Ice Cream Tub on the market. Sizes in half gallon and up.

Our 29 inch five gallon tub prevents cream from melting at the top. A cream saver.

Specially prepared bottom so constructed as to withstand extremely rough treatment.

CABINET TUBS SPECIALTY

Can make immediate delivery—Write for prices

Texas Barrel Company
HOUSTON, TEXAS

PRESSURE CONTROLS.

The nature of ice users business has forced the demand for refrigerating machinery. No up-to-date ice cream manufacturer can afford to be dependent upon natural ice as his cooling medium. The uncertainties of the crop, the difficulty of getting the proper temperatures when and where needed, and the uncleanliness of melting ice soon convinces far-seeing producers that they must rely on refrigerating plants installed under their own control.

This sound conviction led to the rapid demand for mechanical refrigeration. With this growth came new troubles for the ice cream man. The operating of ice making machinery at first presented some problems. Trained men were hard to find. Old time steam engineers did not take to the new gas readily—said it was too slippery, dangerous, and a pesky nuisance. Which objections in general recall the early complaints against automobiles, with their gas tank full of highly explosive juice. "What if she should burst?" asked the early automobile buyer. And you will remember that the daily press found much material for cartooning exploding "Fords". Now days the streets are black with automobiles and several million drivers sit right on top of the gas tanks and never worry about an explosion.

And so it is with ammonia and mechanical refrigeration. Old time engineers had to learn about the new line or get off the band wagon. When the installer first tried to pump him full of operating dope there was one point which stuck out clear and reasonable. The pressure gauges. They were old friends, and as the installer kept harping on watching these gauges it dawned on Mr. Engineer that here was the heart and pulse of his plant. In the open faces of his gauges he could always tell practically everything that was going on inside his maze of piping. So it came to pass that watching the pressure gauges became the ABC of ice machine operating.

But here a new problem popped up. Same old conscientious engineer had business all over the plant. Perhaps half a block away near the coal pile or three flights up on the roof under the condensers. It would have taken a spy-glass to keep his gauges in sight. There was nothing to do but trust in the Lord and do a dance back to the engine room every few minutes.

So things went on until a smart bird figured out a rig to do the watching for him. He was an experienced ice machine man. Knew the ins and outs of his plant like a book. He figured that a pressure control that would cut out his compressor motor or close a steam line when condensing pressure got too high would relieve him of most of his troubles. So the old timer designed and made the first ammonia pressure control. He installed it and from then on took life easy. Nothing could happen in his plant to annoy him. If the condensing water failed, bang! his compressor was shut down. If some fool meddler tried to start up with the discharge valve closed the same thing happened. If a slug of liquor got over into the cylinder at the first shot the compressor shut down.

So the old man sat pretty until his friends and neighbors came prowling around to find out why he never had any "stinks", or never blew any gaskets, and why he had to spend so little time tightening up and overhauling. When they learned the secret they set up a howl and wanted to be let in on the good thing.

That was twelve years ago. From the few pressure controls made up in a little shop as an accommodation for suffering friends a big business has grown. Today thousands of ice machine owners and operators trace their relief from troubles to the Monogram Excessive Ammonia Pressure control, hanging dusty and out of sight somewhere on their engine room walls. These controls are made by the Refrigerating Specialties Co., 625-No. 9 South Clinton St., Chicago, Ill., whose positive guarantee goes with every instrument. They will be glad to send their catalog No. 18-3 to anyone asking for it.



NEW ICE CREAM FACTORY BRANCH.

Completed plans for a modern ice cream factory branch at Long Beach, Calif., an undertaking which will involve an investment in excess of $20,000, were announced recently by the L. J. Christopher Company of Los Angeles. The property is improved with a brick building, just completed, having a total floor area of 4,000 square feet. The new owners will start immediately to complete and equip the building with a a thoroughly modern refrigerator system, having capacity in excess of 3,000 gallons of ice cream.

The plan of the Los Angeles firm is to make this a complete unit of their large plant in the city. Every necessity for handling ice cream, as well as a large storage capacity and efficient delivery system will be provided.

The acquisition of the property and installing of a modern plant reflects the steady growth of the L. J. Christopher Company, now in its thirty-third year. The officers of the company have expressed faith in the wonderful future and development of Long Beach.



Getting drunk to drown trouble is like stepping in the fire to cure chillblains.

NO higher standard nor better quality in cream test bottles and glassware can be found than the well known Kimble Brand.

Order from your Jobber or write us direct.

Kimble Glass Company
402 W. Randolph Street
Chicago, Ill.
Factories: Vineland, N. J., Chicago, Ill., New York, N. Y.

PURE — HIGH GRADE
GELATINE
AND
Quick Action Ice Cream Powder
Special Double Strength Ice Cream Powder
Pure Powdered Gum
Ripener Powder
QUALITY — UNIFORMITY — SERVICE
St. Louis Gelatine Company
St. Louis Missouri

RESULTS COUNT

When the *Monogram* Pressure Circuit Breaker prevented a bad accident in the Newton Produce Company's refrigerating plant it saved its price many times over. **It was a good investment.**

Is your plant as well protected?

There are hundreds of these pressure controls preventing high ammonia condensing pressure accidents in all parts of the country.

They have been doing this good work for twelve years.

To be fool-proof and safe your refrigerating equipment needs this safeguard.

REFRIGERATING SPECIALTIES COMPANY,
9 South Clinton St., Chicago, Ill.

Gentlemen: I want absolute protection against dangerously high ammonia pressure in my refrigerating equipment. I have a..... H. P., ...phase, ...cycle, ...Volt, A. C. or D. C. Motor, operating a ..... ton compressor. Don't bother me with a salesman, but quote what your system of safeguarding my plant will cost.
Yours truly,

Name .....

Address .....

City ..... State.....

NEWTON PRODUCE CO.
PHONE 51
NEWTON, IOWA

Refrigerating Specialties Co. July 19, 1921
Chicago, Ill.

Gentlemen:-

Your ice machine Pressure Circuit Breaker is alright.

It has kicked off three times already and at least once saved us from a bad accident.

The regular ice machine man was away last Sunday so the writer went down to run it. I have not been operating the machine for some time and somehow started it wrong. In just a second, before I had even left the machine room, the pressure had popped up to 250 and the Circuit Breaker slammed the current off and stopped the machine. It had gone up so fast, due to starting compressor wrong, that I had not glanced up at the gauges.

So I figure that if this Circuit Breaker was the only one obtainable it could not be bought for ten times what we paid for it.

Yours truly,

NEWTON PRODUCE CO.

R B Jackson

First in the Field—Still Going Strong

Dunn's Celebrated Ice Cream Gelatines

Guaranteed to comply with all State and National food law requirements.

TRIED, TESTED and PROVEN

When you want a stabilizer that never fails you, it's gelatine

THOMAS W. DUNN COMPANY

248 Front Street, New York

WORLD'S DAIRY CONGRESS ORGANIZATION.

In response to the call sent out by the chairman, H. E. Van Norman, of the organization committee for the World's Dairy Congress, some sixty subscribers met Wednesday, October 12th, and adopted a constitution for the organization which will have charge of the plans for the World's Dairy Congress. The name of the organization is to be the World's Dairy Congress Association, the governing body is a board of vice presidents made up of the president or other representatives of nineteen national dairy organizations and nineteen or more vice presidents at large. Nine vacancies on the board were left to be filled on nomination of the president after a more full canvass of the industry for members than has yet been possible. Details are referred to an executive committee to be nominated by the president and approved by the board of vice presidents and which will report to the board of vice presidents from time to time. Honorable Henry C. Wallace, secretary of agriculture, was elected honorary president of the World's Dairy Congress Association; H. E. Van Norman, University of California, was elected president; Robert Scoville, president of the American Guernsey Cattle Club, was elected senior vice president; C. W. Larson, chief of the U. S. Dairy Division, and B. H. Rawl, former chief of the U. S. Dairy Division, were elected honorary vice presidents.

Honorary president—Henry C. Wallace, secretary, Department of Agriculture, Washington, D. C.

President—H. E. Van Norman, president, National Dairy Association, University of California.

Honorary vice president—C. W. Larson, Chief, Dairy Division, U. S. Department of Agriculture, Washington, D. C.

Honorary vice president—B. H. Rawl, San Francisco, former chief, Dairy Division, U. S. Dept. Agriculture, Washington, D. C.

Senior vice president—Robert Scoville, president, American Guernsey Cattle Club.

In addition to the officers, a board of vice presidents, to have charge of the plans for the Congress, was elected, consisting of the following members at large:

Dr. D. V. McCollum, Johns Hopkins University; D. E. Austin, New York; Loton Horton, New York; John Le Feber, Milwaukee; Ed. Lewis, New York; H. J. Chisholme, New York; W. L. Cherry, Cedar Rapids, Ia.; J. A. Walker, Chicago; John A. Bell, Jr., Pittsburgh; C. E. Gray, San Francisco; nine additional to be named later.

The following presidents of national organizations, connected with dairying, were elected members of the board of vice presidents: Chas. Harding, American Butter Manufacturers; Robert Scoville, American Guernsey Cattle Club; Paul O. Reymann, Ayrshire Breeders' Association; Frank O. Lowden, Holstein-Friesian Association of America; M. D. Munn, American Jersey Cattle Club, National; Milo D. Campbell, National Milk Producers' Federation; E. M. Bailey, International Milk Dealers' Association; C. E. Morris, National Association of Ice Cream Manufacturers; W. C. Davis, National Creamery Machinery Manufacturers' Association; F. H. Harwood, National Creamery Supply Jobbers' Association; C. H. Eckles, American Dairy Science Association; N. P. Hull, National Dairy Union; C. L. Roadhouse, International Association D. & M. Inspectors; Wm. Hale, Brown Swiss Cattle Breeders' Association; H. E. Van Norman, National Dairy Association; M. Mortenson, National Creamery Buttermakers Association; W. M. Marple, Allied States Creameries Association; W. H. Lee, Certified Milk Producers' Association.

Permanent headquarters will be opened in Washington and plans immediately developed for the Congress, which will bring to this country eminent authorities in the problems of sciences relating to the industry, the production, manufacture, distribution of dairy products, the economics and influences affecting the world's markets for dairy products. Particular attention will be given to the growing interest manifested in many countries concerning the influence of dairy products in the diet and on the health of growing generations. The recent world war has directed the attention of nationally minded men and women to the problem of growing better men and women. Recent discoveries emphasize the importance of milk products as factors in the solution of the health problem.



THE BEST ICE CREAM PAPER.

We are in receipt of a letter from a Dixie Flyer, Mr. D. H. Gundrum of Philadelphia, Pa., in which he remarks about The Ice Cream Review in a manner which makes us feel proud to pass an excerpt of the contents on to our readers.

Philadelphia, Pa.

The Olsen Publishing Co.: Business is coming along nicely and things in general are looking better and we all look forward to a big year in the ice cream business.

You certainly have the best ice cream paper and you deserve a great deal of credit and have helped the game a great deal and I wish you further success.

(Signed) D. H. GUNDRUM.



The constant desire for a change which is implanted in every human breast is one of the most convincing arguments that there is an immortal part within, knocking at the doors of its prison house.

LIST OF

Ice Tools

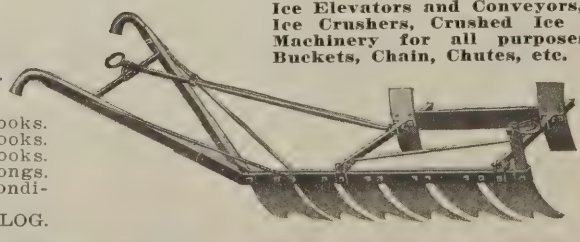
Suitable for Harvesting 500 Tons of Ice

1 No. 315 8-in. Ice King Plow.
1 No. 412 Plow Rope.
1 No. 422 5-ft. Ice Saw.
2 No. 444 Splitting Forks.
1 No. 457 Calking Bar.
1 No. 458 Bar Chisel.
1 No. 470 Floor Shaver.
1 No. 476 Ring Splitting Chisel.
1 No. 500 Line Marker.
1 No. 505 Scoop Net.
1 4 doz. No. 520 4½ ft. Ice Hooks.
1/12 doz. No. 520 6-ft. Ice Hooks.
1/12 doz. No. 520 12-ft. Ice Hooks.
1/12 doz. No. 540 24-in. Boston Tongs.
This list may be added to if conditions demand.
SEND FOR COMPLETE CATALOG.

Ice Tools Suitable for Harvesting 500 Tons of Ice

The Ice Cream, Soda Fountain and Confectionery Trade appreciate the value of a good cold storage and plenty of Ice during the summer. The set of tools suggested here are suitable for harvesting 100 to 500 tons of Ice.—Everyone gathering Ice can afford his own outfit.
Place your order early.

WE MANUFACTURE
Ice Elevators and Conveyors, Ice Tools, Hoists, Ice Crushers, Crushed Ice Carts, Conveying, Machinery for all purposes, Wagon Leaders, Buckets, Chain, Chutes, etc.



Gifford-Wood Co.

Hudson, N. Y.
New York Chicago
Buffalo Boston

ESTABLISHED 1868

Milligan & Higgins Gelatine Company

222-224 Front Street, New York

GELATINES
For Ice Cream Use

THE ASSOCIATION OF ICE CREAM SUPPLY MEN
MEMBER

Time has Proved the Purity, Quality, Uniformity of our product

"With the Tang of the Berry Patch"

Write for information

Wine-Berre

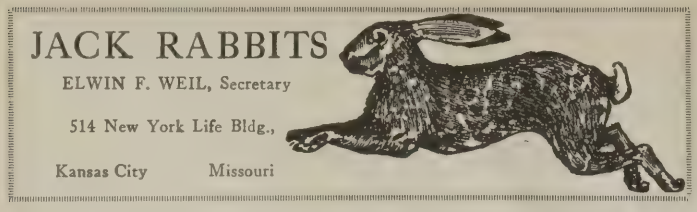
A new Berry flavor that is the sensation of the ICE CREAM Industry—

TRUE FRUIT

Mr. Ice Cream Man—Haven't you been looking and longing for a new flavor—one that is a true FRUIT? We have created it for you—Don't take our word for this—We are just ITCHING for an opportunity TO SHOW YOU—We will furnish you with four ounce sample on request, flavors and colors 10 gallons of cream. Beat your competitor to it. Now is your opportunity—GRASP IT.

Write us for prices *Advertising matter furnished free*

KAW VALLEY FRUIT PRODUCTS COMPANY
509-11 W. 5th STREET KANSAS CITY, MO.



Your favor of the 28th inst. just came to hand and note you are asking me to write you something about the coming conventions. With only thirty minutes left to catch my train for Buffalo to attend the Supply Men's Exhibition you must know that I have not time to go into this matter as I would like.

Will say briefly that I believe the stage is all set for a wonderful exhibition at Buffalo and Atlanta. The latter place in conjunction with the convention of the Southern Association of Ice Cream Manufacturers, and at which the Dixie Flyers will be on the firing line. Red Stewart and Peter Miller are working hard to put this over big and we know that spells success.

The other conventions following the Southern have been nicely arranged as to dates so as to have no conflict. This we have accomplished by co-operating with the various state officers.

I have been in recent touch with the Texas and Oklahoma officers and the usual big meeting is expected at both of these conventions.

Now as to Kansas, this will be pulled off in Kansas City, Baltimore Hotel, December 15th and 16th. I have recently held a meeting with the program committee of the ice cream manufacturers and also with the entertainment committee of the Jack Rabbits and everything is mapped out for a record breaking Kansas convention.

I am just in receipt of a letter from President Manley advising that the members so much approve the co-operation of the Jack Rabbits that they have set aside the first afternoon of their meeting for the Jack Rabbits. I would advise the Rabbits to be primed for a talk because many of them will be put through the third degree and expected to tell why is who.

I want every Jack Rabbit to be present at this meeting and those not present will be subject to a fine, unless a valid excuse is forthcoming.

J. L. NELSON, President.

HERE'S MORE "HUSH" COPY.

Is Glitch Passing Out I. O. U.'s?

The Ice Cream Review:

Your recent letter stated that a certain kind of "copy" was desired for your next issue in order to boost the coming state conventions. We do not know just what kind of "copy" you refer to, but if it should be that your readers want assurance of the value these meetings will be to them, I believe it would be demonstrated by the preparation most of the leading ice cream men are making in order to attend.

The writer just returned from a short trip in Oklahoma. Of course, down there the ice cream men do not have an opportunity to forget their state convention for the very simple reason that Clarence Hauk will not let them forget it. As soon as the 1920 meeting was over, he began talking for 1921. He does things besides talk, though—he works—and I do not hesitate to say that every detail of the next convention will be properly attended to. Further press agent work will no doubt be done by friend Clarence.

Now, as to the Texas convention: This needs absolutely no boosting. Every ice cream man in Texas will be there as usual. Every supply man who can possibly make an excuse to his sales manager for going will be there. This attitude seems to be sort of "permanent" with all of them. No sooner is one year's meeting over than they start arranging their route so as to come back a year later.

While I stated above that this convention needed no boosting, I'll let you in on a little "inside stuff" if you will not give me away. Ted Robinson, on a recent visit to Chicago, someway or other acquired the title to the city hall of that place. Now, everyone knows that Ted is busy enough with Mistletoe without running politics in Chicago, so it is reliably reported that he intends to dispose of his foreign interests and take over, for three days, the entire city of Ft. Worth, which, in my opinion, means that the ice cream and supply men can consider the place the same as their own during this period.

This is quite a sacrifice on the part of Mr. Robinson for it is a well known fact that the plot of ground occupied by the Chicago city hall is very valuable, and



J. L. NELSON,
C. Nelson Mfg. Co.—A Jack Rabbit.



R. C. ROACH
N. A. Kennedy Supply Co.,
A Jack Rabbit.



ED. E. TRIMBLE,
Joplin Cone Co.—A Jack Rabbit.

"UNITED" "STERLING" Ice and Refrigerating Equipment



is found where mechanical refrigeration or ice making is used. Drop us a line and we will refer you to USERS with whom you may communicate, or see our PLANT in OPERATION.

Our SATISFIED CUSTOMERS are our best salesmen. It is essential to get ready now for next year's business.

UNITED IRON WORKS, Inc., Kansas City, Mo.

Sales Offices and Representatives

Exchange Bank Bldg.
ST. PAUL, MINN.

415 No. Howard St.,
BALTIMORE, MD.

1539 Sixteenth St.,
DENVER, COLO.

402 Andrews Bldg.,
DALLAS, TEXAS.

415 Gravier St.,
NEW ORLEANS, LA.

612 Mayo Bldg.,
TULSA, OKLA.

513 United Bank Bldg.
SIOUX CITY, IA.

Hoosier Ice Machine Works,
EVANSVILLE, IND.

CARAMALA DISTINCTLY INDIVIDUAL

CARAMALA, the favor compelling flavor, is now, most universally used. Since its first appearance on the market **CARAMALA** has enjoyed a distinct, individual favor by both the ice cream maker and the consuming public

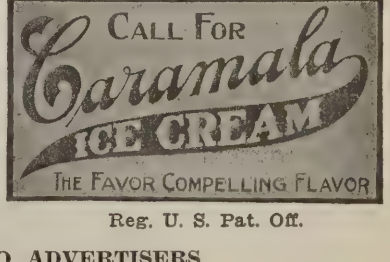
IT IS A TRADE STIMULATOR

CARAMALA Ice Cream is always in season. It produces a smooth, rich, firm cream with a peculiar pleasing flavor that the consuming public likes. "Give me Caramala Ice Cream," is the universal demand and is evidence of the fact, that once Caramala Ice Cream is eaten, "they call for it again."

LET US PROVE ITS MERITS

Send in your trial order, and if any Caramala claim we make is not sustained by your Caramala experience, simply return us the shipment within 30 days at our expense.

Caramala Signs like these furnished. They help increase your business.



Reg. U. S. Pat. Off.

REX EXTRACT CO.

MANUFACTURERS

257 Pacific Street, Brooklyn, New York City

when he sacrifices it just in order to be able to open wide the gates of Ft. Worth hospitality, we certainly should show our appreciation by bringing along sufficient cash so that should our luck not be with us we will not have to give him an I. O. U., for, while he might accept them from prominent police chiefs over the country, he may not want to accept ours.

After writing all that I have, I hardly feel like taking more of your space to tell about the Kansas convention. I would like for everyone to know, however, that Kansas City thoroughly appreciates the association directors' decision to hold the meeting here, and with the true Kansas City spirit will endeavor to show that appreciation in a more practical way when you come as our guests.

KARL R. ZIMMER.

ness is conducted largely due to the co-operation brought about by association work.

Very truly yours,

W. M. B. SINE.

* * *

DES MOINES PEOPLE EAT HUGE AMOUNT OF ICE CREAM.

Des Moines ate its way through an ice cream mountain, and then loosened its belt the first cool day in October for another gastronomic excavation.

The public appetite lapped up enough of the cloying sweet but succulent combination of sugar and milk to float a small battle ship.

Wholesale houses will not take time these post rush days to count gallons or add figures.



W. F. HUNT,
Arbuckle Bros.—A Jack Rabbit.



KARL R. ZIMMER,
Menasha Ptg. and Carton Co.,
A Jack Rabbit.



H. M. STARR,
Meyer Dairy Equipment Co.,
A Jack Rabbit.

THIS ANSWERS — "DOES IT PAY?"

It is now open season for ice cream conventions, and we thank you for the nice little notice you have given our West Virginia meeting, on the 21st and 22nd of this month.

These metings do a great deal of good. First, for the benefit derived from meeting and talking with more experienced men in the business. Getting new ideas and absorbing enthusiasm.

Second, the meeting on congenial ground with competitors. It makes an opening for better understanding with one another.

Third, the displays of machinery and equipment, new inventions and methods are well worth the price of admission.

Fourth, the meeting with supply men on an equal basis brings about a spirit of co-operation that does a great deal of good besides making warm and influential friends.

To show you what our company thinks about conventions, we sent nine plant managers to Minneapolis, and propose to send several to Atlanta. Of course everybody in the state interested in the ice cream business will attend our own little state convention at Wheeling, to which we individually and jointly invite the trade from neighboring states.

I consider the wonderful growth of the ice cream business and the present high plane on which the busi-

"About 20,000 gallons within five months," one ventures.

"Much more than that," the wholesaler replies indifferently.

Even the federal tax collector cannot give figures.

"Figure on 50 cents for tax on each gallon and one can get the amount Uncle Sam received as his share," he advises.

Even Uncle Sam can not estimate without a handy adder just what the total amount of ice cream eaten in Des Moines this summer is.—Des Moines (Ia.) News.

⚜

DIXON HAS NO SMALL HOPES.

The Ice Cream Review:

Fayetteville, N. C., Oct. 31, 1921.

The officers of the North Carolina Ice Cream Manufacturers' Association will attend the convention in Atlanta November 28th to December 1st, and the writer has the promise of almost 100 per cent attendance of the rest of the members.

Owing to the limited number of southern representatives at the National Convention in Minneapolis, I feel safe in saying it will be the largest and the best attended convention ever held in the South.

NORTH CAROLINA ICE CREAM MFRS. ASS'N.
A. E. Dixon, Secretary.

FOR OVER 20 YEARS

We have ***specialized*** on
Vanilla Extracts
and **Vanilla Compounds.**

We guarantee to improve your Flavor with a saving in cost

Proprietors of "VANOLEUM." The *Original Concentrated Vanilla Flavor.* We warn the trade against worthless imitations having similar sounding names claiming to be "the same as *Vanoleum.*"

Corrizo Extract Company

211-215 West 20th Street **NEW YORK, N. Y.**

MENASHA
ICE CREAM CARTONS

help increase brick cream sales

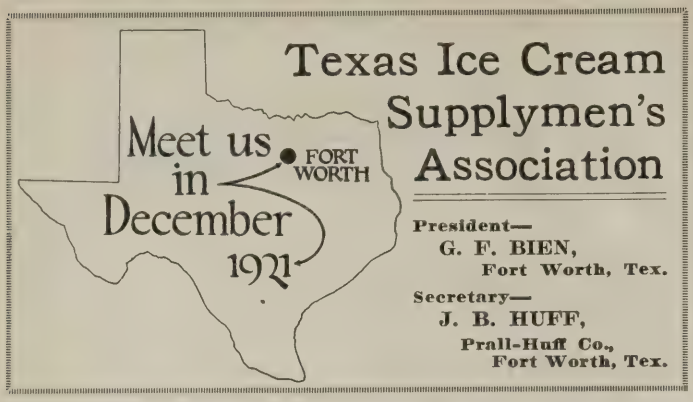
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YOU TELL 'EM, TEXAS, YOU'VE GOT THE BULL.

The Ice Cream Review, Milwaukee.

Gentlemen:—As the cool, bracing winds begin to reach us from up about your 'neck o the woods' it starts our thoughts to running in the general direction of SOME GOOD CONVENTION, and about this is just what I beg leave to tell you.

The fourteenth annual convention of Texas Ice Cream Manufacturers will positively SHOW at the TEXAS HOTEL at our Panther (not Badger) city Ft. Worth, December 7th, 8th and 9th.

Now if you know of anybody that has a good case of the DUMPS just advise said party to be on hand for this occasion and this bunch will absolutely have the cure to take care of the very worst cases.

The Texas is the very newest and possibly the best hotel in the state, and we are assured of ample and first-class quarters for all that may come.

We assure you of a very instructive and interesting program, and as to the entertainment features, it is needless to say that the Texas boys always DO that their own way, which is usually pronounced unanimously as THE VERY BEST.

The very best plants in the South can be found in Dallas and Ft. Worth. Come to see them. There will be plenty of time to inspect them all.

As president of the Texas Association I extend to all those interested in the ice cream game in any way to be with us at the above mentioned time and place. You will never regret the time and money spent, and we guarantee you will have memories (possibly marks too) that will stay with you for some time to come.

Trusting your good and instructive paper shall have its usual representative with us, I am,

Very truly yours,

FRANK B. WESTER, President.

* * *

The Ice Cream Review:

As requested in your letter of Oct. 3, I mailed you my photograph. Just what you wanted it for was not explained in your letter. However, when it has served its purpose please return, so it may again continue in its function as an exterminator of all manner of little pests that usually inhabit the home.

Business has been "rotten" thank you, but the clouds are clearing away and we are looking forward to a bright future, as inquiries are coming in almost daily.

The whole plains country looks much better than it did a few months ago. The increase in the prices of cotton and oil have had a very stimulating effect and as soon as some of the great problems that are now confronting the country are definitely disposed of, we will get back into our old groove and everything will run along as before.

Fort Worth is particularly fortunate, as we now have a hotel, The Texas, that is second to none in the country, which will bring many conventions here that have passed us up in the past for lack of proper accommodations. The large packing houses, nine oil refineries, a $5,000,000 government Helium gas plant, grain elevators and the largest artificial reservoir in the country, covering 9000 acres, which insures an ample supply of water for years to come, for domestic and manufacturing purposes. Of course you have heard of our baseball team, pennant winners of last year, and both of this year's split season, also the Dixie championship of 1920 and 1921, surely we have many things to be thankful for.

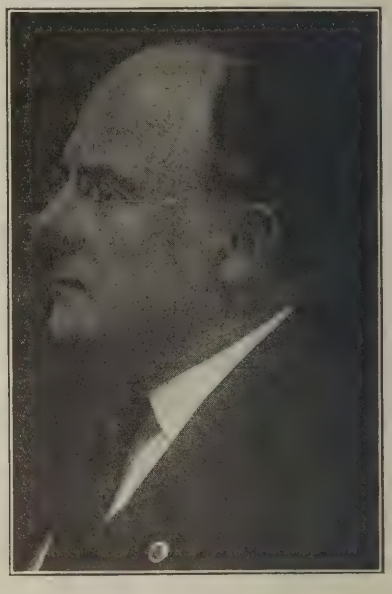
We are looking forward to a large attendance of ice cream manufacturers, not forgetting the indispensible supply man, without him all conventions would be a dismal failure. The local contingent will



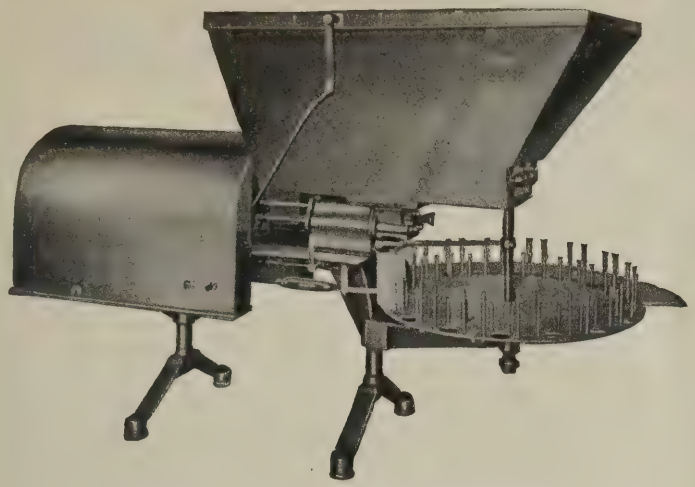
FRANK B. WESTER,
He Leads the Ice Cream Manufacturers.



J. B. HUFF,
Prall-Huff Co.—The Texas Supply Men's Secretary.



G. F. BEIN,
York Engineering & Supply Co.,
He Leads the Texas Supply Men.



Mojonnier Ice Cream Packaging Machine
Patented December 17, 1918. Process and other patents pending.

Mojonnier

Ice Cream Packaging Machine

THE Mojonnier Ice Cream Packaging Machine is a LABOR SAVER. It has reduced the labor of packaging from twelve to seven operations; has reduced number of helpers from seven to three; has reduced hardenings from three to one. It eliminates pouring into molds, dipping, cutting, wrapping and exposure to heat and air after hardening, thereby improving quality and texture of the brick ice cream. It prevents loss of ice cream and does not reduce overrun. The hopper is jacketed containing brine coils and outside insulation. Cream has been held in hopper for four hours without change.
Now in successful operation in plants of Goodman-American Ice Cream Co., Hydrox Co. and Lawrence Ice Cream Co., Chicago. These three big firms pack their entire output of three layer bricks on the Mojonnier Ice Cream Packaging Machine.

Sold on either a liberal rental basis or outright sale.

Write for descriptive circular and prices.

Automatic Force feed Positive in action. Fills exact measured quantity in either quart or pint cartons; carry home pails or round cartons.

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Capacity 1200 per hour. Occupies practically the same space as 80 quart freezer.

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Atlas Pure Vanilla Extracts are guaranteed to be of Highest Quality and Purity and to give absolute satisfaction in each and every case.

Before placing your next order, let us send you a trial quantity

Manufactured by

H. KOHNSTAMM & CO.

NEW YORK *Established 1851* CHICAGO
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put forth their best efforts to make this meeting a memorial one and we hope that all members will bring their wives or sweethearts, for without them the event would savor of a dinner without garnishment (be that what it may).

Sincerely yours,

G. F. BEIN.

* * *

MILK BY THE YARD.

Terrell, Texas, Nov. 4, 1921.

The Ice Cream Review:

As per your second request, I am enclosing herewith my photo, and if you think it will not wreck your printing press go to it.

I have been at home for several weeks training a Junior Mack that arrived just in time to give his consent for me to go to the dairy show.

I have just made a hurried trip over a good portion of the state recently and, of course, made inquiries about who expected to attend the convention at Ft. Worth on Dec. 7, 8, 9, and am very much pleased to say to you that from what I can learn it will have a full attendance of the manufacturers and I hope the supply men will attend equally as well, and as a word of inducement for all the supply men to come I am giving them this "tip" in advance, "Some people down here are estimating the corn crop by the gallon instead of by the bushel.

I hope I may see you at the convention.

W. A. (Mack) MC FARLING.

* * *

Hats off, boys, to the youngest member of the McFarling family and Texas Supply Men. Dame Rumor says a baby boy was left at the home of Senator and Mrs. W. A. McFarling in Terrill, Texas, September 27th. Mother and son are doing well, and Mac is swelled up like a poisoned pup. They will have to make him president at the next meeting.

* * *

One of the Texas rangers to whom we sent our S. O. S. of October 1st took a fall out of the Texas manufacturers. He forgot to sign it.

It reminds us of Levinsky at the Jewish wedding. An Irishman was there and in some mysterious way a fight started. Levinsky, telling about it says, "I got hit with a tomato. It was a cowardly tomato. Do you know what a cowardly tomato is? No? One that hits you in the back of the neck and runs."

But here's his story:

I have lost my "Eversharp", in fact it is poor policy to call on the ice cream manufacturers of Texas with an expensive pencil. I have contributed to their office supplies all this season. Business is good but its over. Will see you at the convention in Fort Worth.

* * *

The local members of the Texas Supply Men's Association held a meeting this morning at the Texas Hotel, and arranged a program for entertaining all attending—members, and members of their families. We realize that our last meeting at Waco, set us a pace that will be hard to beat, but we still have a few aces up our sleeves, and you may rest assured we will not be found wanting.



W. A. McFARLING,
Meyer Dairy Equipment Co.,
Ex-President, Texas Supply Men.



W. L. CASTLE,
Blanke-Baer Extract & Preserving Co.—A Texas Supply Man.



FRED HOLLWEG,
Thos W. Dunn Co.,
A Texas Supply Man.

We want to impress on all supply men, as well as regular members of the Texas Association, that we expect them to bring their wives and daughters, for without them the convention would be a dismal failure. We will have ample housing facilities in our new $4,000,000 Texas Hotel, the best of its kind in the southwest.

We have many attractions in and around Ft. Worth and the key to the city will be yours on that occasion. The dinner dance in the Crystal Ball Room is one of the attractions and will be under the supervision of the Ladies' Auxiliary, who will bend every effort to conduct it on a high plane.

We might mention many other attractions which we have planned for your entertainment, but are keeping for a surprise. Rest assured, however, that "Southern hospitality" will not be found wanting, therefore please do not overlook the dates, Dec. 7 to 9, inclusive, and help us make this meeting as good or even better than our last. Sincerely yours,

G. F. BEIN,
President Texas Supply Men's Association.

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When it is absolutely worthless from a flavoring stand point and simply means extra freight?

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USE NEW MEXOCINE

A Concentrate Eliminating All Wastage

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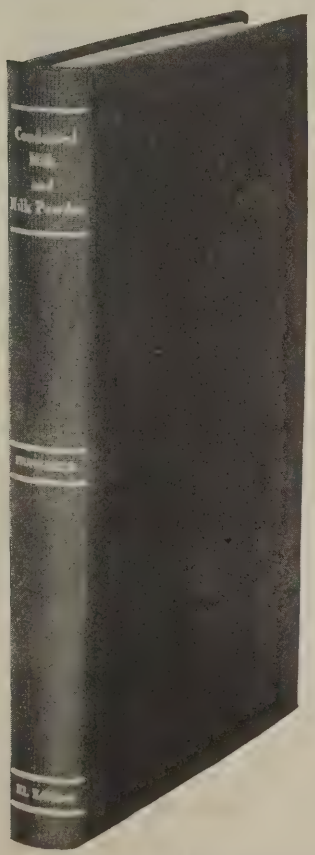
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(BY OTTO F. HUNZIKER)

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This work represents a new book from cover to cover. It contains the description of the latest equipment and of the most improved methods and practices in the manufacture of every marketable line of condensed and dried milk products.

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Condensing and drying of buttermilk by commercially practical methods.

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Description of 20 different processes of desiccating milk by the dough-drying principle, the film-drying principle, and the spray-drying principle.

Detailed discussion of the commercial manufacture of powdered milk.

Cost of manufacture, composition solubility, properties, defects and keeping quality of milk powders.

All other chapters have been revised so as to make available such information as will be of the greatest service in the successful manufacture and marketing of condensed and dried milk products under the new and changed conditions of the industry.

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Send your order with remittance to

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210 Sycamore Street MILWAUKEE, WIS.

TEXAS ICE CREAM MANUFACTURERS' ASSOCIATION.

Dallas, Texas, Nov. 5th, 1921.

The Ice Cream Review:

I have your favor of recent date regarding the Texas ice cream convention, which will be held in Ft. Worth, December 7th, 8th, 9th. Headquarters, Texas Hotel.

Last year the Waco boys pulled a wonderful show, and it is going to require some work of the Ft. Worth bunch to equal the Waco stunts. However, the boys in Cow Town are pretty foxy and are planning to hand out a different brand, but promise the kick will be just as pronounced.

The business sessions will be snappy and full of good things; things that every ice cream manufacturer should know. The entertainment commitee is going strong, and, while not putting out any information, I learn that they will not have "chickens," as at Waco, but probably "ducks;" however, they promise the "quack" will prove as pleasing as the "peep." Some of us have pleasing recollections of the Waco "peep" and don't know anything about ducks. But you know Ft. Worth.

The officers and directors are working hard to get every ice cream manufacturer in Texas to attend this convention, and we hope to make their visit both pleasant and profitable.

Very truly yours,

H. F. OWSLEY, Secretary.



L. D. PAPE,
Consolidated Wafer Co.



A Texas Supply Man.
HENRY W. STERN,
A. Daigger & Co.,



M. E. CUTNER,
A Texas Supply Man.
St. Louis Gelatine Co.

NATIONAL ORDER OF WHITE CAPS





Address all communications to
W. W. WREN
Secretary
Fort Worth, Texas

The Ice Cream Review:

The writer is in receipt of your favor of October 28th, asking for information with reference to the meeting of the National Order of White Caps during the convention of the Texas Ice Cream Manufacturers' Association, which is to be held in Fort Worth on Dec. 7, 8 and 9, 1921.

The writer is extremely sorry that a great deal of information can not be given you on this subject. As you perhaps know, the activities of the National Order of White Caps are guarded with the greatest secrecy. In fact, there is nothing recorded that would enable one to get any information about this Order, as everything is communicated from mouth to ear.

I will say, however, that the voyage will be made on the evening of December 8th. The good ship UNFERMENTI will weigh her anchor at the auditorium of the Chamber of Commerce promptly at eight bells, p. m. Chief BUTTERFAT, the skipper, and his mates SKIMILKUS, O'SALTUS and AQUA DE CANINE will be on board, together with the chief steward, MINCE PIE A LA MODECUS, to receive all the members of the Order and make them welcome and also to take charge of all the land lubbers that dare to set their foot on the gang plank. It is advisable for all who have not taken this perilous voyage to see that a respectable insurance policy is taken out prior to the voyage, as the deck is entirely frozen over with ice and the sea is extremely rough.

The destiny of this good ship is a secret, but we hope to land all safe and sound in port not later than 3 a. m., on the morning of the 9th.

ICE CREAM AND CREAMERY COMPANIES TO CONSOLIDATE.

Frank D. Chase, Inc., engineers of Chicago, have been employed by the Bloomer Cold Storage Company, of Council Bluffs, Iowa, to analyze thoroughly their manufacturing processes and to make a new and improved layout of their equipment. This work will include the consolidation of the former Superior Ice Cream Company with the creamery of the Bloomer Company.

Will Not Freeze Out *No Alcohol*

Vanilla Exquinta

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FINER, STRONGER AND BETTER THAN VANILLA EXTRACT

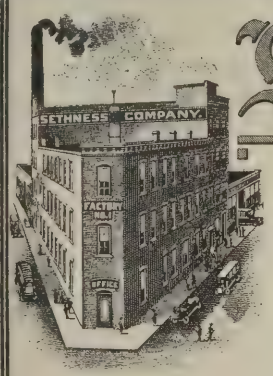
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BUTTERSCOTCH SUNDAE
CARAMEL SUNDAE
GELATINE
CITRIC ACID
GUM, PURE INDIA, POWDERED
ICE CREAM POWDER
SOLUBLE SKIM MILK POWDER SPRAY
KREMOLIN R. ICE CREAM RIPENER AND BINDER
VANILLA BEANS
VANILLIN
COUMARIN
GLYCERINE
TARTARIC ACID

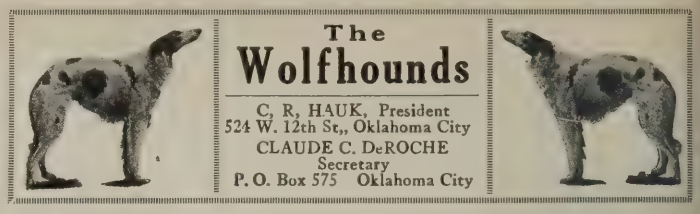
SODA FOUNTAIN FRUITS AND PRIVATE LABEL MARSHMALLOW TOPPING FOR JOBBING PURPOSES

We also wish to advise that all this may be had for the small sum of two bones per.

I regret very much that I am not able to send you a photograph, but in as much as Chief Butterfat Boedecker will have his picture in the paper it will be sufficient.

Hoping the writer will be able to have the pleasure of meeting you on board this good ship at the date mentioned, I am, Very truly yours,

W. W. WREN.



IMPORTANT WOLF HOUND REUNION.

A call issues forth from the lair of the Wolf Hounds den, for all brother Wolf Hounds to meet at convention with the ice cream men in Oklahoma City, Okla., Dec. 12, 13 and 14, 1921, at the Huckins Hotel, to discuss the many big problems that confront us; and prove to the world our claim that the Wolf Hounds are the spirit of good cheer, and the happy medium to greater things in royal true fellowship. Oh! what a great pleasure it is to be hailed by your fellow man with a smile and hand shake, that rings true as the greeting of the now famous Wolf Hounds extend to all; keep it up boys, it is great, oil your joints in your mighty right arms because you are going to be called upon in the coming convention, to greet the largest gathering of ice cream men that ever attended a state ice cream convention in the history of this great industry.

Reservations are pouring in for rooms and space to display. Fellows, this year's convention is going to be a Hum-Dinger. Hounds be on your mettle. It sure looks good; depression in this part of the country is over and forgotten. Watch Oklahoma step on the gas and lead the field in 1922; sharpen your pencils, boys (meaning lead pencils, of course,) and be here in Oklahoma City December 12th. As to the entertainment, well you know the caliber of this end of it, on the quiet boys (for men only) the girl in the glass dress will appear in private, at our dutch lunch. Ladies not admitted until after this act; of course, if Brother Porter, Ward, Solliday and Parker promise to behave they will be admitted, under guard of the strong arms of the Wolf Hounds' Kennel Keepers.

Awaiting your august presence and with greetings of good cheer to all, this Thanksgiving Day, we thank the Great Heavenly Father for the many, many blessings of this year. C. R. HAUK,



J. B. PORTER,
President, Oklahoma Ice Cream Manufacturers' Association.



J. M. MORRISSEY,
De Coursey Creamery Co.,
A Wolf Hound.



C. R. HAUK,
President of the Wolf Hounds.

OKLAHOMA ASSOCIATION OF ICE CREAM MANUFACTURERS.

Tulsa, Okla., Oct. 31, 1921.

The Ice Cream Review:

A thoroughly up-to-date program is being worked out for the Oklahoma Ice Cream Manufacturers Convention in December . The entertainment features, under direction of C. R. Hauk, president of the Wolf Hounds, and associate members, are well under way while Secretary Cochran is busy providing the best possible talent from an instructive standpoint and a full half day session has been set aside for discussion of practical questions.

Indications point to a full attendance of members and a number of manufacturers from neighboring states as well.

J. B. PORTER,
President.

MAIER DOESN'T BELIEVE IN SUBSTITUTES.

We asked J. J. Maier, a worthy Dixie Flyer, and member of the Knox & Maier Co. family of Atlanta, for his photo. Nothing doing. Boys, we are sorry J. J.'s picture isn't in this issue, but you will see the real article at the Atlanta Show. Knox & Maier will have a booth in the auditorium, in charge of their C. W. Bryan. Register at their booth and get a useful souvenir.

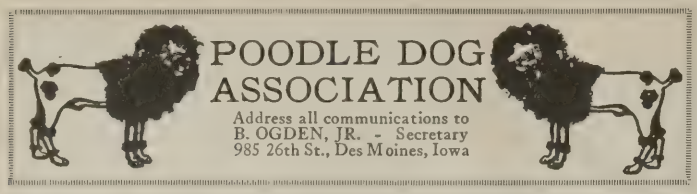


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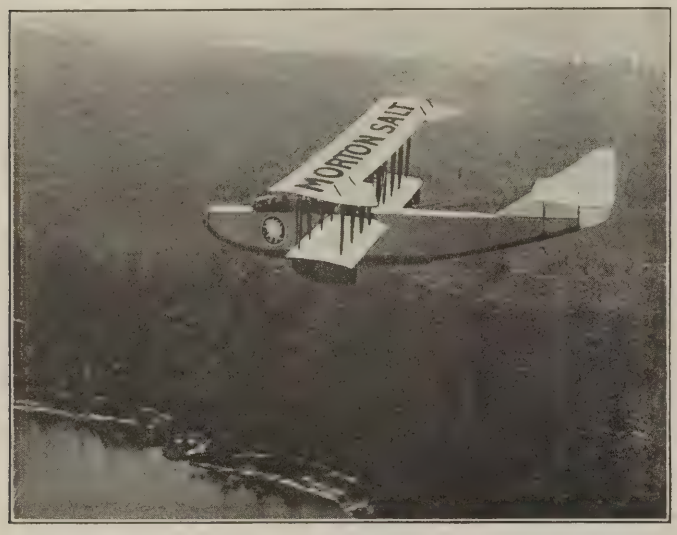
Publishers and Printers to the Dairy Industry



IT'S BIRDMAN OSTRUM NOW.

The Ice Cream Review:

Have your letter of October 29th and thank you for invitation to use your column for publication of association news. The dates for the Iowa convention have not been definitely fixed and all Poodle Dogs are anxiously awaiting notice of those dates so that they can plan to evade work at that time. If wives ever



keep boosters away from a convention, the Poodles are all stray dogs, because their attendance is unanimous at each Iowa state meeting. As soon as the convention dates are definitely fixed, we will all go to work with the idea of making the next Iowa state convention the most successful to date, which will be going some.

It occurred to me that many of your readers would be interested in reading of the trip made by the Morton Salt Company's flying boat which left Chicago on October 12th, and is expected to arrive in New Orleans some day this week. This boat visited all of the larger towns en route. We are quite sure that a number of readers saw this boat, and that a number of them made short trips as passengers. The following story is being used by newspapers in a number of larger towns between Chicago and New Orleans.

A. O. MC CUNE,
Secretary Poodle Dog Association.

* * *

Racing over the very waters which the south hopes to see as the course for great ships of tomorrow, the great blue flying boat of the Morton Salt Co., illustrated below, is on its way from Chicago to New Orleans at the present writing (Nov. 1st), in a flight that is to stimulate interest in the Lakes-to-the-Gulf waterway project, and demonstrate the possibilities of aircraft as aids to business.

On board are Lieut. Commander Ray P. Applegate, U. S. N. R. F., one of the few men in the United States holding a Mississippi river pilot's aerial license, and Poodle Dog C. L. Ostrom, of the Morton Salt Co.

It is their purpose to stop at more than 50 cities and villages lying on or near the Mississippi river between St. Louis and New Orleans, conferring with local business men and officials in an effort to strengthen trade relations between the south and north.

The vessel will land at several cities where the company has business connections and local wholesale dealers will be taken for a short spin, after which the craft will be thrown open for the public to inspect.

The flight of the plane down the Mississippi and Illinois river valleys marks the beginning of a new era of trade getting methods, this being the first time a flying boat has been utilized by a business concern for reinforcing the efforts of its varied salesmen.

The craft followed the course of the sanitary canal to Joliet, the Illinois and Michigan canal to La Salle, Ill., then down the Illinois river to the Mississippi and St. Louis.

It is not mere coincidence that the flying boat is taking the course it is. More than a decade ago, Joy Morton, believing that waterways were the solution of most merchants' and producers' shipping troubles, resurrected from the bottom of the Illinois and Mississippi rivers, a fleet of old boats, rebuilt them so they were entirely seaworthy, and began the shipment of salt from Chicago



G. B. TAYLOR,
W. B. Wood Mfg. Co.,
A Texas Supply Man.



GEO. F. LESSENHOPP,
Lessenhopp Supply Co.,
A Wolf Hound.



CLAUDE H. DE ROCHE,
Liquid Carbonic Co.,
A Wolf Hound.

to Mississippi river points. It was the first time through freight has ever been carried from Chicago to Davenport, Iowa, via the Hennepin canal. For three years this fleet was kept in operation purely as an experiment —long enough to prove that if the waterways were improved and deepened slightly, merchandise could be carried quickly and with both profit for the shipper and economy for the people.

Now the flying boat is traversing to the same waters, to remind people again, that if the railroads are to be prevented from charging excessive rates they must have competition in the form of natural waterways and canals.

⚜

OBSERVATIONS.

By C. J. Yunker, of Rex Extract Company.

D. A. Heckler, of Napoleon, O., attended Buffalo convention.

Mr. Felker, of Findlay Dairy Co., Findlay, Ohio, attended Buffalo convention.

A. E. Hughes Dairy Co., Bowling Green, O., will install a Rapid Bottle Washer.

Puritan Creamery Co., Norwalk, O., has sold out to Norwalk Dairy Company.

Esmond Dairy Co., of Sandusky, O., will open a dairy and ice cream plant at Port Clinton, Ohio.

C. E. Reiss Ice Cream Co., Peru, Ind., will make some improvements to the plants.

Amboy Creamery Co., Marion, Ind., has finally got their new plant in good shape and reports of having good business this season. They also have their retail store doing business.

J. Kruse, manager of Clover Leaf Creameries plant at Huntington, Ind., just returned home from a visit with his folks at Preston, Iowa.

Watts Bros., Loganport, Ind., has painted the front of their factory in gay colors and it looks fine. They are hustlers.

Brown & Gleason, of Van Wert, O., who recently ventured into manager of ice cream have sold their business to George Brown, who will run the plant.

George Horen, of Toledo Ice Cream Co., Toledo, O., attended Buffalo convention.

⚜

WORTH $5.00 AN ISSUE.

We are in receipt of a letter from Henry Hoesly of Sheboygan, Wis., in which he so highly lauds THE ICE CREAM REVIEW that we feel we ought to let all our readers in on it. In fact, we feel mighty proud of the tribute paid the service which this Review gives to its readers.

The letter reads:

"Sheboygan, Wis.

Dear Sir:

Please find enclosed check for which I wish to renew my subscription to The Ice Cream Review for two years. I could not get pleasure out of the trade as an ice cream maker without this Review. Some editions at various times were singly worth $5.00, say nothing of the balance of editions which totally number 12 per year. If everyone took the Ice Cream Review, they would not be guessing at their work so much; it would mean better ice cream everywhere at all times.

Trusting I will continue to get The Ice Cream Review each month, I am

(Signed) HENRY HOESLY."



Into the Ice Cream Field

ROGERS AUTOMATIC BRICK MAKER

Those who saw this new sensation at the National Dairy Show realize the vital importance of this machine in relation to the making of ice cream bricks.

Rogers Automatic Brick Maker makes direct from the freezer

Perfect Quarts, Pints and Individuals

Individuals made six or eight to the brick and more perfect than is possible by the old hand or machine cutting method.



Makes one, two or three-color bricks mechanically perfect and very accurate in color divisions.

Write for complete circular.

Other Ladd Specialties:

The Viscolizer, Blue Line Pressure Washer, International Milk Filter, Electric Branding Iron

John W. Ladd Company

"National Approved Distributors Specialties"

DETROIT CLEVELAND

NEWS ABOUT SUGAR

Items of Interest for the Ice Cream Manufacturer

LARGE CONSUMERS MAKING CONTRACTS WITH REFINERS.

Arrangements for Season's Sugar Supply Made by Big Buyers who Abandon Open Market.

Reports from Facts About Sugar are that some of the refiners had started a campaign to make contracts with large consumers of refined sugar for the coming season were confirmed from various sources. The first reports of the kind were to the effect that the American was making such contracts, but since then it appears that other refiners have followed the same course.

Direct Arrangements Made.

Brokers having Chicago connections have found, it is said, that several of the largest buyers in that territory have been tied up with contracts and are virtually eliminated from the open market. In some instances it would appear that the contracts have been made directly between the refiner and the buyer, while in others the arrangement has been made through the agency of brokers.

Most of the contracts are understood to provide for the jobber storing shipments from the refiner, for which he is allowed a fee of five points to cover warehousing and insurance. This, it is pointed out, is tantamount to the refiner allowing the jobber a rebate of five points, inasmuch as most of the jobbers who have entered into the arrangements have plenty of available storage space for the sugars and carry blanket insurance policies.

Terms of Contracts Vary.

The terms of the contracts vary in different instances, it is said, some making provision for cancellation with a specified time of notice and a minimum consumption on the part of the buyer, while others, believed to be the most numerous, are on the basis of a "gentleman's agreement" between the seller and the buyer. The buyer will be billed according to prices ruling the day of withdrawal from his warehouse, as is usual on consignment sugars.

Some of the eastern refiners are understood to look unfavorably on the system of selling sugar under these contracts and have refused to make any concession from their regular selling terms.

* * *

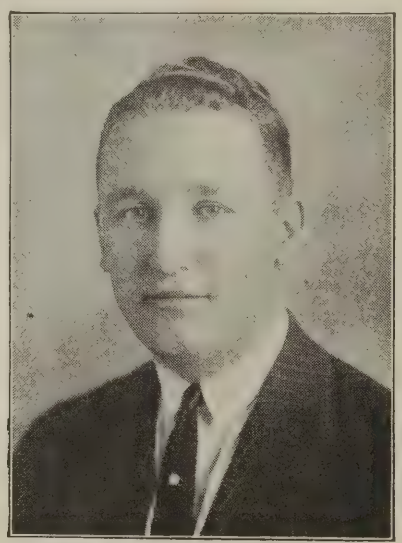
BRITISH MARKET FEATURED BY VIGOROUS COMPETITION.

Sugar Consumption Increasing but Declining Prices Restrict Orders from Distributing Trade.

London, Oct. 25.—Facts About Sugar says that the sugar distributors in the United Kingdom are pursuing a very cautious course. The general tendency of the market has naturally led them to restrict their operations and trade stocks are at a very low level. Competition is active in this market and British refiners have continued to cut their prices to meet quotations on American refined.



L. A. KLINE,
Massey & Massey Co.



A. H. ANDERSON,
Massey & Massey Co.



H. E. HOWLAND,
Meyer Dairy Equipment Co.,

These Boys All Belong to the Wolf Hound Family.

REFINED SUGAR MOVEMENT STALLED BY LACK OF RAWS.

Eastern Territory Mainly Affected—Resumption of Prompt Shipment Probable Soon.

The refined sugar market, according to Facts About Sugar was inactive recently for the reason that Atlantic seaboard refiners were unable to fill orders, owing to the exhaustion of their supplies of raws. As a consequence the trade has been marking time, awaiting the arrival of further shipments from Cuba which will enable the refineries to resume meltings on a normal scale.

Result of October Buying.

This situation is the direct result of a considerable expansion in the volume of orders placed by the distributing trade during the latter half of October, when refiners had allowed their stocks of raws to sink to an abnormally low level. Most of the refiners state that

they expect to be in a position to resume shipments on a normal scale immediately, but it is anticipated that not until the middle of the month will they catch up with orders in hand sufficiently to make possible the resumption of prompt shipments.

While substantial purchases of Cuban centrifugals were made by the refiners during the last week in October and at the end of the preceding week, and while the sugar finance committee has been endeavoring to expedite the movement of these sugars, heavy storms and delays incidental to the loading and moving of cargoes have prevented the arrival of a sufficient tonnage to relieve the situation.

Situation Considered Abnormal.

During the period of wartime control shortages were chronic in eastern territory at this season of the year due to lack of available raw supplies. The present situation is regarded as abnormal in view of the large stocks of sugar in Cuba, and is due directly to the fact

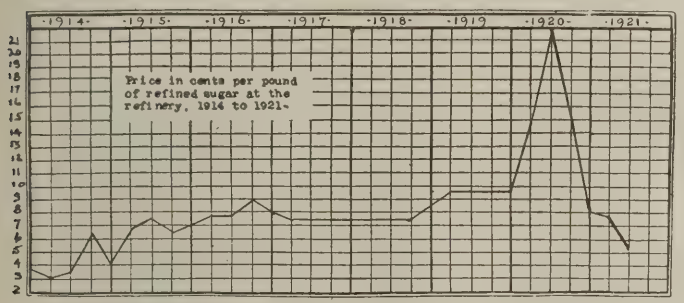


Plate. Courtesy of The Soda Fountain — Figures Furnished by Facts About Sugar

Sugar Price Fluctuations

that trade stocks all along the line were allowed to decline to a point where they were inadequate to meet any acceleration in demand.

While refiners have been compelled to refuse orders, it is stated in trade circles that no particular hardship has been imposed on consumers by this fact, most distributors being able to take care of their trade thus far. The increased volume of business offered is attributed to a general disposition to take on slightly larger stocks, which was encouraged during the latter part of October by uneasiness over a possible interruption of transportation on November 1st. It is reported, however, that scarcely any of the orders have been withdrawn. They are being left in the hands of brokers to be filled as soon as possible, a condition which is regarded as assuring a fairly active business in refined throughout the month.

The interruption to the movement of refined has been limited largely to eastern territory. In the west and southwest sugar has been moving freely, as the Louisiana houses, the best sugar companies and the Pacific coast refiners have been shipping steadily. There has been very little transfer of orders, however, as the latter companies have been supplying central and western territory for some time, the distribution by Atlantic coast refiners having been confined to territory east of Chicago.

* * *

MR. SPRECKELS VIEWS THE SUGAR SITUATION.

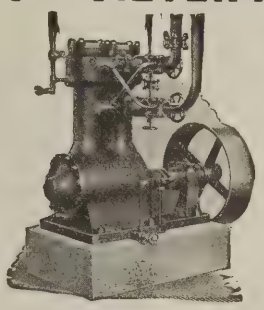
C. A. Spreckels, president of the Federal Sugar Refining Company, has left for the Riviera on the Olympic and expects to remain away over the winter.

His views and opinions as the immediate outlook were voiced as follows:

"I am going to take a bird's eye view of the situation through the telescope. I want to see how it looks from outside and how they are going to get out of the scrape.

"There's no doubt they're in a scrape and the banks

NORTHEY
Ice Cream Cabinets
Refrigerators - Coolers
For All Purposes—Any Size, Style or Finish
NORTHEY MANUFACTURING CO.
WATERLOO, IOWA DAIRY SUPPLY HOUSES

THE VILTER MFG. CO. 830 Clinton St. Milwaukee, Wis.

Twin Cylinder Refrigerating Machine,
You are NOT prepared to handle your Season's Trade until you have installed a
VILTER Refrigerating Machine
If interested write for bulletins.

Get Longer Service
Out of your
Ice Cream
and
Milk Cans
RETINNING
Will Put Dollars in Your Pocket
We will be pleased to meet you at our booth at the Exhibition where we have some samples to show you.
Knox & Maier Company
ATLANTA, GEORGIA

are holding the bag. I don't know whether they're going to try to unload on the producer or the consumer, but they won't succeed either way.

"Any attempt to control the crop by artificial means is going to bring about worse smash than otherwise. The plan to defer grinding till February cannot succeed. The cane is there to make an even larger crop than last year, and as its content is higher in February and March than at any other time, delaying the grinding may even result in a heavier production than otherwise.

"We are in a very strong cash position, and if we see that artificial means are being used to control sugar we can afford to sit back and wait for the smash which is sure to come."

* * *

LOUISIANA SUGAR NOW COMING IN.

New Orleans, La.—The new sugar season in Lousiana is now generally under way. Grinding has commenced at several of the large plantations and at a number of small ones.



H. C. HORNEMAN,
Sugar Creek Creamery Co.,
A Dixie Flyer.



GEO. L. BOEDEKER,
A White Cap.



H. Y. WOOD,
Warner-Jenkinson Co.,
A Wolf Hound.

CUBA AND THE U. S. TARIFF.

In a communication to Facts About Sugar, arguing for a reduction in the duty on Cuban sugar, the editor remarks that "one very important and significant point is brought out. This is that the tariff it not added to the price paid by the United States buyer, but is deducted from the price received by the Cuban producer.

"This fact was clearly illustrated when the emergency tariff law went into effect at the end of last May, as we noted at the time. The last sale of duty-paying 96 degree test sugar made in the New York market before the new law went into effect and the first sale after it went into effect were made at exactly the same price, despite the advance of sixty cents a hundred that had taken place meanwhile in the cost of bringing Cuban sugar into the country. Within a few days the price went still lower than it had been before the change in duty, not, of course, because of the advance in the tariff rate but because of other factors that created a declining market.

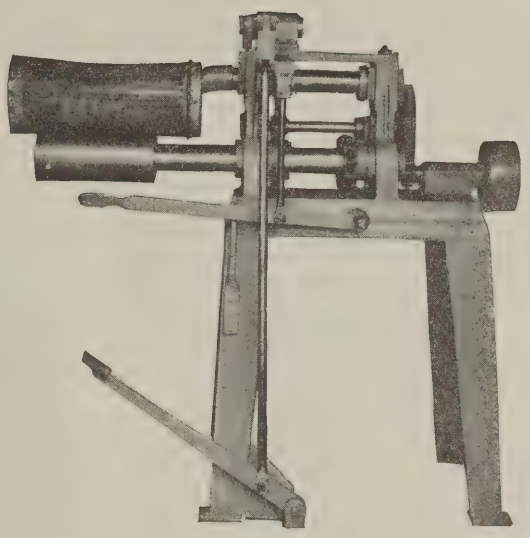
"As has been pointed out in studies of this subject which have been published from time to time, the incidence of the tariff depends entirely upon market conditions prevailing at any given time. The reason why Cuban producers were unable to increase the selling price of their sugar by the amount of the advance in the tariff rate last May, when the emergency law went into effect, was that the amount of sugar available to the United States market was more than it could take. In order to hold his position in the market, therefore, it was necessary for the Cuban to absorb the increase. Had the amount of Cuban sugar available been less than was needed to supply the requirements of this market and had there been no other foreign grown sugar competing for the market, the Cuban's price would have risen by the amount of the increase in duty, or by a substantial part thereof.

"The fact that Cuban producing interests are compelled to pay out of their own pockets the additional duty imposed by the emergency tariff law, which is estimated by the Cuban Commercial Mission to amount to $32,000,000 in the course of a year, raises the interesting question whether, under the conditions that are likely to prevail in the near future, Cuba will be able at any time to pass along the duty to the purchasers of her sugar. Now that Cuba's crop has increased to nearly 4,000,000 tons and is unlikely, except under official restrictions, to fall as low as 2,500,000 tons, it appears improbable that the Cuban producer will be able to add the duty to his selling price. With domestic production in the United States amounting to 2,000,000 tons and Cuban production at any figure in excess of 2,500,000 tons, it is obvious that with all this sugar seeking the United States market, which is capable of consuming a little over 4,000,000 tons, Cuba will not be able to shift the duty to the purchaser. Only an increase in the consuming power of the United States or a decrease in the available supply of sugar can change this condition.

"At the present moment the price commanded in the New York market by sugar grown within the United States is approximately 1.55 cents a pound higher than the price received by the Cuban producer, although the tariff paid by the Cuban sugar is 1.60 cents. To sell his product the domestic producer is compelled to yield a small part of his nominal protection. At times during the past few months the difference between the domestic price and Cuban parity has been much greater than this. Similarly, full-duty paying sugar has sold recently

"Wacho" Can Straightener

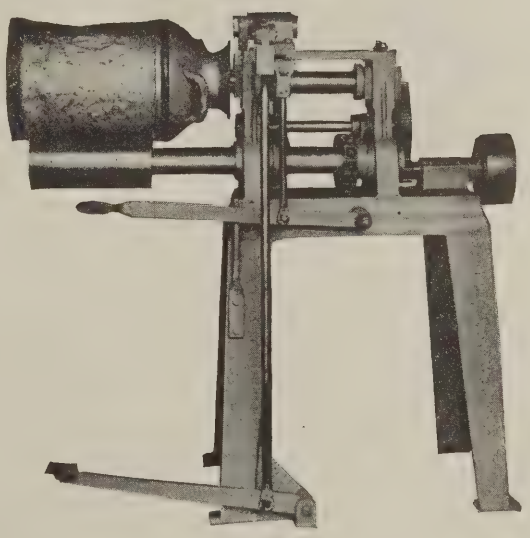
Convinces Many of its Practicability and Efficiency



SO CONVINCING was the demonstration of the WACHO Can Straightener at the National Dairy Show—so positively did it satisfy every one who saw it in operation, removing dents from bodies of cans and making necks and covers fit like new—so sure were no few old experienced men whose business depends on the handling of milk cans, that the working principle of the Wacho Can Straightener is right and actually completely straightens a can noiselessly in less than one minute, that these same big men in the industry who have tried the crude means of straightening cans heretofore available, have placed orders with us for these machines as quickly as we can get them to their factories.

Their names will be furnished on request.

If you were unable to see for yourself what a quick job the Wacho Can Straightener makes of removing dents in cans, how simple and safe it is to operate and how noiselessly it does its work, we want to tell you more about it or prove to you in your own plant its usefulness and practicability.



Write for circular and whether interested in a demonstration.

Manitowoc Plating Works

Manufacturer "Wacho" Can Straightening Machine
Rebuilding, Retinning and Manufacturing of Ice Cream Cans, Milk Cans and Special Dairy Supplies.
Years of Satisfactory Tinning Service to the Dairy Trade.

MANITOWOC WISCONSIN

Our Retinning Service is Complete

Despite the fact that you have been disappointed in the past on retinning work, and are of the opinion that it is neither economical nor practical, we are confident "MANITOWOC" Retinning and Rebuilding will make you an "enthusiastic believer" just as it has others. Just one trial order will convince and convert you.

SATISFACTION GUARANTEED

at a cost and freight price of 2.75 cents, against a cost and freight price for Cubas of 2.625 cents, the Cuban producer finding it necessary to yield all but twelve points of his forty-point preferential in order to find purchasers for his output.

"Not only is it impossible under conditions such as now exist for the seller of duty paying sugar to add the duty to his price, but it is equally impossible for the protected producer to obtain the full amount of his nominal protection. The United States producer finds it impossible to maintain his price at the full margin above the Cuban quotation nominally provided by the tariff law and the Cuban producer is compelled to yield the greater part of his nominal preference over full-duty paying sugars.

"Nevertheless the existence of these preferences is unquestionably helpful both to the native producer and to the Cuban producer in meeting outside competition. If the difference in the amount of duty paid measures accurately the difference in cost of production, all will compete on equal terms. If it is greater or less than the difference in cost of production, the favored interest will gradually increase its share in the total volume of sales. As a practical business problem, therefore, the fixing of a tariff becomes a question of adjusting the terms on which the various sugars available to a given market are allowed to compete. The exact determination of the rate which will make competition possible on unreasonably even terms can be reached only by definite information as to relative costs of production.

Believing that intelligent treatment of the tariff depends upon the full presentation of the facts and a right understanding of their application, we are glad to give space to views and arguments on all sides of the question."

* * *

FUTURES DELINE AGAIN.

Trading on the New York sugar exchange showed a further decline in raw sugar prices during the first week in November; there was no trading in refined sugar futures. The range of raw prices was as follows:

	High	Low	Latest
October	2.54	2.54	2.54
November	2.59	2.38	2.42
January	2.46	2.35	2.35
March	2.42	2.25	2.29
May	2.51	2.32	2.35
July	2.60	2.40	2.45
September	2.65	2.50	2.50

* * *

AGREE TO REDUCE RATES.

Eastern trunk line railroads are preparing to reduce freight rates on sugar from Atlantic seaboard points to Chicago and other competitive points in central territory. It is understood that the reductions were agreed upon at a conference held in New York between trunk line officials and representatives of a number of the eastern refiners.

The proposed changes, it is understood, will bring rates from seaboard points into central territory down to the level of rates from New Orleans, with exceptions as to certain points.



LOUIS S. BELITZER,
National Fruit Flavor Co.,
A Jack Rabbit.



W. H. MURPHY,
A Jack Rabbit.



HUGH D. HARRINGTON,
Consumers' Gelatine Co.,
A Wolf Hound.

MORE LAWSUITS OVER PAYMENTS FOR HIGH PRICED SUGARS.

Suits to collect on 1920 contracts for the sale of sugar at 22.50 cents continue to be filed by the American Sugar Refining Company. The latest actions announced are against Cate & Woodward, of Providence, R. I., for the sum of $50,000, and against A. E. Brauns of Iron Mountain, Mich., formerly doing business under the name of Brauns & Van, for $21,000. The quantity of sugar involved in the last mentioned case is 340 barrels, it is stated.

* * *

A DISCUSSION ON INVISIBLE SUGAR SUPPLIES.

Editorilizing on the factor of invisible supplies, we find the following in Facts About Sugar:

"In discussions of the sugar situation a factor that looms large and comes in for much comment is the existence in Cuba of stocks at ports and interior points approximately a million tons above the average for this season of the year. A consideration of equal importance that is seldom mentioned is the entire absence of invisible supplies, not only in the United States but throughout the world. Such invisible supplies in the hands of distributors, speculators and consumers norm-

ally amount to 500,000 to 750,000 tons in the United States alone. For the world they probably average 1,500,000 to 2,000,000 tons.

"In the middle of 1920, when the long continued decline in the price of sugar set in, invisible stocks in the United States were probably at the highest point they ever had reached. Developments since that time have demonstrated that a great amount of hoarding by consumers had gone on during the period of war-time control and this was followed during the early months of last year by heavy accumulations of stocks on the part of distributors, operators seeking speculative profits, and manufacturers using sugar as a raw material for their products. The consequence, when the decline in prices set in, was that the ordinary channels of outlet were blocked and sugar backed up in the hands of producers.

"With the progress of time these invisible supplies have been gradually absorbed until they have entirely disappeared. They have not been replaced because neither dealer nor consumer has seen in prevailing conditions any compelling reason for carrying even his normal volume of supplies. Having experienced severe losses on his sugar purchases during the past year and a half and being thrown into more or less uncertainty regarding the probable future course of the market by conflicting statements as to controlling influences, the distributor has felt that his only safe course was to limit his stock to the requirements of day-to-day orders. The extent to which this practice has been carried is illustrated by a recent experience of the writer in visiting one of the principal distributing points of the country. He was informed that jobbers in that city were making it a practice to purchase only against orders actually received and were not carrying a single barrel of sugar over from one day to the next. Similarly, wholesalers and retailers were ordering only to meet actual requirements for a few days at a time. They preferred to take the risk of running entirely out of supplies rather than to take a possible loss through a further decline in prices.

"The significance of the depletion of invisible supplies under conditions such as now exist is that it paves the way for a rapid readjustment in the outward and visible state of the industry concerned. The assumption frequently made in connection with the sugar market that two to three years will be required to bring supply and demand back to a normal balance overlooks the bearing of this important factor. Considering the low state of supplies actually in trade channels throughout the world, it would be easily possible for the situation to be completely changed and accumulated stocks in producers' hands to be dispersed within a few months. In this particular instance it is probable that the change from present conditions will be retarded somewhat by Europe's difficulties in finding satisfactory means of payment and the consequent necessity that European countries will be under of continuing to limit their purchases to a volume much below their normal requirements.

On the other hand, it is possible that the situation may be cleared up much more quickly than even the most optimistic members of the industry now hope for. It is significant that the only part of the world in which a considerable oversupply exists is Cuba. In the analogous case of cotton, where the oversupply was confined to the United States, the developments of the past two months have shown an almost complete reversal of conditions. Should it become evident within the next three or four months that Cuba's coming crop is to be only two-thirds as large as that of the past season, this fact alone is likely to give the signal for an active buying

Highest Purity



MADE IN AMERICA
For Quality Buyers

You can't forget the satisfaction which unfailingly follows the use of Chalmers' Gelatine.

CHALMERS GELATINE
SALES CORP.
RICHMOND VIRGINIA



CONDENSED MILK MACHINERY
The Better Kind

We teach you to make condensed milk.

C. E. ROGERS
Builders of Better Condensing Equipment
8731 Witt St. Detroit, Mich.

DULUTH
C. C. Shipping Tubs
Are Cream Savers

Our Eastern Style Tubs, 29 in. high, give plenty of packing room for your long shipments.



Features which insure durability are:

1. Standard width staves, 1 3/16 in. thick, of select Washington Fir.
2. Top and bottom hoops of 1½-in. 16-gauge galvanized iron.
3. Heavy bottom construction, beer keg type, which insures added strength.
4. Beehler 4½-in. heavy galvanized handles.

Write for our special terms for early delivery

DULUTH COOPERAGE CO.
DULUTH MINNESOTA

movement, directed to the reestablishment of normal stocks in distributors' hands, which would lift from the shoulders of producers in Cuba and the United States the burden of carrying the great bulk of supplies and would rapidly absorb these into customary trade channels.

"The exhaustion of trade stocks makes it reasonably certain that the movement of sugar during the remainder of the year will be heavier than is usually the case at this season. At what time a more comprehensive buying movement, leading to the replenishment of trade stocks will begin and what circumstances will set it in motion, however, it is impossible to predict with certainty. It is logically to be anticipated whenever buyers reach the conclusion that a change in the present apparent relation of demand and supply is impending, and the chances are that developments from now on will point in increasing number toward the realization of a marked change in this respect during the coming year."

viously used which were brought out during the trial of the cases.

Contracts Variously Interpreted.

The suggestion of a uniform refined contract appears first to have been advanced by E. L. Wemple, of the Warner refinery, but until recently did not seem to meet with much response on the part of other refiners.

In the meanwhile, however, the refiners have learned at their expense that the jurisdiction of various states differ and that while their former contracts were upheld in some sections, in others the courts took an entirely different view of the situation and permitted the buyers to break their agreements on one ground or another.

Mr. Wemple's suggestion has recently been receiving more earnest consideration, it is understood, and it is known that in some quarters the revision of the contract, at least, if not the adoption of a uniform document, is being seriously considered.



Creamery Package Exhibit at the National Dairy Show.

STANDARD SUGAR CONTRACT FORM CONSIDERED BY REFINERS.

Facts About Sugar Explain Adoption of Uniform Document may Result from Court Rulings in Actions Involving Validity of Sales.

As a result of the legal fights that were made by buyers in various sections of the country against the fulfilment of their alleged contracts for sugar at the high prices which prevailed during the middle of last year it is quite possible that a standard form of refinery contract may be adopted by all refiners in the near future, this contract being devised with the idea of eliminating weaknesses in the forms of contract pre-

The Buyer's Signature.

Some refiners in the past have been in the habit of accepting orders on the signature of the brokers, without troubling to obtain the signatures of the buyers, and while in some states the courts have held that the signature of the broker was binding, in others they have held the opposite.

While, of course, it would not be practicable for refiners to obtain signatures before shipment was made in cases where immediate shipment was requested, it does not appear that there is so much danger of violation of contract under these circumstances. On orders for delayed shipment, however, it appears possible that refiners will hereafter insist on the buyer's signature.

Another point that seems to have been open to more than one construction was that relative to the usual definition of shipping terms.

"Immediate delivery," the trade usually understands to mean shipment within three days, whereas "Prompt delivery" would call for shipment within ten days, and so forth. These shipping terms, however, met with varying constructions in different courts, with the result that in some instances refiners found the law would not accept the usual trade construction of the terms and held that the seller had defaulted in his contract.

The proposed contract would include a paragraph which would make more specific the shipping conditions. It is possible also that some clause might be inserted to cover possible market fluctuations between the time of order and the time of shipment. In the past buyers have often called on refiners to allow for market fluctuations while their sugar may have been in transit and these have repeatedly been allowed, although the buyer was not strictly entitled to call upon the refiner to take the loss entailed by a market decline.

⚜

BETTER LATE THAN NEVER.

Not so with Jim Mulligan. He's always there on time. In fact he sometimes sends in his "bit" so early that we get it into print a month ahead of time. Here's Jim's December contribution:

Am now on my way to meet all the Dixie Flyers at Atlanta, Ga., Nov. 28th, where we will have a grand and glorious time. Flapping our wings, which occurs once a year. And there old father eagle will be delighted to meet all the old Flyers and then to welcome the new ones, to the eagle nest for their protection in future and our hearty co-operation as in the past. It's very gratifying to see the good that has been done in the past year and the hearty co-operation with the ice cream manufacturers over the southwest and elsewhere in the United States. Still we must not lose sight of the fact of the valuable assistance and hearty co-operation of our National Secretary, Robert Everett, and the National Salesman Supply Association and all the manufacturers whose travelling men should join the National Association of Ice Cream Supply Men—as well as Dixie Flyers. Its to be hoped that all the Flyers will bring their wives (or sweethearts) with them to Atlanta, as we need all the ladies we can get, for it takes away that stag feeling and brightens up things quite a bit.

I find trade conditions steady, and outlook for next year is good, and all the ice cream manufacturers are pretty optimistic.

While in New Orleans I had the unexpected pleasure of meeting our old friend, Harry A. Benners, who is back in the salt game and is southern salesmanager for Jefferson Salt Co., Jefferson Island, La. Harry took me over to his office in the United Fruit Company building, on St. Charles St., near the St. Charles Hotel, and he asked about a number of the old boys that now belong to the Dixie Flyers. He will soon be one of the new eagles, as he will be with us at Atlanta. Mr. Benners has associated with him in the operation of the mines two of Louisiana, Ky., most staunch and wealthy business men, Mr. Lawrence Jones, of Jones Brothers, and Mr. Lysle Bayless, of Bayless Bros. Co., both firms of Louisville, Ky., and while operating but a short time, they report a nice satisfactory business. They also have associated with them M. S. Fiske, who will take charge of the Atlanta office in a short time.

"Crescent"
Ice Cream Packing Tubs
Made right
Keep tight
Write For Prices
Crescent Tub Manufacturing Co.
Johnson City, Tenn.

Attention Kansas Ice Cream Manufacturers:
While attending the Convention do not fail to visit the display of the
Wolf Advertising Company
Creators of Distinctive Ideas in Advertising
43 to 51 West 36th Street
New York City
Room 219 Baltimore Hotel, December 15-16, 1921
We carry a complete line of high class advertising displays, cutouts and signs for the ice cream and butter manufacturers.
DAVE STEINER
Representative for Kansas, Missouri, Oklahoma and Texas
Member Kansas Ice Cream Association
St. Louis Office: 726 Victoria Building

The Significance of the "B"


The Bee has long been known for its energy and constant industry. So has B. Riley Hauk, our president, who has had forty years' experience in the Creamery, Dairy and Ice Cream Makers' machinery and supply line. Mr. Hauk still has the same old pep, and is anxious to serve you by giving you the benefit of his experience in our line.
The "Bee" in our trade mark is also significant of the letter "B" in Mr. Hauk's name to distinguish it from any other company, as he is solely connected with and interested in the
Dairymen's Mfg. and Supply Co.
403 NORTH MAIN ST.
Saint Louis, Mo.
B. RILEY HAUK, President

I had the pleasure of meeting him and judged him to be a nice clean hustling business man, and was well liked by the ice cream manufacturers of the South. So let's wish them success.

While this may not be printed until after Thanksgiving Day, I hope it will be happy for all, but am inclined to think that our turkey will be a chicken. However, let's all be thankful that we are to be together once more.

J. W. MULLIGAN.

SALESMEN'S CLUB MEETING.

At its annual business meeting in Buffalo, preceding the Eastern Exhibition, the Salesmen's Club elected the following directors for the ensuing year: R. J. Decy, J. E. Graham, W. E. Gray, Jr., G. R. Kleinau, S. W. Mendelsen, P. N. Miller, J. B. Morse, A. A. Senor and Thos. J. Stewart. Meeting later in the week this new Board of Directors elected the following officers: Thos. J. Stewart, president; W. E. Gray, vice-president; A. A. Senor, treasurer.

It is impossible to transfer to paper any expression of the enthusiasm shown at these meetings. They developed into real get-together, do-things-for-each-other-and-the-other-fellow affairs.

Club members swapped ideas on how to get more business. They discussed to just what lengths salesmen can and should help their customers develop bigger businesses. They told each other their experiences in helping the Club and the Association expand the ice cream industry.

You will receive a report of these meetings in detail soon. Meantime, if you were not at Buffalo and happen to meet up with any member who was, get him to tell you about the standing that the Club has gained.

STATE ASSOCIATION TO WIN PRIZE.

The state having the largest attendance of ice cream manufacturers during the first three days of the Atlanta exhibition is to be honored in a unique way. The state association will receive a loving cup presented by Mr. Geo. White, president of the White Dairy Products Company, Raleigh, N. C. Mr. White is also president of the North Carolina Association of Ice Cream Manufacturers.

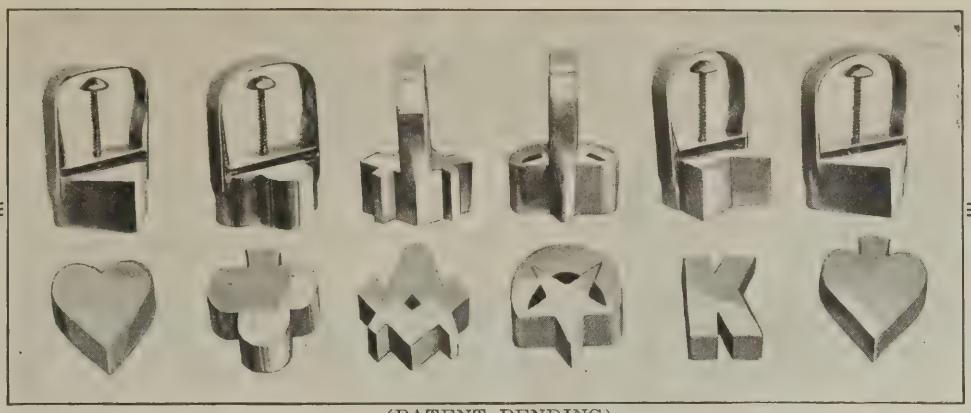
NATIONAL DAIRY COUNCIL MEETING.

Notice is hereby given that the Annual Meeting of the National Dairy Council will be held at the Auditorium Hotel, in Chicago, Tuesday, the first day of December, 1921, at 10 o'clock in the forenoon. Matters of vital importance to the dairy industry will come before this meeting. All members of the National Dairy Council are earnestly requested to be present at this meeting.

NATIONAL DAIRY COUNCIL,
M. D. MUNN, President.
M. O. MAUGHAN, Secretary.



Booth 146 at the Dairy Show.



(PATENT PENDING)

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WITH A SPEED-O-STAMP

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SOMETHING entirely new—the above photograph will enable you to obtain a general conception as well as a commercial benefit accruing to you in your business. This is positively the more speedy and most sanitary way of making individuals. A simple device not requiring skill, for stamping out individuals just as fast as your mother used to stamp out the home-made doughnuts. HOW IT IS DONE—take quart brick of cream any flavor, depends on color scheme you wish to carry out; cut 6, 7 or 8 slices to quart, then stamp required design out of each piece. At present we are making the above designs only. This patented design was first shown at the Buffalo Show, and owing to great demand for this complete set we are unable to promise better than ninety day delivery.

SET OF SIX POPULAR DESIGNS AT $27.50

Write Today

JOSEPH EVANS
YOUNGSTOWN, OHIO

Don't Delay

THE KANSAS ASSOCIATION OF ICE CREAM MANUFACTURERS' SIXTH ANNUAL CONVENTION.

By B. T. Perkins, Secretary-Treasurer Pittsburg, Kan.

The sixth annual convention of the Kansas Association of Ice Cream Manufacturers will be held at Hotel Baltimore, Kansas City, Missouri, Dec. 15 and 16.



BERT PERKINS

While the program is not yet completed and ready to publish, the committee gives the assurance that every effort is being made to secure speakers with messages of vital interest to all Kansas and Missouri manufacturers, in their problems and difficulties. In arranging the speakers, they are being informed of the minimum and maximum manufacture of the members and are asked to confine their address to this capacity.

Mr. Loewenstein, secretary of the National Association, has promised to be present and tell what the National Association has been doing in the interest of the industry at large and for the several state associations.

The report of the proceedings of the National Association at Minneapolis will be given.

Prof. A. C. Baer, of Stillwater, Okla., is expected to have a part on the program. Those who have heard him once, will want to hear him again.

The Jack Rabbits have been given one-half day and one evening on the program. Those who have experienced the conduct of these animals at past conventions, will realize their ability to entertain. In arranging the program and also in past conventions, they have insisted on having more time. We are sure that they have some secret which they will spring, or rather a jack-in-the-box surprise. They assure us that whatever their entertainment is, it will be worth the time and expense. Let's show these fellows that we can stand all of their fun that they are able to corral and turn loose, as we realize that any person with the ability to put up the sale-talk that those fellows torture us with 12 months of each year, can surely put one-half day and one evening's fun and entertainment as a soothing balm for what we have suffered the past twelve months.

Those who fail to be present and get their share, will loose to that extent.

An invitation is extended to all manufacturers of ice cream, whether or not members of our association. Come and be our guests, and before you go away you will be a member and one of us, also to all manufacturers out of the state, as none are barred, but we welcome you and we will be pleased to have you as our guests.

A complete program will be sent to all members as quickly as printed, and the secretary will be glad to send same to anyone requesting it.

CALIFORNIA AND SOUTHWESTERN STATES ICE CREAM MANUFACTURERS' ASSOCIATION.

Our Annual Convention will be held at the Hotel Stockton, Stockton, California, December 5 and 6.

During the week of December 5 to 10, inclusive, there will be held a Pacific Slope Dairy Products Show in the Armory Building at Stockton; also during this week, the five dairy and creamery organizations of the state will hold separate conventions:

Monday and Tuesday, Dec. 5 and 6, California and Southwestern States Ice Cream Manufacturers Association.

Wednesday, Dec. 7, California Milk Dealers' Association.

Thursday, Dec. 8, California Dairy Council.

Friday and Saturday, Dec. 9-10, California Creamery Operators and Butter, Cheese & Ice Cream Makers.

CALIFORNIA AND SOUTHWESTERN STATES ICE CREAM MANUFACTURERS ASS'N,
Robert J. Dryden, Sec'y-Treasurer.



Coster-Peterson Co. Booth at the National Dairy Show.

ACTIVE COMMITTEES IN FULL CHARGE OF STOCKTON CONVENTION.

Registration and Membership.

F. B. Fulmer, Miller Creamery Company, Oakland; G. M. Smith, Crystal & Gold Nugget Butter Co., San Jose; W. H. Hightower, Acme Ice Cream Company, Visalia.

Banquet.

K. L. Carver, Crescent Creamery Company, Los Angeles; G. H. Ball, Eilert Products Company, Fresno; R. J. Dryden, Kream of Kream Company, Oakland; Chas. O'Brien, O'Brien's, San Jose.

Entertainment.

C. J. Alfred, Alfred's Pure Ice Cream Co., Los Angeles; L. W. Wilson, Benham Ice Cream Company, Fresno; Harry Peacock, Kern County Creamery Company, Bakersfield; Wm. Dreyer, Acme Ice Cream Company, San Francisco; P. Mogleson, Fairy Ice Cream Company, San Francisco.

Supply Men's Committee.

J. H. Kugler, Western Confectioner, San Francisco; Chas. M. Lee, Lee-Greefkins Company, San Francisco; H. P. Jacobsen, Solar Sturges Mfg. Company, San Francisco; Mr. J. C. Capron, Menasha Printing & Carton Company, Los Angeles; A. N. Henderson, Davis Watkins Company, San Francisco.

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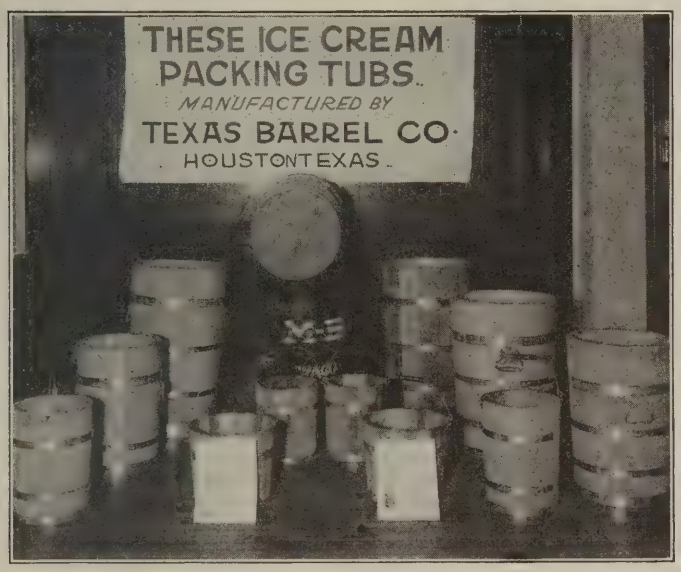
TEXAS BARREL COMPANY EXHIBIT.

The likeness below is that of Jacob Noodleman, president of the Texas Barrel Company. Eight years ago, at Houston, Tex., in conjunction with Joe Becker, Mr. Noodleman laid the beginning of the present plant. They continued plodding faithfully for five years and then decided to extend their manufactures to a more extensive field. They then began the manufacture of ice cream packing tubs. This addition soon placed his business upon a prominent basis, and he has now a well known and well established firm, manufacturing ice cream packing tubs as a specialty, and barrels and kegs for all purposes, and is running, in conjunction, a repair shop.



JACOB NOODLEMAN

All visitors to the convention of Ice Cream Manufacturers and Supply Men, to be held at Atlanta,



THEIR EXHIBIT AT A RECENT SHOW.

Georgia, Nov. 26th to Dec. 3rd, are extended a most cordial invitation to visit the exhibit of the Texas Barrel Company.

IOWA MEETING IN JANUARY.

The annual convention of the Association of Ice Cream Manufacturers of Iowa will be held in Cedar Rapids, January 24th and 25th, 1922. A big time is promised. P. W. Crowley, the up-to-the-minute secretary, is working hard on an unusually interesting program. The Poodles, under the leadership of President Gus Bulger and Secretary Art McCune, are on their toes, preparing for the big annual entertainment. Be there.



The Handy Sanitary Ice Cream Dispenser

For the Fall and Winter Social Season—

for dispensing ice cream at Dances, Parties, Bazaars. There is nothing simpler or quicker than the Sanisco Ice Cream Sandwich Machine.

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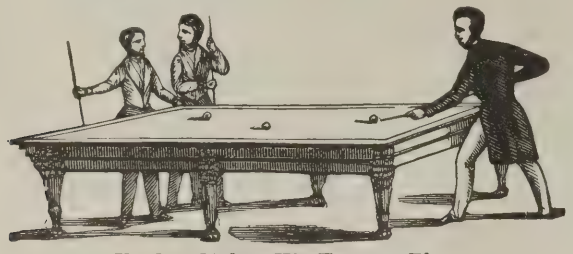
WARREN & BAILEY Los Angeles, Cal. — SEATTLE ASBESTOS FACTORY Seattle, Wash.
THE FEDERAL ASBESTOS CO. Milwaukee, Wis.

Mention The Ice Cream Review

A. J. MILLER ENTERTAINS.

While on our way back from the Buffalo show, we accepted a very kind invitation from A. J. Miller, of the Sanitary Tinning Company, Cleveland, Ohio, to stop over for a day's visit.

In the morning we visited the plant out at 3753-63 East 93rd street. The different processes of re-tinning were fully explained to us and the trip proved very interesting. In fact, the was those old, rusty milk and ice cream cans looked after going through the re-tinning process put us in mind of the way the fairy made Cinderella look after using the magic wand. There was just one thing at the plant that we did not inspect



Yunker Makes His Famous Play.

fully, and that was "Mike" the watchman, and Mike os evidently afraid of the fair sex, for he skidooed when we made our appearance, but then, he may have been sleeping, for we thought we saw him hurriedly putting the finishing touches to his "toilette" as he risappeared through the doorway.

We did full justice to the wonderful chicken dinner and then boarded A. J.'s private sight-seeing car and took in the sights of Cleveland. We thought it a beautiful city.

In the evening, visitors arrived in the personages of David Gundrum, of the Keiner Williams Stamping Company, Richmond Hill, N. Y., C. J. Yunker, of Toledo, Ohio, who represents the Rex Extract Co., and R. E. MacFarland, Chicago, Ill. the "big boy" who represents Essex Gelatine Company. We adjourned to the billiard room where most of us played and some of us tried to, only to find out that no one need ever expect to surpass Mr. Yunker at that pastime, for he's so good at that game that he lets the bridge accompany the cue in chasing the ball to its pocket home in the corner. Oh! You Michigan Dairy Boosters, if you had seen that play, you would have paid real money for the sight.

We left at midnight, with the memory of a very pleasant day spent through the hospitality of Mr. and Mrs. Miller and daughters, Betty and Louise, and we hope some time to visit their home on the lake where we expect to pass a certain inspection before being admitted and where A. J. has iron rings set in a cement wall for a reason no one could eer guess.

THE EDITOR'S SIDEKICK.

OKLAHOMA ASSOCIATION OF ICE CREAM MANUFACTURERS.

Don't forget that the annual meeting of the Oklahoma Association of Ice Cream Manufacturers will be held at Oklahoma City, Okla., with headquarters at the Lee-Huckins Hotel, Dec. 12, 13 and 14, 1921. We have also heard that the Wolf Hounds are going to try to hold some kind of a meeting on the same date and place. For fear that they would try to take this advantage of us, have mailed notices to all ice cream manufacturers, calling their attention to this fact and urging their presence. From replies received it looks now like we are going to have a record crowd of ice cream men, and the Hounds will have to go some if they capture this bunch.

The program will contain many items of great importance to all ice cream men, and the success of the convention will be just what we make it.

"He profits most who serves the best."

We welcome anyone interested in the ice cream industry to meet with us.

J. B. PORTER, President. M. T. COCHRAN, Secretary.

FROM CASTLE TO PEDDLER.

Mr. Peddler: I will be at the state conventions of ice cream manufacturers, and I feel sure you will too. Let's all be there.

BROTHER TRAVELLER CASTLE.

The woman who does not make herself look as pretty as possible is guilty of a crime against society.



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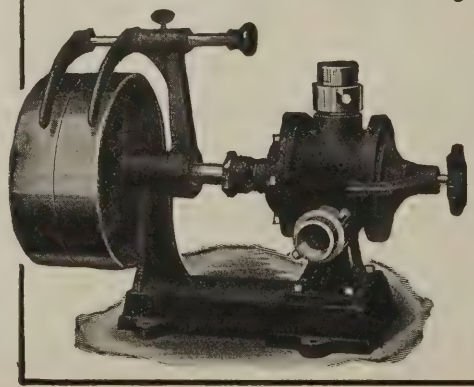
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Scientific methods apart from those heretofore employed insures a finished product which retains the Full Strength, Bouquet and Aroma of the raw material. An uncommon result in the business but the rule with MAYBORN PRODUCTS.

You will find our trial order of 10 gallons at barrel price well worth trying. Write.

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Ice Cream Flavoring
$2.75 Per Gal. Bbl. Lots
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Ice Cream Flavoring
Unusually Mature
$3.50 Per Gal. Bbl. Lots
$3.25 " " 5 " "

MAY WE SERVE YOU BETTER

The Mayborn Food Products Co.
CLEVELAND, OHIO

SPECIAL BULLETIN NO. 17.

The North Carolina Ice Cream Manufacturers' Association.

It has been reported that the express companies have inaugurated the increased estimated weights on ice cream shipments. The special instances which have been called to the attention of the writer are Smithfield, N. C., and Raleigh, where the new rates went into effect October 10th.

The express companies have issued these rates without the consent of the North Carolina Corporation Commission, and Mr. Womble, the Rate Clerk of the Commission, states that no increase has been granted, and he has notified the local express agents to cease billing the increased weights, and has so notified the superintendents.

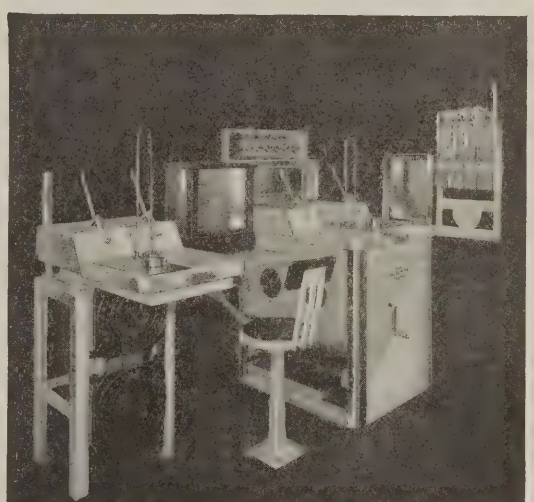
This bulletin is issued to request the members to see that these rates are not put into effect at their stations until the matter has been decided and proper notice of the allowance of the increase has been given by the North Carolina Corporation Commission, of which action, if there should be any, your secretary will be promptly notified and will in turn advise you.

In the meantime data is being collected on this matter, and if any member has any information bearing on this subject, kindly forward same to your secretary at once. This is a very important matter, and is not to be neglected. Thanking you for your usual co-operation, I am,

A. E. DIXON,
Secretary.

N. B.—Do not fail to remember the dates covering the convention in Atlanta, where we hope the N. C. Ice Cream Manufacturers Association will play the stellar role.

Soon Pays for Itself— then PAYS PROFITS



The MOJONNIER MILK TESTER is now an essential in all ice cream plants.
With it you can standardize your mix accurately —sold direct or through your jobber.
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THEY DO THINGS UP RIGHT IN ERIE.

Frankie Biers, of the Erie County Milk Association, and the rest of the entertainment committee at the 15th Annual Convention of the Association of Ice Cream Manufacturers of Pennsylvania, held October 31st and November 1st, at Erie, Pennsylvania, in the Lawrence Hotel, certainly did things up "brown" in the way of royally entertaining the guests and making things generally pleasant for everybody.

The convention was very well attended and was a huge success. The program opened at 9:30 a. m., Monday, October '1st, by registration. At 1:30 p. m. the Address of Welcome was given by Hon. Miles B. Kitts, Mayor of Erie. The Response was made by Hon. S. S. Robertson, counsel for the Association. Then followed the President's Address by Robert Crane, Philadelphia, Pa. The reports of the secretary, treasurer, directors and committees were ably given in turn. "Difficulties in Enforcing the Pennsylvania Ice Cream Law" was well handled by Hon. Jas. Foust, Director of Bureau of Foods for the State of Pennsylvania. W. J. Stern, secretary Wholesale Credti Mens' Association of Erie, delivered an address. Open discussions were held on "Selling Indiscriminately—Is It Profitable?" 'Who Ain't Got Sand?" "Unfair Practices in Securing Business," and "Are We Striving for Gallonage at Expense of Profits?" Then followed an invitation to the Eastern Exhibit which was held in Buffalo, N. Y., October 31st to November 5th, given by O. S. Jordon, president of the Association of Ice Cream Supply Men.

On Monday afternoon a tea was held for visiting ladies. On Monday evening a hallowe'en banquet was given; the large hall was filled to capacity. After the banquet, the hall was cleared and dancing held full sway until the wee small hours of the morning. We'll say this for the ice cream supply men and the manufacturers, they certainly can dance—from the oldest down to the youngest—but the funny part of it is that the older they are the better they seem to dance, which goes to prove that the fellows are all live wires. "Pop" Crane was there and was being muchly entertained by the ladies in attendance, in fact, well, we don't like to tell on anyone, but we saw three ladies in one corner and upon closer observance we also saw "Pop" buried there in a big easy chair. Frankie Biers could easily be found, for his genial laugh, which is so well known to many, rang out in all corners of the room. And Davie Gundrum, of the Keiner Williams Stamping Company, Richmond Hill, N. Y., was presented to the crowd and entertained them so enchantingly with his famous "Grasshopper" dance that we were afraid that we would have to take Messrs. Walker, Slater, Jordan and the rest of the avoirdupois to the doctor for side-stitches. And we are still wondering if that party ever found his hat, which he misplaced. Taken all in all, the banquet and dance was a rousing success, and the following deserve a lot of credit:

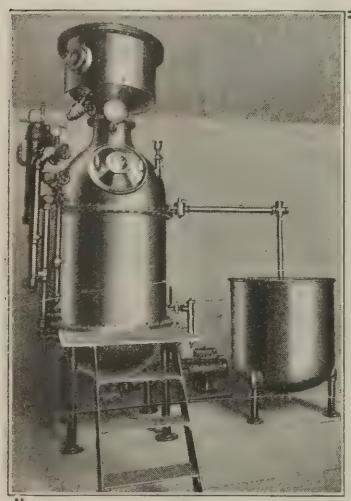


"Dance of David."

Entertainment Committee—R. H. Arbuckle, D. E. Wiseman, F. G. Biers, of Erie County Milk Association; L. W. Mathias, W. W. Dart, of Lake Shore Ice Cream Company; S. Gordon, of Erie Pure Milk Company, and P. Pulakos, of Geo. Pulakos & Sons.

Tuesday's program began at 9:30 a. m. by a discussion by Wm. White, of Grove City, Pa., on "Possibilities of Building Milk Supply in Small Dairying Community," followed by topics given by Thos. Hall, of Harrisburg, Pa., Wm. D. McCormick, of Pittsburgh, Pa., and an address by J. L. Shoemacher, of Philadelphia, Pa. Some open discussions were held and the convention ended with all attending voting it a great success. Practically the whole crowd left for Buffalo, N. Y., for the Eastern Convention of Ice Cream Supply Men. A vote of thanks is also extended to to W. A. Cochran, manager of the Lawrence Hotel, for the many courtesies extended the visitors, and when another convention is held in Erie at the Lawrence Hotel, they will all be there.

THE EDITOR'S SIDEKICK.



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A better flavored product. Overrun more easily obtained. Surplus condensed and stored. These are some of the results that have been procured from using the

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THE ASSOCIATION OF ICE CREAM MANUFACTURERS OF NEW YORK STATE.

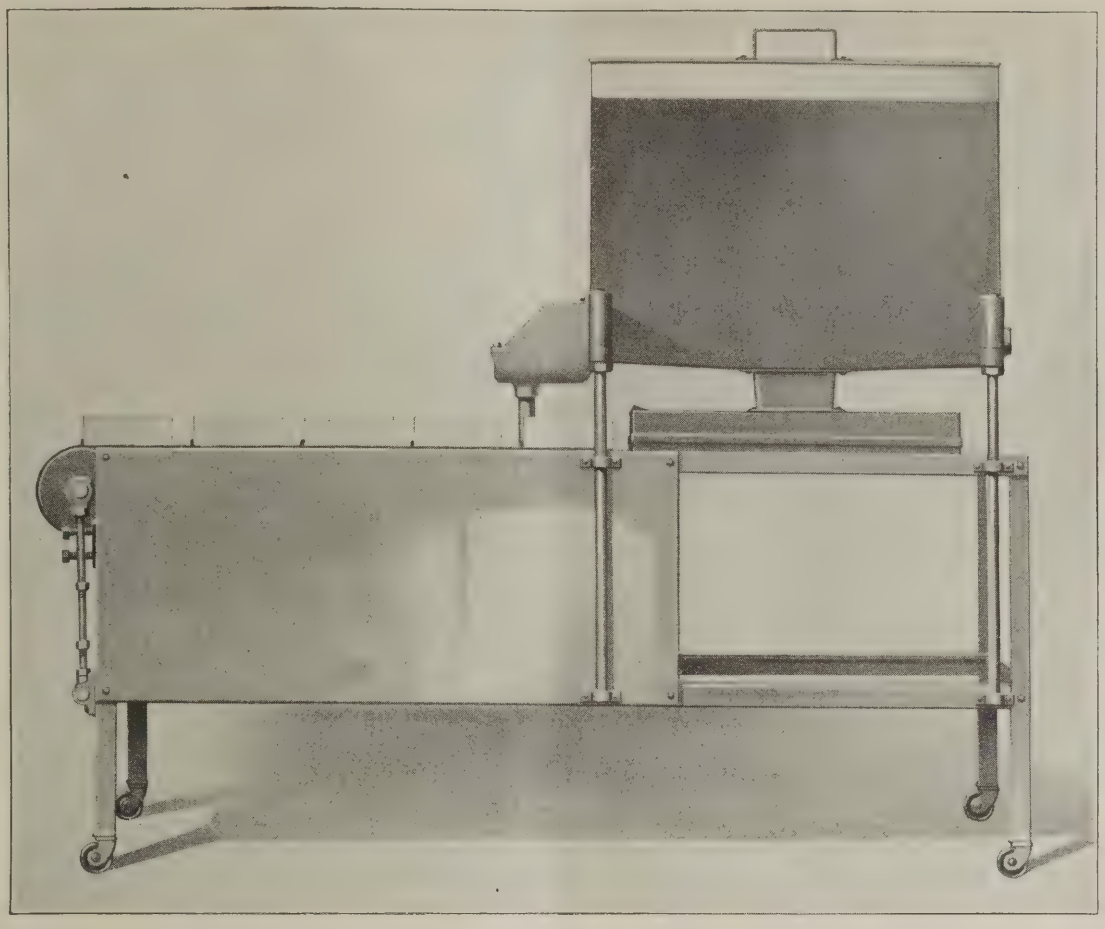
Syracuse, N. Y., Nov. 5, 1921.

The Ice Cream Review:

The 14th annual convention of the Association of Ice Cream Manufacturers of the State of New York will be held at the Arlington Hotel, Binghamton, N. Y., November 30th and December 1st.

A very interesting program is being arranged covering subjects which have been suggested by our members in various parts of the state. The ice cream manufacturers of Binghamton are making arrangements for the convenience and pleasure of our members and their wives, and our officers have every reason to believe that this will be one of the best conventions ever held by our state association. A cordial invitation to attend is hereby extended to members of the ice cream associations of other states.

A. M. LE MESSURIER,
Secretary.



Valerius Ice Cream Brick Carton Filler

No Hands Touch the Ice Cream—Saves Time, Labor and Money

Fills quarts, pints or one gallon ice cream slabs; directly from ice cream freezer into the desired packages. No adjustment required for filling either pint or quart cartons; in fact, both pints and quarts may be run on the machine at the same time.

Does away entirely with the old method, and the unsanitary hand work. The machine completes the entire operation automatically, untouched by hand. The maximum capacity is 24 quarts, or 48 pints per minute. It may be operated as low as 12 pints or quarts per minute.

Little floor space is required. The machine is 2 feet 2 inches wide, by 8 feet long, by 50 inches high to top of hopper. Mounted on large easy rolling castors—can be rolled to one side when not in use. Operated by ½ H. P. Motor, easily connected with any ordinary lamp socket.

A wonderful labor saver. Three girls will operate it to full capacity on quarts, pints or slabs; along with a man to place the filled packages in the freezer room. Where freezers are conveniently located, they may be conveyed without extra handling. Where only small amount of cream is packed only two operators are required to do all the work, from making up the cartons to placing in the freezer room.

It makes no difference whether the operator is filling quarts, pints or slabbing one gallon packages—the capacity is always the same in gallons per hour. If so desired, the operator can reduce this capacity 100% when filling pint cartons, by feeding only one-half as many to the conveying mechanism.

The cartons best used with this machine are of telescopic type, either locked or stapled ends, with preference for stapled ends as these are more easily assembled and present a more pleasing appearance when the package is filled. The approximate inside dimensions of the quart carton are 3½ inches wide, 3⅜ inches long, and 2 5-16 inches deep. Made of manilla stock; Paraffined on all sides making them perfectly sanitary.

Machine filled cartons are full quarts and full pints—are not loose in the package, and easy for the consumer to strip and serve. The size of cartons as above mentioned are standard, as adopted by the large manufacturers. Special machines can be built to order, so as to accommodate any desired size provided same are of same pattern.

For further information and prices, just fill in the coupon and send it to our nearest sales office. Be the first to take advantage of this labor saving sanitary machine in your locality.

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The
ICE CREAM REVIEW

PUBLISHED THE FIFTEENTH OF EACH MONTH BY

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OFFICIAL ORGAN

North Carolina Ice Cream Manufacturers Association
Ice Cream Division Indiana Mfgs. of Dairy Products
Oklahoma Association of Ice Cream Manufacturers
Wisconsin Association of Ice Cream Manufacturers
Michigan Association of Ice Cream Manufacturers
Nebraska Association of Ice Cream Manufacturers
Southern Association of Ice Cream Manufacturers
Kansas Association of Ice Cream Manufacturers
Louisiana Ass'n of Ice Cream Manufacturers
Iowa Association of Ice Cream Manufacturers
Texas Ice Cream Manufacturers Association
Texas Ice Cream Supply Men's Association
Arkansas Ice Cream Manufacturers Ass'n
Poodle Dog Association of Iowa
National Order of White Caps
The Nebraska Cornhuskers
Indiana Hoosier Wild Cats
Wisconsin Badger Flyers
Michigan Dairy Boosters
Oklahoma Wolfhounds
Kansas Jack Rabbits
Missouri Mules
Dixie Flyers

DECEMBER 1921

IF there is one resolution the ice cream manufacturer should emphasize above all the others, in determining upon his list for the New Year, it is the one relative to the quality of his product. What the ice cream business of this country needs above everything else is to raise the standard of quality. We need more good ice cream.

Advertising campaigns are all right, and they are indispensable to the business, but they can not bring a successful gallonage to any manufacturer unless he backs them up with good ice cream. By good ice cream we do not mean ice cream that merely complies with some pure food law. Such laws are merely for the protection of the trade and the consumer. They were never intended to build up gallonage. By good ice cream we mean ice cream that is so good that when the consumer eats it he wants more of it and he wants it right away. That is what we call good ice cream.

Too many ice cream manufacturers worry about what their competitors are doing when they ought to be worrying about what the consumer is doing. They try to make ice cream of a quality that will permit them to meet some other fellow's price instead of making ice cream that will tickle the consumer's palate.

Such men make the mistake of their lives. They are letting their competitors run their business for them instead of running their own business. They ought to wake up. The consumer is not looking for "price" ice cream, at least not the second time and the repeat orders are what count. Remember, poor ice cream is not responsible for the increased sales of the ice cream of the country. Good ice cream is responsible. Why fly in the face of the experience of all other food industries and try to build up the ice cream business with a "price" product? It can't be done!



REPORTS from the Atlanta Exposition are to the effect that business was poor, but the exhibits were very fine. Business interests are suffering throughout the South on account of the poor cotton crop and the ice cream industry feels it keenly. But there are better times ahead and the wise business man will hold his business together the very best he can. The pendulum will swing the other way and then he will have the facilities and the organization to take care of the business that will come his way.

The ice cream business is still in its infancy the country over, but particularly in the Southern states. We look for a wonderful growth in that section during the next few years. When ice cream factories depended upon a local supply of sweet cream most Southern cities could not be supplied with ice cream. It has been but a very few years since the introduction of machinery and methods made it possible to manufacture good ice cream without depending upon a local supply of raw material. During these very few years there has been a splendid development of the business in that section. With the coming of better business conditions in general we look for the biggest boom in the ice cream business in the South that has ever come to any section.



SOME ice cream manufacturers follow the practice of "calling in" loaned ice cream cabinets during the winter months, while others either supply the retailer with a smaller cabinet or let him keep the larger one the year round. We don't wish to suggest to the individual manufacturer how he shall handle this problem, but we do feel that there is good argument for both methods.

If the campaign for a larger consumption of ice cream during the winter months is going to win everybody must employ the same methods of doing business the year round. To "call in" any part of the equipment during certain months of the year is merely serving notice that you give up on sales for that period. Possibly this is another reason why many ice cream manufacturers do not furnish cabinets to the retailers. We would like to see a discussion of this subject. What do you do?

THERE is a bit of advice in a recent issue of a chocolate company's trade bulletin which we want to pass on to our readers. This advice is given to the retailer, but we feel that it is particularly valuable to the manufacturer who is in the habit of laying in big stocks of supplies. This bit of advice is divided into three items, as follows:

1st. Buy in quantity according to your needs only.

2nd. Buy more often and keep your stocks new and fresh.

3rd. Don't let any goods hang around on your shelves, they only get stale and eat up your profits.

Some ice cream manufacturers have the habit of buying a season's supply of materials at one time. They try to anticipate their needs and buy heavily during the late winter months. Sometimes they guess right and sometimes they guess wrong.

We believe this is a bad practice. There is an abundance of supplies which the ice cream manufacturer needs at all times during the year. We feel sure that it is better business policy to purchase these supplies as they are needed instead of laying in large quantities in anticipation of requirements that may never materialize.

Of course the purchaser may sometimes make money by "playing the market" and laying in supplies in excess of his needs. He is just as liable to lose money, however. We believe that the purchasing of supplies as they are needed will tend to stabilize conditions and make them more satisfactory for everybody. In other words, make the ice cream an all year round business just as much as possible. Many ice cream manufacturers the country over are making an effort to educate dealers and consumers to look upon ice cream as an all year round food. The tendency is in that direction and we believe it will be a good thing for the business for the manufacturer to run his business as an all year round business just as much as he can.



IN last month's issue we published the photographs of several of the Dixie Flyers, the Texas Association of Supply Men, the Wolf Hounds and the Jack Rabbits. So far as we can learn only one was disappointed with the results. He kicked because his picture didn't compare favorably with the good looking ones. We have reminded him that he should have sent us a better looking photograph. The engraver's art is not sufficiently developed to make a sage brush look like an American beauty, neither can it make a bricklayer look like a lounge lizard. We are glad that all the rest are so good looking that they could not fail to be satisfied with results.



HOLIDAY time is again near at hand and friends will soon be exchanging expressions of good will and friendship. We take this opportunity to express to our readers our appreciation of their support and confidence. We believe there is no trade paper on earth that enjoys the good will of its readers to a higher degree than does The Ice Cream Review. An army of friends out on the firing line is the reason for it.

We would certainly be ungrateful if we did not appreciate these friends. We not only appreciate them but we feel they are the biggest asset we have in business. To retain them will be our constant effort, and we take this opportunity to wish them, one and all, a Merry Christmas and a Happy New Year.

KANSAS MEETING JAN. 26-27.

The annual meeting of the Kansas Association of Ice Cream Manufacturers will be held January 26-27, 1922, instead of December 15-16, as previously announced.



THIS is the time of year when the progressive ice cream manufacturer begins laying plans for next year's business. If his business is expanding one of his big problems is that of equipment. The old must be repaired or replaced and new added to take care of the increasing business.

The question of proper plant refrigeration is always an important one. If his refrigeration is inadequate he will start in early planning on a new installation. It is usually a long drawn out affair and he may have to make some extensive changes in his plant arrangement in order to take care of the new system. It is none too early to plan on next year's refrigeration plant.



IN this issue we begin the publication of the reports of the conventions of several state associations of ice cream manufacturers in addition to the Southern Association. There will be more to follow in subsequent issues. We urge the reader, who may not be in the habit of carefully reading these reports, to do so. He will gain a wealth of information that he can get in no other way. This is the reason we publish them.

ON another page we publish an excellent paper on "Inspection—Is It Worth While?" Be sure to read it.

BULLETIN OF EVENTS

Arkansas Ice Cream Manufacturers Association, Fourth Annual Convention, Jan. 10 and 11, 1922, Hotel Marion, Little Rock. G. A. Meyer, Stuttgart, Ark., Secy.

Mississippi Association of Ice Cream Manufacturers—Annual Convention, Jackson, Miss., January 16, 17, 1922. N. D. Brookshire, Meridian, Miss., Secretary.

Wisconsin Association of Ice Cream Manufacturers, Annual Convention, Hotel Plankinton, Milwaukee, Wis., January 17-18, 1922. F. E. Caughey, Secretary, Madison, Wis.

Louisiana Association of Ice Cream Manufacturers—Annual Convention, New Orleans, La., Jan. 19, 1922. Headquarters hotel to be announced later. N. F. Manning, Monroe, La., Secretary.

Minnesota State Association of Ice Cream Manufacturers—Annual Convention, Hotel St. Paul, St. Paul, Minn., Jan. 20, 1922. W. M. Paulson, Minneapolis, Minn., Secretary.

Association of Ice Cream Manufacturers of Iowa—Annual Convention, Cedar Rapids, Jan. 24-25, 1922. P. W. Crowley, 709 Citizens National Bank Bldg., Des Moines, Secretary.

Kansas Association of Ice Cream Manufacturers—Annual Convention dates changed to January 26-27, 1922. B. T. Perkins, Secy., Pittsburg, Kans.

Ohio Association of Ice Cream Manufacturers—Annual Convention, Deshler Hotel, Columbus, Ohio, Jan. 31-Feb. 1, 1922. Arthur S. Burket, 509 Outlook Bldg., Columbus, O., Secretary.

Michigan Allied Dairy Association—Annual Convention, in Municipal Auditorium at Saginaw, February 14, 15, 16, 17, 1922. H. D. Wendt, General Secretary, Lansing.

Nebraska Association of Ice Cream Manufacturers—Annual Convention, about April 1, 1922. Room 4, Chamber of Commerce Building, Lincoln, Nebraska. R. W. McGinnis, Secretary and Treasurer, 1024 O Street, Lincoln, Nebraska.

Southern Association of Ice Cream Manufacturers

Proceedings of Annual Convention in Atlanta, November 28 to December 2, 1921.

Times may be hard—maybe we are in the midst of a long period of depression—maybe we are not, but judging from the spirit shown at the convention of the Southern Association of Ice Cream Manufacturers during the Supply Mens' Exhibition in Atlanta, the war is over and depressions are about as popular in the South as last summer's Panama is in Minnesota. Ice cream manufacturers poured into the city of Atlanta like a veritable Balveston flood; there seemed to be no end of their coming, and along with them they brought the real old southern pep, the kind that makes southern ice cream conventions so successful.

A number of very interesting and instructive talks were given before the convention. The program was opened by Mayor Key of the city of Atlanta. Mayor Key elaborated on the dairy industry of the South, how the dairy industry had grown in the Southern states and the prosperity which he expects it to enjoy in the future.

NEBRASKA DATES CHANGED.

Our Officers and Directors have concluded that they will change the previous system of holding the Annual Meetings in January. We will hold a business meeting at Lincoln Friday afternoon, January 6, and Saturday morning, January 7, 1922. Business matters of the Association will be taken up and then it will be decided when the Annual Convention will be held. This will be either the latter part of March or the first part of April, and in addition it is the intention to hold district meetings during April at various central points in the State so all members can arrange to attend.

It was previously announced that the Annual Meeting would be held January 23, 1922.

R. W. MC GINNES,
Sec'y-Treas. Nebraska Association of Ice Cream Mnfrs.

Benjamin C. Brown of the New Orleans Ice Cream Company, New Orleans, La., responded with a few well chosen words as follows:

Mr. President, Ladies and Gentlemen: Honorable Mayor, we are here. I bring greetings to you from nine other states. I bring to the heart of the South greetings from the Southern Association of Ice Cream Manufacturers, one of the youngest and second largest of its kind in this country, and that means the whole world.

It is very gratifying indeed for me to see so many here today and when I look back over the few short years when some of the older members of this organization and myself gathered together and thought out this organization, it is indeed a great pleasure for not only myself but I know all the organizers of this body to see so many here at this convention.

We represent today an industry, while it is old nationally, it is a comparatively young one in this part of the country. A business that has grown from a very small beginning until today our sales run up into not less than $300,000,000 annually, and I believe I am safe in saying to you that within the next ten years that amount will be doubled. The ice cream business as I see it in the South is still in its infancy. This can be increased materially by the manufacturers throughout the South in doing just three things. First, quality; making the best possible product that we know how, regardless of the cost. Now that is a big question with some, but with the larger manufacturer I believe that he does not even consider the cost of the product that he is putting out. The next thing that will put this industry to the front and where it belongs will be the service that we render to the public. Now "service" of course is a very big word. It covers a multitude of not only good things but also a multitude of sins. Then one of the outstanding requisites—something that must be done is to educate the public in the subject—to eat ice cream. You all know that the per capita consumption of ice cream in the South is not what it should be. There are two reasons for that. The people here have as much money to buy ice cream with as in the North or East, but, first, we must give them the quality. Second, they must be educated to eat ice cream.

How are you going to educate them? Principally by advertising. That is the quickest and surest way in which to accomplish large sales. So that every man in this room will go home and remember these three cardinal points. First, Service; second, Quality; then third, Advertising—and build his business on those three cardinal principles, and I believe it will only be a few years until we can double the consumption of ice cream south of the Mason and Dixie line.

Gentlemen, I think that the officers of this association are due great credit indeed for what they have done during the past few years. Last year I was unable to be present with you at Macon. At the last minute I was detained and could not come and I felt pretty badly about not being able to join you. I can see here today that we are well represented. The officers should be congratulated for what they have done in the way of getting the ice cream supply men to supply their wares in this building. It is a big undertaking for them and I believe that we should appreciate every effort and give them every support that we possibly can.

"For its easy enough to be pleasant when life rolls on like a song, but the man worth while is the man who can smile when everything goes dead wrong.

"The test of the heart is trouble and it always comes with years, but the man who is worth all the praises on earth, is the man who can smile through tears."

* * *

Hon. J. J. Brown, commissioner of agriculture for the state of Georgia is a firm believer in "quality first, last and all the time". He is a great friend of the dairy industry. His address is in part as follows:

Address of Mr. J. J. Brown, Commissioner of Agriculture of Georgia.

I assure you that it is with a great deal of pleasure that I greet you on this occasion. Just as I went into the office this morning our chief clerk called my attention to the fact that I was on the board at 11:30 to talk to your convention, and he said "I want to call your attention to the further fact that it is a very cold subject you have to speak on." I said, "Yes but I want to call your attention to the fact that it is a very sweet subject," and I hope with the two viewpoints we will be able to say a few words of encouragement to your great enterprise. So, Mr. Chairman, I am glad to be with you and as custodian of the great agriculture of our state I am glad to welcome you into our city. And on behalf of those people referred to by Mayor Keyes I want to say that I concur with the Mayor in his state-

WRITE FOR NEW LOW PRICES

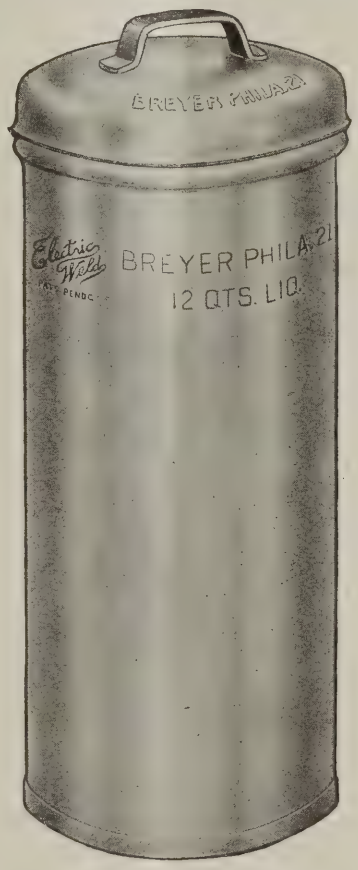
NO SOLDER Electric Weld NO RIVETS

Trade Mark, Registered

"Low Maintenance Cost" Ice Cream Cans
The Weight is in The Plate—All Steel and Tin

The Electric Weld GUARANTEE

1. That no solder, lead or rivets are used in the construction of Electric Weld Ice Cream Cans.
2. That all Electric Weld cans are made of a specially prepared copper-bearing, rust-resisting steel known as "tinning" or "dairy plate" and made of the same gauge material as specified in our advertising.
3. That all welds, being subjected to hammer and pressure tests, are sound and will not crack, break, leak or come apart.
4. That the can is completely assembled in the black before tinning and that it is coated by soaking the entire can in one piece in pure "straits" tin by the old-style hand dip, triple coating process.
5. That Electric Weld cans are of exact capacity and that each can is carefully examined and stamped by our Inspection and Test Department before shipping.



Patent Allowed.

The Electric Weld Ice Cream Can.

The Retinning Feature

Electric Weld Ice Cream Cans may be retinned over and over again at small cost. They are made complete in the black, leak-proof and ready for long service. Every time you retin an Electric Weld you can save approximately 30 cents. Write for prices, list of "Repeat order buyers" and other data pertaining to the **Solderless Can.**

The Non-Deforming Lid

Non-deforming edge keeps the lid round. THE RIM: One-piece expanded bead rim reinforces and protects the can from hard knocks and affords a positive grip for wet, slippery hands. SEAM: Butt welded, solid fusion of the joint that will not crack, break or leak. BOTTOM: A solid flanged leak proof bottom for hard wear and tear. No interstices or rolled edges to collect dirt. Affords a fine grip. Easy to clean. The strongest as well as the most sanitary bottom, three thicknesses soundly welded and solderless.

In 1920 the Horton Ice Cream Co., of New York, bought 2000; in 1921 a repeat order called for 5000 more. In 1920 the Breyer Ice Cream Co. of Philadelphia, Pa., bought 14,000; in 1921, 10,000. In 1920, Colonial Ice Cream Co., Philadelphia, Pa., 1000; in 1921, 30,000. Proof of quality and service in a nut shell.

John Wood Manufacturing Company

CONSHOHOCKEN — CANADIAN JOHN WOOD MANUFACTURING COMPANY TORONTO, CANADA — PENNA.

Branch Offices: Cleveland (1841 Carter Road) Brooklyn (No. 5 Bush Terminal Bldg.)
Chicago (320 E. North Water St.) Boston (78 W. 2nd St.)
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ment that we are in a period of our history in Georgia, and I feel sure in the South, when we must look to other fields than that of cotton as our main money problem. And to that end we have introduced diversified farming into our state through various branches of our department of agriculture, including the industry of milk and milk products as one of our money crops.

In that connection, we feel a very close association with your people, and with that industry which you represent, and I assure you that you may count on the department of agriculture of Georgia and its pure food department and its dairy department to do everything we possibly can to assist you in the great work that you are doing as consumers of the products by the people that we represent.

It is a fact and I was very favorably impressed with the suggestion of your secretary, that we are all looking to the manufacture of a better product if possible. Now don't understand me to say that anyone is not manufacturing a good product, but I am sure, gentlemen, that the world is willing to consume your product and they are willing to give you a margin of profit above the cost of production that will make your business prosper, and I am sorry that through our food administration, in our pure food department, I must state to you that in some line of industry we have found a tendency, to use the cheapest material possible, to meet the competition of the gentlemen who became excited and cut the price; not being able to meet the price with that high grade product which is so essential for the permanent promotion of any industry. They have met that competition by reducing the cost of the manufacture of the common product and to that end, gentlemen, we have noticed that we have had some little trouble in the enforcement of the pure food laws within the state.

I think it is a mistaken idea at all times to endeavor to meet competition in any way by reducing the grade or the standard of the common product. So I would say that I heartily approve and thank your secretary for the suggestion as that matter comes directly under our supervision in the enforcement of laws charged to our care while commissioner of agriculture; and I believe that the ice cream manufacturers, ice cream dealers, soda fountains and druggists of this country, are composed of as high class gentlemen as can be found in any line of endeavor in our whole country. Therefore, I apprehend that you will have no serious trouble in these times of reconstruction in having enforced these laws of inferior materials put on the market. Now it is true that every line of endeavor has suffered in reconstruction after the war. History tells us that it has ever been so and ever will be so. But I do not fear any evil results, knowing the Southern people as I do, and knowing our resources as I do, I believe that we will be able to hold up the high standard of the products that we manufacture in the South in every line and meet this undesirable competition in these days of reconstruction and put them out of business and allow no one to stay in business in competition with us in any line that does not measure up in the manufacture of their product, whatever it may be.

I take the same position relative to the farmers of our state. I tell the farmers all over our own state and through the cotton belt that the world is willing to take their product, cotton, at cost plus a reasonable profit. Therefore we go before the whole country and ask the whole country to assist the agricultural people of Georgia and of the South in securing for their product cost plus a reasonable profit. And I would be untrue to that great mass of people who produce the wealth of this country if I were not willing as their standard bearer, to concede to the manufacturer the same as to the farmer a fair margin of profit abov ethe cost of production.

I think you will find at all times our department does not taken into consideration so much the price—that is a matter for your judgment; a matter to figure out when it comes to overhead expense and expense of distribution, etc., it is none of our business, but we do feel as we say in the beginning a very deep interest in holding this product to the very highest standard possible. Doing so, it would cost very little trouble in enforcing laws of production and distribution in this state and I feel sure that we will have the hearty cooperation of your association in helping us to see that every product sold in our state measures up to the requirements of the very highest possible efficiency and standard.

I am not going to tax you very long. But gentlemen, there are matters of vital importance that touch every interest in the South in this day of reconstruction. We are suffering now in every line of industry and the reason we are suffering in our state is due to the fact that the farm products of this state are not bringing cost of production. It is impossible for the farmers of Georgia to sell their products today at a price that will pay the cost of production, so that is an absolute loss that has to be sustained. You take the farmer and he owes the country merchant, the merchant owes the country bank, the country bank owes the city bank and so on. All depend upon the price and after that new wealth is forced on the market for less than it cost to produce, there is a loss, as we said a minute ago, that means a great deal to some one. Consequently we are endeavoring today in the great interests of the South to have a system of cooperation, and since the world's great war we have realized the necessity of cooperation between the United States and the allies across the sea. It has become apparent that after the reconstruction period we must learn the lesson of cooperation. I predict that there will be no institution in this country, including the farming interests of this country, that will ever succeed in any other line than that of the very closest cooperation to make people interested in a common industry.

And so I congratulate you upon this friendly organization. Organization does not mean monopoly. It does not mean trust. It does not mean to extort from the people an unjust and unfair profit, but it does mean to so organize that every man who places his money in legitimate enterprise can so conduct his business as to declare a dividend upon money invested. So I am looking forward to a greater day. We are going through the dark hour now, but beyond this dark cloud is the silver lining and as the mayor said this morning, the skies are blue and above all the star of hope is shining.

While some people may be driven into bankruptcy, the spirit of the South is the spirit of America, and, gentlemen, we will come back again. Many a good lesson will have been taught. While some men will fall by the wayside and fail, those men who acted honestly will come back again, and I believe that in the very near future prosperity will prevail throughout the entire nation—the great business interests and the great banking interests will join hands with the industrial interests and will better the economic industries of this country, and we will have peace and prosperity in this country of ours.

America I think is the greatest country on earth. America has taught the world a lesson. It was America that taught Germany the greatest lesson that she has ever been taught possibly in her history. And while we cannot approve of Germany, yet it has been due to Germany's efficiency and the holding up of her high standards of efficiency that made it possible for her to hold the world at bay as long as she did and that in



Bulk Ice Cream In Package Form

EARLY in 1920 experiments commenced with the object of developing a machine for filling Sealright Containers with ice cream. The demand for such a machine came from the manufacturers who had discovered that the cylindrical style of package was the best one for keeping cream in fine condition. . . In January, 1921, the first machine was installed in Howe's Ice Cream Plant in Rutland, Vt. . . The principle of the Sealright process is to displace the air from the package and fill by vacuum—no pressure, spill or push is used, and therefore, no loss of yield. . . These machines are now in use in seventeen states. Many manufacturers advertise this way of packing as their **bulk** cream. That is just what it is—bulk cream in package form, and in one or more flavors. The flavor does not freeze out because Sealright Containers are air-tight. . . We recommend the cylindrical package, but if you prefer a square, we have a fine brick box that may be filled on our machines.

No need to be burdened any longer with the expensive brick method. You can package your good bulk ice cream more efficiently, economically and satisfactorily, using an air-tight package which keeps the flavor in—a package which stimulates sales. See the following pages.





SEALRIGHT ICE CREAM

Fill Sealright Paper Containers with One,



Type "B" Foot Power

SEALRIGHT COMPANY, Inc.

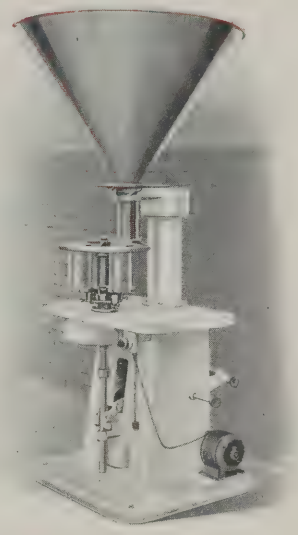
Largest Manufacturers in the World of Cylindrical

FILLING MACHINES

Two or Three Flavors of Bulk Ice Cream

The Machine Which "Had to Be"

A simple, rapid, economical, efficient machine which eliminates the present expensive, cumbersome brick method—one that reduces labor cost, does away entirely with pouring into molds, dripping, slabbing, cutting and wrapping. A machine which will automatically package bulk ice cream without the necessity of the cream being touched by human hands. The Sealright Ice Cream Filling Machine has proved to be such a machine in every plant where it is in operation.



Type "A" Motor Drive

A Type Best Suited for Your Plant

Sealright Ice Cream Filling Machines are furnished in three types—TYPE "A"—motor drive; TYPE "B"—foot power; TYPE "C"—hand power. The first two types come mounted on heavy, strong, vitrified enameled cast iron base. Type "C" with flat base, with provisions for securely bolting on table or work bench. Entire construction throughout is substantial—nothing complicated—no intricate parts to cause trouble, delays or petty annoyances. Type "C" will fill seven to ten packages per minute. Types "A" and "B" are more rapid.

Sealright Filling Machines, and our round and square packages, are fully covered and protected by patents. At the low cost for which these machines are sold, you cannot afford to be without one. Write us for prices.



Type "C" Hand

Here is the Cylindrical Package

Sealright Liquid-Tight Paper Containers are made in our own plant—from the spruce log to the finished product—of our famous Fulton Board. Paraffine is pressed into the pores of the paper—not coated on. They have double bottoms, patented "Inner Seal," and reinforced Crimped Flange. "Sealrights" are neat, attractive, sanitary, air-tight, non-leaking packages. They keep the cream in perfect condition with no loss of flavor. There is no "mushy, melting soft cream." Perfect as a container for ice cream.



See next page for the Sealright SQUARE or BRICK PACKAGE

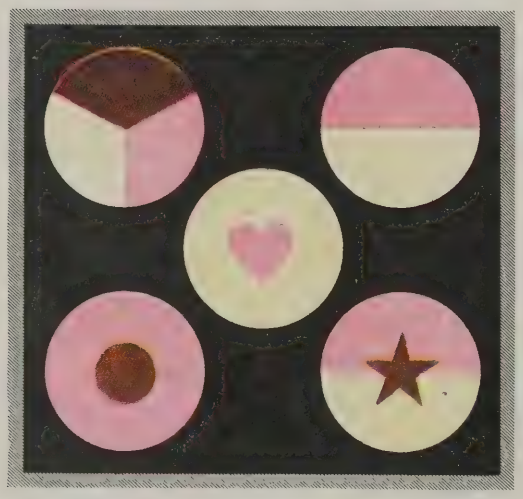
FULTON, N. Y.

Liquid Tight Paper Containers



Note how neatly cream is removed from Sealright Containers. Compare this with the mussy scene attending the unwrapping of the usual brick—and how much easier it is to serve equal portions.

Remember—the Sealright Filling Machine will give you a variety of fancy centers in both the Round and Square Package

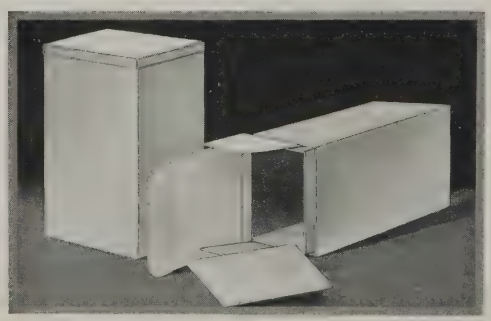




This is the Sealright Square or "Brick" Package Patent Pending

A neat attractive inexpensive square package, filled by Sealright Ice Cream Filling Machines, containing exact measure, and solving most efficiently and economically the present brick problem. Thus you have your choice of the square package or round package for packaging bulk ice cream with Sealright Filling Machines.

← *Be sure to see preceding pages*



SEALRIGHT COMPANY INC.,
FULTON, N. Y.



"Quality" Ice Cream Cabinets

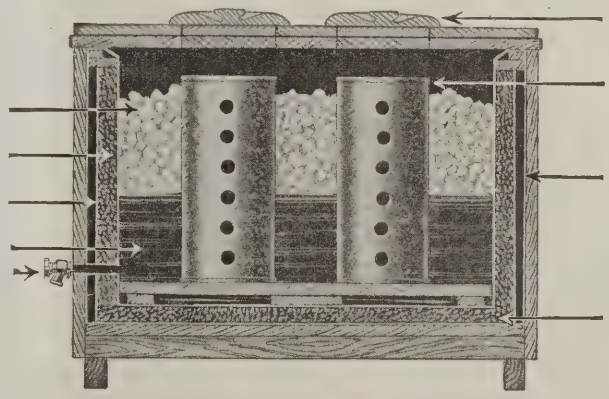
have proven 50% more efficient than other cabinets owing to their special construction. They are insulated on all four sides and bottom with a solid wall of two-inch corkboard which is vastly superior to the granulated cork commonly used as there is absolutely no chance of settling down from the top. In addition to this there is a ***dead*** air space between the corkboard and the outer casing. This combination has proven the most efficient non-conductor of heat and cold. They are made in a modern furniture factory where quantity production assures low selling prices.

Write for illustrated circular and prices

The Talk of the Show

"QUALITY" Ice Cream Cabinets surprised visitors at the Buffalo Exposition by their superior efficiency.

The practical demonstration of their refrigerating superiority throughout the Buffalo Exposition proved that they would keep sherbets and ices in perfect condition for many hours beyond what is generally considered possible.



Our Guarantee

We guarantee our cabinets to keep ice cream in perfect condition from 24 to 36 hours with one packing. If it does not, return at our expense and we will refund purchase price.

The Grand Rapids Table Company

GRAND RAPIDS MICHIGAN

itself will be a great lesson to the American people in building on a firm basis everything launched in this great country.

In conclusion, let me say that the department of agriculture while it deals with all products, foods, dairy products, drugs and narcotics and every industry, it is the policy and will be the policy of our department so long as I am commissioner, not to retard the progress of the great work that you are doing, but to assist you and to cooperate with you in making your enterprise more prosperous and profitable in the future than in the past, to the end that the more of your product you sell, the more of the raw product will be sold by the farmer and the producer of milk and milk products. It is an honorable institution you represent and a coming institution.

After we have fought a hard day's battle in the great work that we are doing and sunset comes at last, nothing gives us more pleasure or good wholesome enjoyment than to drop into an ice cream parlor, have a plate of ice cream and go to our homes and quietly rest at the end of a well spent day.

Now gentlemen we bid you God speed in making your association the greatest organization in the South. and in making a greater success than ever been achieved before.

My good friend from Macon, J. D. Kinnett, says that I did not go quite far enough, and that instead of having our ice cream before we go home that we should carry some of it into the home. Being a Southern gentleman and to the manner, born, I took it for granted that no Southern gentleman ever partook of that good product that did not carry into his home sufficient amount for his wife and children. If you catch a man doing such a thing, I request that you report it at once to the pure food department, and we will inturn report him.

* * *

Address of Col. M. D. Munn, of National Dairy Council.

Col. M. D. Munn, president of the National Dairy Council was on the program, but being unable to attend, he sent a paper which was read as follows:

I very much regret my inability to be present and personally address the convention of the Southern Association of Ice Cream Manufacturers, but I wish to express my appreciation of the courtesy of your secretary, Mr. Clopton, in permitting me to submit a few suggestion to the members of your association in writing.

It is quite evident that the possibilities of the ice cream industry, as well as its importance to human welfare, are not fully realized by the rank and file of those engaged in the manufacture of this essential food. While the progress and development of the ice cream industry has been repaid during the past five years, and especially so during the past two years, that progress has been the result of circumstance rather than of constructive effort.

So few people even yet realize that when they eat a dish of ice cream they are consuming an essential food. The impression of most is that they are simply gratifying a desire of the palate.

This condition must be changed before the ice cream industry really comes into its own. You men who are engaged in the manufacture and distribution of this essential food must first of all stop advertising it as a luxury, and begin to preach its food value. It is not necessary to praise ice cream as a delicacy or to appeal to anyone to eat it, because of its delicious flavor. Children, as well as adults, realize fully that ice cream is delicious in flavor, and are willing to gratify their taste, so far as the luxury part of it is concerned.

What is necessary beyond this is to educate the consuming public that when they gratify this taste which already exists they are supplying their bodies with a real food; and it is the dissemination of this knowledge that will build the ice cream industry.

One sees so much colorful advertising on ice cream, picturing it as a delicacy and appealing to the palate, rather than to the common sense of the consuming public, in an effort to increase its consumption. I attended a national gathering of ice cream manufacturers quite recently, and noticed a beautifully colored sheet as a sample of ice cream advertising, in which a dish of ice cream was very tastefully displayed, and on this was the statement, "Real Cake".

I say to you ice cream manufacturers, you must change this kind of publicity. What you should say is "Real Food" and not "Real Cake". There is ample evidence of the fact that ice cream is a real food. Hospitals furnish this evidence, research in science furnishes this evidence, and actual every-day experience furnishes it.

What a message the ice cream industry has upon which to build itself, when it has a product that not only appeals so strongly to the palate, but at the same time furnishes the system with the necessary fuel for health and growth! What greater opportunity can any business hope for than the opportunity that lies before the ice cream industry, if those engaged in it will only arouse themselves and take advantage of it.

Let me recite the following facts as disclosing the possibilities that lie before you in your business: According to government figures, there were two hundred and sixty million (260,000,000) gallons of ice cream produced during 1920. Undoubtedly these figures are too low for the total amount of ice cream manufactured during last year. There was considerable made and consumed which doesn't appear in these government figures. Assuming that this amounts to forty million additional gallons, which is undoubtedly conservative, we would have a total of three hundred million gallons for 1920. Using the government figures as to the weight per gallon of ice cream, and assuming that there was a total of three hundred million gallons manufactured, each person in the United States during 1920 consumed a little over fourteen pounds of ice cream, or approximately eleven quarts. One quart of ice cream supplied only six medium sized dishes, so that each person in the United States during 1920 consumed sixty-six medium sized dishes of ice cream. Thus there were nearly three hundred days during which the people of the United States did not taste ice cream..

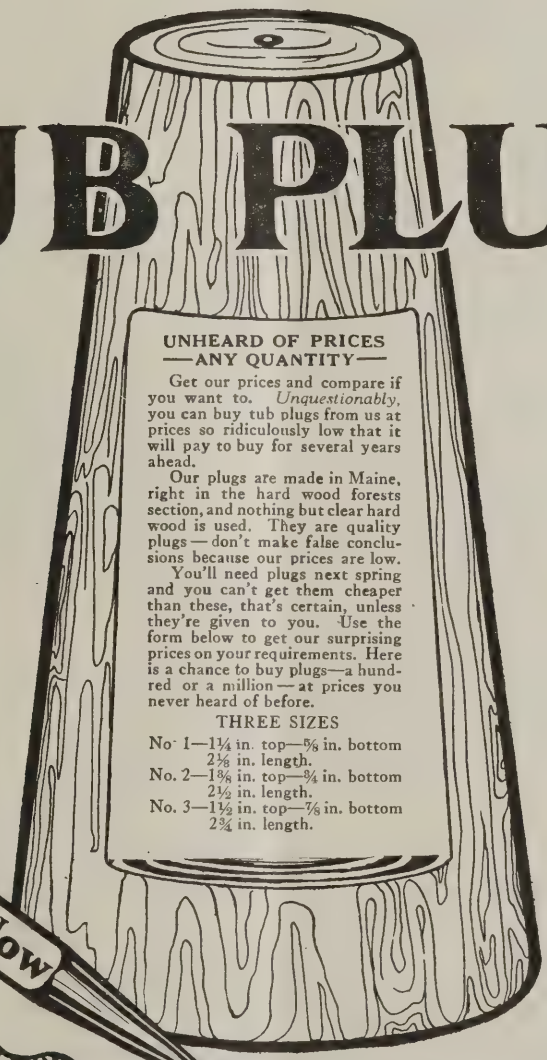
When you realize that ice cream should be an all year round food, does not this present to your mind a tremendous opportunity for building your business? We must begin to think in terms of a generation and not in terms of a day, and we must begi nto speak in terms of human welfare and not in terms of taste, in connection with your business.

Permit me to urge you to convince yourselves that you are engaged in a business that touches upon human health, child welfare, and national prosperity, rather than a business that is dependent upon the whims of the palate; that when you manufacture and sell your product, you are serving child health and growth, rather than child taste; and that the more extensively you build your business, the more you are serving humanity.

In order to thus build your business and render this service you must standardize your product and insist that all who are engaged in the production and distribution of this essential human food, put out a product of

THE C-B CALENDAR

TUB PLUGS



UNHEARD OF PRICES
—ANY QUANTITY—

Get our prices and compare if you want to. *Unquestionably*, you can buy tub plugs from us at prices so ridiculously low that it will pay to buy for several years ahead.

Our plugs are made in Maine, right in the hard wood forests section, and nothing but clear hard wood is used. They are quality plugs — don't make false conclusions because our prices are low.

You'll need plugs next spring and you can't get them cheaper than these, that's certain, unless they're given to you. Use the form below to get our surprising prices on your requirements. Here is a chance to buy plugs—a hundred or a million — at prices you never heard of before.

THREE SIZES

No. 1—1¼ in. top—⅝ in. bottom 2⅛ in. length.
No. 2—1⅜ in. top—¾ in. bottom 2½ in. length.
No. 3—1½ in. top—⅞ in. bottom 2¾ in. length.

Fill in and Mail Now



Wishing You A Merry Christmas
and
A Prosperous New Year

Cherry-Basset Company
33 So Charles St. Baltimore
—or—
1106 Arch St., Philadelphia (Send to nearest place)

Mark X if Samples are wanted____

We will probably need, for next season, the following quantity of tub plugs: _____ size No. 1
Please quote us. **No obligations.** _____ size No. 2
_____ size No. 3

Name _____ State _____

City and Street _____

the very best quality. Then fearlessly tell the consuming public of its value as a food.

When we make food comparisons showing ice cream's real position as a food, we must necessarily base that claim upon a given quality of product. It should be one of the aims of your organization to see that such a quality of product is supplied the consuming public; and then proclaim to the public that such is your purpose. Then educate the public that in supplying such a product you are giving them one of the best human foods known.

You may ask, "How can this be done?" My answer is, "Through truthful, forceful, constructive, educational propaganda." This propaganda should be distributed among womens' clubs, in the schools, and through every health agency and organization that can be reached, and such material should always bear the stamp of sincerity and truthfulness of statement.

Scientific research and investigation, hospital experience, medical observation, all supply ample evidence which can be used in this educational work, and all that you engaged in the industry need do is to see that such information is gathered, and set forth in plain, forecful language and pictorial representation.

The National Dairy Council is supplying material to nearly fifty thousand school teachers, red cross nurses, and home demonstration agents, and other educational and health agencies, through which we are spreading the message of the food value of milk and its products, including ice cream. The ice cream industry should be more materially assisting in this educational work than it is doing at the present time.

We should like to have the members of your organization more intimately coordinated with the educational work that the National Dairy Council is trying to do.

You can rest assured that it will rebound to your benefit in a business way, and at the same time you will have the satisfaction of knowing that such effort is for the best interests of human welfare.

* * *

Address of W. M. Sidebottom, President.

The penalty imposed upon the president is that he make an address. I suppose that is because of the high honor conferred upon him. No doubt a large number of the members would like for this to be abolished. I know in the present instance, it would meet with my approval.

In opening this convention, it is with a great deal of pleasure that I extend to you a hearty welcome and hope that you will enjoy every minute of the time. I hope that this meeting will prove both pleasant and profitable to all present.

It might be well for us to pause at this point and look back for a time. Several years ago a mere handful of men, or to be exact not to exceed nine, decided that there must be an organization of Ice Cream Manufacturers in the South; that would take care of questions and problems that confront the Ice Cream Manufacturer of this section. Upon this decision the Southern Association of Ice Cream Manufacturers was organized. In the beginning the Association was composed of Ice Cream Manufacturers and Supply Men traveling in this territory.

The first year was a hard struggle to hold the organization together, but with that determination so well known of our Southern manufacturers, they continued to work hard early and late for its success. Three years ago the association had grown to such an extent that the supply men decided to withdraw and form an organization of their own; so today as we are opening our ninth annual convention, you see before you this great big southern association, and our world renowned Dixie Flyers. We also have with us several state organizations and visitors from Oklahoma, Texas and various other states.

Notwithstanding the wonderful growth of our association, we have not begun to grow in number nor importance, if each of us will decide to do something for the association; so let us all pull together for its success.

At Macon last year the association selected Little Rock, Ark., as the place for this meeting, and quite a number of our members had reason to believe and hoped that the national association would hold their meeting somewhere in the South, but after the poll was taken Minneapolis, Minn., was seclected as the meeting place.

Shortly after this the national association of supply men decided, if agreeable and if it could possibly be arranged, they would hold one of their famous exhibits in the South, in connection with the meeting of the Southern Association. After a great deal of correspondence and a trip, this was arranged, and our meeting changed from Little Rock to Atlanta. After you have attended the meeting and visited this magnificent display, I will leave it to your judgment as to whether this change was wisely made.

It was my pleasure to attend several group meetings in Tennessee and Kentucky, and while everything was not accomplished, I feel sure that a great deal of good resulted from them.

I also had the honor and pleasure of representing the National association, as a representative from the Southern association, to the meeting of the chamber of commerce of the U. S. A. at Atlantic City. Also represented the Southern Association in the directors meeting of the National Association at Minneapolis, and just here I wish to express regrets that there were so few members from the southern territory.

We all know that the ice cream industry depends upon weather conditions, in fact, you hear so many say "Give me good weather in the spring and summer and I will get the business" but we must also have favorable business conditions.

Since the war all lines of business and industries have had their seasons of depression and shrinkage in volume and profit. The ice cream industry held its own until after July 1st, then it seemed that it took a great slump, and has continued up to the present time. I am of the opinion that after January 1st, 1922, business conditions in almost every line will show a decided change, and with the opening of spring we may expect our industry to improve with the rest.

When business is good and profits are large, we may think we do not need organization, but when a slump or depression strikes us we begin to think more of it. Just now our business needs it and we should strive more than ever to keep up a strong organization in state, group, section and national. Every year in some of our states we have a meeting of the legislature; then it is when we need a state organization. Then we have our troubles and problems in group and sections for their consideration. Then comes our big national association, that takes care of the big problems.

We talk about organization, cooperation, code of business ethics, of fair prices and methods. Why all this use of big words unless they have a meaning.

Organization, without giving some of our time to the problems involved, has no meaning. We have a lot of good members who pay their dues promptly and attend the meetings and have a good time, but who never read a paper, discuss questions or problems, or offer any suggestions for the benefit of their fellow members. We all have troubles and problems each year, and if we



The Buyer's Page



Standard Equipment for Ice Cream Plants

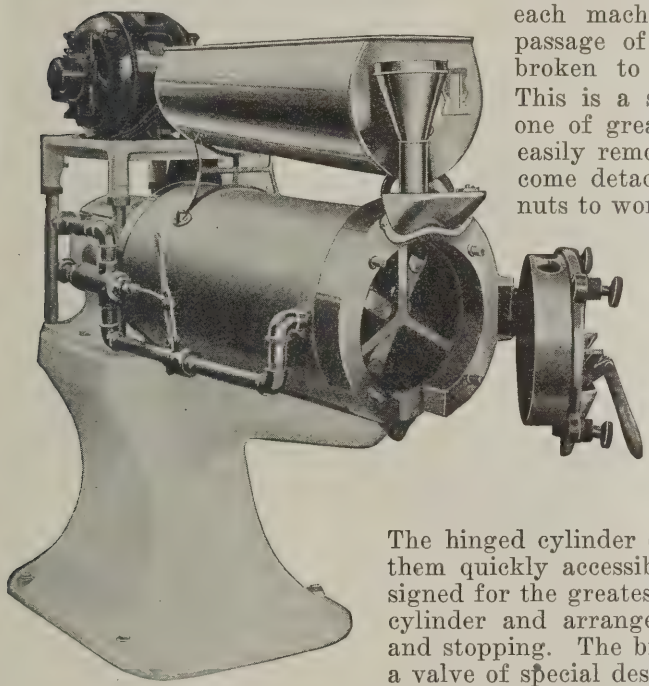
Immediate Shipment from Chicago or St. Paul

Creasey Ice Breaker

Every manufacturer of ice cream, large or small, needs this sturdy machine. Built over-size throughout—stands up under hardest service you can give it.



The size of the broken ice can be regulated by the use of fine or coarse combs—furnished with each machine—which prevent passage of the ice until it is broken to a certain fineness. This is a special feature, and one of great value. Picks are easily removed from drum when necessary, but they cannot become detached when in operation. No rivet heads or bolts or nuts to work loose.



More than 16,000 Creasey Breakers in use; why not put one to work in YOUR plant?

U. S. Brine Freezer

A large capacity freezer, heavily built throughout, with ample bearings and large gears. Furnished for either belt or motor drive, or can be converted from one to the other in your own factory when desired. Electric machine equipped with 3 H. P. motor.

The hinged cylinder cover is standard on all sizes of U. S. Freezers; makes them quickly accessible for cleaning. The brine jacket passages are designed for the greatest efficiency in cooling the cylinder and arranged to avoid all clogging and stopping. The brine flow is controlled by a valve of special design which gives complete control of the rapidity of the freezing process.

U. S. Freezers are made in 40, 60, 80, 100, 120, and 160 quart capacities; there is a size that will exactly meet your needs.

A handsome and practical machine that will pay for itself repeatedly in your plant. Let us give you further details and prices.



Have You This Catalog?

It is one of the most complete catalogs of ice cream machinery and supplies ever published. You will find between its covers the best of the things made by many of America's leading manufacturers —a valuable book for reference. We'll gladly send you copy on request —without obligation.

Twin City Branch: **2490-4 University Ave., St. Paul**

A.H.Barber Creamery Supply Co.
302 W.Austin Ave., Chicago, U.S.A.

A. H. Barber Creamery Supply Co., Chicago.
Gentlemen: Please send us complete information about:
☐Creasey Ice Breaker
☐U. S. Brine Freezer
☐Copy of your Catalog No. 72.
Name .....
Address .....

would share our experience with each other, we might talk about organizations.

Cooperation is our slogan, but what does it mean? We may attend our meetings, pass resolutions, appoint committees, and return to our homes, but if we do not do something for our fellow competitor, then we had just as well take down our slogan.

Code-of-business ethics is a very high sounding word. We adopted a set of ethics at our last meeting. It means that we take upon ourselves a moral obligation to practice fair methods, not only in buying but in selling and coming in contact with our competitors. I am calling your attention to this matter, so that if we ever expect to amount to anything as an association, we must begin to do things. Think it over.

Our future—What may we expect of it? Let us plan something and do it. There are so many problems and questions for us to solve, I would recommend that your coming president appoint some committee to take care of these matters.

I wish to compliment Mr. Clopton, our present secretary and treasurer, and say that he has at all times been ready and willing to do anything that was needed, but he is like the rest of us; when the busy season comes, he must attend to his own affair. Is it not time that we plan for a reserve fund like the national association have, so we may secure the service of a man who can give all his time to the work of the association?

I have said more than I intended, but before closing, wish to thank each and every one of the members for their hearty support and especially the officers and directors.

I trust the members will take an active part in the discussion of papers that will be read at this meeting, for without their discussion we lose the benefit of them.

I hope all will enjoy every meeting and entertainment and return to our various homes with high hopes for a great big business next year.

* * *

Paul C. Mojonnier of Mojonnier Bros. Co., Chicago, spoke on the subject of "A New Era in Packaged Ice Cream." Mr. Mojonnier brought out the same points as in his address before the National Association in Minneapolis, which was published in the October number of The Ice Cream Review.

* * *

Remarks by W. M. Sidebottom.

About three years ago we gave up the service of delivering ice cream to families. Since that time we have endeavored to make up that loss through the dealer and this past year our business increased in the city and we had a shrinkage in the country.

We are trying to make it so easy for the dealer to distribute ice cream that it will be just as easy to sell a pint of ice cream as a box of Uneeda biscuits. We are putting up ice cream in pints, solid blocks, separate flavors, strawberries during the season, etc. Then we put out three flavor blocks. We are making the price to dealers so that they will make more in that way than in the old way. We have found some dealers who would not take time to open a quart of ice cream where he would open a dozen bottles of Cocoa Cola; so we have put out packages in pints. If a man comes in and wants a pint, he can get it in vanilla, strawberry or the three flavors.

This is not going to take the place of bulk, as some at this convention contend. But we try to make it easy for the dealers to handle this ice cream and make him see the profit and benefit, and in our advertisements we try to call the attention of the public to the nearest dealer. We have got different points in the city where we have especially good advertisements and draw the attention to special dealers and we have found that it has increased the business and it will increase the business.

Heretofore manufacturers could not make less than a brick. A family of three or four will eat a quart one day but they get tired of it perhaps, where if they can get a pint they will have it every day, and this has been our plan to increase the business and we have found it very satisfactory. We are looking forward next year to doubling our business in that way.

* * *

THE SQUARE DEAL.

Address of Oliver S. Jordan, president of the Association of Ice Cream Supply Men, before Southern Association of Ice Cream Manufacturers:

There is not a little justification for our ministers and educators and public men who have been saying that the world is coming into a new day. Of course it is still the same old world of struggle and conflicting interests. But it is a world of broader vision than it used to be—there is more of the square deal in it.

"Everything is fair in love and war" is a proverb almost as old as the race, as I suppose we all know. It embodies in a few short words a conception of philosophy and ethics that has been practiced, instinctively, ever since the cave-man days. It had its most recent demonstration in the last war, when new and atrocious means of combat were developed, and although frowned upon by the world at large, were adopted by both sides. It was war, and anything was fair.

Yet, no one can deny that some sort of a new day is at hand, nevertheless, for our own statesmen and those of half the world besides are now, for the first time in history, really and sincerely trying to look at the other man's problems, the other man's affairs, and the other man's interests to the end that there may be mutual protection and the guaranteeing of general prosperity. If, four or five years ago, some one had stated to the German chemists who were developing poison gas that in the year 1921 representatives of the powers of the world would be conferring on the voluntary scrapping of battle fleets, there would have been a laugh. Yet we are now applying the square deal of mutual prosperity and mutual protection to that very thing.

Although the little proverb about love and war says nothing about business, yet we all know that for centuries business has been considered more or less as just a commercial form of war. The buyer has been the seller's enemy; the seller has been the buyer's opponent. It has been a war not of march and siege, but of bluff and misrepresentation; a war not of army maneuvers and artillery concentrations, but of personal strategems. This is not meant as an indictment of business, which is of course the underlying cornerstone of civilization. I do not mean that busniess men have all been liars or that trade and commerce are essentially and necessarily corrupt. I mean that you all know to be true: that practices have been countenanced by the best of men in business that would not find a place in the dealings of these same men with their friends or social intimates in matters in which business did not enter.

There is another saying, possibly not so well known as the one I have quoted, which the old Romans originated. The Romans, if you recall your ancient history, were noted not alone for military conquest and the laying down of laws which have affected legal practice even until today. They were also very energetic commercial promoters. They planted trading colonies, on distant shores, and they had business dealings with the

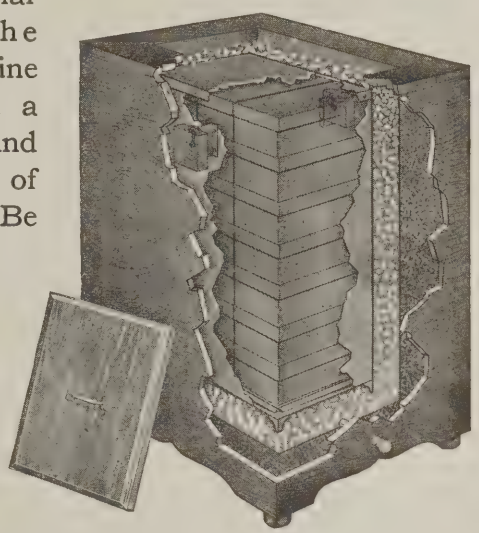


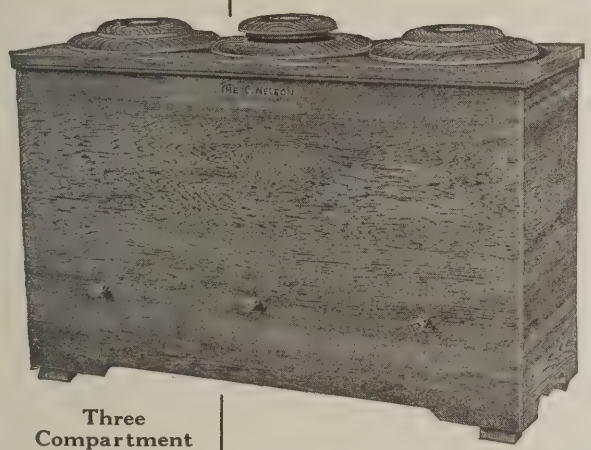
Nelson (Patented) Ice Cream Cabinets

"Confessed The Best When Put to Test"

are constructed along scientific and practical lines to conserve ice and salt supplies and keep the ice cream in perfect condition until sold. The manufacturers have devoted thirty years of study and experiment toward the building of the best possible ice cream cabinets for the manufacturing trade. Each particular make of cabinet of the Nelson line is sold with a guarantee and on a plan of "You Must Be Satisfied"

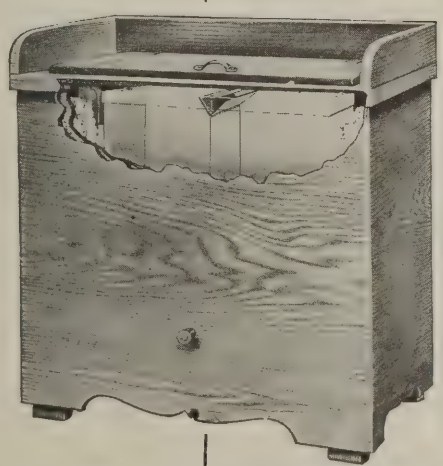
C. Nelson Brick Cabinet
Patented May 8, 1906





Three Compartment Cabinet

42 Qt. Brick Cabinet with Ice Rail



Patented Nov. 11, 1919—1321120

This Proposition Will Interest You

Any responsible ice cream manufacturer—particularly wholesale ice cream manufacturers and dealers—may order from 1 to 100 Nelson patented Ice Cream Cabinets, place them in practical use, and after 30 days, if not entirely satisfactory, return at our expense for freight, both ways.

Can any manufacturer offer a more liberal or fair proposition? You owe it to yourself to thoroughly investigate the price, merits and construction of the Nelson Patented Ice Cream Cabinets before making any further purchase.

Plan on your season's requirements now, and have your supply on hand when needed.

C. Nelson Manufacturing Co.

2308 Division St. St. Louis, Mo.

peoples of every corner of the then known world. Yet these Romans who laid down what in general were the most just laws that ever up to then had been known, also contributed from their conception of what was fair in business this contradictory maxim to the nations following them: "Let the buyer beware!"

It was up to the buyer. If he could be fooled, lied to, cheated, bulldozed, misinformed—all very well. The more was the credit to the seller. Business was a war without quarter and the victim was the buyer.

This spirit prevailed throughout all commercial undertakings for centuries. It prevailed through the middle ages. It prevailed throughout England's period of colonization. It was always the buyer who must needs beware.

It prevailed in this country to such an extent that I can safely say that the fathers of every man present in this room can remember the day when a man in need of a suit of clothes could not go down Broadway in New York, for instance, or the principal street of any other American city and spend his money with the confidence that he was getting what his money called for. There was no such thing as a one-price system. A salesman sized up a customer as he entered the door of the store. He quoted him whatever price he thought the customer could stand. The customer perhaps haggled and obtained concessions. But haggle as he might he could not really know that he was buying goods at the seller's normal price. It was the same old story: "Let the buyer beware."

Every one of the gentlemen present can remember when the same sort of conditions prevailed more or less openly in some degree in the ice cream industry. Every one of us here present can probably cite other American industries in which similar conditions prevail openly today. The general manager of one of the large companies of the Association of Ice Cream Supply Men, a company incorporated at more than a million dollars and doing a country wide business, informs me that he would not employ as a salesman any man who has had previous sales experience in a certain industry, which I will not mention, because such men cannot be weaned from practices that are not fair. That particular industry, is shot full of unfair practices, of commercial bribery, of transactions under cover—it is an industry in which the buyer has to beware of every cent he spends. Many of you here can recall instances in which your purchases of supplies or equipment or machinery have been unfortunate. It is not right to deem every unfortunate purchase is a result of misrepresentation on the part of the seller. The buyer's own mind is often not clear on what he needs. It frequently happens that a buyer incorrectly confers, without checking the matter up, that certain goods purchased will accomplish certain purposes. But such cases aside, there are many men here who have doubtless been, to be blunt, "stung" on purchases they have made, and they have had no redress.

I said when I began speaking that our public men and leaders of thought have some justification for saying that the world is entering a new day. I mentioned the amazing instance of co-operation that is now being witnessed in Washington. I believe I can also refer to a circumstance concerning the ice cream industry that is of the same character—and that is the adoption by the Association of Ice Cream Supply Men of its fair practice code.

The limitation of armament conference in Washington is taking some of the unfairness out of war. It is limiting the extent to which national belligerency can go. The fair practices code of the association of which I have the honor of being president is taking the unfairness out of business between seller and buyer in the ice cream industry. It is definitely and in the interests of justice limiting the nature of transactions between supply man and manufacturer.

I explained to you last year the operation of this code, how it affects you as an ice cream man. I explained to you then how, although it does not offer a direct money redress to the buyer, it in fact, offers all of that and in addition a moral redress of even greater significance. I explained to you then how it did not signify a belief by the Association of Ice Cream Supply Men that its members alone sold goods honestly or any effort by the association to obtain the exclusive business of the ice cream industry. Many houses for years acted honorably in their relations with you. Some of them are now in the association and some are not. In or out such houses are equally honorable and to be trusted. But the fair practices code for the first time in the history of your industry, openly and with all the authority that national organization can command offers protection to the buyer. It changes the old motto of "Let the buyer beware" that has prevailed for so many centuries to a new one: "Let the buyer be safe!"

I want to leave you with some words not my own. As president of the Association of Ice Cream Supply Men I naturally take very much to heart its actions. I believe in the association; I know the constructiveness of its methods and its worthiness of its motives. But I wish to let you hear from a source that has no interest whatever in the association, not even an unselfish, impersonal interest, and that is a publication representing the greatest organization of business in the world, the Chamber of Commerce of the United States. This National Chamber of Commerce publishes a monthly magazine which ranks as one of the three foremost business monthlies of the country, which is read by the greatest executives in America and which is to be found in the offices of the most progressive business organizations everywhere. The magazine is called "The Nation's Business," and is doubtless known to all of you.

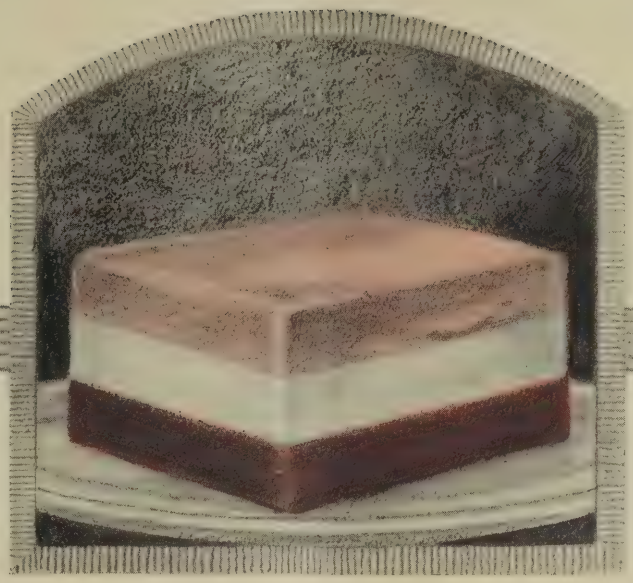
This magazine in its November issue carries an article showing traces of great research among industrial organizations in the country and into industrial practices, headed "The Right Side of Trade Associations." Perhaps twenty large industrial associations in the country are mentioned by name, representing industries whose manufacturing investments and annual products run into billions of dollars, such industries as the gigantic rubber, paper and pulp, silk and metal industries. Among these great industrial organizations, this article cites conspicuously—not for its size but for the effects its policies are having not merely upon your industry, but upon the general public welfare—the Association of Ice Cream Supply Men. Let me read you what it says:

"A vast amount of the work of trade associations lends directly to the public benefit. An association which adopts and enforces a code of business ethics does so primarily for the guidance of its members, but a secondary but inevitable result is that the public is protected. The fair practices code of the Association of Ice Cream Supply Men furnishes a ready illustration. Here are some things forbidden:

"1. Misbranding of articles as regards materials or ingredients; 'Inferential misbranding,' i. e., using trade names or descriptive terms of unadulterated or genuine goods.

"3. Commercial bribery of customers by money, long-term credits, not in keeping with trade custom, excessive entertaining or any other means.

"11. Selling food or a product to be put into food which, because of its nature or method of manufacture



"We will serve ice cream"

Why not—even though the snow is falling and genuine wintry weather prevails? Why should folks deny themselves, at any time, the pleasure ice cream affords? Why cling to the old idea that ice cream is a summer dish associated only with warm weather? More and more are folks forming the wholesome habit of eating ice cream in any season. "We will serve ice cream," seems a perfectly natural remark for the hostess to make, regardless of season . . . . . This habit of serving ice cream in winter is due largely to the fact that ice cream "is made so good". . . . . We are not unmindful of the part flavor plays in making ice cream taste good; and, of course, B-F Vanilla, and minor flavors, must at all times be so correct in quality that when used folks will gladly say, "We will serve ice cream"—America's favorite dish throughout the year.

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or for any other reason, violated a local, state or federal ordinance of law."

When a publication of this sort speaks of the association in such a manner, even its president can have a little more to say.

Gentlemen, the Association of Ice Cream Supply Men, is your friend, the protector of your dollars and a constant and unceasing stimulator of your industry.

* * *

Paper given before Southern Association Meeting
By Geo. L. H. White, Raliegh, N. C.

Mr. President, Gentlemen: I desire to forego the usual apology for the fact that I am not endowed with the art of speech making, for after all its a useless statement and your knowledge of the fact in advance of my talk would not alter or improve the situation, for if I were blessed with the gift of oratory I probably would not be an ice cream manufacturer (can you imagine such a loss to the industry) however, I do wish to apologize for my manuscript and if you will make yourselves comfortable for the next two hours I will unfold to you the mysteries of this lengthy document. Before beginning I request our President to permit any of you, who desire to do so, to pass out.

The subject assigned me by your genial and accommodating Secretary (so accommodating he would not accept my refusal of a place on your program) is one that has been more freely discussed by organizations of ice cream manufacturers than perhaps any other subject and deservedly so as it is one of the most important matters with which we have to contend. I am afraid I will be unable to register any new complaints, offer solutions for your old truobles or enlighten you to any extent and believe that before I have proceeded very far in my remarks that Friend Clopton will feel as the little boy who lead a yoke of oxen home after the days work in the fields. Following the road he came to a fence, here he usually tied the oxen to a stake while he removed the bars of the gate but someone had removed the stake and the boy unconsciously tied the lines to his own leg and proceeded to let down the bars, when the oxen saw the bars down they made a dash for home and of course dragged the unfortunate boy to the stable lot. When he was sufficiently recovered his father asked him if he did not know better, "Yes," replied the boy, "I had not gone two miles before I discovered my mistake." Likely friend Clopton will realize his mistake before I conclude.

I want to depart from the usual point of view when discussing the express situation and instead of taking the matter up from the general theme will try to talk to you about local conditions with which we all have to contend, the things which perplex and worry us every day in the year. Heretofore we have dealt with the big things of the situation, instead of the minor details and consequently we have made only limited progress in making the express service what we would like to have it. It is admitted that express companies like all other organizations of similar magnitude have apparently little regard for the individual that comprises the vast army of contrbiutors to their profitable existence but through such agencies as our association we have been enabled to command the attention of their officials and their consideration as well.

This is one of the many benefits of organized associations.

The express situation affords no end of argument. I find certain conditions are better in some sections than in others but after all is said and done will we get the relief that we think is right and just by continually criticizing them in conventions and other like places or should we decide the corrective measures to relieve our numerous complaints and present them to proper officials for their consideration? The latter plan has proven best in the North Carolina Association and conditions while not normal, are greatly improved.

I sometimes feel that the song we used to sing "These's a whole lot of good in every bad little girl", could be rearranged to fit the express situation. Without them what would your business be today? And if the same measuring stick was as vigorously applied to your business and my business, my opinion is that considering the comparative size, we are as careless as we think they are. The proposition as I see it is one of adopting a future policy of establishing a committee on this important matter to send out questionnaires to ascertain the nature of the various complaints of our several members, then compile these and present them to the proper express official for their consideration. If this measure does not bring the desired relief we might employ more drastic steps and present our complaint to the several corporation commissions. As previously stated the North Carolina association adopted this plan and we presented our complaints to the superintendents of our territory and secured their cooperation which brought about marked improvement in the existing conditions.

From information gathered previously I assume that local conditions are generally accepted as being fairly good. The trouble most of us have is from a source largely made up of the agents in small towns, my observations have caused me to reach the conclusion that those men or women, as the case may be, are usually overworked, being railroad agent, express and ticket agent, telegraph operator, etc. Now then the question of relief from the hardships caused by their apparent neglect and lack of attention to duties. Some of you address them communications, balling them out for existing conditions. Do you think this method has a tendency to improve the service and cooporation you get from this particular agent? Certainly not.

During the early months of this year the American Railway Express officials appeared before the North Carolina Corporation Commission requesting that they be granted an increase in the estimated weights of ice cream, as approved by the Interstate Commerce Commission, our association was notified of this request and took immediate steps to prevent the granting of this increase. We asked for time to prepare our argument and as a result the matter has been allowed to go until this time without disposition. On Nov. 1st it came to our notice that the express companies, both the American and the South Eastern, had put the new rates into effect, based on the increase in estimated weights requested. We made appeal to the Corporation Commission and the new rate was immediately withdrawn. Similar action in every state where the increase is requested is important, for once established it will be difficult to change it.

Where shipments are not dispatched on the train intended and the next train will be too late for the convenience of the customer. Do you take this cream back? We do, on condition that our customer be notified by wire at the expense of the express company, that the fault was with them, the express company also paying us a stated price which represents our profit on the amount involved.

Our greatest source of trouble with express companies is the apparent careless handling and breaking up of tubs. In each case we ascertain from the number on the tub the amount of service it has rendered. If it proves an old tub whose period of usefulness is naturally

limited, we pass it up, if on the other hand it proves otherwise we file our claim and get results.

Another matter which causes us to feel unkindly toward the express companies is the matter of returns on C. O. D. shipments, this is one condition where we deal directly with the agent and is one fo the conditions we attempted to remedy through our negotiations with the express officials.

During the past season we have experienced less trouble from this source than formerly.

The different phases I have tried to bring up for your consideration are mostly of a personal and local nature, however, just as important, for such conditions do exist. Speaking generally—express rates are too high and should be readjusted so that normal industrial conditions of all kinds would be more quickly reestablished. Labor costs have been reduced, there is a great decrease in the cost of general supplies and equipment, which makes for a lower cost of operation for the express companies, so why should not express rates also be reduced.

In conclusion, I desire to again make reference, to the importance of adopting such corrective measures, for the relief of conditions affecting our business, through failures of the express companies and until we make united effort based upon facts, we will not accomplish anything if we cuss and discuss the matter to the end of time. Lets make this an outstanding feature of our association work for the next year, and take the initiative for making it far reaching in effect.

* * *

HOW TO STANDARDIZE THE ICE CREAM MIX.

By R. M. Washburn, Director of Laboratories, International Dry Milk Co., Minneapolis, Minn.

Being scientific is just being exact and careful in all work done, applying to it all the facts obtainable, keeping a record and noting in an unbiased manner the results obtained, in order that the same mistake shall not be made the second time. In this way the greatest progress may be made.

Ice cream making started on the scientific road about 10 years ago. Greater progress in the science, and the art too, for that matter, of making ice cream has been made in the last decade than during all time prior to 1910. This is saying a lot for those faithful and progressive men who have been on the firing line of this industry during this period, when we remember that ice cream making was introduced to America during Washington's first term as president and had been known in Europe in some form for centuries back.

The ice cream which has built business for both manufacturer and retailer and which has contributed so largely, in my belief, to the health and well being of children because of the growth stimulating vitamines, was, and is, scientifically made. And this does not mean tricky combinations of useless material, but just the reverse, the building up of the ice cream mixture by the addition of more milk solids so that it becomes to a yet greater degree a useful food.

In America, about one-third of our school children are physically below par and mentally backward. This is an astonishing condition in the light of the fact that about 97 per cent of this great group of children can be cured of their backward condition by drinking milk, or eating other dairy products, such as cheese, butter and ice cream. Any child who cannot be induced to drink milk should be fed ice cream in liberal amounts.

What Ice Cream is Made Of.

Ice cream is about six-sevenths dairy product and one-seventh sugar, yet we find, on close examination, that milk or cream is made up of no less than five quite distinct classes of food compounds and that these ingredients vary quite materially in the different commodities which are regularly used in making ice cream. For instance, milk may vary 100 per cent in its fat content, or in other words, from 3 to 6 per cent and still be pure milk in all cases. And cream varies in the different cities from 15 per cent to 40 per cent fat, depending upon local customs and demands. Evaporated milk may have practically no fat, or it may have as high as 7 per cent or 8 per cent, while the total solid matter may vary from 25 per cent to 40 per cent, again depending upon trade demands. Some evaporated milk contains sugar for its preservation and is called condensed milk. Such milk usually has about 27 to 28 per cent total milk solids and from 42 to 45 per cent sugar in addition. Powdered milk may have practically no fat, or it may have as much as 28 per cent, and butter so often used in enriching the ice cream compound, varies from 80 to 85 per cent fat. Manifestly, in order that the resulting mixture or compound may be uniform from day to day and best meet the tastes of the majority of consumers, a knowledge of the composition of these various ice cream ingredients is necessary. Though there is some variation, the following table will give the average composition:

Average Composition and Weight Per Gallon.

	Per Cent Fat	Per Cent Milk	Per Cent Sugar	Total Solids	Specific Gravity	Weight Per Gallon lbs.
Water	0.00	0.00	0.00	0.00	1.000	8.3216
Milk	0.02	8.91	0.00	8.93	1.037	8.6295
Milk	3.00	8.64	0.00	11.64	1.034	8.6045
Milk	4.00	8.55	0.00	12.55	1.032	8.5879
Milk	5.00	8.48	0.00	13.46	1.031	8.5796
Cream	15.00	7.57	0.00	22.57	1.018	8.4714
Cream	18.00	7.31	0.00	25.31	1.015	8.4564
Cream	20.00	7.13	0.00	27.13	1.013	8.4298
Cream	25.00	6.68	0.00	31.68	1.008	8.3882
Cream	30.00	6.24	0.00	36.24	1.004	8.3549
Cream	35.00	5.69	0.00	40.79	.999	8.3133
Cream	40.00	5.35	0.00	45.35	.995	8.2800
Evaporated Milk	7.00	20.00	0.00	27.00	1.065	8.8500
Sweetened Cond. Whole Milk	8.00	23.00	42.00	73.00	....	9.1538
Skim Condensed	0.00	26.70	0.00	26.70	1.100	9.1538
Skim Milk Powder	....	97.00	0.00	97.00	....	.....
Whole Milk Powder	26.00	72.00	0.00	98.00	....	.....
Granulated Sugar	....	....	100.00	100.00	....	7.5000
Invert Sugar Syrup	....	....	71.50	71.50	....	10.0000
Corn Sugar	....	....	....	90.00	....	.....
Corn Syrup	....	....	82.00	82.00	....	.....
Gelatine	....	....	0.00	90.00	....	.....
Butter, Unsalted	83.00	....	....	84.00	....	.....
Butter Oil	100.00	....	....	100.00	....	7.5000

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By combining three or more of the above mentioned substances, combinations almost without number, may be made. A suggestion as to the best method of working out the combination, the examples in No. 2 are offered.

Table No. 2. Trial Mix No. 1.

	Gal.	Lbs.	Per Cent Fat	Lbs. Fat	Per Cent Skim Solids	Lbs. Skim Solids	Per Cent Sugar	Lbs. Sugar	Per Cent T. S.	Lbs. T. S.
Cream	60	501.0	30.0	150.3	6.24	31.26	....	....	36.24	181.56
Milk	40	344.0	4.0	13.76	8.55	29.41	....	....	12.55	43.17
Sugar	..	142.0	...	....	...	....	100.0	142.0	100.00	142.0
Gelatine	..	4.0	...	....	...	....	....	....	90.00	3.6
Gelatine Water	3	25.0	...	....	...	....	....	....	....	....
Flavor	..	5.0	...	....	...	....	....	....	....	....
		1021.0		164.06		60.67	100.0	142.0		370.33

164.06 ÷ 1021 = 16.06 per cent fat.
60.67 ÷ 1021 = 5.94 per cent skim solids.
142 ÷ 1021 = 13.90 per cent sugar.
370.33 ÷ 1021 = 36.27 per cent total solids.

It will be noted that in this trial every item except sugar is wrong. The fat is too high and the skim solids too low. The total solids are high enough but the high percentage of the expensive butterfat ingredient makes the cost of the mix too high for the average market. These conditions are best corrected by introducing whole milk and condensed milk, very much as shown in Trial No. 2 (Table No. 3).

Table No. 3.

	Gal.	Lbs.	Per Cent Fat	Fat Lbs.	Per Cent Skim Solids	Lbs. Skim Solids	Per Cent Sugar	Lbs. Sugar	Per Cent T. S.	Lbs. T. S.
Cream	40	334.0	30.0	100.2	6.24	20.84	....	....	36.24	121.04
Milk	40	344.0	4.0	13.76	8.55	29.41	....	....	12.55	43.17
Condensed Wh. Milk	20	180.0	7.6	13.68	20.00	36.00	....	....	27.60	49.88
Sugar	..	150.0	...	....	....	....	100.0	150.0	100.00	150.0
Gelatine	..	4.0	...	....	....	....	....	....	90.00	3.6
Gelatine Water	2	17.0	...	....	....	....	....	....	....	....
Flavor	..	5.0	...	....	....	....	....	....	....	....
		1034.0		127.64			86.25		150.0	367.49

127.64 ÷ 1034.0 = 12.3 per cent fat.
86.25 ÷ 1034.0 = 8.4 per cent skim solids.
150.0 ÷ 1034.0 = 14.50 per cent sugar.
367.49 ÷ 1034.0 = 35.54 per cent total solids.

This combination satisfies every requirement so far as chemical composition is concerned. The fat 12.3 per cent is nicely above the 12.0 per cent requirement. The sugar 14.5 per cent might be said to be a little high, but it is a cheap ingredient at present prices and most consumers relish a goodly amount; and the total solids, 35.54 per cent are ample to produce a quality article and a true food product.

Using Butter, Skim Powder and Water.

In many places cream in sufficient quantities cannot be secured at all times and this shortage often occurs during seasons of greatest ice cream consumption. To meet these conditions, the use of sweet butter and skim powder have been resorted to. It is possible, by the use of proper machinery and methods, to reconstruct dairy compounds which may be used quite satisfactorily. In doing this it is preferable that the butter be melted, that the curd, and water, and salt, if any be present, may settle out, the butter oil only being used.

Table No. 4 illustrates the manner in which these substances may be compounded.

This is a particularly easy problem to compute because in a 1000 lb. batch if 12.2 per cent fat be desired, 122 lbs. of butter oil would be used: if 13 per cent sugar is desired, 130 lbs. would be used: likewise with the gelatine and flavor, all these being added together and the amount subtracted from 1000 will give us the number of pounds of water required to complete the compound.

To make this at all practical, however, the ice cream manufacturer must be equipped with some sort of homogenizing or emulsifying apparatus and these machines cost money to buy, to operate and to maintain. Many a druggist, confectioner and small ice cream manufacturer, would be able to do a good business if there could but be manufactured a single powder which should contain all the cream and condensed milk, the sugar and all other minor compounds needed in making standard ice cream. Such a powder is now a fact. It is being manufactured and is for sale to all ice cream manufacturers in non-dairy sections of the country.

Ice Cream From Powdered Mix.

What is this powdered mix? Answer. A dry powder made chiefly of ice cream and sugar, which may be made into standard ice cream by adding water and freezing.

To make a single 10 gallon batch of ice cream, it is necessary simply to dissolve about 16½ lbs. of powdered mix in 30 lbs. water, temperature 130 to 135 degrees, then cool to about 40 degrees and let stand over night to age. Freeze as usual, giving it about 95 per cent to 98 per cent yield. The invention and manufacture of this new powder places in the hands of the small

Table No. 4.

	Lbs.	% Fat	Lbs. Fat	% Sugar	Lbs. Sugar	% T. S.	Lbs. T. S.	Price	Cost
Skim Powder	100.0	.....	.....	.....	.....	100.0	122.0	.....	.....
Butter Oil	122.0	100.0	122.0	.....	.....	97.0	97.0	.....	.....
Water	639.0	.....	.....	.....	.....	.....	.....	.....	.....
Sugar	130.0	.....	.....	100.0	130.0	100.0	130.0	.....	.....
Gelatine	4.0	.....	.....	.....	.....	90.0	3.6	.....	.....
Flavor	5.0	.....	.....	.....	.....	.....	.....	.....	.....
	100.0		122.0		130.0		352.6		

122.0 ÷ 1000 = 12.2% Fat.
130.0 ÷ 1000 = 13.0% Sugar.
352.6 ÷ 1000 = 35.26% Solids.
..... ÷ 1000 = Cost per pound.



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dealers a chance to compete with the big ones without going to the impossible expense of homogenizing, pasteurizing, and much cold storing expense.

The special advantages in using powdered mix are: stock always at hand to meet sudden demands; stock never sour; already pasteurized, homogenized, and fully standardized to meet public health and competitive requirements for the various states. All these benefits and at less cost when, machinery investment, heat, power, labor and quantity are considered, than the natural or reconstructed goods.

Standardizing Viscosity.

No freshly prepared mix is ready to freeze and give results. It is too loose and sloppy, but let it stand cold 24 to 48 hours and it will regain the viscosity lost in pasteurization and homogenization. This regaining of viscosity seems to be due to the action of acid, or better, some good ice cream improver which has the effect of reuniting the threads and shreds and filaments of casein into an interlocking mass of entanglements. The use of an improver or controller places in the hands of the ice cream maker the means for producing high grade and uniform from day to day.

Sandy or Grainy Ice Cream.

The condition came with high solids and is caused by the crystalization of milk, sugar or lactose, and this in turn takes place because present in quantities greater than can be held in solution at so low a temperature as demanded in ice cream. While there is probably but one cause for sandiness, there are several contributing causes. These may be briefly set out as follows:

A. Use of condensed milk that has been condensed too much, or some that has been chilled or even partially frozen after being made, or condensed milk that has been made up into such from skim powder and water, in which the powder had not fully dissolved, but had left a hard core—grain from the powder. Though pasteurization of the mix will usually straighten out these difficulties.

B. Some manufacturers are practically compelled to use skim powder instead of condensed milk and some process and conditions produce skim powder that does not go fully into solution, but merely becomes soft and gelatinous on the surface of the many grains, while holding a hard core at the center, which core starts trouble. Fortunately the very nature of powdered mix prevents this core business, or in other words, powdered mix dissolves perfectly and that is 3 to 4 minutes after the powder has been added to the water according to directions.

C. Temperature warmer than zero F. tends to encourage the formation of sandy grains—keep the ice cream frozen hard.

D. Some manufacturers complain of more trouble from sandiness in the spring season. Whether this is due to a change in the relative proportion of the solids of the milk produced on new grass, or to the warm weather, and consequently slight souring, or to both, is not certain.

The only sure cure for sandiness known to the writer is to lower the total solids in the mix about 33.00 per cent and to follow this by a lessened yield or swell. For example, when a 38 per cent T. S. is given 100 yield, there will remain in a gallon of finished ice cream 1.62 lbs. of food solids. Whereas, if a 33 per cent T. S. mix is given an 80 per cent yield, there will be 1.65 lbs. solids per gallon. This latter will stand up better, dish out better, eat better, than the former, and will not be anywhere nearly as likely to become sandy. A 34 per cent to 35 per cent T. S. and a 90 per cent to 95 per cent yield is generally safe and produces a quantity article.

NEW YORK STATE CONVENTION.

The fourteenth annual convention of the Association of Ice Cream Manufacturers of New York State was held November 30-December 1 at Binghamton, N. Y., and in point of attendance the convention was one of the largest in their history. One hundred and forty-three active and associate members and friends were present. The subjects discussed were of great interest and gave much food for thought. The ice cream manufacturers of Binghamton extended every courtesy to the attendants and they will all be glad when it is time to turn to Binghamton for another convention.

On Wednesday the convention opened at 11 A. M. by an address of welcome, given by Hon. Thos. A. Wilson, mayor of Binghamton. This was followed by the report of the secretary, A. M. LeMessurier of Syracuse, N. Y. After the report of the treasurer, E. A. G. Intemann, Jr., New York, the appointment of committees finished the morning session.

The afternoon session opened at 2 P. M. by an address given by President Wm. Palmer, of Buffalo. Following this address the topic of "Are We Selling Ice Cream or Service," by L. M. McGinley of the International Ice Cream Co., of Schenectady, was ably handled, "Horses and Wagons, Gas or Electric Trucks," by Leon J. Loezere, of the Hoefler Ice Cream Co., of Buffalo, and "How Far Can We Truck and Pack," by H. D. Sanford of the Best Ice Cream Co., at Syracuse, were next on the program.

The evening entertainment was held at the Hotel Arlington. A banquet was in session.

Thursday's program opened in the morning by C. E. Kilburn, of Kirk-Maher Co., Malone. His subject was "Disadvantages in Dealers Handling the Product of More Than One Manufacturer." "The Value of Ice Cream in the Diet" was given by H. M. Lemkuhl of the Rochester Ice Cream Co., Rochester. Walter I. L. Duncan, the well known New York representative for the Elyria Enameled Products Co., gave an interesting speech on "New Machinery."

At noon the Binghamton Manufacturers gave a luncheon party at the factory of the Endicott-Johnson Co.

At the afternoon session, Chas. G. Morris opened the program with a speech on "The National Association: Its Purposes and Advantages." Alex G. Hoefler followed with "The Proposed Code of Ethics." Mr. Hoefler is chairman of the national committee on ethics. "Criticisms and Suggestions" was offered by Thos. D. Cutler.

The directors elected the following officers: Wm. Palmer, Buffalo, N. Y., president; V. F. Jovey, Schenectady, N. Y., vice president; E. A. G. Intemann, Jr. New York, treasurer; A. M. LeMessurier, Syracuse, N. Y., secretary.

The directors are: Amos Hill, Amsterdam, N. Y.; K. D. Hodskin, Binghamton, N. Y.; V. F. Hovey, Schenectady, N. Y.; E. A. G. Intemann, Jr., New York; C. E. Kilburn, Malone, N. Y.; A. M. LeMessurier, Syracuse, N. Y.; H. H. O'Beirne, New York; Wm. Palmer, Buffalo, N. Y ., and P. J. Smith, Glens Falls, N. Y.

Mr. Wm. Palmer, Buffalo, the president of the New York association, is also a director of the National Association of Ice Cream Manufacturers.

Floor discussions were interesting and profitable and benefits were derived from the ideas expressed by the other fellow's experience.

The splendid convention closed with an evening theater party given by the Binghamton manufacturers.

More reports on this convention will be published in a later issue of The Ice Cream Review.

200 Manufacturers For Cleaner, Purer, Better Ice Cream!

Approximately 200 ice cream manufacturers of the United States and Canada are pledged to make cleaner, better, purer ice cream.

They are heeding the United States Department of Agriculture admonition that air is a disastrous ingredient. So, they are making their ice cream without air.

A chain is only as strong as its weakest link. A manufactured food product is only as pure as its least pure ingredient.

Air is loaded with dirt, dust and germs. Whip filthy air into your 100% pure mix and you do **not** purify the air, but you **do** contaminate the mix.

It was an epidemic caused by infected ice cream that started Prof. W. P. Heath experimenting to find a way to make ice cream without air. That epidemic was fatal to two and nearly so to one hundred others. Yet, the plant where this happened was one of the cleanest, finest, most modern ice cream factories in the world. But it happened, just the same.

The advantage in making ice cream the HEATH-WAY is not alone a question of improved flavor — although that counts. It is not alone a question of greater advertising value — although that helps. It is not alone a question of finer texture and better standing up quality — although they count. It is primarily a question of WHETHER OR NOT YOU WANT TO CONTINUE MAKING ICE CREAM WITH AIR THAT IS NEVER CLEAN AND OFTEN DANGEROUSLY IMPURE.

You owe it to yourself to protect your product. You owe it to your dealers to protect their product. You owe it to the people who eat your ice cream to protect them — all of them — from this lurking danger which exists in the air you are whipping into your freezers.

TWO HUNDRED progressive manufacturers have seen the light. Surely you also want the latest that science offers.

Then get in touch with us. You have much to learn about Heathmade Ice Cream. Let us tell you about our method. It does not require any change in your present methods of manufacture or mix. Write to us NOW.

Heathmade Carbonated Products Co.

Sole Licensors of Heath Patents for Making Heathmade Carbonated Ice Cream

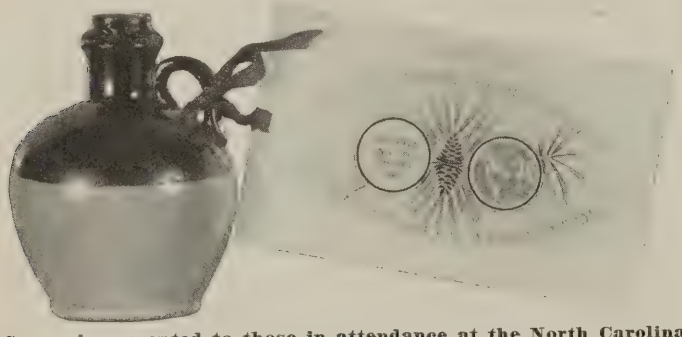
618 Wrigley Building
400 North Michigan Boulevard
CHICAGO

CANADIAN OFFICE
Carbonated Products, Ltd.
510 McKinnon Bldg. Toronto, Can.

North Carolina Ice Cream Manufacturers Association

Proceedings of Annual Convention held in Atlanta, Ga., November 28 to December 2, 1921

We have heard of state associations having a 100 per cent attendance of their membership at annual meetings, but we do not recall of ever having heard of a state association holding their annual meeting in a neighboring state with 100 per cent of their membership in attendance. However, this was the case when the roll call was read at the opening of the annual meeting of the North Carolina Ice Cream Manufacturers' Association, which was held at Atlanta, Georgia, November 28th to December 2nd, in connection with the Southern Association of Ice Cream Manufacturers' Convention. It must have been very gratifying to the officers of this association to have the loyalty of their membership so well proven by everyone attending this annual meeting, and especially when held out of their own state. This goes to show what can be done by faithful and honest work of the officers of an organization, supported by the co-operation of its membership.



Souvenir presented to those in attendance at the North Carolina Convention. Jug contains the real "spirit" found in the hills of North Carolina. Wonder if that is the way they get the 100 per cent?

The several meetings held by the association were more along the line of business meetings and therefore the usual program with lengthy speeches was done away with. The following is the annual talk given by President George L. H. White:

* * *

REPORT OF PRESIDENT TO NORTH CAROLINA ASSOCIATION.

The officers of the North Carolina Ice Cream Manufacturers Association, decided to hold our annual convention here in Atlanta, in connection with the Southern Association, after first securing expressions from our membership, and while we cannot hope to devote as much time to matters concerning our own association as at previous meetings, we should be able to take up every important subject pertaining to our work, For the reason that the program of the Southern Association is such an excellent one, affording oportunity to hear many noted and experienced speakers we have decided not to attempt any special program for our meeting. I shall briefly outline to you now, a summary of our efforts and accomplishments during the past year.

The board of directors of your association met in Raleigh on February 18th and prepared the following recommendations, "We, the members of the board of directors of the North Carolina Ice Cream Manufacturers Association in session in Raleigh this February 18th 1921, do hereby recommend to the North Carolina department of agriculture that they seek to obtain legislative authority from the 1921 session of the general assembly, now in session, for the enforcement of the following suggestions:

(1) The reduction of present fruit ice cream butter fat standard to 6 per cent.

(2) Compulsory pasteurization of all dairy products going into the making of ice cream.

(3) Enactment of a law governing the cleansing and returning of milk and ice cream containers.

(4) Authority to establish inspection of all ice cream plants.

Signed: W. S. Obenchain, R. P. Blanton, John O. Royall, J. H. Pope, A. E. Dixon, Geo. L. H. White.

This being the culmination of our discussion of these various questions at our last annual meeting.

A conference was held with Mr. W. M. Allen, state food chemist, at which time we presented the above recommendations, as a result, articles three and four have since become laws, article one will be acted upon at the December meeting of the board of agriculture. The second article is problematical but I trust will be incorporated in our laws at some future date.

A conference was also held with superintendent Egleston of the American Railway Express Company with whom we discussed the express situation and arranged for sending out a questionnaire to the membership of the association to secure information concerning unsatisfactory service, the data secured as a result, was compiled and sent to Mr. Egleston who caused all agents and employes of his company in his territory to be notified of our several complaints. An improvement in the service indicated the value of his cooperation.

The express companies made application to the North Carolina Corporation Commission to secure the increase of rates in estimated weights of ice cream but before this application was decided upon we requested a hearing, which was promised, but the case has not been called. On Nov. 1st the new rate was put into effect but was recalled as soon as the matter was brought to the attention of the commission.

We have made combined efforts to bring about the abolishment of war tax on ice cream as it should not be classed as a luxury but an essential.

The matter of establishing a course in ice cream making at State College is progressing slowly but I believe we will see it in existance within a few years.

I want to thank each of you for your hearty response and cooperation in making our annual custom of supplying the orphanages in the state with ice cream on Thanksgiving Day a success and hope that the pleasant custom originating in our association will soon be adopted by every state and that by 1923 will become national.

The association has secured several new associated members this year, but I regret to state our active list has not increased.

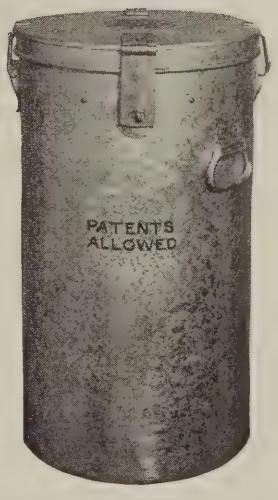
The officers of the association request that more interest be shown in the work of the organization during the following year. In cooperation there is progress. In progress success. Your suggestions, complaints and criticisms are desired for our mutual benefit.

From information I have secured I am positive the membership has improved the quality of its product. Mr. Allen has advised me that the limited number samples found under standard is encouraging. We all appreciate the benefit to be derived from quality goods.

In conclusion I desire to thank Mr. Dixon for his

Saves 10c a Gallon

That is the saving a shipper just reports who uses the



D-C IceLess Express Container

Well hardened ice cream will keep in perfect condition in these containers for 12 hours. We guarantee that, and on the basis of the most trying conditions. In a fairly cool place, 24 hours without ice and still in perfect condition, is nothing extraordinary for ice cream in the D-C Iceless Express Container.

What Would it Save for You?

Their light weight gains a remarkable reduction in express charges. Saves ice, salt, tubs and the labor of packing.



D-C Refrigerating Cover

Converts D-C Shipping container into a cabinet. A practical, inexpensive device that serves a good many opportunities for savings and extending business.

Let us send you prices on these containers. We will also show you some practical ways in which they help to develop business.

Decy IceLess Express Container Co.

Incorporated

TIMES BUILDING Room 1001 NEW YORK, N.Y.

untiring efforts and valuable assistance in the work of the association during the past year.

* * *

LOOKING BACKWARD.

By A. E. Dixon, Secretary.

Some one has truly said "Today is the yesterday of Tomorrow," and we have been taught to look forward and forget the past, but somehow your secretary in looking back over the past year in connection with your association, has recollections of courtesies and cooporation from the membership that is most pleasant. It is something he does not wish to forget, and he would like to take this opportunity to thank each one for his assistance during the year.

In reviewing the work for the year, twenty bulletins have been issued at random, dwelling upon anything that was thought to be of interest to the industry. This bulletin feature could be made most interesting by the members sending in contributions of any nature relative to the industry, and have same issued as a bulletin. These contributions could be made a medium of exchange as to opinions or discussions, and besides it would relieve the secretary of being the author of all of them. This plan seems to hold wonderful opportunities, and I would be glad to see it developed in this manner, and I will assist in every way in carrying it out. At the end of the next year, no doubt, its development would bring out something that would show greater results and a larger scope of action.

THE ICE CREAM REVIEW IS OFFICIAL ORGAN.

RESOLUTION ADOPTED AT NORTH CAROLINA ASSOCIATION MEETING

Owing to the fact that the Ice Cream Review is an Associate member of our Organization, it is deemed proper that they become our official organ, and after sundry discussion the following resolution was introduced by Mr. Corning and seconded by Mr. Obenshain:

"Resolved: That the Ice Cream Review be made the official organ of our Association for the ensuing year, and that they be so notified."

The motion was carried unanimously.

It was my intention in writing this article to go into details of each bulletin, but I soon realized this would require too much of your time, and then it occurred to me it would be a good idea to publish them in pamphlet form, together with the proceedings of our business meeting, so that every member would have one for reference. However, it is necessary to again call your attention to the most prominent bulletins in order to show you what has been accomplished by your organization in its efforts, which, I am proud to say, have not been futile.

Selecting the most important I find bulletin No. 2 covers an extract from a letter from the N. C. Corporation Commission relative to the application of the express company for increased billing weights on ice cream. The express companies were to ask the corporation commission for in increase, which they failed to do, but took it upon themselves to increase the billing weights. When the matter was called to the attention of the corporation commission, they stated no authority had been given the express companies to increase the estimated weights, and the express companies were ordered to discontinue billing at the increased weights. The matter is still in abeyance with the corporation commission. The Interstate Commerce Commission has granted this increase in estimated weights in interstate shipments, and the express companies are very anxious to have this ruling apply to all intrastate shipments as well. This increase in estimated weights will cost the customer nearly 15 per cent more in express. Your secretary feels that this is not the time for any increase, but rather a decrease in rates, and if the association wishes to oppose this increase, the matter should be settled now.

Bulletin No. 5. During the session of the general assembly an effort was made to have a "bad check" law passed, and it was introduced by the representative from Cumberland, but the committee never allowed it to be considered. The following is a copy of the proposed law, and if any one can improve it and have it passed at the extra session, it would prove of much benefit to everyone.

An Amendment Referring to the Giving of Worthless Checks.

The general assembly of North Carolina do enact:

1. That Section 340, chapter 975 of the public laws of 1907 and amendment thereto, with reference to the giving of worthless checks, be and the same is hereby amended to read as follows: And upon conviction shall be fined in the sum of not less than the amount named in the said worthless check so given, or imprisoned for a period of not less than sixty days, or both at the descretion of the court; and the court may, also at its descretion, in addition to the above penalty, require the giver of such worthless check to pay the drawee of said check a sum equal in the amount named therein.

2. That this amendment be in force from and after its ratification.

There is no conclusive evidence to the contrary, but the banks do not seem to be very enthusiastic over the passage of such an act.

Bulletin No. 6. At a meeting of the board of directors in Raleigh, N. C. on February 18, 1921, with six members of the board present, the following resolution was passed:

"We, the members of the Board of Directors of the N. C. Ice Cream Mfrs. Association, in session in Raleigh this February 18th, 1921, do hereby recommend to the N. C. department of agriculture that they seek to obtain legislative authority from the 1921 session of the general assembly, now in session, for the enforcement of the following suggestions:

1. The reduction of the present fruit ice cream butterfat standard to 6 per cent.
2. Compulsory pasteurization of all dairy products going into the making of ice cream.
3. Enactment of a law governing the cleansing and returning of milk and ice cream containers.
4. Authority to establish inspection of all ice cream plants.

Signed: W. S. Obenchain, R. P. Blanton, John O. Royall, A. E. Dixon, Geo. L. H. White, Jno. W. Pope.

Mr. Allen, the state chemist, met with us, and was most cordial and enthusiastic as to the enactment of this resolution. Each section was discussed, and it was agreed that sections 1, 3 and 4 could be put into effect, but that section 2 would require some study on the part of the department before it could be made effective. On articles 1, 2 and 3 no progress have been made, but

More Money In Every Sale

There's more *profit for you* when you sell ice cream out of an ECONOMY CABINET—because it costs you less for icing. Then it costs less in the first place and wears longer than most other cabinets, so it saves you money all the time.

"THE ECONOMY"
Ice Cream Cabinet

is fast taking the place of more expensive styles because it appeals to careful dealers. Made in mahogany and other finishes and coated with waterproof varnish. Insulation is finely graded granulated cork, protected by waterproof felt. Picture shows an Economy Metal Lined Cabinet. Made in from one to four compartments, 12 to 20 quarts.



Ask about "ECONOMY" Packing Tubs

Write or wire for catalog and prices. Prompt shipment if you order at once.

HOMER MFG. CO.

HOMER CITY PENNA.

a law was passed in the general assembly relative to the sanitary conditions of ice cream plants, providing for the inspection of each plant, and also providing a penalty for anyone violating same. There has been some trouble in enforcing this law owing to the lack of an appropriation and the scarcity of inspectors, however we think this can be overcome and by next spring it should be in good working order. It is most important that you give this law your cooperation, for it will help you in many ways, not the least of which is the elimination of unsanitary and undesirable manufacturers. This is one of the most important laws relative to the industry ever placed on the statute books, and can be made of great use to us, if properly enforced. The secretary has a limited number of copies of this act which he will be glad to give to anyone desiring same.

The next bulletin of importance is bulletin No. 7, as to securing new members. This year on solicitation we enrolled ten new members, but your secretary thinks we should have at least fifty good working members in our association by January 1, 1923. It has been suggested, and the matter has been taken up with our members, that we take the creameries in our association also, as the interests are so closely allied. We have several combination creamery and ice cream plants in our association, and I think possibly it would be a good idea to let some of the creameries join also. In connection with the new members I wish to state that one of them has certainly gone out of the way to do everything possible for us, and has granted every request. The writer is referring to the Olsen Publishing Company, who own and publish the Ice Cream Review. Had the pleasure of meeting Mr. Olsen, the publisher, in Minneapolis at the National convention, and he stated he would meet with us here. I think it would be a good plan to make the Ice Cream Review our official organ instead of the Ice Cream Trade Journal, for while Mr. Cutler has been very nice, he has not been as active in our welfare as Mr. Olsen. However, this matter is for you to decide.

Bulletin No. 9 refers to the reduction of the butterfat standard in fruit creams, which was the first section in the resolution passed by your Board of Directors in Raleigh on Feb. 18th. It would seem when the matter came up before the department of agriculture, it was decided to postpone any action until December. The committee being made up almost entirely of farmers, they contended nothing should be done to reduce the demand for dairy products. They further inquired as to the butterfat standards of other states and other information before acting upon this matter. During the year no case has been reported of any ice cream manufacturer making cream below standard, and just whether and agitation of this would be wise just now is problematical.

The internal revenue tax is covered in Bulletin No. 12, and again called to your attention in Bulletin No. 16. Your secretary has continuously written our representatives in congress and both senators, urging the repeal, and has also taken the matter up with secretary of the treasury Mellon, who replied on August 8th, enclosing a copy of his letter to the chairman of the committee on ways and means, and referring especially to section 3 of said letter, in which he advocated the repeal of this tax. Secretary of the treasury Mellon also stated a copy of his letter was being forwarded to Senator Penrose, chairman of the committee of finance, and I have no doubt but that the matter will be favorably considered. In this connection, your secretary also wrote approximately 350 letters to retail dealers, urging that they take the matter up, with their representatives in congress. The law repealing this tax has been passed by the senate and is now before the house conferees, and I have no doubt that the "nuisance tax" will be abolished.

One of the most admirable undertakings of our association is the custom of donating cream to the orphanages of the state on Thanksgiving day. Two thousand, seven hundred and sixty-two children were supplied this year, and I think I can state they were abundantly supplied, for the secretary's office has found that the members of the association were not only willing to give the amount they were asked to donate, but in many instances they voluntarily increased their allotment.

At our convention in Raleigh last December, after the treat had been made the orphanages of the state for the first time, it was unanimously voted that we make this custom permanent, and by the generous cooperation of the membership this year it is shown that this pledge was not made by men carried away by the enthusiasm of the moment, but made by men strong in purpose, animated by the spirit of service and helpfulness.

The custom is such an admirable one, and has met with such universal approval, it is the wish of your officers—and I feel sure I speak for the entire membership—to see it spread to other states, and in due time become a national movement. The amount of cream each manufacturer is asked to contribute is small, and they are many times repaid by the knowledge of the happiness given these unfortunate children, who, bereft of a mother's love and fatherly care, are denied so many of the pleasures and joys of childhood, which makes the treat of ice cream the more enjoyable.

These are a few of the salient points undertaken by your association during the past year. In concluding a review of the year's work, we wish to state that between 1800 and 2000 pieces of mail have left our office, besides the 350 letters as an appeal to the retailers requesting their cooperation in having the "nuisance tax" on the sales of ice cream repealed.

During the year our town and county passed through an interesting experience, which sooner or later those who have not already done so, will have to solve. When our legislator, Mr. Kennedy, failed with the bad check law, he, being a good church member, turned his activities to securing the Blue Sunday law. An old law over 100 years old was resurrected, and the following amendment was tacked on:

"Work in ordinary calling on Sunday forbidden. On the Lord's Day, commonly called Sunday, no tradesmen, articifer, plumber, laborer or other person shall upon land or water, do or exercise any labor, business or work of his ordinary calling, works of necessity and charity alone excepted, nor employ himself in hunting, fishing or fowling, nor the use of any game, sport or play, upon pain that every person so offending, being of the age of fourteen years and upward, shall forfeit and pay one dollar." At the last session of the legislature legislator Kennedy passed his now famous amendment, changing the punishment to a fine or imprisonment in the descretion of the court.

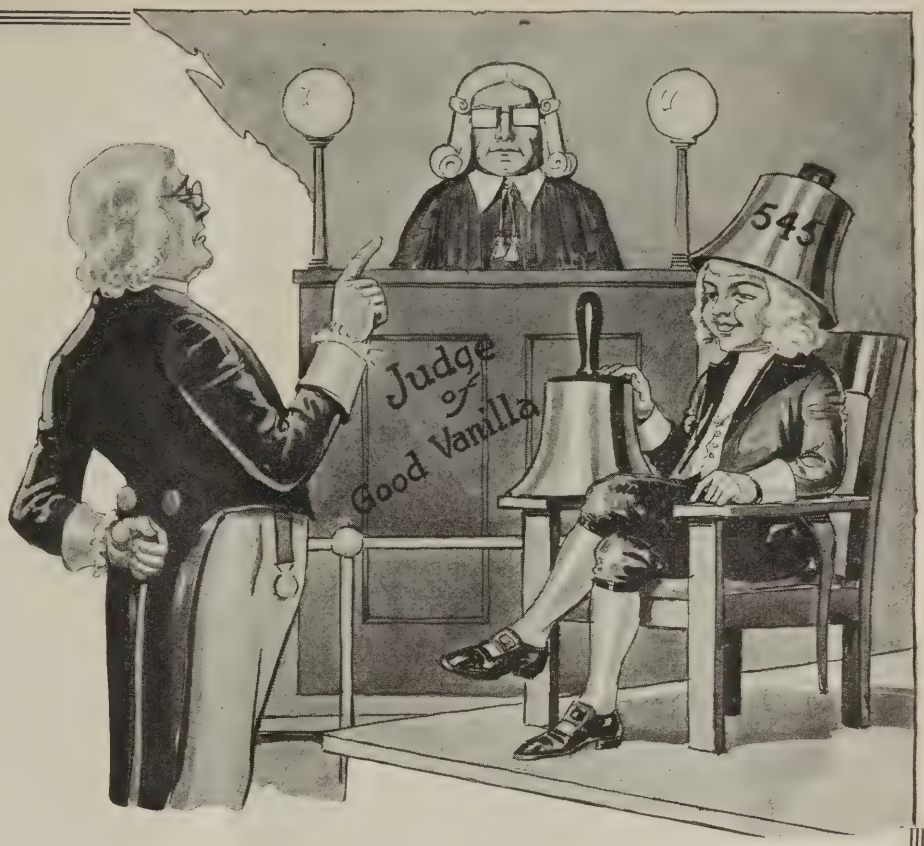
The consequence was that practically no one was permitted to do anything but breathe. We enlisted the local paper, and the plan of taking a straw ballot in the county was conceived. Ballots were placed at all the leading drug stores, hotels, etc., and from every section of the county the votes poured in, giving the idea of the sentiment of the people. The result was overwhelmingly in favor of a sane Sunday as follows:

1. Shall the sale of drugs be permitted on Sunday? Yes, 1637; No. 25.

2. Shall the sale of cigars and tobacco be permitted on Sunday? Yes 1349; No 259.

3. Shall the sale of ice be permitted on Sunday? Yes 1576; No 71.

Billy Bell on the Witness Stand



Lawyer: "Remember, Billy; you are under oath; weigh your words carefully. Now do you mean to tell this Court that your '545' vanilla is absolutely the best vanilla ever offered at the price?"

Billy: "I do mean to say that very thing; and what's more I have never failed to PROVE IT to the satisfaction of every customer who has given 545 a real test."

Lawyer: "But, Billy, don't you know that there are more than 57 other 'varieties' of vanilla—all of them making the same claim?"

Billy: "Sure they make the same claim, or their salesmen do; and it was the salesmen of other lines who were the first to prove to me that I had struck it exactly right in my formula and my process. One by one, **dozens** of them have either hinted or come out flat-footed that they wanted to sell my 545 instead of their lines."

Lawyer: "You say your formula and your process? Will you tell the Court just what you mean?"

Billy: "I'll tell my formula—or part of it—but the process is my own little secret. My 545 Vanilla is 38% straight vanilla extract, made from a blend of Bourbon and Mexican bean. The other 62% is vanillin, coumarin, essential oils, fruit flavors and other things. The vanilla extract gives the real vanilla flavor; the vanillin and coumarin give this flavor a permanence and a kick, while my other ingredients give 545 a delicious individuality that makes the consuming public crazy for more and more of that same good ice cream they got before."

Lawyer: "Do you expect us to believe that?"

Billy: "Will you believe your own tasters? Here (passing out some cones). Test it for yourselves."

Lawyers, Court and Jury: "You **WIN**, Billy."



The "Court" of Popular Favor

Everywhere and always decides in favor of "545"—a Vanilla so highly concentrated that 2 qts. flavors a 100 gallon Dairy mix—or fully 200 gallons of finished ice cream.

Let us send you a 2 qt. test sample for $1.90—the barrel price, or a 50 gal. barrel at $3.80 per gallon.

THE TISCO COMPANY *Wm. M. BELL, President* 2 E. Lake St., Chicago, Ill.

Standard Equipment

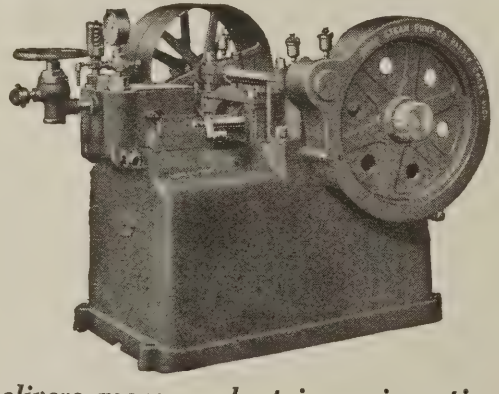
The

Viscolizer

The *Viscolizer* continues to be standard equipment universally used, in manufacturing plants throughout the United States, primarily because its wonderful performance has given universal satisfaction.

The merits of the *Viscolizer* have become established facts to those who are well posted. The sturdy construction of the machine frees the users from breakdowns. A very hard and non-scoring Viscolite metal is used for the valves.

The option to the buyer of the Differential or Fixed Orifice valve, or the Automatic Pressure Regulating Valve on the *Viscolizer* and the fact that the *Viscolizer* is made in all sizes and to fit all requirements, gives the purchasers an opportunity to select a machine which will ideally fit his requirements.



Delivers more product in a given time.

Costs less to operate and less to maintain.

Lasts longer, depreciates less and commands a higher resale price.

Rogers' Ice Cream Brick-Maker, Too

John W. Ladd Company
DETROIT CLEVELAND

Cherry-Bassett Company
BALTIMORE PHILADELPHIA

4. Shall the sale of gasoline and lubricating oils be permitted on Sunday? Yes 1437; No 188.

5. Shall garages and livery stables be allowed to operate on Sundays? Yes 1343; No 260.

6. Shall hotels, restaurants and cafes be permitted to remain open on Sunday? Yes 1603; No 40.

7. Shall taxis be permitted to operate on Sundays? Yes 1467; No 152.

8. Shall the telephone be permitted to operate on Sundays? Yes 1598; No 29.

9. Shall the sale of candies, toilet articles and other articles usually sold in drug stores be permitted on Sunday? Yes 1229; No 354.

10. Shall the sale of ice cream and soft drinks be permitted on Sunday? Yes 1335; No 255.

11. Shall the sale of newspapers be permitted on Sunday? Yes 1490; No 137.

12. Shall the sale of milk and dairy products be permitted on Sunday? Yes 1601; No 44.

No attention was ever paid to the enforcement, and it is now a dead letter.

To all those who are interested in the matter and wish to know all the propaganda of the advocates of Blue Sunday, I refer them to the Anti-Blue Law League of America. I purchased a number of these memberships, and placed them where I thought they would do the most good.

* * *

SECRETARY AND TREASURER'S REPORT.

Income.

Balance on hand December 1920.....	$697.32	
Dues collected	$962.50	
Checks returned	50.00	912.50
Membership lists sold		6.00
		$1.615.82

Expenses.

Stenographers services, report of Convention, etc.	$ 67.50	
Directors traveling expenses	48.35	
Convention at Raleigh, Dec. 1920.....	592.50	
Printed reports of Convention sent each member	25.00	
Advertising matter sent each Active member from The Natl. Dairy Council	20.00	
Office expenses, stationery, stamps, etc.	70.00	
Telegrams and Telephone	36.03	
Dues for 1921 to Natl. Association.....	25.00	
Expense of Natl. Director ...$321.08 Refund 128.08	192.28	
Subscription to "Sweets" magazine	1.00	
List of Ice Cream Mfrs. and Creameries in the State.....	2.00	1,080.19
Balance		$ 535.63

MEMBERSHIP REPORT FOR 1921.

Active Members.

Membership Dec. 3, 1920.....	18	
New members secured during year.....	3	21
Members lost during year		3
Active members		18

Associate Members.

Membership Dec. 3, 1920.....	14	
New members secured during year	10	24
Members lost during year		3
Associate members		21
Total membership		39

* * *

NEW ELECTED OFFICERS AND DIRECTORS.

The following were elected to fill the respective offices for the ensuing year:

President, L. A. Corning, Hamlet, N. C.; V.-President, H. E. Cortland, Greensboro, N. C.; Secretary and



WHERE THERE'S A WELL THERE'S A WAY—AND HERE ARE OUR 26 BEST ANSWERS TO ANY PUMP QUESTION

John W. Ladd Company.....Detroit
Bessire & Co.....Atlanta, Indianapolis, Louisville
Gowing-Dietrich Company.....Syracuse, New York
Wright-Ziegler Company.....Boston, Massachusetts
Dairymen's Sup. & Con. Co.....Pittsburgh, Pa.
Oakes & Burger.....Cattaraugus, New York
R. G. Wright & Company.....Buffalo, New York
Alberta Dairy Sup. Ltd.....Edmonton, Canada
DeLaval Company, Ltd.....Peterboro, Ontario
W. A. Drummond & Co.....Toronto, Canada
Baker, Hamilton & Pacific Co.....San Francisco
A. H. Barber Cmy. Sup. Co.....Chicago
Beatrice Creamery Company.....Denver, Colorado
Cherry-Bassett Company .....Baltimore
Blanke Mfg. & Supply Co.....St. Louis
J. G. Cherry Company...Cedar Rapids and St. Paul
Dairy Machinery Co., Inc.....Seattle, Washington
Enterprise Dairy & Cmy. Sup. Co.....
.....Cincinnati and Columbus
Huey & Philp Hdwe. Co.....Dallas, Texas
Kennedy & Parsons.....Omaha and Sioux City
N. A. Kennedy Supply Co.....Kansas City, Mo.
Meyer Dairy Equipment Co.....St. Louis
Mojonnier Brothers Co.....Chicago
Monroe & Crisell .....Portland, Oregon
C. E. Rogers.....Detroit
O. J. Weber Co.....Los Angeles, California

VISCOLIZERS TOO!

Treasurer, A. E. Dixon, Fayetteville, N. C.; Board of Directors, Geo. L. H. White, Raleigh, N. C.; L. A. Corning, Hamlet, N. C.; W. J. Shuford, Hickory, N. C.; J. H. Baer, Durham, N. C.; H. E. Cartland, Greensboro, N. C.; W. H. Barker, Norfolk, Va.

RESOLUTIONS.

Resolved, that the use of any fat or oil not derived from milk, as a substitute for the whole or any part of the milk fats in ice cream is not legitimate or proper variation of the ingredients which may be used in ice cream mix, variations, selections and modifications among the usual ingredients are desirable in our efforts to meet the desires and even the caprices of our customers, but we condemn the use of any substitute for the vitamine-bearing milk products.

Whereas, in the past, members of this association have in many cases suffered unnecessary loss, owing to lack of proper credit information from fellow-members doing or having done business with the same customer. This committee recommends the adoption of the following as a means of protection of our mutual interests in the future.

For the purposes of this resolution, the name of this credit organization shall be "The Carolina Ice Cream Manufacturers Credit Association".

1st. Resolved that when an account being sold on an open basis by any member of this association shall have become delinquent to the extent that it appears unwise to continue further deliveries on this basis, it shall be incumbent upon said member to report this fact to the secretary.

2nd. When reporting, explanation should be made as to just what efforts have been made to collect and if the customer's refusal to pay is based upon an unjust claim or financial inability, also amount must be stated.

3rd. If a customer who has been reported delinquent and undesirable by a member of this association shall make satisfactory settlement and again become entitled to credit extension, this fact shall be reported to the secretary by the member filing the original complaint.

4th. If any member shall have reason to believe that a report on a given customer was not made in good faith he may submit his complain to the secretary for investigation and special report.

5th. Any member declining to furnish the reports from the association shall not be eligible to receive the reports from the other members.

6th. In order that the work of our efficient secretary shall be reduced to reasonable limits by reason of this additional service, this committee recommends that each member install a card system for handling credit information and keep this up-to-date as notices are received from the secretary, avoiding unnecessary correspondence.

Respectfully submitted for your consideration.

L. A. CORNING,
S. H. SHARRARD,
CHAS. E. LANDRETH,
Committee.

Secretary to send out these notices on 15th and 1st each month from April to October and thereafter once a month.



REVERBERATIONS.

November 28th to December 2nd.

1. Good morning, Mr. Corning!
2. George, how could you do it!
3. Old man Pope met his Waterloo in Gumpert's room.
4. The husband——The Wife——And The Lover.
5. Did Mr. Pope have his hands manicured? We'll say he did.
6. Little Brown Jug. Popular, eh!
7. Some one reported that the Siameese Twins were there. No, only White and Obenshain.
8. They say Royall left young Royall at home one night. We wonder why.
9. And Dixon went to the "Broadway Whirls" TWICE.
10. A new invention: Did you hear Shuford tell the ladies about grafting pig-tails on apple trees and producing sausages?
11. They say Atlanta loves Sherman, only he was a little careless with fire.
12. Dear Members: Can you tell me who made the remark they didn't care about the morning after so long as they weren't deprived of the night before? What's that, Cartland?
13. Who is the champion Blockade runner?
14. And the big Baer was there with the little Baer.
15. Cartland was there too, tho mostly absent.

Thank you boys, for a good time.

Your Secretary,
A. E. DIXON.



ATLANTA.

November 28th to December 2nd.

When the new moon, lucky symbol,
Smiles on mellow Georgia soil,
To that hustling, thronged "Gate City"—
Left behind all thoughts of toil—
Gather men from all the country,
Up from Texas, down from Maine;
Georgia "Cracker" and "Sandlappers,"
"Tar Heels"—purposes the same.

'Tis the Ice Cream Man's Convention
That these pleasured throngs attend;
Ice Cream rules, and words here spoken
Flash the country, end to end.
But there is a deeper meaning:
To our South an honor high,
And we, who love her with devotion,
Extol her beauties to the sky.

We'll show the pilgrim from the Northland,
The visitor from out the West,
That risen from her war-time ruins
Our Southland stands, lovely and best.
Larger, richer, more progressive,
Freed from oppression's hateful chain,
Now like a Queen in all her beauty,
Long in her subjects' hearts she'll reign..

Pals and comrades, our SUPPLY MEN,
Oft esteemed the best of "Friend,"
Let Ice Cream Manufacturers
Thank them for the help they lend.
Thank them, too, for hours of pleasure,
For all they've giv'n in happiness,
And here's a toast we all join gladly:
"The best Luck always, with SUCCESS!"

Chosen Atlanta, favorite daughter,
To entertain the visiting throng,
And she is waiting, expectantly,
As for a lover, tarried long.
She clothes herself in robes of splendor
With light and beauty 'broidered in,
And as a jewel upon her bosom
Her "Welcome" to the Ice Cream Men.

Skyscrapers high against the skyline,
Emblems of Commerce's mighty power,
And placing Knowledge above riches,
Structures to Education tower.
Ne'er stopping in the path of Progress,
By flames and ruins still unmoved,
A wond'rous land of rare achievement—
Atlanta fair, city beloved.

E. DELLINGER,
N. C. Ice Cream Mfrs. Association.



A small cash investment and the services of a live young man in the ice cream business are what many proprietors are in need of. You can locate good opportunities through a Review Want Ad.

"U. S. GEL"

A Quality Gelatine

UNITED STATES GELATINE

U.S. GELATINE is a clear crystal like product made particularly for the ice cream trade. It is free of odor and dissolves with a smoothness that defies comparison.

As a stabilizer for ice cream, U. S. Gelatine is a distinct product of superior merit.

A two million dollar plant of the most modern and sanitary construction, especially devoted to the manufacture of gelatine is your guarantee of a permanent, reliable supply of a highly uniform product.

The fact that U. S. Gelatine is not a bone gelatine but a "calf" gelatine accounts for its superior texture and fine quality of ice cream it helps to make.

Let us send you samples & prices

UNITED STATES GELATINE COMPANY
MILWAUKEE, WISCONSIN

Exclusive Rights on the "Crushes" will Speed up your winter sales

WARD'S Orange-Crush, Lemon-Crush and Lime-Crush Ice Cream Compounds point the way to a great increase in your *winter* gallonage. The newness, novelty and extra deliciousness of these fruit flavors are just what you need to keep your sales going and growing during the cold months when you want business the most.

As delicious carbonated drinks, the "Crushes" have won first place in public esteem. They are better known and oftener called for than any other fruit-flavored drinks in the world.

As Ice Cream and Sherbet flavors, the "Crushes" are rapidly becoming as popular as are the drinks. Many of America's leading manufacturers have adopted them as standard, featuring them in bricks and bulk.

The exclusive rights on the "Crushes" in *your* territory will mean a great gain in prestige and profit—a big boost in your volume this winter.

Reasons Why These Flavors Are Money-Makers

The "Crush" compounds are *genuine*. They give to ice cream and sherbets that richness of flavor, fragrance and color possible only where real citrus fruit flavors are used. They are uniform, giving you full control of flavor and color. *They will not freeze out.* No additional color is necessary.

In the "Crushes" you have six big opportunities—three ice creams and three sherbets. Use them in plain ice creams and sherbets or as layers in bricks. Also to impart extra deliciousness to other flavors.

The "Crush" drinks have always been backed by intensive advertising and selling co-operation. The same will be true of "Crush" Ice Creams and Sherbets. Consider the tremendous value of joining your business with these nationally advertised brands—best known and most popular fruit flavors in the world.

Some Good Territories Still Open

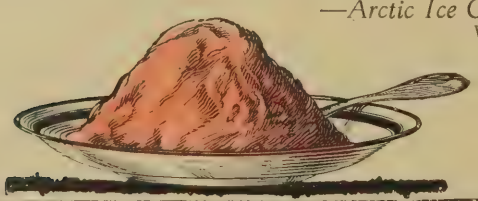
Your territory may not be yet taken. We invite you to write us for full particulars. Fill out the coupon below and mail it today.

ORANGE-CRUSH COMPANY, Plant and Laboratories, CHICAGO

Research Laboratories, Los Angeles. English Address; 47 Gt. Tower St., London, E. C. 3. In Canada; Orange-Crush Co., Ltd., Winnipeg.

"Orange-Crush is the best orange flavoring we have ever used."

—Arctic Ice Cream Company
Wilmington, N. C.
May 12, 1921



Sign and Send this Coupon Now

ORANGE-CRUSH COMPANY
314 W. Superior St., Chicago

Send us, without obligation, details regarding exclusive rights in our territory on Ward's Orange-Crush, Lemon-Crush and Lime-Crush Compounds for flavoring Ice-Cream and Sherbets.

Name .....

Street and No. .....

Town and State .....

ICR12

CALIFORNIA PLANT PUTS OUT WORLD'S LARGEST ICE CREAM BRICK.

Forty-one and three-quarters gallons of ice cream, made up of 2000 individual bricks and frozen into one giant master-brick, elaborately decorated with ice cream trimmings to look like a cake, was the achievement of the Acme Ice Cream Company, of Visalia, California, recently, an advertising stunt that attracted considerable attention.

The monster brick was the gift of Charles W. Hightower and William Dreyer, proprietors of the Acme plant, to Tulare Lodge, 1425, B. P. O. E., when the Tulare Elks entertained 2000 brothers from all parts of the San Joaquin valley at a venison banquet. It is believed to be unique in the history of ice cream making.

The frozen treat measured thirty-two inches long, twenty-six inches wide and eighteen inches high, containing forty-one and three-fourths gallons of ice cream and weighed 380 pounds. The decorative designs, the work of Mr. Dreyer, included on the top, a perfect elk's head and antlers, the letters B. P.. O. E. and "Tulare Lodge 1425," on one end a flag in red, white and blue and on the other end and sides the clock and other Elk emblems, all in colored ice cream. A special container had to be built to ship the big brick from Visalia to Tulare, and its manufacture and handling involved many problems new to the ice cream industry. The brick, served during the dessert course of the dinner, was cut and distributed to the nearly 2000 guests in less than ten minutes, and attracted even more attention than did the venison which formed the basis of the banquet.—Western Confectioner.



DAVENPORT ICE CREAM CO. BUYS BARR DAIRY COMPANY.

The purchase of the Barr Dairy Co. interests at 518-520 Brady street by the Davenport Ice Cream company, 209-211 East Second street, Davenport, Iowa, and the merger of the two concerns into one plant, was announced Oct. 6th.

The Barr Dairy Co., its real estate and all assets, were first purchased by Chas. S. Brady of Rock Island, Ill. An immediate transfer was then made to the Davenport Ice Cream company.

The two merged businesses will hereafter be conducted at 518-520 Brady street. The idea of the combination is to reduce overhead expenses and at the same time increase the quality of the product, thus giving customers the advantage of both quality and price.

The Brady street site is an ideal plant and is equipped with the latest and most improved machinery. The names of both firms will be maintained in the consolidation, and both well established brands of ice cream, the "Bar brand" and "Banquet brand" will continue to be manufactured. The Second street plant will be closed.

The sale of the Barr Dairy Co. interests include property, equipment, book accounts, good will and all other assets.

The combined plant will have a daily capacity of 8,000 gallons of ice cream.

The application of the Davenport Ice Cream company, authorizing it to increase its capital stock to $100,000, has been approved by the secretary of state.



Blindness to our own imperfections is one of the greatest blessings kind Providence has bestowed.

Why Redwood should be used for Ice Cream Cabinets and Refrigerators

Properties which make Redwood unrivalled for these purposes

ABILITY to keep heat out and cold in, is the test of refrigerator worth. This is directly dependent on the insulating quality of the materials, from which it is made. After experimenting with many kinds of wood, leading manufacturers of ice cream cabinets, refrigerators and cold storage plants have adopted Redwood for the following reasons:

Redwood is a remarkable insulator

The structure of Redwood is distinguished for the regularity in size and shape of its sap cells, and for the uniformity of texture they give. When the sap is dried out, these cells become air pockets—layer on layer of them—which act as almost perfect insulators to heat. With a freezing temperature on one side of a Redwood board, the other side remains at room temperature—does not sweat.

Redwood properly dried is "still" wood

Properly dried Redwood does not warp, swell, or shrink. Redwood "stays put"—joints tight—no bulging or leaking.

Redwood does not rot

Every fibre of Redwood is impregnated with a **natural** preservative which prevents decay from moisture. Acid and alkali solutions, salts and oils do not destroy Redwood. Insects and worms do not attack Redwood.

Redwood is easy to work and can be given any finish desired

With true grain, soft, light in weight and unusually free from knots, splits and other blemishes, Redwood can be manufactured to any dimensions desired with a minimum of labor and a minimum of waste. Its uniform cell structure provides excellent surfaces for holding paint or varnish—enables Redwood to be given any finish desired.

Write our Chicago office for Booklet 3 "Redwood Manufactured Products."

The Pacific Lumber Co. OF ILLINOIS
REDWOOD
REG. U.S. PAT. OFF.

2082 McCormick Building, Chicago
New York City, N. Y.

THE PACIFIC LUMBER CO.
San Francisco, Calif. Los Angeles, Calif.

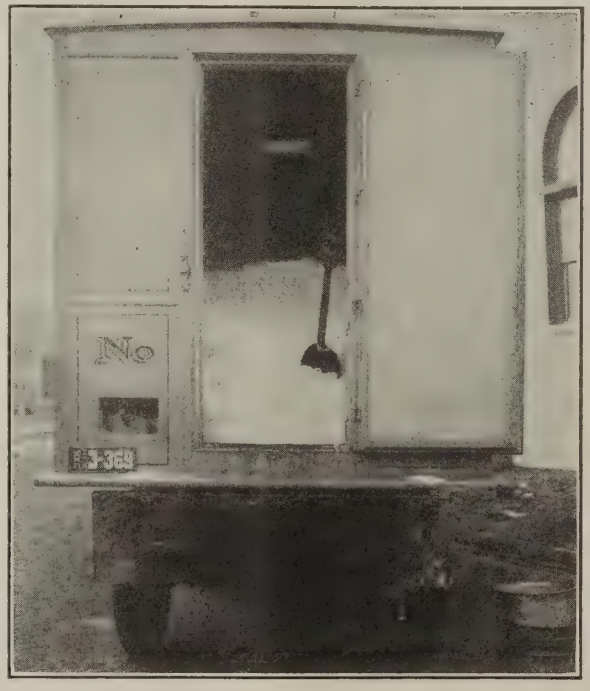
Export Company
A. F. THANE & CO.
40 Rector Street 311 California Street
New York City San Francisco
The largest manufacturers and distributors of California Redwood
Members of the California Redwood Association

Refrigerator Trucks in Ice Cream Delivery

THE use of motor trucks in the delivery of ice cream and ice has probably called forth as much, or more discussion than any other specialized service of the motor.

Years ago it was often the subject of controversy in the ice cream and ice industries. The frequency of stops and starts, the special equipment for handling the loads and other questions entered into the argument. But great advances have been made in the adaptation of motor trucks. Men whose business requires specialized hauling service have learned how to use them. Today trucks are proving their efficiency and their economy beyond question in all the transportation and delivery work of lines involving refrigeration.

One of the finest examples is the fleet of Transport Trucks in the service of the Consumers Ice & Creamery Company of Detroit. It is a success that may well be observed for the progress that has been made in equipment, as well as the extension of trade radius, time and money saving and other advantages that obtain generally with the use of the truck. This fleet of six trucks was recently supplied to the Consumers Ice & Creamery Co., by Bennet Williamson Co., Transport distributors at Detroit. Records show that each truck makes an average daily run of fifty miles. Four of them are equipped with trailers, two with closed bodies for 2,000 lb. loads are used for delivering to customers in outlying districts.



The bodies of those trucks equipped with trailers are 14 feet long, approximately 5 feet wide and 5 feet high, inside measurement. The walls are built of 2-inch slab cork, between ¾-inch dressed and matched, making a well approximately 3½ inches thick. The floor and top of the body are of the same construction. Floor is fitted with an ice chute, which delivers ice to rear of trailer in a box underneath the floor of the body. This box is thus just about knee high from the ground and allows the driver to fill his ice pails with a minimum of labor, and without the trouble of climbing into the body. The salt boxes are on either side of the door in the rear end of the body with outside openings as will be noted from the photograph.



The tractors which draw these trailers are constructed from the standard 2½ ton Transport chassis with a very short wheelbase to permit of a small turning radius for easy maneuvering of the outfit. The total length of tractor and trailer is about 24 feet and it can be turned around in this space. Another reason for the tractor and trailer idea is to take advantage of the drawbar pull of the truck. As mentioned the truck is rated to carry 2½ tons, yet when the trailer is loaded to capacity the total gross weight of tractor and trailer is 25,000 lbs. and the tractor starts and draws the load with ease. An ingenious 5th wheel arrangement is mounted on the tractor frame and the trailer is coupled to this by a king pin. This prevents binding when the outfit is working over rough roads, and insures that the two wheels of the trailer will track properly with the rear wheels of the tractor. So as to give proper traction, about a third of the gross trailer weight rests on the tractor frame. This keeps the tractor wheels firmly on the road and prevents spinning.

By pulling a latch on the 5th wheel the trailer may be disconnected, and can be fitted with a jack supporting arrangement so it can be left standing for loading furposes while the tractor may be hitched to another trailer. The fullest use of this idea would allow one tractor to serve several trailers; also it allows the uncoupling of the tractors for repairs without laying up the trailer, saves garage room, as the trailers may stand outdoors, etc.

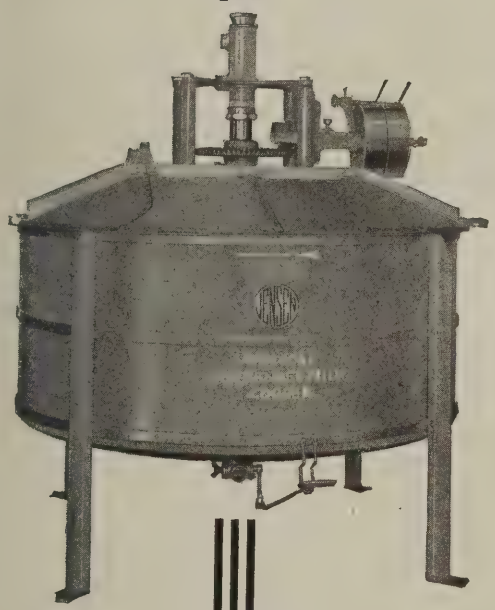
It is found that the insulation of the bodies makes them very practical refrigerators, and very little ice is lost through melting. In fact, loads have been left in the bodies overnight with no deterioration. A folding step on the rear of the trailer closes the ice box when folded up, and when let down, allows the driver to get into and out of the trailer with little trouble.

The loading of these trucks is an interesting operation. The truck is driven up to the loading platform and the cans of ice cream loaded through the door in the rear of the body. In the center of the roof of truck body is a small door 12 in. square, which, by means of a telescope chute, is connected with ice crusher located above loading

JENSEN

"Builders of Equipment of Practical Efficiency"

Vertical Condensed Milk Cooler



with suspended coil, always rotating from bottom up, not only frees your product from effects of air - ACTUALLY RELEASES AND EXPELS AIR.

CANS ONCE FILLED, stay filled.

Quick draining facilities—readily accessible at all times—Absolutely Sanitary.

Prevents sand and grittiness.

Flavor control positive from Chemical standpoint.

Elimination of stuffing boxes.

Requires very little power to operate, occupies only one half usual floor space.

Write us today and we will gladly forward complete information.

Jensen Creamery Machinery Company

Builders of "Equipment of Practical Efficiency"

BLOOMFIELD, N. J. OAKLAND, CALIF.

"Mark of Merit"

Southern Representative

BLANKE MFG. & SUPPLY CO., St. Louis, Mo.

dock, and crushed ice is in this way delivered to interior of truck body, thoroughly covering the ice cream cans, thus protecting the cream and also furnishing the customer's supply of ice. The customer gets complete equipment from the Consumers Ice & Creamery Co.—ice cream, cabinet and supply of ice.

S. S. Gould, Vice-President of the Consumers, says that an accurate record of operating maintenance expense is being kept on the fleet. While as yet this does not cover a long period it shows conclusively the profit as well as the superiority of service of trucks in this work.

For emergency and special deliveries, small Transport Trucks with closed bodies and pneumatic tires are used. These trucks also serve the outlying districts where the stops are scattered, and as they make about 25 miles per hour, they form the necessary adjunct to the regular delivery system to make the system complete and enable the consumers to serve all customers with dispatch.

Pasteurization and Temperature Control

From a Bulletin Issued by The Foxboro Co., Foxboro, Mass.

It is only recently that the importance of proper pasteurization in creameries and milk plants has been adequately realized. Employed furtively at first, as a trade secret for the preservation of milk, it has gradually risen to be one of the most honorable, useful, and necessary processes for the safeguarding of the public health. It is now known that proper pasteurization destroys the disease-producing bacilli of tuberculosis, typhoid, diphtheria, dysentery, scarlet fever, etc., which sometimes lurk in raw milk.

In these two directions, then, pasteurization has indisputably proved its value—(a) it increases the keeping quality of the milk and thus saves money that would be lost by too rapid souring; and (b) it destroys all pathogenic organisms in the milk and thus saves lives which would be lost by disease.

There is a third direction, however, in which the growing practice of pasteurization has produced good results. It has created in the mind of the progressive dairyman—whether his chief interest is in market milk, butter, cheese, ice cream, or condensed milk—an active desire to maintain sanitary equipment, and a sense of the fundamental importance of temperature, humidity, and pressure throughout his whole plant, and of the



Art Miller's Booth at the Buffalo Show.

"CHANGE THAT, YOU OLD THUCKER."

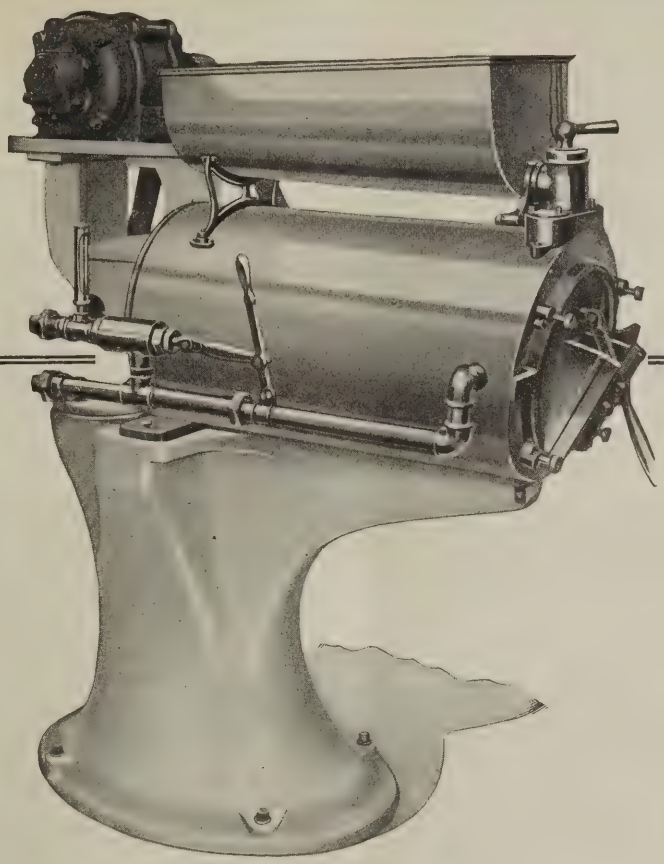
The supervisor of a school was trying to prove that children are lacking in observation.

To the children he said, "Now, children, tell me a number to put on the board."

Some child said, "Thirty-six." The supervisor wrote sixty-three.

He asked for another number and seventy-six was given. He wrote sixty-seven.

When a third number was asked a child who apparently had paid no attention called out, "Theventy-theven. Change that, you old thucker."



Brine Ice Cream Freezers

THE manufacturer of Emery Thompson machines began making Brine Ice Cream Freezers when the Ice Cream Industry was still in its infancy. The ever close attention and methods employed today represent a long unsurpassed experience in the development of the finer and heavier brine freezers.

Full open space for brine circulation, automatic cream control valves, solid steel cut gear, heavy drawn nickel silver cylinders are some of the improvements that go to make and emphasize the Emery Thompson as a big, fine, heavy production freezer.

Write for catalog and special photograph of our big machines.

Emery Thompson Machine & Supply Company

271-275 Rider Avenue 6-8 Canal Place (Bronx) **NEW YORK CITY**

necessity for accurate recording instruments that will give him the requisite knowledge of conditions.

Temperature Control.

Next to the cleanliness of the milk, the most important factor in pasteurization is the control of the temperature. When temperature variability may run the cream line and even change the chemical properties of the milk, it is readily seen that absolute temperature control is a necessity. Except for the very small plant, hand control is impossible; and even there the expense of keeping a man constantly at the steam valves comes high, and for accuracy and dependability, however competent he may be, a man can not be compared to a high-grade instrument. With thermometers and automatic temperature recorder-controllers installed, the temperatures of the pasteurizers, tanks, holders, coolers, sterilizers, vats, ripeners, vacuum pans, and every other equipment in the plant can be held to any desired degree; and an accurate record furnished of the temperature during the whole process from the time the milk is dumped into storage tanks, or receiving vats, until the final product is shipped to the market.

Milk Products.

It would be a mistake to conclude that temperature control is concerned only with the handling of whole milk. It enters into every process in the manufacture of milk products. The quality and stability of the finished product is dependent upon its flavor, body, texture, and appearance. The flavor is largely affected by bacterial growth, which in turn is controlled by temperature. High temperatures will cause bad or undesirable flavors, while low temperatures may cause a lack of flavor.

Body, texture, and appearance are determined by moisture content and process of manufacture, both of which are largely controlled by temperature. If cheese is heated too much, it will be dry, hard, and crumbly. If ice cream is not frozen sufficiently, it will be watery and grainy. If the cream for butter making is too warm, the butter will be soft and have a poor body. If the cream is too cold, it will not churn at all, or very slowly.

Successful storage of milk products depends upon the maintenance of uniform temperatures. If the temperature fluctuates, the products will not keep. Bad flavors, poor body and textures develop quickly under poor storage conditions.

Humidity.

The influence of humidity on dairy operations is not so wide in its scope as that of temperature. It is, nevertheless, important. In cheese making, correct humidity is necessary for the functioning of the ripening agency. If the humidity is too low, there is too much evaporation, which will cause unnecessary losses. It is impossible to manufacture milk powder if the humidity is too high; and the successful storage of milk products not hermetically sealed often depends upon the proper humidity.



At the Buffalo Show.

Pressure.

Pressure is not altogether a power-plant question. It is, of course, necessary for the boiler room to generate sufficient power, but how is that power to be used? A constant steam pressure is required for the successful operation of many machines, such as the centrifugal separator. Also it is necessary to run the ice cream mix through the homogenizer at a certain specified pressure. Other processes call for carefully regulated pressures.

The Power Plant.

When considering the installation of indicating and recording instruments, the power plant must not be overlooked. The cost of fuel may run higher than that of any other item in the operating expense; and the waste of steam and water, brine and ammonia, may more than offset the economical administration of other

Excello

The Strong, Sanitary, Easy Handling, Ice Cream Can



HUNDREDS of ice cream manufacturers told us what they wanted an ice cream can to be — and after several years of trial we produced it in Excello. Read Excello's list of virtues and see if they are not exactly what *you* wanted—made to order.

STRONG—to stand the wear and tear of hardest service. SANITARY—the inside smooth, easy-cleaning, non-contaminating. No sharp corners or hard-to-get-at angles. EASY HANDLING—top and bottom edges smoothly rounded. SOLDERLESS, JOINTLESS, WELDLESS — not a speck of solder anywhere no seams, cracks or joints to open up; interior free from welds. LEAKPROOF—guaranteed to stay so for the life of the can. HOMOGENOUS — no parts to pull off, loosen up or form crevices. LONG WEARING—with a special life-renewing feature. And above all, SURPRISINGLY LOW PRICED.

We also manufacture Brick Tanks, Brick Slabs, Ice Cream Pails and Tubs, Milk Cans and Small Churns. Details on request.

Solar-Sturges Mfg. Co.

General Offices: Congress and Green Streets, Chicago, Ill.

WAREHOUSES

Chicago, Ill.	New Orleans, La.	Syracuse, N. Y.	Omaha, Nebraska.
New York, N. Y.	Binghamton, N. Y.	Tacoma, Wash.	Denver, Colo.
Atlanta, Ga.	Pittsburgh, Pa.	Columbus, O.	St. Louis, Mo.
Cincinnati, O.	Portland, Ore.	Seattle, Wash	Kansas City, Mo.
Mason City, Ia.	St. Paul, Minn.	Cleveland, Ohio.	Detroit, Mich.
Modesto, Calif.	San Francisco, Calif.	Dallas, Texas.	

SOLAR ICE CREAM CANS

departments. It can not, therefore, be over-emphasized that efficiency and economy in the power plant are fully as important as the control of temperature and pressure in the milk-handling rooms, and that they are just as easily attained.

All this applies not only to large modern plants of complex character, but also to the small plant with its inadequate and, sometimes, antiquated equipment. Indeed, such small plants often offer even greater opportunities for improvement and economy through the installation of the proper instruments. Whether the boilers and refrigerating machines are old or new, large or small, the operators should be provided with high-grade indicating and recording instruments, in order that they may have at all times sufficient information about conditions to maintain a high efficiency and to prevent the loss of costly heat units.

Choice of Instruments.

Finally, the choice of instruments both in the milk-handling rooms and in the power plant should be determined by a consideration of kind, quantity and quality. To overload a small plant with instruments that can not be used to advantage is to gain nothing but expense; yet it is just as shortsighted to attempt to do without those that are really essential to establish a high plant standard. In order to make the installation of instruments an investment rather than an expense, study the performance of the plant itself, note the variable conditions which effect efficiency, and then determine what instruments are needed.

⚜

ATTENTION, PROSPECTIVE ADVERTISERS!

Read the testimonial of a well-known cooperage company and always bear in mind that old saying, "You can save money by not eating; and you can save money by not advertising," but one is about as practical as the other. In one you starve the body; in the other you shut out the big returns in business; it isn't being fair to either. Your advertising placed with us will bring the same results it did for the Duluth Cooperage Co., at Duluth, Minn.

"November 15th, 1921.

"Olsen Publishing Co.:

"We have been very well satisfied with your magazine, and especially pleased with the advertising returns.

Yours very truly,

(Signed) DULUTH COOPERAGE CO.
Per S. V. B., Mgr"

RUFF CONDENSING EVAPORATOR ATTRACTS ATTENTION AT DAIRY SHOW.

The 1922 Special Model No. 6 Ruff Condensing Evaporator, manufactured by the Cream Production Company, Port Huron, Michigan, created more than usual interest at the Dairy Show and the congratulations received by the exhibitors on the many improvements point to a very successful year.

Among the many improvements noted, was that the steam cylinders in the new model machines are stationary and do not revolve like the previous models, the material being composed of a composition of nickel and tin alloy, a perfectly sanitary, nearly a white metal, having no zink in its makeup, the cylinders having a ¼ inch shell, and will last a lifetime. The heating area on the new model has been greatly increased, thus giving full capacity with 10 or 15 pounds steam pressure, in comparison of 30 to 40 pounds as used on the old models, all machines are fitted with large steam inlets which make the application of exhaust steam practicable resulting in a great economy in the cost of fuel, where exhaust steam is available.

The next noted and important improvement is the four revolving wooden scrapers which have replaced the two stationary metal scrapers and with only moderate speed the milk is wiped from the heated shell 100 per cent faster, keeping the cylinders perfectly clean without causing any friction whatever.

In summing up all improvements, the new machine is now built at least 100 per cent stronger, its non-corrosive sanitary metal cylinders will last a life-time, the lower required steam pressure helps to economize the fuel bill and further reduces the heat on the cylinder shell, this, and the 100 per cent more wiping by the revolving scraper enables the operator to make a first class grade of finished product without affecting the albumen even using a much lower grade of milk than is ordinarily fit for making condensed milk. Further, the revolving scrapers wonderfully assist in the agitation and breaks up the foaming of the milk.

The Ruff Evaporator & Process is without question the only evaporator of its kind. It is claimed that its particular manner of operation tends to remove strong taints from the milk, such as garlic and other undesirable flavors often found in the milk delivered to the creameries in the different seasons. The machine requires less labor to clean and is of perfect, sanitary construction.

The Ruff Evaporator has also proven itself a successful pasteurizer and the manufacturer guarantees to raise the score on ice cream mix and cream for table use or making into butter.

SOUTHERN TINNING COMPANY
Johnson City RETINNERS Tennessee

We solicit your correspondence and business on the basis of PROMPT SERVICE, BEST OF WORKMANSHIP AND MATERIAL, REASONABLE CHARGES AND THE SAVING WE CAN MAKE FOR YOU. We will gladly retin a sample can for you, free.

"WE MAKE NEW ONES OUT OF OLD ONES"

Advertising Service

Built on Facts

THE policy on which this agency was founded—namely that of serving only one account in a given territory—has been the motivating power behind our successes of the past twelve years. The few accounts that may come to us in the future will be met and served with a comprehensive experience, based on an understanding of conditions in the Ice Cream business the country over.

Our complete 1922 campaign is now on display. If you are located in a territory we do not already serve we are interested in proving that our advertising service—built to meet your individual requirements—will act as an energizing force in stimulating sales and increasing good will during the coming year. Use the coupon.

BARKER, DUFF & MORRIS

Ice Cream Advertising Headquarters

PITTSBURGH · PENNA.

BARKER, DUFF & MORRIS
PITTSBURGH, PENNA.

Would like to have an outline of your 1922 Advertising Plans.

NAME_____

ADDRESS_____

"AMERICA'S GREATEST FOOD DESSERT."

The following clipping is from the New Orleans Times-Picayune. It shows how a live ice cream manufacturer can stir up interest in his product "America's Greatest Food Desserts," descriptive of ice cream, might be used in a national way by ice cream manufacturers. Why not make it as well known to the people of this country as "Say it with flowers?" Here is the clipping:

"America's Greatest Food Dessert" is going to become Louisiana's winter nourishment, if the ice cream plans of E. B. Geisel, recently appointed manager of the local Anheuser-Busch plant, are carried into effect.

Mr. Geisel is the author of the phrase "America's Greatest Food Dessert" descriptive of ice cream, but Mr. Geisel, who has spent seventeen years merchandising Anheuser-Busch products in various parts of the United States, is not satisfied to see Orleanians eat ice cream merely as a hot season refreshment. Mr. Geisel believes that ice cream, first of all, is a great food and that there is no reason why this food luxury is not appreciated and eaten all the year round in New Orleans as it is in the North.

Speaking of the ice cream trade as he found it here on his arrival from Boston, Mr. Geisel said:

"Ice cream retailers have lost thousands of dollars worth of winter trade, for the eating of ice cream during the cool months is an undeveloped custom in New Orleans. I believe that when the people of New Orleans learn to eat more ice cream that is rich in butter fat and so free from water that it is always smooth and pleasing even on the coldest day, that the retail ice cream dealers of New Orleans will awake to find a great source of additional winter revenue open to them.

"Ice cream is always a refreshment. But real ice cream, the kind that lives up to a high analysis of butter fats, is more than a refreshment. It is the richest of foods. It is recommended by food specialists everywhere, prescribed in hospitals and in the North practically as much ice cream is sold there in winter, than is sold here at any time.

"When the people of New Orleans have learned to look upon ice cream as a winter food instead of a passing summer refreshment, Orleanians will be eating a better food and retailers of ice cream will have found a new volume of business. The point to be brought home to the people of New Orleans is that winter is the time to eat it for food."



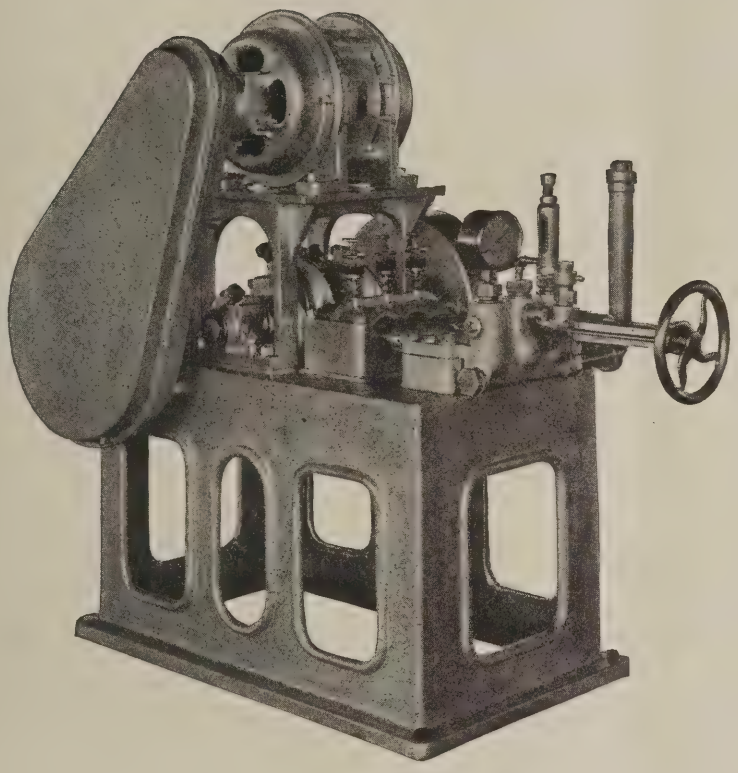
Seen at the Buffalo Show.

CLARKSON BRAND
TRADE MARK
GUARANTEED

CHICAGO
NEW YORK
PHILADELPHIA
BUFFALO
ST. LOUIS
MILWAUKEE
LOS ANGELES
SAN FRANCISCO

Clarkson Gelatine Works
Manufacturers of
FOOD GELATINES
Write Us Regarding Our Supreme Pure Food Gelatine
No Better Stabilizer
Superior in Purity *Odorless and Tasteless*
Economical in Price *Uniformity Always*
WE GUARANTEE TO SHOW YOU A SAVING

Money Can't Buy a Better Machine Than the Gaulin Homogenizer



THE owner of a Gaulin Homogenizer is assured that regardless of what he spends, he cannot purchase a finer built or more efficient Homogenizer.

The Original

The Gaulin was the orginal machine in America designed for making products homogeneous or viscous. Although its wonderful efficiency attracted a number of competitors, it has been as impossible for the imitator to equal the performance of the Gaulin as it is for an imitation diamond to equal the brilliancy of the genuine.

Made with Painstaking Care

The working parts of the Gaulin are made with the same painstaking care as those of the finest custom built automobile and of as fine selected materials. Its excellent construction is reflected in the long life of the machine, many of them having been in use ten years or more.

The Gaulin Spring Homogenizing Valve

The Gaulin Homogenizer is the only machine equipped with the Gaulin Spring Homogenizing Head which homogenizes all parts uniformly fine. Furthermore, this is the only machine by which the whole mix can be homogenized at a pressure of 4,000 lbs. and the pressure maintained without the constant attention of an operator.

Write for interesting booklet entitled "The Story of the Homogenizer."

Manufactured by

THE MANTON-GAULIN MFG. CO., 11 Elkins St., Boston, Mass.

Distributed by

THE CREAMERY PACKAGE MFG. COMPANY

CREAMERY MACHINERY
MILK AND CREAM HANDLING MACHINERY
CHEESE MAKING MACHINERY

SALES BRANCHES—(Write to nearest one)

Chicago, Ill., 61-67 W. Kinzie St. **Philadelphia, Pa.**, 1907 Market St.
Buffalo, N. Y., 133-137 E. Swan St. **Portland, Oreg.**, 6-8 N. Front St.
Kansas City, Mo., 1408-10 W. 12th St. **San Francisco, Cal.**, 699 Battery St.
Minneapolis, Minn., 318-20 3d St. N. **Toledo, Ohio**, 119 St. Clair St.
Omaha, Neb., 113-15-17 So. 10th St. **Waterloo, Ia.**, 406-8 Sycamore St.

ICE CREAM MAKING MACHINERY
REFRIGERATING SYSTEMS
DAIRY MACHINERY AND SUPPLIES

REPORT OF THE NATIONAL SECRETARY.

Chicago, Illinois, October 1, 1921

Mr. Chairman

Gentlemen of the Convention:

I take pleasure in submitting herewith a report of my work as your Secretary during the past twelve months:

FINANCIAL REPORT

Cash on hand October 1, 1920		$ 3,283.89
RECEIPTS:		
Active members	$22,969.76	
Associate members	2,575.00	
State Associations	705.00	
Cost Accounting forms	231.15	
Interest on Liberty Bonds and Bank Balances	755.70	
Membership lists	55.00	
Miscellaneous receipts	1.00	$27,292.61
		$30,576.50
DISBURSEMENTS:		
Printing 1920 Convention Proceedings	$ 639.50	
1920 Convention Expenses	314.00	
Badges for 1920 Convention	331.30	
Reporting 1920 Convention	212.89	
Badges for 1921 Convention	216.00	
Reprints of Moore Bill hearings	105.08	
National Dairy Products Committee	2,000.00	
U. S. Chamber of Commerce dues	90.00	
Attorneys' fees Glacifer Express case	7,500.00	
Briefs & Glacifer Express Case	93.90	
Cost Accounting Forms	129.40	
Postage and office supplies	715.50	
Press clippings	10.00	
Printing and stationery	1,039.89	
Exchange on checks	53.71	
Salaries and traveling expenses	6,451.76	
Membership Certificates	249.16	
Refunds account overpayment of dues	250.00	
Liberty Bonds purchased	5,883.10	$26,285.19
Cash in hands of Treasurer October 1,1921		$ 4,291.31

UNPAID DUES:

1020 Active members in arrears as follows:

9	Class "J" and Class "U" (1920 @ $10; 1921 @ $25) @ $35	$ 315.00
106	Class "U"—1921 @ $25	2,650.00
4	Class "T"—1921 @ $50	200.00
1	Class "A"—1920-1921 @ $500	1,000.00
	Total	$4,165.00
6	Associate members in arrears for 1921 @ $25	$ 150.00
2	State Associations in arrears for 1921 @ $25	50.00
1	State Associations balance for 1921	15.00
	Total	$4,380.00

MEMBERSHIP REPORT

ACTIVE MEMBERS:

Membership Oct. 1, 1920	502
Members secured during 1921	96
	598
Lost during 1921	26
Total Active membership Oct. 1, 1921	572

This membership is divided into classes as follows:

Class "A"	$500 dues	7
Class "G"	350 dues	1
Class "H"	325 dues	1
Class "J"	300 dues	1
Class "K"	275 dues	2
Class "L"	250 dues	6
Class "M"	225 dues	1
Class "N"	200 dues	5
Class "O"	175 dues	2
Class "P"	150 dues	6
Class "Q"	125 dues	10
Class "R"	100 dues	16
Class "S"	75 dues	37
Class "T"	50 dues	51
Class "U"	25 dues	426
		572

ASSOCIATE MEMBERS:

Membership Oct. 1, 1920	101
Members secured during 1921	17
	118
Lost during year	10
Total Associate membership Oct. 1, 1921	108

STATE ASSOCIATIONS:

Members Oct. 1, 1920	25
Members secured during 1921	6
	31
Lost during 1921	2
Total State Assn. membership Oct. 1, 1921	29

GENERAL REPORT

During the period covered by this report ten bulletins were sent out, as well as a number of circular letters.

These bulletins and letters covered a wide range of subjects.

Bulletin No. 37 directed attention to a new income tax ruling dealing with the valuation of inventories, as well as notice of the discontinuance of food licenses under the Food Administration, and also gave a review of general business conditions as reported by the Federal Reserve Board. With this bulletin was also enclosed copy of the constitution and by-laws revised to October 14, 1920.

Bulletin No. 38 referred to our Uniform Cost Accounting System, again urging upon members the desirability of adopting the system.

Bulletin No. 39 referred to the application of the American Railway Express Co. for change in estimated weight on Ice Cream Shipments, calling special attention to the denial of the request of the carriers for an advance on returned empties; it also made mention of the rescinding of the double tagging rule.

Bulletin No. 40 referred to new income tax regulations covering the proper classification of traveling expenses, the tax on dues to commercial organizations, and the filing of income tax returns. It also called attention to the fact that binders for bulletins could be secured through the Secretary's office, and gave further information in regard to double tagging.

Bulletin No. 41 referred to some Treasury Decisions,

Vanite
THE HYGIENIC CLEANSER
NOT only loosens dirt, fatty films and grease,—but softens the hardest water—dissolving the particles quickly, rinses perfectly and leaves everything sweet and clean with little effort and at small cost.
Write for prices and free trial offer
PYRAMID OIL COMPANY
ENDURING LUBRICANTS
MINNEAPOLIS MINN., U. S. A.

WE wish to express our appreciation for the large number of inquiries and orders we have received from old established ice cream manufacturers within the last few months. It is very gratifying to the men who have labored arduously to perfect this better vanilla.

We are justly proud of the results our customers have obtained since standardizing on C. W. Brand Vanilla. It is gratifying to us to know that we really are in a position to help other progressive manufacturers to produce ice cream that will taste better.

The consumer will go past one store to buy ice cream at another if the other man's ice cream tastes better.

The Widlar Company of Cleveland, Ohio, who manufacture C. W. Brand Vanilla, will be glad to show you that your ice cream can really be made to taste better.

setting forth the proper method of valuing inventories under the revenue law.

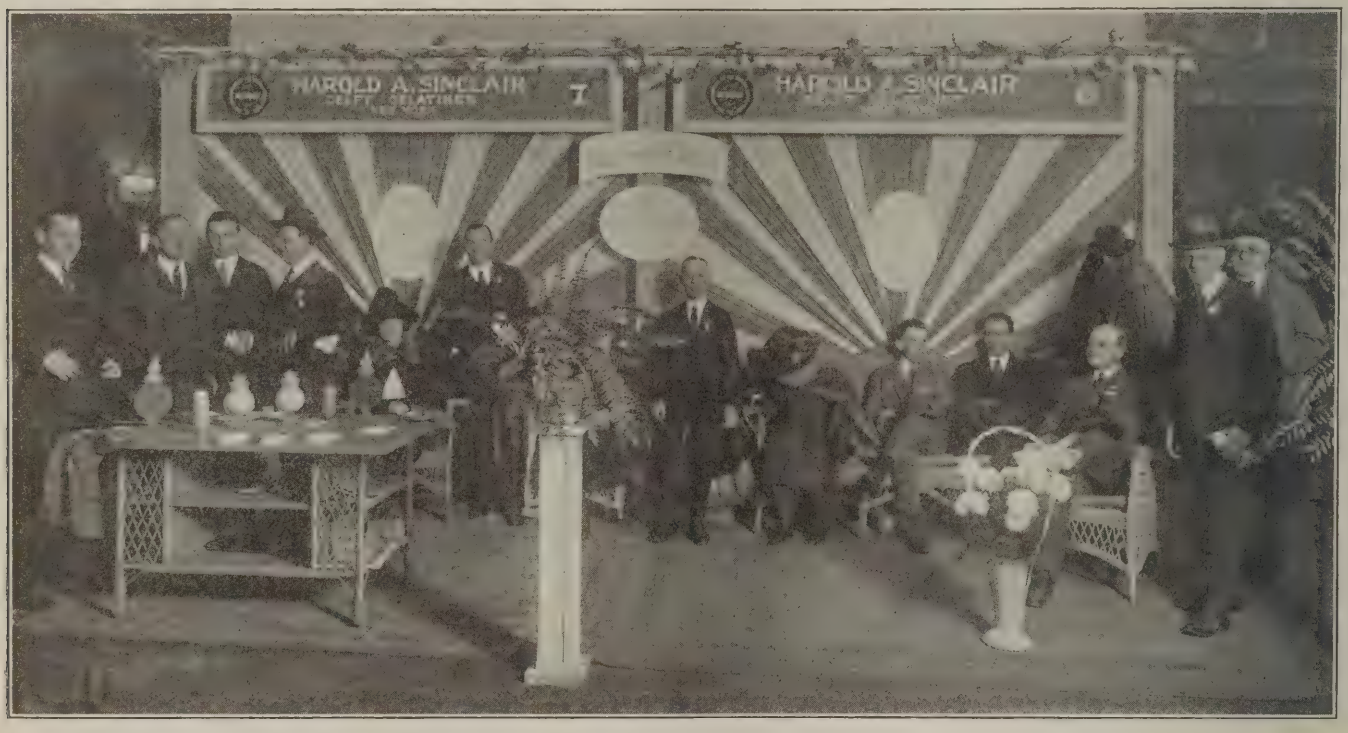
Bulletin No. 42 referred to the work of the Committee on Research Laboratory, quoting a communication from Chairman A. B. Gardiner of that Committee asking members to present their views and suggestions with regard to the Laboratory. National Dairy Council leaflets were also sent with this bulletin, and mention was made of the new membership certificates issued by the Association.

Bulletin No. 43 dealt with the work of the War Finance Corporation in granting loans to finance the export of condensed milk and other milk products; it also gave information as to the Federal Reserve Board's review of business conditions.

setting forth the activities of the Association's Committee on Tax Revision. With this bulletin was also enclosed copy of membership list revised to April 1, 1921.

The Secretary's office also addressed the franked envelopes for Dr. O. E. Williams of the Department of Agriculture, in order that he might send to our members copies of the Department's publication entitled "Sandy Crystals in Ice Cream: Their Separation and Identification".

These various bulletins prompted a large number of inquiries for additional information on many of the subjects referred to. The volume of correspondence has increased tremendously during the past year and has covered a great variety of matter. The increased correspondence, however, is particularly gratifying, indicating, as it does, the



Where "Delft" Was Exhibited at the Buffalo Show.

Bulletin No. 44 referred to developments in the express classification matter, to Department of Agriculture publication, and to reprint from the Journal of Dairy Science, this reprint being copy of an address delivered by Dr. O. E. Williams of the Dairy Division, U. S. Department of Agriculture, entitled "Proportioning the Ingredients for Ice Cream and other Frozen Products (the Balance Method)."

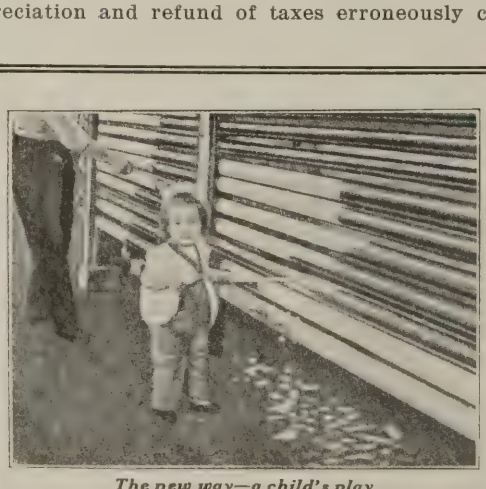
Bulletin No. 45 made further reference to the attitude of the National Association regarding the use of foreign fats as substitutes for milk fats in Ice Cream, asking that members report any instances of this nature coming to their notice.

Bulletin No. 46 referred to new income tax rulings on depreciation and refund of taxes erroneously collected, also

fact that the mebers were appreciative of the service the Secretary's office was endeavoring to render.

A review of the correspondence in our files indicates that between twelve and fifteen thousand letters were written during the past year, this being in addition to circular letters, requests for payment of dues, etc., etc. Many of the communications received from members referred to matters that necessitated a great deal of detail work in obtaining the desired information.

I attended the conventions of the Illinois, Indiana, Ohio, Michigan, Wisconsin and Minnesota associations, as well as a special meeting of the latter association at Duluth and the express hearings of the Ohio Association, the Wisconsin Association and the Minnesota Association, also several trips to



The new way—a child's play

Adds Years to Life of Your Condensers

Braun Condenser Paint is sold only in original trade-marked packages with labels attached. It is a PERFECT SCALE REMOVER.

5 and 10 Gal. Cans, $2.50 per gal.
Bbls. and Half Bbls., $2.25 per gal.
Put up in 5 and 10 gallon cans, barrels and half barrels.

MANUFACTURED BY

The American Paint & Button Company
ARKANSAS CITY, KANSAS
DISTRIBUTING POINTS

The Vilter Mfg. Co., Milwaukee, Wis. The Ruemmeli Dawley Mfg. Co., 3900 Chouteau Ave., St., Louis, Mo.
Chas. Zoller Co., 205 Prince St., New York City The Doermann-Roehrer Co., 318 E. 3rd St., Cincinnati, Ohio.



The "BIG 6" of the 1922 Ice Cream Season

If your name and ice cream were a familiar sight on the poster boards,

If they could attract the public's attention by their size (19x9 feet) and their striking color harmony,

If they could hold this attention thru their artistic design and individuality,

If your advertisement on the boards could be changed each month for a new one equally good,

If no other manufacturer in your territory could use such posters as these,

—Your sales would take a big jump, wouldn't they?

Every one of these "if's" can come true for you. Just write for full information on the newest Nordhem art posters—every one an original Nordhem poster de luxe—

and every one a "Bell-ringer"!

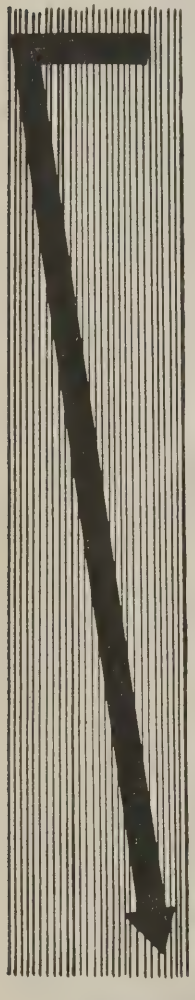
IVAN · B · NORDHEM COMPANY

Advertising and Selling Service for Ice Cream Manufacturers

8 West 40th Street - - - New York City

In Constant Operation For Five Years

in the plant of E. B. Higley & Company, Mason City, Iowa,—that in itself should be recommendation enough,—but read what the users have to say.

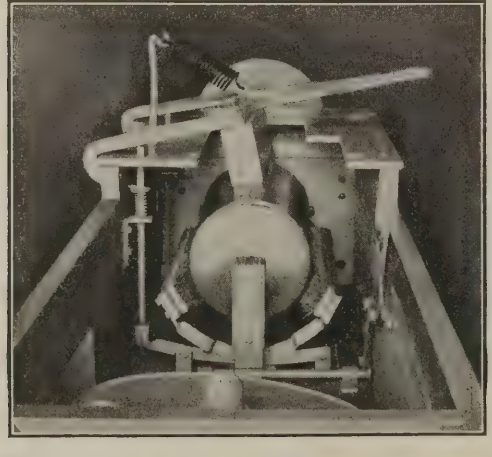


"We have had a Manning Can Washer in constant operation in our plant for five years and are pleased to advise that it has and still is giving us splendid service and satisfaction. There are several points that we like about this machine. It is simple, effective and easily operated and the initial cost is less than any other good washer that we know of on the market."

MANNING MANUFACTURING COMPANY

Rutland Vermont

MANNING EQUIPMENT



The Washer That Grips The Can

the Twin Cities looking after Convention arrangements. All of these conventions and meetings I attended at my own expense.

A persistent campaign for increased membership was kept up during the year, as a result of which ninety-six new active members have been obtained.

You will therefore observe, from the number of new memberships obtained, from the results of our continued activity in the collection of dues, and from the financial report as read, that the Secretary's office has been more than self-sustaining during the past year.

In conclusion I wish to thank the officers, members of the Executive Committee, Directors and members of the Association for their kind co-operation during the past twelve months.

Respectfully submitted,

N. LOEWENSTEIN,
Secretary.

EASTERN ICE CREAM EXHIBITION.

No event of greater interest to the ice cream industry of the country has ever been known than the Third Annual Eastern Exhibition of the Association of Ice Cream Supply Men, heralded for months as the largest exposition of ice cream manufacturing essentials ever known, which came to a successful close November 5th in Buffalo. The exhibition lasted a full week and was held in the Elmwood Music Hall.

In attendance, the exhibition rivalled any that ever has been held in the service of the ice cream industry. Approximately 1,250 persons signed their names at the registration booth, giving their affiliation with the manufacture of ice cream. Of this number a few less than 700 registered from various ice cream plants.

One hundred four separate displays made up the exhibition. Exhibitors' plants and offices according to the exhibition directory are located in fourteen states. An inspection of the same program reveals that the products and services ready for inspection originated or produced in states literally from coast to coast, some of the exhibitors being distributors of products other than their own.

The 650 ice cream men registering traveled to Buffalo from twenty states and four Canadian provinces. The exact states represented were: Colorado, Connecticut, District of Columbia, Illinois, Indiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New York, New Jersey, Ohio, Pennsylvania, Rhode Island, Vermont, West Virginia, Wisconsin; the provinces, New Brunswick, Nova Scotia, Ontario and Quebec.

Considerable interest was evoked by displays of new machinery developments. The exhibition included also some very interesting developments in refrigeration, both for packaging and for the bulk delivery of ice cream. The management announced before the exhibition that 150 varieties of products or services would be displayed or explained on the floor.

The week's program included a stag attended by more than 500 men Tuesday night and on the same evening a theater party for nearly 100 ladies, a subscription dinner, vaudeville and dance on Thursday evening, attended by 400 men and women, and a dance Friday night, all of this entertainment being held in the Lafayette Hotel.

Audel's "Answers on Refrigeration"

A practical treatise for engineers. This book is the most complete work on the subject of refrigeration and ice making on the market today. 690 pages. Half leather binding.

Sent Prepaid on Receipt of $2.00.
OLSEN PUBLISHING CO.
210 Sycamore St. Milwaukee, Wis.

Making the Public Want Ice Cream

Pictures of pretty girls in hammocks, fairies, mules kicking darkies, etc., are very clever and nice but they don't make the public *want* ice-cream.

The outstanding merit of Mathews ice-cream merchandising plan is that it's founded and grounded on the one idea of "make the people want ice-cream."

You can't show actual ice-cream sundaes in your dealer's windows—too perishable! but you *can*, by miraculously truthful illustrations make "let's have ice cream" *the* household word in your city.

Some manufacturers complain "we can't get our dealers to use ice-cream display material!" Of course not—the display advertising wasn't built right—*you* wouldn't use it if you were the dealer.

But—he will use display material that makes the people want ice-cream—unless he's blinded to more profits—and not many dealers are that!

The sooner you talk to the Mathews man, the sooner you'll start the stream of greater profits in your direction.



FREDERICK C. MATHEWS COMPANY

"SERVANTS TO THE DAIRY INDUSTRY"

P. O. BOX 834 DETROIT, MICH.

This four-page insert was produced complete by the Frederick C. Mathews Company



Put this and other appealing illustrations over your dealers' fountains

FREDERICK C. MATHEWS CO. P. O. BOX 834 DETROIT, MICH.

"Servants to the Dairy Industry"

OKLAHOMA ICE CREAM SHORT COURSE.

December 26 to December 31, 1921, Stillwater, Okla., A. & M. College.

Come to Stillwater for the fourth annual ice cream week.

Every ice cream factory in Oklahoma is expected to send at least one man and a packer of ice cream for the scoring demonstration. Your two-gallon can of ice cream should reach Stillwater not later than December 17th. The ice cream makers in attendance will participate in the scoring on Wednesday, December 26th. R. M. Washburn of St. Paul will be one of the outside lecturers.

Course of Study.

Part 1. (For New Students.)

a. Standardization of ice cream mixes.
b. Pasteurization and emulsification of mixes.
c. Making and freezing of mixes in the ice cream laboratory.
d. Testing of milk, cream, ice cream for butterfat and solids.
e. Testing for acidity for pasteurization.
f. Scoring of ice cream.

Part II. (For Old Students).

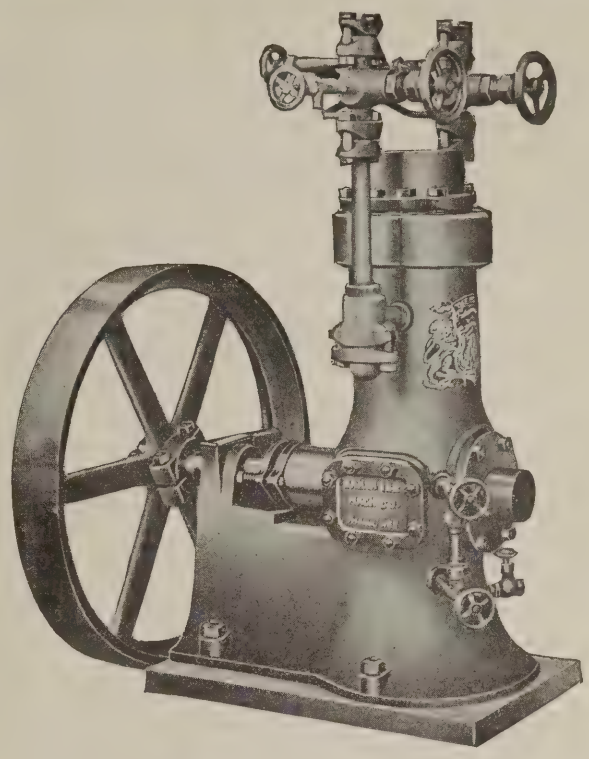
a. Review of standardization of mixes.
b. Laboratory tests of various kinds.
c. Practical tests for gelatine, gums, improvers and flavors.
d. Tests of skimmilk powder and condensed milk.
e. Scoring of ice cream.

Attendance at the short course is not limited to Oklahoma students. Ice cream makers from anywhere are welcome to attend.

If you cannot attend personally and want to send your ice cream to be scored, you are welcome to do so.

This year's short course will be the biggest event for the ice cream industry of Oklahoma.

A. C. BAER,
Professor of Dairying.



ICE CREAM MEN ADMONISHED.

It has long been acknowledged by medical men that ice cream has value as food. Long before their acknowledgment the American consumer had appreciated the fact for himself without needing to be told by doctors or other experts as to health. Hence the rise of ice cream from the rank of a luxury to the standing of a necessity, almost.

The sale of ice cream has become virtually universal in the great cities and in the little hamlets of the entire country. Go where one will, the ice cream cone has become a ubiquitous utility. Yet the large-scale makers of this sweetly chilly necessity scarcely seem to realize that publicity is as needed and desirable for this necessary food as for any other superior product. Paul Heath of Chicago gave them a needed push when he informed the Seattle convention of the Pacific Association of Manufacturers of Ice Cream that advertising is as indispensable to their industry as to any other.

Why firms producing ice cream of superior quality should require to be thus advised appears almost unexplainable. Its varieties are limitless. If its maker desires to expand his business and make it more profitable, the need of publicity is as great for him as for any other manufacturer.—Spokane (Wash.) Spokesman Review.

Perfect Refrigeration

Means Mechanical Refrigeration — efficient, reliable and economical—The Baker System.

In the modern ice cream factory where maximum output and quality are considered—absolute control of temperatures—in the stock room—the mixing vat—the freezers—the hardening room—is essential. You have this control of even just-right temperatures with

The Baker System

Baker refrigerating engineers are at your service—they will help you solve your problems. We are justly proud of the fact that for years through the efficiency of Baker engineers and Baker mechanics fifty per cent of our installations have been made directly or indirectly through the recommendations of our customers—owners of The Baker System of Perfect Refrigeration.

Write us about your problem—no obligations.

Ask for Bulletin 65-D. It's Free

Baker Ice Machine Co., Inc.
Omaha, Neb.

Offices in 13 Cities—Write for Address of Nearest Office.

DIRECT EXPANSION MILK COOLERS.

An unskilled laborer in a Chicago machine shop came to his foreman several months ago. He held in his hand a round ball. In his illiterate way he told the foreman that by using this ball for a bearing, friction of moving parts might be reduced. Thus it appears that this man had rediscovered the principal of the ball-bearing. He was totally ignorant of the fact that ball-bearings have been in use for years.

Now dairymen are not in the same class as this laborer, but they do sometimes get quite a shock when they hear of equipment which has been used successfully for years and which they could have employed to good advantage. A good illustration in point is the use of direct expansion milk coolers.

There are two general methods of cooling milk; by circulation of chilled brine; and by direct expansion. The latter is the latest development and is not so well known.

The direct expansion system, as its name implies, consists in expanding the ammonia directly into the milk cooler. This differs from the brine circulating system in which the brine in tanks, surrounds the coils containing the expanding ammonia. As the brine is cooled proper circulating machinery pumps it to the cooler. This decidedly round-about operation has several recognized weaknesses. The large brine cooling tank and the circulating machinery are expensive to install and thereafter are a constant maintenance charge. They are a useless step in the cycle of refrigeration and are a growing expense.

Direct expansion for milk coolers is not new. In the early development of the refrigerating industry it was tried out. As might be expected in a new science there were difficulties in its application. Following the line of least resistance the brine circulating system, which was easier to control, came into almost general use. The main objection to direct expansion coolers was experienced in adjusting the proper flow of ammonia to the coolers. Since the flow of the milk was constantly varying it was necessary to hand regulate the expansion of the ammonia to correspond to these changes. Usually this meant constant attention. Careless regulation resulted in freezing the milk to the cooler and permitted liquid refrigerant to pass to the compressor. These difficulties seemed insurmountable and therefore resulted in general abandonment of the system.

But the principle of direct expansion coolers was right. Engineers agreed that the brine tank, the extra piping, the circulating machinery and the constant care, played no necessary part in the refrigerating operation. For years the efforts of these engineers were directed towards solving this problem. Foremost in their activity the Refrigerating Specialties Co., of Chicago, carried on extensive experiments which finally resulted in the development of the Monogram "Type A1" ammonia pressure regulator.

This regulator properly proportions the expansion of the refrigerant in the cooler in proper ratio to the work to be accomplished. When the milk runs freely more ammonia is expanded. When it runs slowly the amount is reduced. The danger of frozen milk is in this manner eliminated and the possibility of liquid refrigerant damaging the compressor is reduced to a minimum.

One large concern, manufacturing dairy products, has used these regulators for the last four years. They are standard equipment now on all their direct expansion installations. These people frankly admit that all their success with direct expansion coolers can be laid to these regulators. That is a strong endorsement, and dairymen figuring on new equipment or on overhauling their plants will do well to get in touch with the Refrigerating Specialties Co. and let their engineers figure on their requirements.



Built for the Freezer Room

Air tight, water tight, steam tight, sensitive working parts entirely enclosed. Ruggedly built to withstand hard usage in the freezer room.

Mojonnier Ice Cream Overrun Tester

accurate and instantaneous method of testing the overrun while the ice cream is still in the freezer, enabling the operator to control his output.

Sold direct or through your jobber.

Write for illustrated circular.

Process and Apparatus patents pending. Beware of infringements.

Mojonnier Bros. Co.
MILK ENGINEERS
739 W. Jackson Boul. Chicago

Sales Branch Offices: New York, 79 Sherman Ave.; Atlanta, 301 Bedford Place; St. Louis, 4931 Margaretta Ave.; Seattle, 600A Central Bldg.

CORNER STONE LAID AT ALLENTOWN M. & G. PLANT.

The corner stone was laid on November 26th at the immense new plant of the M. & G. Ice Cream Co. of Allentown, Pa. It was less than two months before this date that the ground was broken and rapid progress is being made. The God of Elements was not very favorable as there was much unpleasantness from aloft, but it did not dampen the dauntless spirit of the men back of this enterprise and the cornerstone laying was carried to a successful conclusion with "Sunshine Ahead" as the slogan. Hundreds of school children were present and the president of the company, John G. Mealey, offered prizes for the best essays on their impressions of the affair. They were also treated to all the ice cream they could eat.

The plant will be worth a half million dollars. The excavations are complete and substantial foundations are up. Everything is solid stone and concrete in line with a structure that will be absolutely fireproof.

The laying of the cornerstone was followed by a luncheon given by President Measley at the Hotel Traylor to the directors of the company and business associates. The delicious luncheon was topped off with bricks of M. & G. ice cream.

TWO IMPORTANT FACTS

TO REMEMBER ABOUT

GUMPERT'S ICE CREAM IMPROVER

I

It is as beneficial in *aged* mixes as in fresh mixes.

2

It is not a *substitute* for natural ripening but a *supplement* to it.

S. GUMPERT & CO., *Bush Terminal*, BROOKLYN, N. Y.

A Most Practical One-Floor Ice Cream Factory

THE Tauber Absopure Ice Cream Plant, Chicago, is one of the most unique ice cream manufacturing outlays in the country. Its completeness in every detail is quite out of the ordinary. A location of beauty, refinement and pleasant atmosphere was selected for the plant. On either side are factory buildings, the architects for which duly respected the district's wish to maintain an unusually good appearance. The Tauber plant matches the surroundings. It is a red brick building of 280 feet frontage.

The interior of the plant, its layout, its machinery and facilities express the owners' evident intention—to utilize the most advanced methods to make the highest grade ice cream that can be made. The layout of this plant was engineered and the equipment complete was supplied by the A. H. Barber Creamery Supply Company, Chicago.



Where Tauber Absopure Ice Cream Is Made.

The best evidence of the satisfaction the Barber equipment has given is the tremendous success the Tauber business has enjoyed. It has necessitated extension until the present maximum capacity of the plant's facilities have been reached. Plans for utilizing the additional 154 feet of frontage are in process of development. Not a detail was overlooked by Barber when laying out this better ice cream plant.

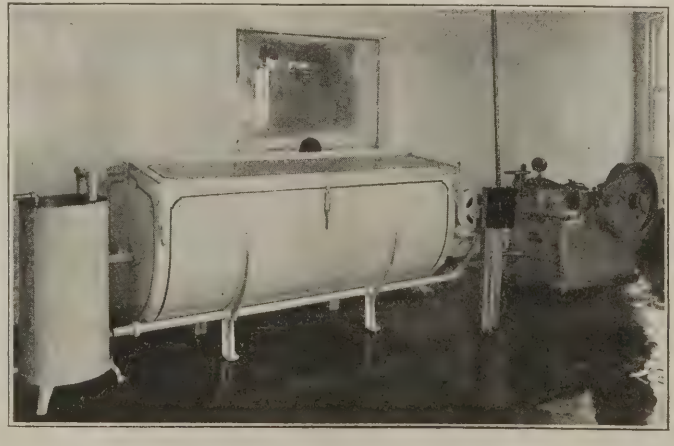
A complete laboratory, equipped with a Mojonnier testing outfit safeguards the quality of ingredients used and assures uniformity of product.

The ice cream mix is made and pasteurized in the motor driven Manning batch mixer, which, of course, gives the Tauber product the advantage of assured safety through double pasteurization.

Alongside of the Manning mixer is a No. 2 viscolizer. The mix goes in at 145 degrees Fahrenheit. A pressure of 2,000 pounds to the square inch makes the mass into a smooth, even mix and thoroughly distributes and breaks up the particles of butterfat. This process assures a creamy, smooth taste to the final product.

The mix runs by gravity over a Simplex cooler, is brought down to the normal temperature and run into Pfaudler glass lined storage tanks to age. These tanks are equipped with a motor driven agitator and brine spray jacket so that the temperature can be constantly held at a low point.

When the mix is ready to be frozen it is carried to the five U. S. freezers by a Jensen motor driven centrifugal pump. Each freezer turns out ten gallons every twelve minutes and is equipped with a Mojonnier overrun tester so that every batch is tested for weight before being sent to the hardening room.



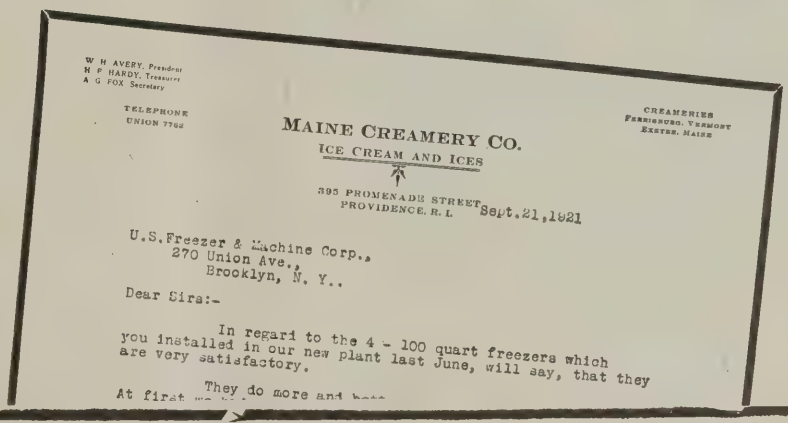
No waste, either of time or material is permitted in the Tauber plant. Credit must be given the A. H. Barber Creamery Supply Company for prescribing a process of manufacture as smooth as the product itself. Nothing is handled twice and everything is on one floor. The usual waste in cutting the ice cream into bricks is eliminated. A special cutting table that "saves the pieces" is used.

All piping is of tinned

The Maine Creamery Co. Says:

"They Are Very Satisfactory"

After installing one U. S. Heavy Duty Ajax (100 Quart Size) Freezer, this Company ordered three more. The four freezer installation shown below was made possible only by the very satisfactory service rendered by the first U. S. Heavy Duty Freezer these people installed and thoroughly tried out in actual use in their plant before ordering the other three. Recently they wrote us as follows:



W. H. AVERY, President
H. P. HARDY, Treasurer
A. G. FOX, Secretary

TELEPHONE UNION 7702

MAINE CREAMERY CO.
ICE CREAM AND ICES

395 PROMENADE STREET
PROVIDENCE, R. I.

CREAMERIES
FERRISBURG, VERMONT
EXETER, MAINE

Sept. 21, 1921

U.S. Freezer & Machine Corp.,
270 Union Ave.,
Brooklyn, N. Y..

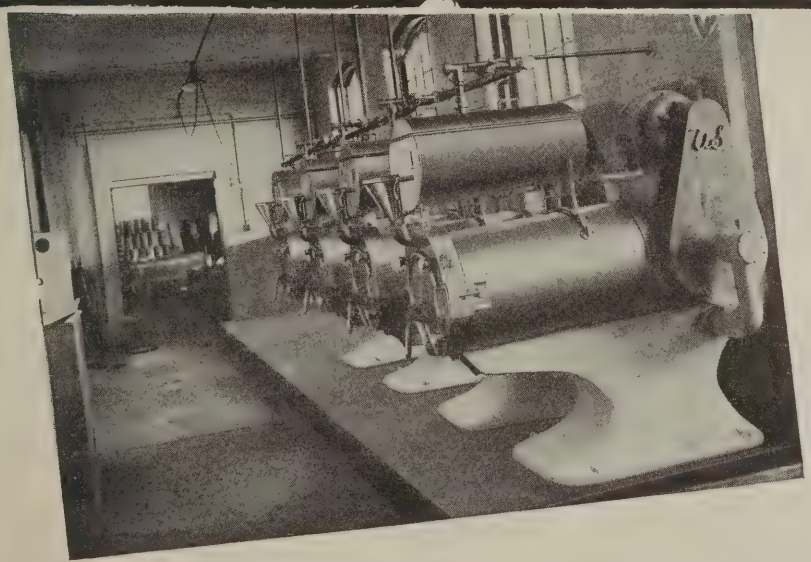
Dear Sirs:-

In regard to the 4 - 100 quart freezers which you installed in our new plant last June, will say, that they are very satisfactory.

They do more and better work than we anticipated.

At first we [illegible]

In regard to the four 100 quart freezers which you installed in our new plant last June, will say, that they are very satisfactory. They do more and better work than we anticipated.



Latest Improvements

New Gravity Operated Automatic Batch Weighing Reservoir — Improved Rotary Disc Brine Control Valve — Substantial Fruit Hopper and Peep Hole cast in one piece with the cylinder head — Simplified Cream Valve and Passages.

Write at once for complete information

U. S. FREEZER & MACHINE CORPORATION

Union Avenue and Frost Street **BROOKLYN, N. Y.**

Representatives and Distributors in All Parts of the United States and Canada.
May we not arrange to have one call on you?

copper with sanitary fittings. The refrigeration is furnished from three Howe machines and one York—used in the 100-ton-a-day Tauber ice making plant.



Pfandler Glass Lined Tanks Are Part of Tauber's Practical Equipment.

If you give a fiddle to a fool, don't complain about the music afterwards.

* * *

People who imagine that because order is Heaven's first law it gives them a right to order their earthly neighbors around, are as badly mistaken as though they had taken a drink of water with the idea that there was gin in the glass.

ICE CREAM SALESMEN STRENGTHEN NATIONAL CLUB.

Aside from the actual exhibition of ice cream machinery, services, equipment and supplies held in Buffalo by The Association of Ice Cream Supply Men the Week of October 31st, the greatest interest among representatives of the industry was in the annual business meeting of the Salesmen's Club, an auxiliary to The Association of Ice Cream Supply Men.

This club has approximately 500 members traveling the country from coast to coast and calling on practically every ice cream man in the country. The following directors for the ensuing year were elected: R. J. Decy, J. E. Graham, W. E. Gray, Jr., G. R. Kleinau, S. W. Mendelsen, P. N. Miller, J. B. Morse, A. A. Senor, Thos. J. Stewart. The new directors subsequently elected Thos. J. Stewart of Milligan & Higgins, president; W. E. Gray, Jr., Elyria Enameled Products Co., vice president, and A. A. Senor of the National Paint and Varnish Co., treasurer. President Stewart later announced the appointment of Jay Kugler of the Western Confectioner; J. W. Mulligan, of Rex Extract Co.; E. K. Slater, of The Ice Cream Review, and J. E. Simpson, of the Elyria Enameled Products Co., as regional field representatives for, respectively, the Pacific, south, the west central states and the east central states.

The Association of Ice Cream Supply Men announced the awarding of four prizes to salesmen with the most creditable records of work well done for the Salesmen's Club and the expansion of the ice cream industry in the preceding twelve months. The winners of the awards are: C. J. Yuncker, of the Rex Extract Co.; J. W. Mulligan, of the Rex Extract Co.; A. A. Senor, of the National Paint & Varnish Co., and S. W. Mendelsen, of The Daigger Corporation.

FRIENDS HONOR R. J. DECY.

Led by Albert McDougall of the Allman Gas Engine and Machine Co., twenty-four friends of R. J. Decy, retiring president of the Salesmen's Club of The Association of Ice Cream Supply Men, gave a surprise dinner to Mr. Decy in the Hotel Lafayette in Buffalo, Saturday evening, October 30th. O. S. Jordan, president of The Association of Ice Cream Supply Men; Dr. Wilbur Wright, president of the Sealright Co.; H. M. Colman, of the Essex Gelatine Co.; Andrew Thompson, of the Emery Thompson Machine and Supply Co.; B. B. Scott, H. W. Stern, of the Daigger Corporation; John H. Mulholland, of the John H. Mulholland Co.; Howard W. Black, of the Widlar Co., and F. E. Hollweg, of Thos. W. Dunn Co., were among the fifteen or more persons offering toatsts to the surprised guest of honor.

DON'T RE-TIN

until you have seen our work. We are specialists in retining. Ship us a few cans at our expense and be convinced what real tinning is.

LIMITED—ONE WAY FREIGHT ALLOWED ON THREE HUNDRED CANS OR MORE.

CEDAR RAPIDS TINNING AND GALVANIZING CO.

CEDAR RAPIDS IOWA

Dairymen's Mfg. and Supply Co.

403 NORTH MAIN ST.

Saint Louis, Mo.

with its staff of engineers and salesmen, extends the season's greetings and thanks for the biggest year of business in its history. We hope to share a prosperous 1922 with you. Yours for service,

DON'T FORGET THE B

B. Riley Hauk

President

PLEASE MENTION THE ICE CREAM REVIEW WHEN WRITING TO ADVERTISERS

FLAVOR YOUR ICE CREAM WITH

Cremilla

"CREMILLA" is better, smoother, creamier and of richer flavor than the finest grade of pure vanilla; and it's more economical.

"CREMILLA" is so concentrated as to make it the best flavor to use with homogenized cream; one-third to one-half oz. flavors perfectly 10 gallons of cream (one to one and a half pints for 500 gallons.)

Trial gallon by express on request. After fair trial, if you don't like it, send back what's left and pay us nothing.

National Fruit Flavor Co.
NEW ORLEANS, U. S. A.

Ice Cream Men of West Virginia Held Big Convention

THE Ice Cream Manufacturers of the State of West Virginia picked a cold day for their convention, but the affair was a huge success, it being one of the largest ever held by the ice cream manufacturers of that state. On Nov. 21st, 125 delegates had registered at the Twelfth Annual Convention held at the Windsor Hotel. All cities in West Virginia and cities of Eastern Ohio and Western Pennsylvania were represented. Registration was made during the morning by Secretary C. F. Jamison of Huntington, W. Va., and the afternoon was devoted to a business session, marked by several good addresses. At 5:30 a big banquet was served at Morgan's Inn, near West Alexander.

President W. M. B. Sine of Clarksburg, opened the program at the first day's session, and his address was well received. He spoke of the methods being used by the ice cream manufacturers in meeting post-war conditions and of the prospect for the future. Better and bigger business is in sight for all kinds of business, he declared.

Then followed the reports of the secretary and the members of the board of directors.

Secretary C. F. Jamison, of Huntington, W. Va., made the report of what had been accomplished during the past year. He spoke of the ice cream consumption having tripled in the past ten years in the state of West Virginia, and he declared that people now realize its food value. "Ice cream has become such an indispensable food that few, if any, do without 'a dish a day.' It is interesting to note," he stated, "the fine effect ice cream has upon the human body. Ice cream, the kind made now-a-days, is one of the real essential nourishments to be had upon the market of health. I find that the ice cream consumption in the territory of the John's Company" (Mr. Jamison is with the John's Ice Cream Co. of Huntington) "is about as large as that of bread. Children prefer ice cream, the real wholesome kind, to other kinds of food. It is human nature for them to continue to eat it when they grow older. From early infancy people learn that ice cream is really indispensable."

The first formal speaker introduced was Roy B. Naylor of Wheeling. His topic was, "These Are Not Hard Times, But the Passing of Soft Times." Mr. H. C. Ogden, also of Wheeling, spoke on the subject of "Why the Gross Sales Tax Should Be Repealed," speaking of the unfairness and inequalities of the measure passed recently by the state legislature as being detrimental to business conditions. H. G. Bradley, of Bluefield, manager of the Husband's Dairy Company, chose as his subject, "Increasing the Per Capita Consumption of Ice Cream in West Virginia." He pointed out three of the biggest items for increasing the per capita consumption —advertising, reduced prices and forcing the distributors to accept less profit. His address was one of the big successes of the day.

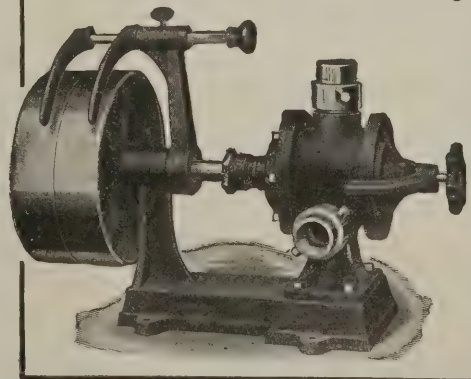
An open forum session was held and many of the delegates participated.

The program for the second day of the convention was equally interesting and successful. Speeches were made by J. H. Schindler of Telling-Belle-Vernon Co. of Cleveland, Ohio; J. T. McCann of the Imperial Ice Cream Co., of Wheeling, W. Va.; S. B. Haffner of Elkins Storage and Provision Co., Elkins, W. Va.; and O. S. Jordan, president of the Association of Ice Cream Supply Men of New York handled the subject of "A Square Deal" very well; and the speeches were very well received.

S. B. Haffner, vice-president of the association, in his address on the retail price of ice cream, said: "The retail price of ice cream when sold in sundaes, ice cream sodas, etc., is too high. The retailers, in many instances, have not reduced the price of ice cream served in confectioneries despite the fact that the wholesale pric has come down. To my mind it is unreasonable to ask a person to pay 15 or 20 cents for a little ice cream with a bit of syrup poured over it. The other day my daughter told me she paid 18 cents for an ice cream soda, and she added that she didn't intend buying any more until the price came down. When members of your own family will not buy your product because it is too high in price, it is certainly an indication that the general public feels the same way about it. A few years ago, confectioners were serving nearly twice as much ice cream in sodas as they are serving now, and they received ten cents for them." It was also suggested that an educational campaign should be instituted among retailers on the question of serving ice cream, some members holding the opinion that the confectioners are not making an undue profit from the sale of ice cream as at present dispensed.

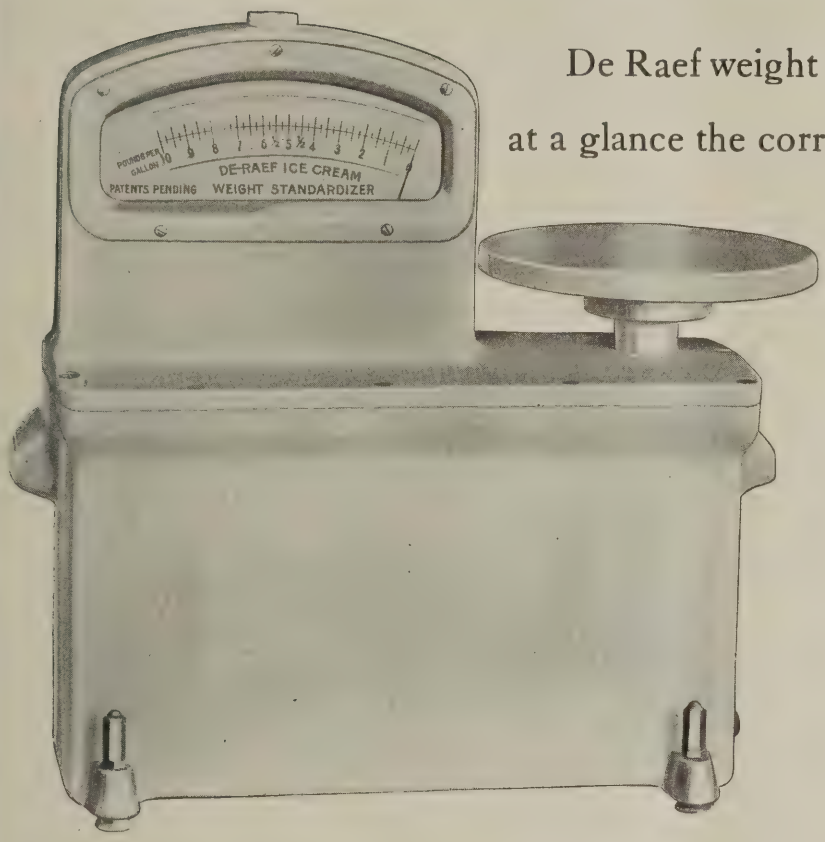
C. A. Lutz, of the Look Creek Bottling Co., of MacDonald, W. Va., who deals mostly with residents of the coal fields of the southern end of the state, says, "As much ice cream is consumed in the coal fields as in the thickly populated cities as compared with the numbers. I have found that the sale of ice cream in the company

Diamond-F
Protective Papers
For Ice Cream and Candy Makers
Glassine
Greaseproof
Vegetable Parchment
Parchmoid
Made by
Diamond State Fibre Company
BRIDGEPORT (near Philadelphia) PENNA.

Taber Creamery Pumps

are the most sanitary because they are entirely dissectable. Demand a Taber Pump from your jobber. If he cannot supply you we will sell you direct. Address:
Taber Pump Company
297 Elm Street
BUFFALO, N. Y.

Standardization of Ice Cream

By Weight Per Unit Volume

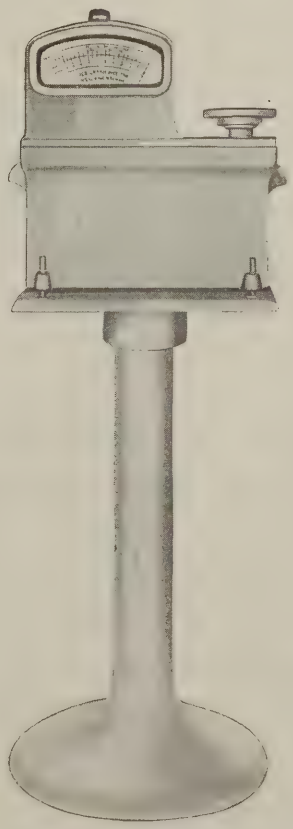


De Raef weight standardizer tells you at a glance the correct weight per gallon, while the ice cream is still in the freezer, giving the ice cream maker full control of a standard weight per gallon as well as a given over-run.

No weights—no charts—no counter balances—no telescopic cups — no adjustments — no magnifying glass to read dial—no figuring—always ready for operator—water proof and rust proof.

Works automatically—reading can be made ten feet away—large black figures on white dial. Will give correct weight per gallon of ice cream, regardless of weight per gallon of mix.

De Raef Ice Cream Weight Standardizer circular sent on application to the Ice Cream Department



N. A. KENNEDY SUPPLY COMPANY
KANSAS CITY MISSOURI

stores of the coal fields is just as large as in soda parlors in the cities."

Open forum session was again held, followed by the election of officers for the coming year. The officers elected are as follows: W. M. B. Sine, Charleston, W. Va., president; S. B. Haffner, Elkins, W. Va., vice president; C. F. Jamison, Huntington, W. Va., secretary-treasurer. Directors—W. M. B. Sine, Charleston, W. Va.; H. G. Bradley, Bluefield, W. Va.; D. P. Wickline, Mullens, W. Va.; S. B. Haffner, Elkins, W. Va.; G. W. Shettler, Wheeling, W. Va.; J. H. Cline, Charleston, W. Va.; F. A. Hummell, MacDonald, W. Va.



KENTUCKY WANTS NATIONAL DAIRY SHOW.

Editor, The Ice Cream Review:

Lexington, Ky.

There is a feeling that the next National Dairy Show should be held in the South, for the South needs the stimulus that this exposition brings to any community where it is held. We people of Kentucky feel that Louisville is the logical place for it. The state fair grounds have ample facilities for housing it now, since the big exposition building has been built. This building is as big as the building used at St. Paul. The floor space and the balcony will take care of the exhibits of dairy supply houses and of an educational character. The livestock ampitheatre is one of the largest and best in the United States. All this equipment, together with the barns, have been offered by the State Fair Board.

Louisville is easily accessible to the entire South, and it is easily reached from points in the North also. It seems that the horse show has not been a grand success at past Nationals. Louisville will show visitors what a real horse show is, and also it will show what a valuable financial adjunct the horse show can be made to the National Dairy Show.

The National has been held in the far east (Massachusetts) the central north (Chicago and Columbus), and the northwest (St. Paul). The South needs this show, and it is the purpose of the people here to make a substantial offer for it for next October. Dairy supply houses and manufacturers of dairy equipment will appreciate the importance of exhibiting their wares to Southern people, for this section is fast expanding as a dairy center. New creameries, milk depots and ice cream factories are being erected in all parts of the South. Louisville is the place where Northern thrift meets Southern hospitality. It is desired that all who will aid in this effort should lend their influence now.

J. J. HOOPER,

Professor of Animal Husbandry in charge, Dairying.

ANNUAL CONVENTION AND DAIRY SHOW OF MICHIGAN ALLIED DAIRY ASSOCIATION, SAGINAW, FEB. 14-17, 1922.

Affiliations. The Michigan Allied Dairy Association numbers among its affiliations all branches of the dairy industry in Michigan. Itemized they are: (1) creamery butter manufactures, (2) cheese manufacturers, (3) condensed milk and milk powder manufacturers, (4) market milk distributors, (5) ice cream manufacturers, (6) producers, represented by the Michigan Milk Producers Association and the state farm bureau, and (7) dairy machinery, equipment and supply firms, represented by the Michigan "Dairy Boosters" Association.

Annual Convention. At the annual meeting and convention of the association a general program is carried out, and in addition there are sectional meetings of the several affiliated units of the organization. The cream of available material will be obtained for the several unit programs, with special head-liners for the general program.

Convention Exhibits. Educational exhibits of the state, the U. S. department of agriculture and of the Michigan Agricultural college will be featured. A complete line of commercial dairy machinery, equipment and supplies will also be shown, using the Saginaw municipal auditorium, which building is ideally suited for a joint convention and show such as is being planned.

Attendance Expected. A special "drive" has been planned designed to build up a large attendance of both producers and manufacturers of milk and milk products in Michigan. In this connection the association will have the active cooperation of the state farm bureau, working through the county agents in each county. Agencies, only indirectly interested in the industry, such as the railroads, have also come forward with substantial offers to assist in giving publicity, and urging the value of the convention and show.

Cooperation the Word. The prevailing industrial depression, especially as it affects the value of farm crops, has again proven the stability of the dairy industry, and the need for the further building of this most important branch of agriculture, is therefore emphasized. This can only be accomplished through the combined effort and cooperation of all interested.



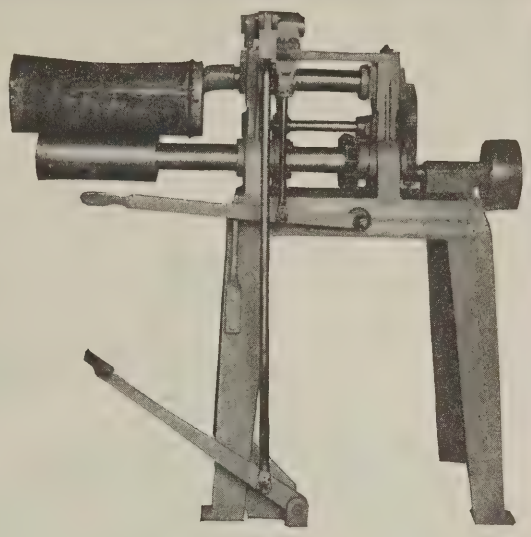
HEADQUARTERS ESTABLISHED.

The World's Dairy Congress Association has established headquarters at 426 Star Building, Eleventh and Pennsylvania Avenue, Washington, D. C., where H. E. Norman, President, will welcome callers and communications from any who are interested in plans for the coming Congress.

NORTHEY
Ice Cream Cabinets
Refrigerators - Coolers
For All Purposes—Any Size, Style or Finish
NORTHEY MANUFACTURING CO.
DAIRY SUPPLY HOUSES
139 PARK AVENUE WATERLOO, IOWA

Attention Arkansas Ice Cream Manufacturers:
"Sure I Will Be There"
With the display of
WOLF ADVERTISING COMPANY
Creators of Distinctive Ideas in Advertising
45 West 18th Street, New York City
Room 320 Marion Hotel, January 10-11, 1922
We carry a complete line of high class advertising displays, cutouts and signs for the ice cream and butter manufacturers.
DAVE STEINER
Representive for Arkansas, Kansas, Missouri, Oklahoma and Texas
Member Kansas Ice Cream Association
St. Louis Office: 726 Victoria Building
Write for Prices and Samples

IT "IRONS OUT" THE WRINKLES



JUST like a flat iron smooths out the wrinkles in the laundry, so will the Wacho Can Straightener remove the dents in your cans. Just as simple to operate as any mechanical household ironing machine. Just as efficient.

The Wacho Can Straightener removes dents from body, neck and cover—quickly—noiselessly—does it in your own plant and at a very insignificant cost per can.

Write for circular and whether interested in a demonstration.

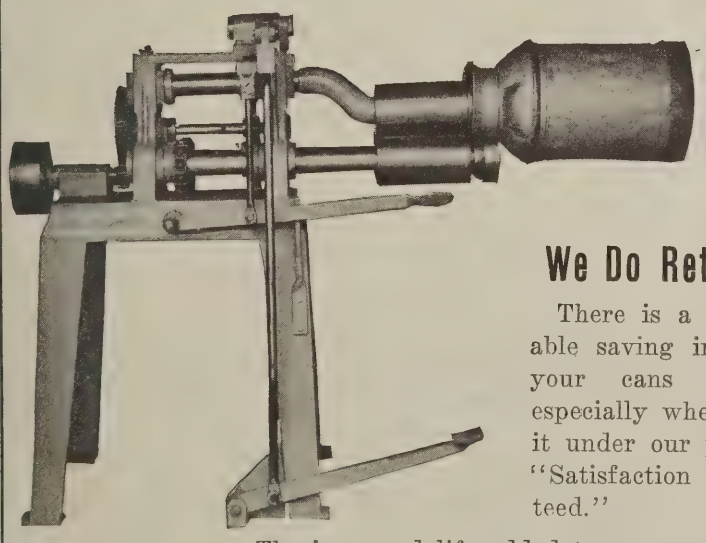
"WACHO" Can Straightener

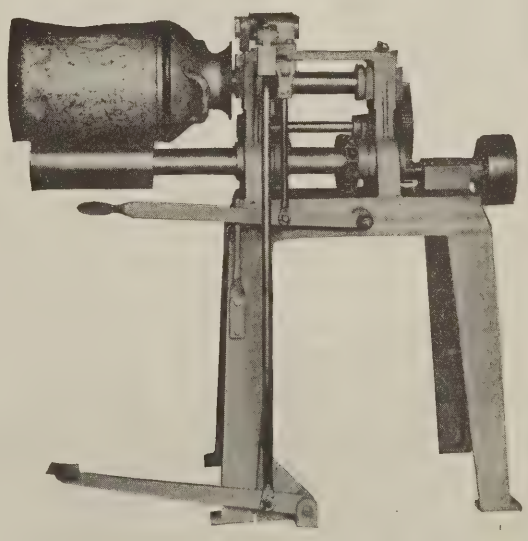
Puts a new complexion on your cans that indicates "full capacity" — the quantity you pay for. Getting all you pay for is a sure way of increasing your profits.

Manitowoc Plating Works

Manufacturer "Wacho" Can Straightening Machine
Rebuilding, Retinning and Manufacturing of Ice Cream Cans, Milk Cans and Special Dairy Supplies.
Years of Satisfactory Tinning Service to the Dairy Trade.

MANITOWOC **WISCONSIN**





We Do Retinning

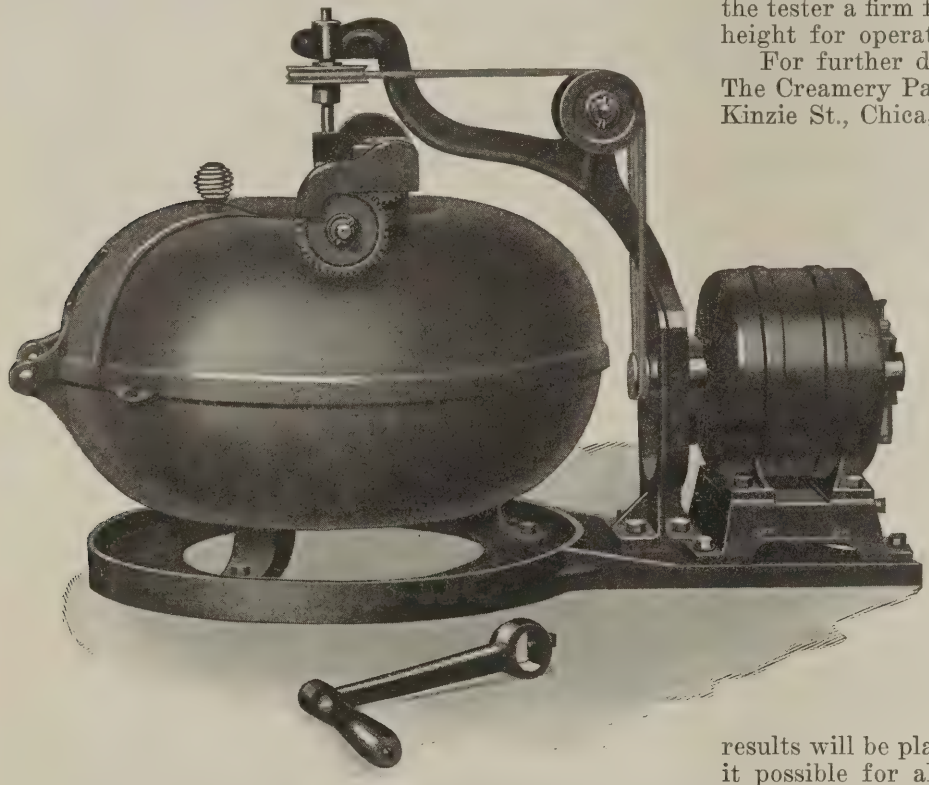
There is a considerable saving in having your cans retinned, especially when we do it under our policy of "Satisfaction Guaranteed."

The increased life added to your cans when retinned the Manitowoc way, many times offsets the cost of retinning.

Let us tell you more about our retinning service and give you an estimate on the number of cans you have to be retinned.

A NEW MOTOR DRIVEN BABCOCK TESTER.

The manufacturers of the Crepaco motor driven Babcock tester claim this machine is an improvement in many ways over other motor driven testers. Its particular advantage is that it has an adjustable speed arrangement which enables the operator to start slowly and then gradually increase the speed until the desired revolution per minute is attained, thus avoiding the breakage of bottles and loss of material.



The New Electric Motor Driven Crepaco Babcock Tester Showing Adjustable Speed Arrangement.

Another feature of the Crepaco is that both the tester proper and the motor are mounted on the same base, thus avoiding vibration and insuring constant alignment.

This machine is supplied in two types, i. e., type No. 1 electric motor drive only and type No. 2, combination hand and electric power drive. The latter type was designed for use when intended to be driven chiefly by electric power, but it can also be operated by hand power when so desired. When it is desired to drive this machine by electric motor, all of the hand driving mechanism may be completely thrown out of gear by the loosening of a single hand screw. When desired to be changed back to hand power drive, it is just as easily replaced in gear.

The tester proper is the regular type C Crepaco Babcock tester and is supplied in either 8, 12 or 24 bottle for 6 inch bottle sizes. All gears in this tester are encased and at the top of machine. They are milled in special milling machines, are absolutely accurate and therefore practically noiseless. The outfit can be obtained with or without glassware as desired.

When desired the outfit is furnished with a three-legged tester stand which is very convenient as it gives the tester a firm foundation and raises it to a convenient height for operation.

For further details our readers are invited to write The Creamery Package Manufacturing Company, 61 W. Kinzie St., Chicago, who are manufacturing this outfit.

CALIFORNIA ICE CREAM SCORING CONTEST.

At Stockton this year, in conjunction with the Pacific Slope Dairy Products Show, there will be an exhibit of ice cream from manufacturers to compete for complimentary medals to be awarded by the show.

These entries will all be scored, using the newly approved score card of the University of California. The judging will be under the direction of the Pacific Slope airy Products Show. The construction of the score card used, makes it possible to exhibit so-called "Standard" ice cream.

Each exhibit will be placed in a cabinet which will contain the entry number. A score card with the final results will be placed above each exhibit. This will make it possible for all manufacturers to examine each exhibit and make comparisons with the score.

The educational value of this program is without a doubt the most valuable thing which has been undertaken for improving and standardizing the quality of ice cream.

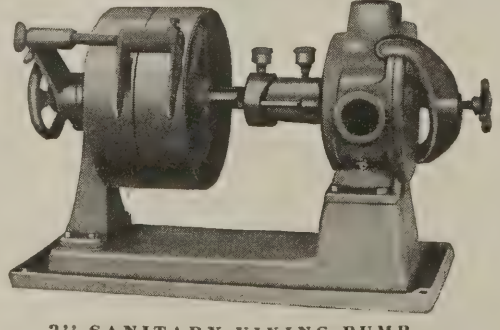
Please refer to my letter of recent date for further instructions as to entries.

CALIFORNIA AND SOUTHWESTERN STATES
ICE CREAM MANUFACTURERS' ASSN.,
By Robert J. Dryden, Sec.-Treas.



No business is so prosperous that parsimony cannot hurt it.

For CREAM

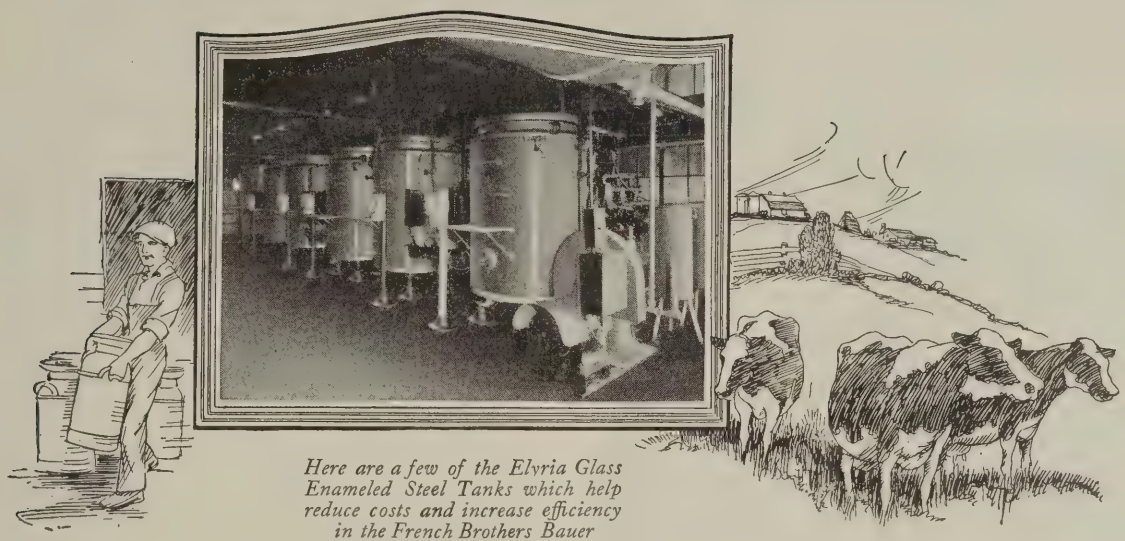


For BRINE

2" SANITARY VIKING PUMP
THE UNIVERSAL PUMP
For Milk, Brine, Water or Foods
VIKING PUMP COMPANY, Cedar Falls, Ia.

RE-TINNING MILK AND ICE CREAM CANS
A SPECIALTY
MAKE YOUR CAN SANITARY
Now is the time to have your old cans retinned, all double coated, so do not throw your old cans away, sent us a sample so we can show you what we can do to it.
SANITARY TINNING & MFG. CO.
3757 E. 93rd St., CLEVELAND, O.

SERVICE—NOT JUST EQUIPMENT



Here are a few of the Elyria Glass Enameled Steel Tanks which help reduce costs and increase efficiency in the French Brothers Bauer Company Plant.

Why Did French Brothers Bauer Install Twenty-five Elyria Tanks?

COMPLETE endorsement of Elyria Glass Enameled Steel Equipment by French Brothers Bauer Company of Cincinnati is proof of its superior merit. Twenty-five tanks—ranging in size from 500-gallons to 2000-gallons capacity—increase efficiency, lower costs and simplify operations in the handling of Milk, Ice Cream and Dairy Products. Typical of every other installation—the Elyria Tanks in the French Brothers Bauer Company Plant were installed with the definite, proven idea of reducing cost and increasing plant capacity. That they have done so in this case, and that they can effect similiar economies in your plant, can be demonstrated to you after an inspection of your operations has been made.

Facts

Elyria Tanks are easy to clean and keep clean; Elyria Glass Enamel will not crack or chip: it neither gives flavor to the product or takes flavor unto itself; it has no crevices where germs may gather; it permits of no leakage or contamination.

A detailed plan of operations used by French Brothers Bauer and a complete description of Elyria Tanks will be sent upon receipt of your request. Write for Elyria proof now.

ELYRIA ENAMELED PRODUCTS COMPANY, ELYRIA, OHIO

Pittsburgh New York Chicago San Francisco Los Angeles Canadian Milk Products Limited, Toronto

ELYRIA GLASS ENAMELED STEEL EQUIPMENT

Inspection — Is It Worth While

By H. LEE KOENIG, Assistant Manager in Charge of Inspection, John Wood Manufacturing Co., Conshohocken, Pa.

We have up to about nine months ago been in a period of feverish industrial activity, a period when the demand for manufactured products greatly exceeded the supply and most anything that was produced could be disposed of without question. As it invariably happens when a great demand exists, the buying public were not prone to be as discriminating as to quality as they might have been, and consequently a large number of manufacturers marketed their product successfully with no apparent opposition from the purchaser. There was then a large supply of orders and a dearth of manufacturers, so practically anything that functioned at all got by,



H. LEE KOENIG

Conditions are now exactly opposite and there are four or five manufacturers to every order. You can purchase your requirements anywhere, any time from four or five different sources of supply. Expressed in a few words, we have a "buyer's market" with all that that conveys to the manufacturer—a discriminating, critical and hard to please public made so by this complete reversal of conditions.

What must we do to meet this changed order of affairs is the almost universal cry of the man who desires to keep his plant running at least part of the time and who is greatly troubled by the increasing demands of his customers as to quality and their incessant criticism of his manufactured product.

Let us examine this question a little before we proceed and see if we can find out why these customers are more critical than usual and why goods that suited them once will not suit them again. Is it because the product itself is not right or is it the usual come back of the man who either does not care to buy or who desires to push his advantage?

Now it may be the latter reason in a few cases, but in a vast majority of instances, it is solely because the good times in the past made so by an almost inexhaustible demand, eliminated many a just criticism. A great many manufacturers boldly marketed their products, knowing that they contained defects that were not removed simply because there was no great demand for their removel. The customer was only too glad to get what we ordered, be it what it may. Old and tried manufacturers following the lines of least resistance, allowed their products to dwindle in efficiency. Old time standards were lowered or done away with altogether; all barriers being removed before the ever increasing cry of production which almost entirely drowned the faint protest of the buying public. It was during this stage that the word "efficiency," as applied to manufactured articles lost almost its entire significance.

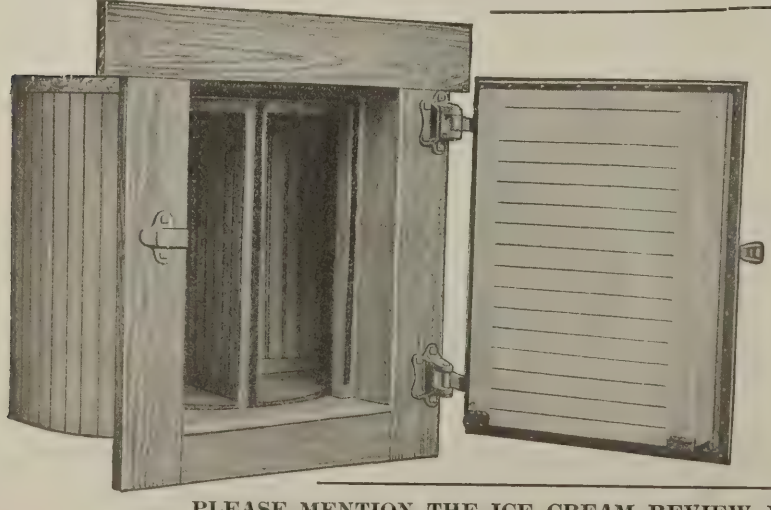
Now who was to blame? Was it the manufacturer entirely or was he just simply a victim of circumstances he could not control? Remember, in business circles it was a far greater crime to throw a customer down entirely in not delivering his order than it was to send him something which, by reason of lack of time, was not quite as good as it should be.

A great many manufacturers chose the lesser of the two evils and owing to the great pressure exerted by the buying public, sent from their plants merchandise far below its normal standard.

Then there were other circumstances which tended to lower this standard. Labor, restless under high wage and unusual working conditions constantly moved from plant to plant wherever the highest wage prevailed. New and sometimes very inefficient men had to be employed to fill their places, so this immense labor "turnover" simply added to the difficulties of manufacture.

Not only was labor constantly on the move, but where it did stop it was very poor material. Much has been written on this phase of the subject alone, and yet the half has only been told. We need simply to mention it. All that we are interested in at present is how the various manufacturers in this country are endeavoring to "come back" to pre-war efficiency, not particularly with the causes which led to the poor quality of their product. The fact remains that they must now, in order to meet this extremely competitive market, manufacture merchandise that possesses the requirements which fulfill these changed conditions.

An inspection system of some kind which will effect-



JAMISONS'

"NOEQUAL" REVOLVING DOOR

is making can-passing easier in Ice Cream Plants and Creameries everywhere.

It passes Ice Cream and Milk Cans back and forth without loss of temperature—and requires but one person to operate when fitted with unloading device.

Standard 5-Gallon sizes in stock.

Send for Catalog No. 10 and Prices

Jamison Cold Storage Door Co.

Formerly
Jones Cold Store Door Co.
HAGERSTOWN MARYLAND, U. S. A.

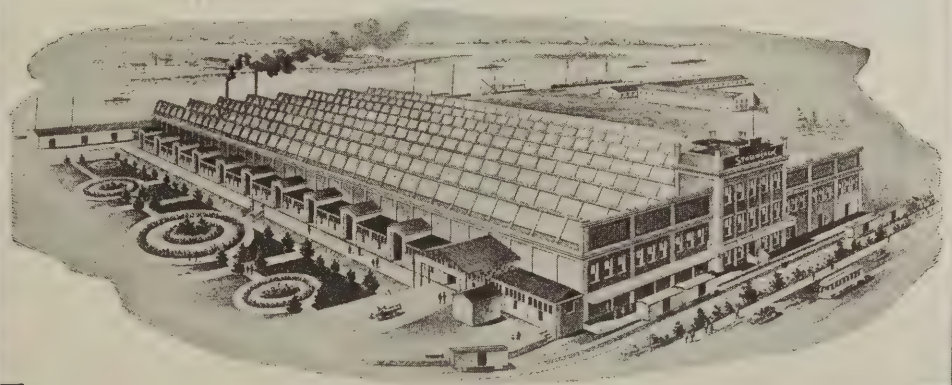
STOLLWERCK

COCOA POWDER

Quality, Flavor and Color unsurpassed. Best results in ice cream making can be obtained by the use of Stollwerck Cocoa Powder.

Prices and samples upon request

Packed in 25 and 50 lb. drums Also barrels and cases



PLANT OF THE STOLLWERCK CHOCOLATE CO.
STAMFORD, CONN.

BRANCHES:
NEW YORK BOSTON CHICAGO KANSAS CITY
SAN FRANCISCO SALT LAKE CITY SEATTLE PORTLAND, ORE.

What Factor Decides You To Buy?

You don't buy a Batch Mixer merely because you like the color it's painted. Even the price, although of great importance, should not be the deciding factor.

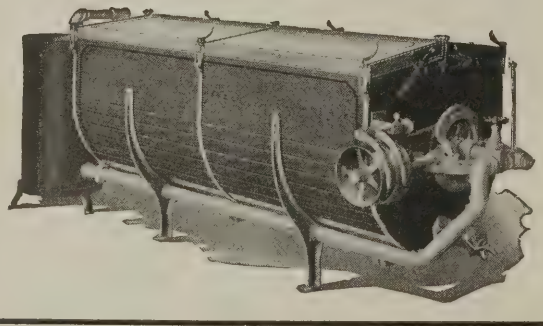
What you want is service, and service for the most part depends upon raw materials and workmanship.

It is our honest belief that the Manning Batch Mixer is the most carefully built vat on the market today. The raw materials used are the best we can buy.

The first cost — low as it is — is practically the last.

MANNING MANUFACTURING COMPANY

Ruthland, Vermont U. S. A.



Perfect in Workmanship

ually separate the wheat from the chaff is absolutely necessary in all manufacturing institutions. There must be lines drawn and standards raised in order that not only the customer be protected but the plant put in a position to market their product effectively and economically.

A well known manufacturer who for years had been an ardent supporter of this policy stated that in his plant inspection must first, protect the customer by withholding anything from him not of the highest quality; second, that it must protect the plant, for business will not continue to come to an organization which permits faulty work to slide through, and last, that it is the duty of inspection to investigate and correct those defects which render the work unfit to pass and thus eliminate as much as possible the scrap heap and its attendant loss.

If these three duties are the proper function of inspection what then should be the attitude of the executives and the employees toward a system of this kind, for one can readily see that the decisions rendered, are far reaching and come in close contact with practically every department.

Concerning the attitude of the executives, little need be said. If they originate the department they must believe in it, and believing in it they must consistently back it. The common mistake is to pit inspection against production, with a view of obtaining the best out of each department and possibly a middle course which is half way between big volume and poor quality and small volume and high quality. The fallacy of this is two fold, first, there is absolutely no reason why big volume and high quality should not go together, and second because a lack of team work will ruin any enterprise, be its organization what it may.

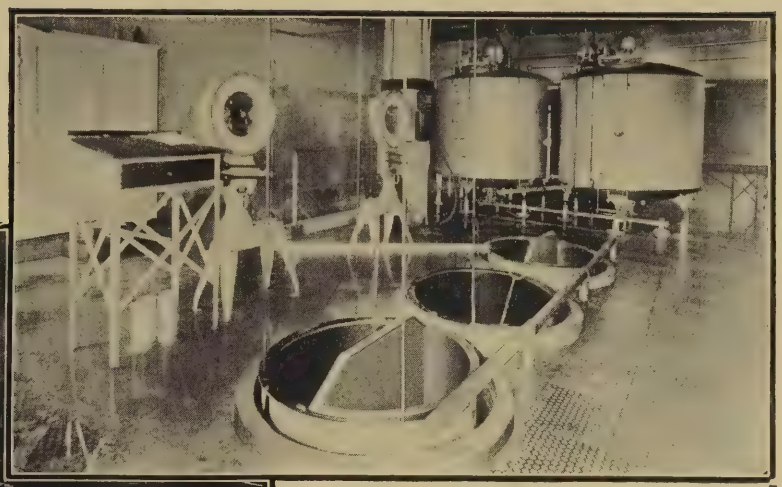
Production and inspection must work hand in hand, their purposes are one and the same. Perhaps one does lean a little more to the efficiency of the product, while the other leans more to volume, but where volume and efficiency run together there will be found the highest type of industrial organization.

The attitude of the men toward the inspection Department is largely the attitude of the executive heads. Let the foreman take kindly to having their work supervised and the men will absorb the idea readily. It the co-operation of the men is obtained, the success of the department is assured without question.

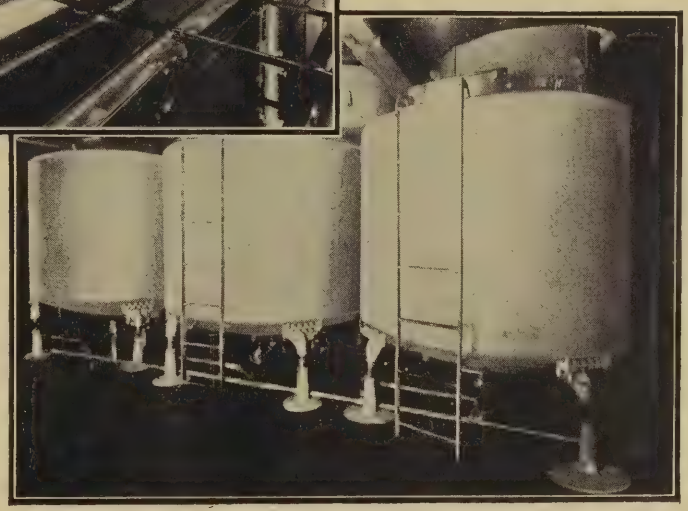
The writer wants to state here that very few plants were entirely without some inspection organization, but we do believe that practically none of them had this department remain steady under the terrific production period that we passed through last year. Practically all organizations of this kind broke under the heavy pressure and now these must be rebuilt again and the barriers made strong enough to withstand.

Let us get back to the old standards of efficiency, if necessary, re-establish our old specifications both on our raw materials and our finished product. Refuse to accept defective and unreliable merchandise in the shape of raw materials for the production of our commodities and we will stand a much better chance of turning out good work ourselves. Let everybody start striving for the best and the best will come,—it is inevitable.

Some times it has been stated that inspection hampers production, that it impedes progress and raises costs, but the biggest successes in the manufacturing world would not so express themselves. Picture to yourself the production of the Ford car under any other system than that of rigid inspection of component part. Make these component parts right, so that each and every one will properly fit and the entire as-







The Crescent Creamery Co., Los Angeles, has standardized on Pfaudler Equipment. In 1916 they installed the three storage tanks shown in the lower view. Since then increased capacity has led them to equip with the storage and weight tanks shown in the upper views. The illustrations do not include the Pfaudler buttermilk tanks and pasteurizers also at this plant.

Equipping Throughout!

There is a growing tendency among dairy and ice cream companies, building new plants to specify Pfaudler Equipment **throughout** — or plants increasing their capacities, to **add** Pfaudler units.

Our tanks are equipped with many labor-saving devices, which make them easy to operate. Men naturally prefer this type of equipment.

When we lay out a plant for you, there is minimum amount of sanitary piping used,—the tanks are placed at convenient points easily accessible to save footsteps, and unnecessary handling. Advance planning is done for possible future increase in business, so that the installation of new equipment will not involve undue tearing up of your plant. There are other ways in which we can save you money and inconvenience in such layout work.

Write us for details. There is no obligation.

A Merry Xmas and a Happy New Year—

The PFAUDLER CO.

The World's Largest Makers of Glass Lined Steel Equipment

ROCHESTER, N. Y.

NEW YORK CITY CHICAGO SAN FRANCISCO

LONDON, England SYDNEY, Australia

Pfaudler



Buy from the Originator

We are the originators and patentees of this quality ice cream tub cover. No royalties to pay—no infringements to guard against. All good reasons why

Schott Brothers
Quality Tub Covers
Are Lower in Price

The fact that after six years as users, original buyers of *Quality Tub Covers* send in repeat orders each season for new tub covers, should be proof enough for you to investigate the quality, price and serviceability of Quality Tub Covers.

THE QUALITY TUB COVER COMES TO YOU COMPLETE WITH STAPLES, TIE STRINGS AND YOUR ADVERTISEMENT

Write for Prices Now

THE SCHOTT BROS. COMPANY

"If Made from Canvas We Make It"

WEST SALEM OHIO

sembly will be complete and rapid. The only way to get this efficiency is to set up a standard, work to it, eliminating by a process of rejection, those parts which do not measure up.

It has been the experience of the writer, that the only condition under which costs were raised was where inspection was first installed in plants which heretofore had had no supervision of this kind. In one particular instance the costs did go up on account of rejection of defective material but only for the length of time it took the plant to really produce an efficient article. When that was done, the volume became so heavy that costs of production took quite a downward slide until finally at the finish of five months they were about half as much as at the beginning. It is far easier and really cheaper to make things right than to make them wrong when once you get the big idea.

Let us assume that we are installing a system of this kind in a plant which heretofore had no organization of this nature, and naturally the first thing to do would be to acquaint the foreman and men with the idea, how it works and what it means in final reduced costs and efficiency. Much depends upon how well this idea is "put across" for the initial steps of inspection are strewn with many a stumbling block, and the more the ground work is fully covered in this respect, the faster will be the progress of the department.

We must then establish our standards of efficiency, for if we are going to work to something we must have a fixed and definite idea of just what that something is. These standards will generally take the form of specifications, first as to finished and semi-finished products and raw materials. If our commodities are of such nature that tests must be applied in order to demonstrate their efficiency, the specifications of these tests must be thoroughly gone into and tabulated. After all these preliminaries are accomplished and we have a fixed and definite idea of just what we are going after, we should take a few steps in that general direction.



Partial View of Southern Exhibition of Association of Ice Cream Supply Men, Atlanta, Georgia, November 28-December 2.

A few men should be chosen from the list of the workmen, say one in each department, who will have supervision over the quality of the work, not how fast it is turned out, that is the foreman's particular job, but how good it is when finally produced.

We want to say right here that it is generally better to pick men to start with from among the plant employees themselves, than to go outside for them, first, because they are generally more familiar with the product being manufactured, and second, because the department being somewhat of an innovation, these men will probably fit in better with the shop organization. After the inspection department is fully organized and functioning efficiently, this procedure need not be so

closely followed and new men from the outside can very well be employed.

There is another situation which will loom up next and which, in our opinion, is most vital and that is the quality of the first inspection. Very often this determines the initial success or failure of the whole scheme.

Although the writer is a close inherent of the principle of "hewing to the line, letting the chips fall where they will," he does not recommend this position at the initial installation of a competent inspection system in a plant which heretofore was entirely without an organization of this kind.

It will be found that a wholesale rejection at the beginning will do more to discourage the men and even more so the executive organization than anything that could happen and it all may simmer down to the old plan of manufacturing as heretofore without inspection.

It is impossible to raise the standard of a plant in a day and while the specifications and ideals we work to should be of the highest order, their interpretation at first should be exceedingly liberal.

In one plant which fell under the writer's observation, after six months of inspection, the rejections were only 10 per cent of what they were at the beginning and still the inspectors were rejecting at the expiration of that time, the same class of workmanship they were formerly accepting, so much had the standards of efficiency been raised. When this method is tried out even half way efficiently, the results are far more effective than when the lines are drawn so closely at the beginning.

After a certain period of time depending on circumstances and conditions the inspection can be gradually increased from simply an inspection of the finished article, to an inspection of component parts, then gradually extend to the raw materials, as these really are the fundamental basis of all manufacture. If these are not right, it is useless to try and make the product right. It is difficult to give hard and fast rules for the growth of an organization of this kind on account of so many conditions affecting the situation, but one principle above all others must be followed and that is, "make haste slowly."

We repeat, nothing is so disturbing to the peace and serenity of a manufacturing establishment than the wholesale rejection of their manufactured product at the initial installation of an inspection department. If the product heretofore had functioned at all, even though the need of an increased efficiency is absolutely necessary, raise the standards slowly and this only can be done by a most liberal interpretation of the specifications.

Full reports of all inspection are necessary not only to fully acquaint the management with all the details of the work, but to afford a basis of comparison of efficiency of different time periods. It is not necessary in this article to go into the form of these reports as these will vary in every plant in which the principle is applied. It may be in a later article the writer will go into this more fully. All that need be said here, is that they must correctly tabulate every defect, the total number of articles inspected, the percentage rejection of every defect and the percentage rejection of the whole. A close study can thus be made of the causes of these defects, why they exist and remedies suggested for their elimination.

These reports should be made out each day for every department and filed for future reference. Copies should be given to each foreman for his personal attention and when they want and ask for these, one can rest assured they have at last gotten the big idea of efficiency and co-operation.

Now one word as to the attitude of the inspectors toward the plant and their co-operation in general, for that feeling must be two sided and not all in one direction. To any executive installing an inspection system we can only say, choose well your men. They must be sincere, fair and impartial, reasonable and willing to discuss peacefully any question concerning their work and their decisions.

It is extremely wise to make this department answerable only to the general manager; it must not under any circumstances be under any production department. Avoid choosing men who are apt to have a "holier than thou" feeling, an arbitrary attitude, a disposition not in accordance with perfect plant harmony, and you will go a long way toward insuring the success of the new department.

Let me drop you a little word right here. If, my reader, you by chance should be chosen any time in your career to originate a department of this kind in a plant where the idea is a new one, let me warn you, that you will not have an easy time, your path will be rough and rocky; how rocky it is depends to a great extent on how diplomatically you attack the problem.

At first you will be eyed with suspicion and distrust, not only by the foremen but also by the men, and it is up to you to disarm this attitude. Show them plainly, that by pointing out the defects and tabulating them, you only show their prominence in relation to the whole product, not with a view of calling attention to the shop's shortcomings but with the loftier purpose of higher standards and better workmanship all around.

For A Smoother

FIRMER ICE CREAM

Fruit Frost or Water Ice

Use

Rippey's Powdered Foamoline

No Heat Required

Simply mix Rippey's Powdered Foamoline with the dry sugar add your cream or milk and it is ready for the freezer.

Send for a trial package and book of formulas.

For a limited time we will send postpaid a full half pound package on receipt of 25c, together with our formulas for making ice creams, sherbets, etc.

Rippey's Powdered Foamoline is packed in one pound boxes with registered trade-mark and signature of William Rippey on every box. Never sold in bulk.

Wm. Rippey 101 E. Second St. Cincinnati, Ohio

This is your worst battle and if you win it successfully your path from then on will be much easier. In one plant which fell under the writer's notice this was the main point of issue, but when the men were convinced that the attack was on the work and not on them, there was comparative smooth sailing. Co-operation is the keynote of this system, as well as it is of all systems, and co-operation must exist in order to insure its success.

In conclusion, and the writer feels that he has barely skimmed the subject, we have only to look at some of our great and growing industries who have adopted this plan to the fullest extent in order to answer our question as to whether inspection pays. It not only pays, but it is absolutely necessary for the preservation of any industrial enterprise, and even more so now than ever before. Sooner or later if bad work continues to go out, the products of other competitive plants will supercede those of the old established firms who feel that they are making a product which is good enough to get by with.

Let us endeavor, therefore, in order to meet this competitive market, these changed conditions, to originate a system of close supervision over our manufactured products, so that the firm we represent may sail through successfully these stormy seas of business and financial perplexity and live to enjoy the "good times" which we fully believe are in store for us all in the near future.



LADD'S NEW CATALOG.

The John W. Ladd Company, Detroit, Mich., have sent out letters to their customers in which they say: "We are very much pleased to send you herewith our new catalog showing a complete line of machinery, equipment and supplies for all branches of the dairy industry. Our desire is that you use this catalog as a text-book, in solving your problems, and if any questions arise which the information given in our catalog does not answer, write to us promptly.

"Since this catalog is part of the service which we wish to render you, use us both freely.

"Appreciating any and all of your favors, whether large or small, and assuring you that the smallest order will receive our very best and most prompt attention, we remain, Yours very truly,

JOHN W. LADD COMPANY."

Along with this letter goes one of the finest dairy machinery catalogs the John W. Ladd Company has ever put out. It contains illustrations and descriptions of every conceivable piece of machinery and equipment necessary for the ice cream, milk, butter and cheese manufacturing trades. This catalog is truly a text-book and solves many dairy manufacturing problems.

A copy will be sent to anyone who is interested, upon request.



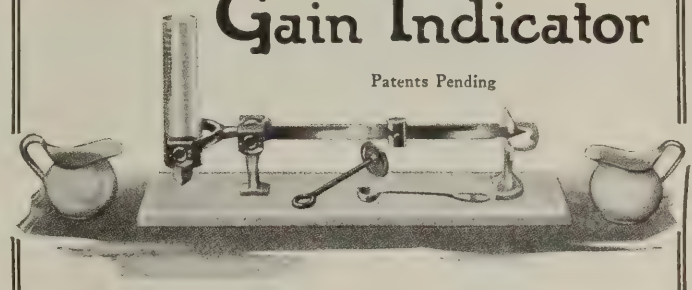
NORTH CAROLINA ASSOCIATION ACTIVE.

In the October issue of The Ice Cream Review we published a North Carolina law, recently enacted, entitled, "An Act to Require Sanitary Conditions in Ice Cream Plants, Creameries and Cheese Factories."

This law was passed as the result of active efforts by The North Carolina Ice Cream Manufacturers' Association, of which Geo. L. H. White, of Raleigh, is president and A. E. Dixon, Fayetteville, is secretary. They are to be commended for their progressive work.

Petersen's
Ice Cream
Gain Indicator

Patents Pending



A simple and reliable device for determining the freezing gain or "over-run" in ice cream

A tester of exceptional value as a means of checking freezer efficiency. Shows deficiencies caused by improper refrigeration or handling of mix. Under normal conditions it enables ice cream makers to control freezing gain in accordance with solids content of raw material,—producing a finished ice cream uniform in texture and food value.

Absolutely fool-proof. No adjustment to make. Easy and quick to operate.

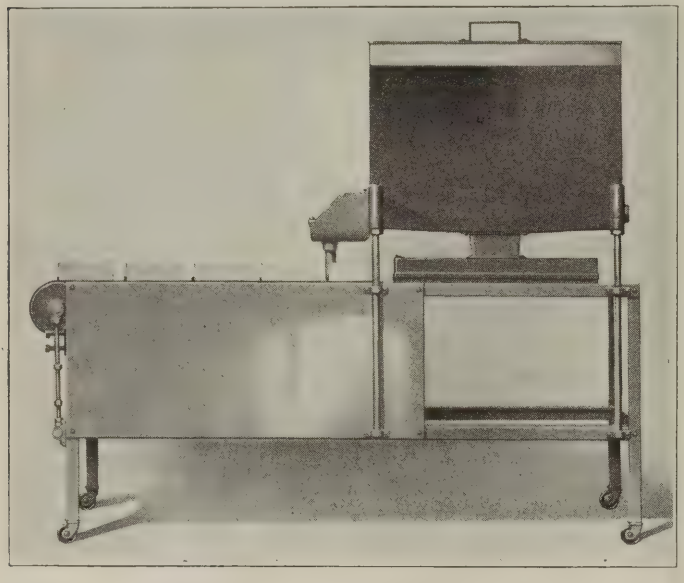
The durability, simplicity and reasonable price of Petersen's Ice Cream Gain Indicator entitles it to a place in every ice cream plant. **Fully guaranteed as to materials, workmanship and efficiency.**

Order to-day through your supply house or direct from us.

Coster-Petersen Co.
2531-33 Homer St.
Chicago, Ill.

NO HANDS TOUCH ICE CREAM TURNED OUT BY VALERIUS FILLER.

There is now offered on the market the new Valerius ice cream brick carton filler, which fills quarts, pints or one gallon ice cream slabs directly from the ice cream freezer into the desired packages, which saves time, labor and money and during which process no hands touch the ice cream. Either pint or quart cartons can be filled with no adjustment required—quarts and pints may be run on the machine at the same time. This filler does away with the old method and the unsanitary hand work and is operated automatically, untouched by hand. The maximum capacity is 24 quarts, or 48 pints per minute and may be operated as low as 12 pints or quarts per minute. The machine is 2 feet 2 inches by 8 feet and is 50 inches high to the top of the hopper, therefore, little floor space is required. It is



mounted on large, easy-rolling casters and can be easily pushed aside when not in use. It is operated by one-half horsepower motor, easily connected with any ordinary lamp socket.

Three girls can operate the machine to full capacity on quarts, pints or slabs; along with a man to place the filled packages in the freezer room. If only a small amount of cream is packed, only two operators are required to do the work, from making up the cartons to placing in the freezer room. The capacity is always the same whether the operator is filling quarts, pints or slabbing one gallon packages, in capacity of gallonage per hour. The operator can reduce the capacity 100 per cent when filling pint cartons by feeding only one-half as many to the conveying mechanism.

The cartons used to the best advantage with this machine are of telescopic type, either locked or stapled ends, with a preference for stapled ends as these are easier to assmble and are of a nicer appearance when the package is filled. The approximate inside dimensions of the uart carton are 3½ inches wide, 3⅜ inches long, and 2 5-16 inches deep. They are made of manilla stock, paraffined on all sides making them perfectly sanitary.

The cartons filled on the machine are full quarts and pints, are not loose in the package, and are easy for the consumer to strip and serve. The size of the cartons are standard, as adopted by the large manufacturers. Special machines are built to accommodate any desired size provided the machines are of the same pattern. The Davis-Watkins Dairymen's Manufacturing Company, 130 North Wells St., Chicago, Ill., have this machine for distribution.

SOME FACTS AND FIGURES.

The department of agriculture, division of foods and dairies, have secured and analyzed 246 samples of ice cream during the period from April 1st, 1921, to Dec. 1st, 1921. Out of these samples, 24 were found to be illegal for reason of running below the standard of 8 per cent milk fat. The total average of the 246 samples was 11.03 per cent milk fat. The 24 samples below standard, averaged 6.67 per cent, while the 222 samples above standard, averaged 12.13 per cent.

Regarding sanitation of ice cream manufacturing plants, we have inspected a great number throughout the state and find them as a whole, very good, but in some of the individual places, we have found quite a large percentage of unsanitary condition, such as, not having proper drainage to take care of refuse from manufacturing room, and cleaning equipment, bad floors, bad light and ventilation, dirty stairways and surroundings, slimy dashers in mixing machines, storerooms, many flies, syrups, sugar and flavoring spilt on the floors, rusty ice cream cans being used and in many cases dirty cans being returned from dealers.

Too much dependency is being put on tag that is placed on cream cans for the percentage of butter fat, as in some cases it has been found that manufacturer has had the correct percentage of mix, but the cream was not an 18 per cent, 20 or 22 as represented by the tag, thereby bringing his ice cream fat below required standard. This is a point the manufacturer should bear in mind and keep continually testing the raw cream that is purchased outside.

The department issued 344 licenses for wholesale and 694 licenses for retail ice cream business for 1921.

COL. C. C. MINER,
Assistant Superintendent,
Division of Foods and Dairies.



MINNESOTA STATE CONVENTION

Although our state convention closely follows the national convention recently held in Minneapolis, we want all of our friends to know that an effort is being put forth to make this one of the most interesting state meetings we have ever held.

Constantly changing conditions bring forth new problems which must be solved. Local problems can be discussed only at state meetings.

We want everyone interested in this district to be with us. Remember the convention date—Friday, January 20th—at the St. Paul Hotel, St. Paul, Minnesota.

Let me call your attention to the fact that this is immediately following the Wisconsin convention of January 17th and 18th and directly precedes the Iowa convention of January 25th and 26th.

We are going to mix business with pleasure. Following the day's business session there will be an evening's entertainment. Come and be with us.

Minnesota Assn. of Ice Cream Mnfrs.
W. M. PAULSON, Sec.,



BAKER ICE MACHINE CO., INC., OF OMAHA, OPEN FORT WORTH BRANCH.

In order to properly serve their increasing trade in that territory, the Baker Ice Machine Co., Inc., of Omaha, have opened up a branch house in Fort Worth, Texas., at 207 Front St. Mr. J. E. Rasmussen, vice president of the company, will be in charge, and Messrs. Angell and Kauffman will represent the firm in the territory.



No Wonder They Smile!

—for ice cream stabilized by ESSEX Gelatine looks as delicious and wholesome as it invariably proves to be. No separation of fats from the milk and its water content—hence perfect digestibility and no ice splinters.

Your customers will wish their friends to try an ice cream that is uniform; pure; smooth as the cream it is made from!

ESSEX GELATINE COMPANY

Manufacturers

BOSTON, MASSACHUSETTS

Warehouses for Service

708 So. Delaware Ave., PHILADELPHIA
175 South St. NEW YORK
400 So. Broadway, ST. LOUIS
Board of Trade Bldg. CHICAGO
2nd & Brannan Sts. SAN FRANCISCO

THE ASSOCIATION OF ICE CREAM SUPPLY MEN MEMBER

NEWS ABOUT SUGAR

Items of Interest for the Ice Cream Manufacturer

HAVEMEYER BELIEVES SUGAR INDUSTRY HAS PASSED CRISIS.

It is the belief of Horace Havemeyer, of New York, director of the Amalgamated Sugar Company, that America's sugar industry has passed through a crisis and is now with its feet upon the ground.

Mr. Havemeyer recently finished a two weeks' inspection of the western sugar factories in which he is interested. He expresses the optimistic report that the worst is over and there is a very bright future for the industry.

* * *

With the October returns at hand, on refined imports, in Facts About Sugar, completing the figures for the first ten months of 1921, a total importation of 2,554,742 tons is shown, of which 2,023,938 tons were supplied by Cuba, 134,124 tons were duty free sugars from the Philippine and Virgin islands, and 216,679 tons were full duty sugars, largely from Santo Domingo. This is a good deal smaller than the importation in the corresponding period of 1920 and 1919, (but is larger than that of preceding years, as the following table in tons of 2,000 pounds) indicates:

U. S. Sugar Imports.

Year—	October	Ten months
1921	180,984	2,554,742
1920	135,853	3,639,149
1919	285,635	3,196,070
1918	148,457	2,381,918
1917	89,419	2,396,665
1916	169,014	2,507,231
1915	94,251	2,394,399

* * *

Standard granulated at the beginning of December was quoted at 5.30 cents, less 2 per cent, and plantation granulated from 4.50 to 4.75 cents.

* * *

New Plan to Relieve Market.

Havana, Nov. 22.—A bill providing for the taking off of the world's market of 1,200,000 tons of Cuba's surplus supply of sugar of the 1920-21 crop by turning it into alcohol or other derived products, or destroying it, was introduced in the House of Representatives on November 22.

The bill proposes that the sugar shall be taken over by the Cuban government, which shall indemnify the owners on the basis of a valuation of 2 cents a pound, in warehouse. To provide the needed funds, the bill proposes a tax of 20 cents a bag on all sugar manufactured in Cuba. Clauses are inserted providing for the punishment of those who may try to conceal production.

* * *

Supply Outlook for the Coming Year.

Now that the cane grinding season of 1920-21 has reached its end in Cuba with a total output of 3,935,000 tons, or only 32,000 tons less than the crop of 1918-19 which was the largest ever produced in the island, says Facts About Sugar, it becomes possible to form a fairly reliable comparison of the supply situation confronting the United States market at the end of November, 1921, as compared with that of one year ago.

Two contrasting features immediately appear in a comparison of this kind. While actually one neutralizes the other, they do not eually affect trade sentiment for the reason that one is invariably emphasized in discussion of the situation, while the other, more frequently than not, is entirely overlooked. In every review of current conditions chief attention is directed to the fact that unshipped stocks in Cuba are a million tons greater today than one year ago. On the other hand, supplies in the hands of refiners and distributors in the United States, were a million tons greater at the end of November, 1920, than they are at the present time. In striking contrast to the congestion of raw and refined supplies throughout the trade a year ago is the fact that such stocks at the present time are at an abnormally low level. Were it not for the free movement of domestic sugars, including beet granulated. Louisiana cane, and the refined product of Hawaii shipped through San Francisco, there would exist at the present moment an actual trade shortage, due to the fact that refiners and distributors had allowed their supplies to become virtually exhausted.

Moreover, at the end of November, 1920, Porto Rico still had on hand 50,000 tons of unsold sugar, while at present the supplies to come from this quarter are only 12,000 to 14,000 tons. The actual quantity of old crop sugars available to this market, therefore, is less than it was a year ago.

Turning now to new crop supplies, we find that the beet sugar crop now in the making is 10 to 15 per cent below that of last year, while a considerably larger percentage of the current output has been marketed. Larger sales of Louisiana sugar this year have offset the increase in the crop and leave the amount still to be disposed of about the same as a year ago. While harvesting and grinding of Hawaii's and Porto Rico's crops is still to begin, it is known that the 1921-22 output in these territories will be ten per cent or more below that of the past year. Supplies from all these sources remaining to be marketed during the coming season will be roundly 300,000 tons less than at the corresponding date a year ago.

Cuba's crop for the coming season is admittedly an indeterminate quantity. Plans for the limitation of production by delaying the grinding season have been widely discussed, but no definite action in this direction has been decided upon and possibly none will be taken. It is known, however, that a considerable number of mills in Cuba will be unable to grind and the falling off in production from this cause is estimated by well informed authorities at approximately 20 per cent, which would reduce the crop to roundly 3,200,000 tons. Even with a Cuban outturn of 3,500,000 tons, the total amount of sugar available to United States markets during the coming year will be over a million tons less than in the twelvemonth now ending, amounting to about 6,000,000 instead of 7,200,000 tons. While the supplies to be reckoned on for the coming year, even though we place the Cuban crop at a figure somewhat higher than it is likely to attain, promise to be substantially less than a year ago, they still represent more than this market can absorb.

With supplies from various sources, including two-thirds of the unsold stocks in Cuba, amounting to 2,650,000 tons and a possible consumption of 4,300,000 tons,



Yuletide Ice Cream—Hudson Flavored

WHAT a Christmas dinner it will be! What joyous, gladsome, happy expectancy prevails. With what loving care and planning Mother has worked to make "her" Christmas dinner one we shall always remember — everything must be just right; the best, the purest, yes "just lovely." . . . And, of course, when we have enjoyed the repast, and the table is cleared for that which especially the children have eagerly awaited—the ice cream—Mother still worries a little and hopes that it will be so temptingly good, so deliciously and delicately flavored as to further enhance the joyous spirit at the Christmas dinner table and, thus make more complete her day.

Need we state here how much it means that your Christmas Ice Cream carries with it that delicate, subtle, indescribable vanilla flavor, the perfume of the cream, which lingers like the wafted aroma of lilac in the early spring breezes. Know this, tho; for many, many past Christmas dinners, Hudson's Vanilla Flavors were always of that essence of quality which made the Christmas Ice Cream perfect.

The Hudson Manufacturing Company

119-121 North Union Avenue

CHICAGO

the United States market will be able to take from Cuba for its own use 1,650,000 tons, or, including probable exports of refined, a total of slightly over 2,000,000 tons. Of course a part of Cuba's crop, and possibly a considerably larger amount than was so disposed of during the past year, will find a market in Europe. Assuming that a million tons of Cuban sugar can be marketed in this quarter, consisting of 400,000 tons to be exported from the United States as refined and 600,000 tons to be sold direct as raws, we find that Cuba can look with assurance to the sale of 2,600,000 tons, in addition to the unsold stocks of old crop sugars now on hand.

Early in the present year the writer prepared an estimate showing that Cuba could expect to find a market in the United States and elsewhere for approximately 2,600,000 tons during 1921, in addition to the carry-over of old stocks. With only one month of this period remaining it seems probable that this forecast will be fulfilled almost to the letter. The prospect for the coming year indicates a probable market for an equal quantity, in addition to the large supply of old crop now on hand. Assuming that Cuba will hold the United States market against outside sugars and in addition will contend vigorously for a substantial share of the European trade, a crop of 3,000,000 tons would not leave an excessive stock to be carried over at the end of next year and might be wholly absorbed, but from present indications a production much in excess of this figure will mean a continuance of depressed conditions and unprofitable low prices.

* * *

Futures Market Coming to be Used by Producers in Disposing of Their Output.

On the old principle of the ill wind, it seems as if the sugar world is to benefit in at least one direction from the disturbed conditions that have prevailed during the past year in Facts About Sugar. For the first time, indications are, the sugar producer has started to realize the value of trading in futures, and the records of the New York Coffee and Sugar Exchange show that numerous producers have been utilizing this trade agency recently to dispose of at least part of their future production.

Trading in Larger Lots.

In the past few weeks transactions materially larger than have ordinarily marked the operations of the exchange have been recorded, sales of 20 lots, or 1,000 tons, and over having been made on the floor of the exchange.

Prior to this the average transaction consisted of one or two, or possibly five lots, and it was evident from the size of the contracts that an actual delivery of raw sugar was not the primary consideration in the transaction.

The larger sales recently made for positions as distant as next May, on the other hand, have been construed in sugar circles as representing offerings of sugar producers anxious to assure themselves of a certain market for their product as it came along.

The rules of the exchange prevent the publication or collection of figures showing the bulk of transactions from day to day, and it was consequently impossible to obtain an accurate record of the large transactions. Officials of the exchange, however, admitted that the volume of business had been of more importance than previously, and went as far as to vouchsafe the information that in one day's trading recently over 9,000 tons of sugar had changed hands.

Buying for Foreign Account.

It would seem from the statement of exchange officials that the buying interest has been scattered, a good deal of the buying being done by foreign countries, though presumably not by Europe in the main.

There was an appreciable spread between December quotations and those of other months at the end of the current week, short interests apparently trying to cover on this month. The range of raw prices was as follows:

	High	Low	Latest
December	2.35	2.26	2.35
January	2.30	2.20	2.22
March	2.23	2.19	2.23
May	2.34	2.30	2.33
July	2.43	2.39	2.43
September	2.50	2.49	2.50

Only three transactions in refined were recorded during the week up to the time of writing, these being in November at 5.65, 5.50 and 5.60 respectively.

⚜

ICE CREAM TRAVELS OVER 2700 MILES.

The Esmond Dairy Co. of Sandusky, Ohio, made a shipment of five gallons of ice cream to The Pacific Ice Cream Manufacturers' Association sixth annual convention, held at Seattle, Wash., November 14-15-16, which caused no little comment and attention.

The ice cream was made on Monday, Nov. 7th, held in the ageing tank until Wednesday, Nov. 9th, and shipped on Thursday, Nov. 10th. Mr. Watson, director of traffic of the American Railway Express Co. at Cleveland, arranged to have the ice cream re-iced and properly cared for enroute; re-icings were made at Chicago, Minneapolis, Fargo and other points west.

Mr. Jos. E. Dunne, president of the Pacific Ice Cream Manufacturers Association, appointed a committee to score this ice cream. The score card used was a copy of the cards used by Mr. O. E. Williams, ice cream specialist in the U. S. Department of Agriculture at Washington, D. C.; the ice cream scored 97. The committee was composed of Mr. Frank Hardy of the Buttercup Ice Cream Co., Spokane, Wash.; Mr. Joe Breckel, of the Maid O'Wanna Ice Cream Co. of Vancouver, and Mr. Paul Gregory of Salem, Ore.

The ice cream was on the road about six days and seven nights, having traveled over 2700 miles and arrived at Seattle in perfect condition. It was scored as follows:

Flavor	45 points
Texture	22 points
Body	10 points
Appearance	10 points
Color	5 points
Package	5 points

Ninety-seven points were allowed out of a possible 100.

The success of this shipment clearly proves that the flavor will not freeze out; and the fact that the can of ice cream was full when it arrived at its destination, proves beyond a doubt the stabilizing qualities of gelatine.

The Esmond Dairy Company standardizes their ice cream at 10½ per cent butterfat, the state law being 8 per cent and 35 per cent total solids. Their mix is held in Elyria glass enamel tanks of which they have two 3,000 gallons capacity. The C. W. brand vanilla and the Essex brand gelatine were used in the packer of ice cream sent to the coast.

This shipment clearly demonstrates the fact that the ice cream business is widening in its scope of possibilities. In a few years from now it may be possible for eastern tourists to go to sunny California to spend the winter and have their favorite brand of ice cream shipped from the east to grace their table in the west.

IOWA CONVENTION.

The twelfth annual convention of the Association of Ice Cream Manufacturers of Iowa will be held at Cedar Rapids, January 24th and 25th. This has been made a two, instead of a three-day session, which is in line with the new spirit of business economy and it is intended that as much shall be accomplished in the two days as is usually put through in three, by opening the sessions earlier and on time, and making them intense and snappy.

An interesting and valuable program is being arranged. Iowa ice cream conventions have gained a wonderful reputation for their generosity of sociability and for the sound business benefits derived from them and this meeting will be no exception.

Special arrangements will be made to properly entertain the ladies and to show them a good time. They are becoming a regular and necessary part of the Iowa meetings and as a result of their attendance and participation many are becoming enthusiastically interested in the industry.

I believe that every manufacturer in Iowa, whether a member of the Association or not, should attend this meeting. There are problems confronting members individually and the industry as a whole that can be solved only by concerted consideration and opinions freely discussed as is made possible in a meeting of this character.

This is the opportunity of competitors to renew friendships, to iron out difficulties and misunderstandings and to exchange ideas; this is the place to rejuvenate, to pep up and get ready for the next season's campaign, for unless all signs fail, every manufacturer will, before the next season is over, need all the pep he can generate himself or borrow from his neighbor, so it behooves everybody to be at Cedar Rapids, January 24th and 25th. As there are only two days, better arrive the day before and be ready to get off with both feet at the start.

The Poodle Dogs will be on hand to greet and treat us and do their usual generous share toward making the meeting a success and a winner.

W. S. WILCOX, President.

NO FIVE DAYS LAW IN OREGON.

There was some discussion in The Ice Cream Review some time ago regarding the law in the State of Oregon which required retailers to return empty ice cream containers to the manufacturer within five days after date of shipment to the retailer.

We have been informed by Mr. J. T. Dunne, of the Hazelwood Ice Cream Company of Portland, Oregon, that the clause pertaining to the five days limit was omitted from the law recently passed. It appears that it was the intention of the sponsors of this bill to include the clause relative to the five days limit, but that through some unaccountable error was omitted.

DALLAS, TEXAS, FIRMS CHANGE HANDS.

An important business change is reported from Dallas, Texas. The Crystal Ice Cream Company and the C. W. Smith Ice Cream Company of that city have been purchased by the M. B. Ise Kream Company of Waco through General Manager McLendon. The C. W. Smith plant will be dismantled and business transacted at the Crystal Ice Cream Company plant under the firm name of The M. B. Ise Kream Company. Mr. H. F. Owsley, formerly of the Crystal plant, will be in charge of the consolidated business.

LOWER EXPRESS RATES

Comparative Costs Old Method and New Method for Interstate Shipments

	25 Miles or Less	25-37 Miles	37-50 Miles	50-100 Miles	100-150 Miles
Iced Tub Incl. War Tax ...	81c	89c	94c	$1.14	$1.33
Glacifer Incl. War Tax ...	49c	52c	56c	68c	78c
Saving	32c	37c	38c	46c	55c

Would not this enable you to get back that customer you lost because of high express rates?

The Glacifer Dry Packer
(Patented)
is the only solution.

THE GLACIFER CO.
102 Merrimac St. Boston, Mass.

"STAY-ON" TUB COVERS

BEST IN EVERY TEST

SOLD BY ALL DEALERS

CANVAS PRODUCTS CORPORATION
FOND DU LAC, WISCONSIN

THE BARBER COMPANY DEMONSTRATE THE ROGERS' BRICK MAKING MACHINE.

One of the features of the Illinois convention was a demonstration of the Rogers' brick filling machine, arranged by the A. H. Barber Creamery Supply Co., through the courtesy of Mr. Mark Shanks of the Standard Ice Cream Co.

A large number of the out of town members of the association availed themselves of the opportunity of going out to the splendid plant of the Standard Company early Wednesday morning to see this remarkable machine.

The simplicity of the machine and the accuracy with which it does the work was a surprise to everyone. The machine first filled the Neopolitan brick with a very even distribution of the three colors. It also filled individuals nested in a quart carton, with the same absolute accuracy. Bricks put up the day before and hardened were examined, and all were impressed with the splendid appearance of the brick, as well as their excellent quality. The fact that the quality of Mr. Shanks' ice cream was approved of was evidenced by the substantial amount consumed by visitors.

After the Neopolitan demonstration, Mr. Shanks very kindly put up for the benefit of the visitors a one color cream with cherries in it, and the machine did the same excellent work on that. Besides the representatives of the Barber organization were present Mr. Don Rogers, and Mr. John W. Ladd, the general distributor of the machine.



R. W. FURNAS HAD MOST POPULAR BOOTH.

The accompanying picture is of the booth occupied by the R. W. Furnas Ice Cream Company of Indianapolis, Indiana, at the industrial exposition held in that city in October.

The ice cream trade was one of the best presented at this convention which was held under the auspices of the manufacturers' committee of the Indianapolis Chamber of Commerce. The exposition was open only to exhibitors whose products were made in Indianapolis.

One of the most valuable results of the show was the change from pessimism or near pessimism to optimism. Direct sales were made in a volume that proved the crisis has passed.

A charge of fifty cents was made for entrance and approximately 200,000 persons saw the exhibit.

W. R. Kemper was in charge of the R. W. Furnace Company's booth. The exhibit was the cause of many near-panics as the company gave away approximately 5,000 bricks of ice cream a day. On the morning which was given over to school children, the company was compelled to stop giving away ice cream, the police fearing some of the children might be hurt in the scramble. The company showed ice cream in the making and displayed some of the most modern machinery used in the business.

The exposition was a great success and all exhibitors were well pleased with the results of the crowds around the ice cream booth of the Furnas Ice Cream Company certainly demonstrated that had they the money to buy, they still had the appetite.

IN THE HALL OF FAME.

The discoverer of ice cream is certainly entitled to his niche in the Hall of Fame, and it is merely carelessness on the part of the millions, whose palates he tickled, that he is not there. Somebody had better get busy and find some ancestors of Sambo Johnson so that his likeness can be made immortal.

Innocence would need no guardian if curiosity was not a leading feature in our mental make-up.

* * *

Industry is more apt to lament that more was not accomplished than to boast of what has been done.

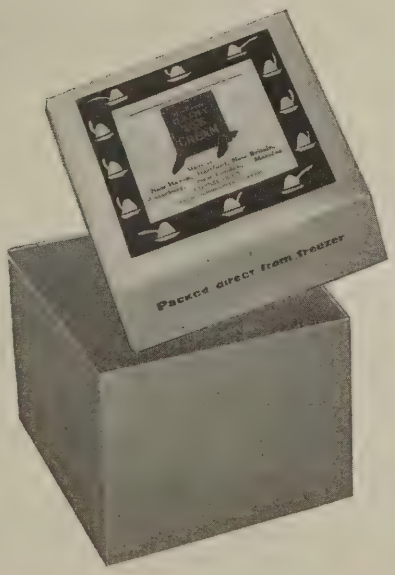
"READY"  BRICK BOXES

are specially treated two-piece boxes, which eliminates handling and wrapping. No parchment bags necessary with the Cardy "READY" Brick Box. Box needs no folding or tucking in of ends. Boxes come nested, and ready to use—saving space and freight.

Filled directly from Freezer by hand or with Rogers or Mojonnier Machines. Cream can be removed by dipping in warm water same as the tin moulds or by cutting down sides with sharp knife. Will save all the expense of collecting and washing of tin moulds.

The *Cardy "READY" Brick Box is the only brick box on the market that can be packed in salt and ice without injury — water-proof, moisture-proof, and will not soak up and become soft.*

Let us tell you more about the advantages of this new "Ready" Brick Box.



Cardy Ice Cream Box Company

214 Arlington St. **Chelsea, Mass.**

Ice Cream Pails in New and Attractive Design

Our Ice Cream Pails are made from the very best stock obtainable, highly sanitary, and printed with new and snappy designs in one or two colors.



Organization Results in Favorable Publicity for the Ice Cream Industry

By ROBERTS EVERETT, Secretary-Manager, Association of Ice Cream Supply Men.

NOT since the first few years of its history when prosecutions for the violation of various pure food statutes, often unjustifiable, marked the month to month history of the ice cream industry and brought consequent newspaper attention, has the general press of the country devoted so much space and comment to this business of ice cream as it has recently.

This publicity, it can be noted with gratification, is practically entirely favorable today. Ice cream prices still evoke some criticism and complaint in print, but in almost every case such press attention relates merely to local conditions. The publicity now being received by the industry as a whole is of a character not known before.

The Association of Ice Cream Supply Men recently issued a folder reproducing some press stories of recent dates, and listing cities the newspapers of which have carried articles concerning the development of the ice cream business. The folder also lists a number of other industries, the trade publications of which are watching events in the ice cream industry with interest and complimentary comment.

The most notable instance cited by the Association of publicity received by the industry is that of an article in the New York Tribune of October 30th, 1921, under a two-column heading, "Ice Cream Supply Men Codify Business Ethics," which is as follows:

"Fair Practice Rules Govern Relations of Seller and Buyer as Well as Competitors.

"Business ethics, because of the unethical conduct of many buyers and sellers that have come to light within the last two years of wild business fluctuation, are receiving considerable attention among commercial organizations. A flood of 'cancellation and return bureaus," of special committees and bureaus established in various industries for the adjustment of disputes between buyers and sellers have come into being. All of these movements have accomplished something in the direction of elevating business to a higher plane.

"A new method of attack, however, has been devised by the Association of Ice Cream Supply Men, which has put into operation what is known as a 'fair practices code.' This code consists of forty rules, fourteen of which govern the relations of the seller against the buyer and twenty-six governing competitive action.

"The code was drawn up by a committee consisting of O. S. Jordan, of Brown & Shaw, New York; B. B. Scott, Providence, R. I.; L. B. Ismon, of the Essex Gelatine Company, Boston; K. W. Schantz, Buffalo; H. H. Miller, Miller Industries Company, Canton, Ohio, and Roberts Everett, secretary of the association.

It has become almost a business axiom that unethical conduct in business harms not only the one at whom the unethical action was aimed, but the perpetrator and his competitors as well. In other words, the entire industry feels the reaction. For this reason, where concentrated opinion can be gathered in trade associations, the elimination of unfair and unethical conduct has loomed large.

"The new code of fair practices governs the transactions of companies with an invested capital exceeding $100,000,000, with an industry spending $200,000,000 this year in merchandise and labor bills. The companies in the association include all the allied trades upon which the ice cream manufacturing industry is dependent for machinery, equipment, supplies and special services. Although several of the rules laid down in the code apply particularly to the ice cream supply business, the majority are broad enough to apply to almost any line of industrial endeavor. The code already has aroused much interest among other trade associations and is serving as a model for other codes now in process of formation. Violation of the code, which proved provides grounds for the expulsion of the offending member from the association attended by full publicity.

The Tribune then reproduces the Fair Practices Code of the Association.

Another noteworthy instancing of the ice cream industry is contained in an article. "The Right Side of Trade Associations," in The Nation's Business of November 1921. This is also cited by the association. The Nation's Business as the organ of the chamber of commerce of the United States, according to O. S. Jordan, president of the association, reaches the desks of many thousands of the country's leading business men and industrial executives. The Nation's Business' reference to the ice cream industry and the association is, as reproduced in the leaflet:

". . . a vast amount of the work of trade associations does lend directly to the public benefit. An association which adopts and enforces a code of business ethics does so primarily for the guidance of its members, but a secondary but inevitable result is that the public is protected. The fair practices code of the Association of Ice Cream Supply Men furnishes a ready illustration. Here are some things forbidden:

"I. Misbranding of articles as regards materials or ingredients: 'inferential misbranding,' i. e., using trade names or descriptive terms which simulate trade names or descriptive terms of unadulterated or genuine goods.

"3. Commercial bribery of customers by money, long-term credits, not in keeping with trade custom, excessive entertaining or any other means.

"II. Selling food or a product to be put into food which, because of its nature or method of manufacture or for any other reason, violates a local, state or federal ordinance or law.

Still further comment from the press is reproduced in an article from the Atlanta Constitution of September 18th, 1921. This article under the heading of "Fair Practices Code of Big Body," says:

"One of the most encouraging things in connection with economic conditions in this country is the fact that we hear more every day about trade codes, fair practices, etc. In defferent industries the members of different organizations, of their own free will, are drawing up agreements whereby they can give their buyers more protection.

"Perhaps one of the most interesting and effective codes of ethics now in force is that of an organization known as the Association of Ice Cream Supply Men. This organization has incorporated in a little pamphlet known as its 'Fair Practices Code,' some governing merchandising regulations that should be of interest to every business man, whether interested in the production of ice cream and ice cream manufacturing machinery or not.

Selling below cost to one particular firm, bribery of customers' employees, misbranding articles, distribu-

tion of samples of a better grade than the actual product—these are just a few of the acts of commercial thievery tabooed by the ice cream supply organization, which represents the leading manufacturers of various kinds of machinery and equipment, from motor delivery vehicles to ice picks.

"It governs its members' advertising policies, permitting of no false claims. It will not allow its members to pay jobbers' representatives bonuses for pushing their particular products to the neglect of a competitor's.

"One of the most remarkable edicts, showing the great care taken in combating trade evils, is the ruling against allowing the members to 'excessively entertain ›ective buyers.'

"In all of its regulations against questionable salesmanship the effort plainly stands out to make manufacturers make honest goods and sell them on their merits.

"To see if these articles of trade have been a success it is only necessary to call attention to the remarkable success that has attended the activities of this association's members in the last couple of years."

According to this leaflet, newspapers in the following cities, among numerous others, have paid the tribute of news articles to the work of the Association of Ice Cream Supply Men in behalf of the continent's ice cream industry: Chicago, Boston, Milwaukee, Portland, Philadelphia, Baltimore, Allentown, Hartford, Bridgeport, Portland, Middletown, Waterbury, Syracuse, Toledo, St. Paul, Sioux Falls, St. Louis, Council Bluffs, Dayton, San Francisco, Grand Rapids, Decatur, Memphis, Lansing, Duluth, New Orleans, Nashville, Denver, Atlantic City, Cincinnati, Watertown, Charleston, Columbus, Knoxville, Dallas, Mobile, Pensacola, Chattanooga, Athens, Elmira, Buffalo. According to the same authority, trade publications of the creamery, metal, dairy, bottling, drug, confectionery baking and kindred fields are commenting from time to time on the results that organization is producing in the ice cream industry.

TO THE MEMBERS OF THE WISCONSIN ASSOCIATION OF ICE CREAM MANUFACTURERS.

The Wisconsin Association of Ice Cream Manufacturers will hold their annual convention at Milwaukee, Hotel Plankinton, under date of January 17 and 18, 1922.

I think it is more important than ever before that each manufacturer attend this convention. We are confronted with problems today that mean much to our industry and can only be solved by organization. It behooves every manufacturer to bring these problems up before our convention meetings and try and have them discussed to your satisfaction.

Co-operation is badly needed by all manufacturers today. New factories are springing up every day and it is up to all of us to get these manufacturers to attend our convention and join our association so they may see some of the difficulties confronting the ice cream manufacturer.

The officers of the association are trying hard to prepare an interesting program and the "Badger Flyers" are furnishing an elaborate entertainment.

Don't say you can't spare the time to attend, but be there.

We will all be there — join us.

D. D. SMITH,
President.



Sanitation Service Economy

Thru fundamentals on which Specialty Brass Sanitary fittings and specialties are built.

A most complete stock of Sanitary fittings always on hand. If you need a rush order just wire "Specialty Brass—Kenosha." If you are planning reconstruction of your piping system or addition you will want our complete list of fittings for your reference write for one.

Write for prices on your requirements and our list of specialties for dairy manufacturing plants

SPECIALTY BRASS CO.

KENOSHA, WIS. ALBION, N. Y.

CORRESPONDENCE SCHOOL.

Editor Ice Cream Review: Answering the appeal for help found on page 152 of the September issue, I would say that the trouble lies in one of two causes, possibly both. First, I do not believe they are freezing the cream enough before pulling. A cream pulled too soon and packed in salt and ice, will ice just as he describes. The fact that only part of the cream ices makes me believe that this is the whole trouble, because his ice cream maker pulls some so very soft or sloppy and some which is well frozen. Then, too, I notice he says that he pours it in five-gallon cans instead of drawing direct into the five-gallon cans and putting immediately into the ice.

Second, there is no good reason why his cream should be allowed to get soft after once hardening. I would call that carelessness. However, that will give him his icy cream just as described. I would suggest that he pay special attention to having every batch pulled when well frozen, not before, and that he have the ice there to keep the cream hard, even if he has to hold a larger stock of ice. If well covered it will not melt much. Neither fast hardening nor slow hardening would have the effect he describes, but cream not frozen enough will show the same result as mentioned, whether packed in salt and ice or put in a hardening room.

E. LOVE.

548 Colyton St., Los Angeles, Calif.

* * *

The following was furnished an ice cream manufacturer as a suggestion as to a talk he contemplated giving to people not familiar with the manufacture of ice cream:

"Gelatines of an organic nature, similar to milk, cream, butter, etc., all coming from the same origin, the cow. It is an asset and not in any way detrimental when used in confection products. For reason that it is regulated as to mineral properties, bacterial content and any other objectionable features, by the National Pure Food laws, manufacturers are stopped from selling any grade of their gelatine that does not comply with specifications of said laws. It is used in a large number of articles, a few of which are globules and capsules, marshmallows, jellied tongue, jellied fruit, jams, jelly powders, such as Jello, Jiffy Jell, etc., glazing of nuts, ice cream.

"In the latter product it is used in order to emulsify or distribute the moisture content of the ice cream mixture, thereby preventing the moisture when frozen with the mixture from becoming ice crystals, or lumpy ice cream.

"Ice cream that leaves a starchy taste and sticks to the roof of a person's mouth is caused from using fillers, such as corn starch. Gelatine is a binder and not a filler. Only a very small amount of gelatine is required, about three to four ounces per ten gallons of ice cream.

"A great many people will say, why not make ice cream like we do at home, but if they would stop to consider the fact that to make an ice cream of this caliber you must use entirely 30 or 40 per cent cream, which would naturally make the price per gallon prohibitive from a commercial standpoint."

* * *

AN INTERESTING DISCUSSION ON GELATINE.

Very naturally we took an interest in Professor Burke's article in the September Ice Cream Review, on Gelatine.

There is one little point in it that we do not agree at all on, and that is the matter of temperature to be used for dissolving. We put a printed notice in every barrel of our gelatine, suggesting to the user that they soak the gelatine in as near one gallon of water as possible, and then heat the solution to 180 degrees F.

We have been making gelatine a good many years, and we are quite confident in telling people that this temperature will not hurt the gelatine. Of course, it is not to be expected that they are going to keep it at that temperature hours at a time. It will not affect the jelly strength at all.

It does insure the product being very thoroughly dissolved, and in addition, makes it a commercially sterile gelatine when going to the mix. Any temperature under 180 will not sterilize gelatine, as extensive tests showed some years ago when it was looked into.

We are very glad to offer the above as food for thought as our recommendations have been a help in many cases, and our experience is such as to warrant our advocating these principles every year.

L. B. ISMON,
Manager Essex Gelatine Company.

Reply: I was very much interested in receiving your letter relative to my article on Gelatine, which appeared in the August Ice Cream Review. I note that you take exception to my statement regarding the temperature to be used for dissolving gelatine, and in this connection I wish to call your attention again to my statement along this line, which reads as follows: "At a temperature of about 140 degrees F. gelatine usually begins to lose some of its solidifying powers, yet the loss is so slight as to be negligible. Indeed, the writer has heated some solutions of the better grades of gelatine to a temperature of 170 degrees F. before adding these to ice cream mixes without any noticeable detrimental effects. However, for ice cream making it is not advisable to heat gelatine to a higher temperature than necessary to insure a good solution with the mix."

If it so happens that your gelatine will form a better solution with the ice cream mix, as you state, at 180 degrees F. then that is the temperature of course which you should recommend and this, you will notice, follows right along with my last sentence. As far as the gelatinizing power be affected at a temperature of 140 degrees F. or over I beg to refer you to an interesting study made by C. R. Smith and published in the journal of the American Chemical Society, February, 1919, volume 41, page 135, entitled, "Mutarotation of Gelatine." Also to an article by Rennosuke Shoji, published in the Biological Journel for November, 1919, volume 13, No. 3, entitled, "Studies on Coagulation."

Experiences of these men, and also the writer, have shown that gelatine will be slightly affected with regards to it's gelatinizing power when subjected to this high temperature, and the higher the temperature the greater the effect. You make mention of the fact that you advocate soaking gelatine in a gallon of water and then heating it to 180 degrees F. before adding it to the ice cream. This process has been tried time and time again by the writer, who has heated gelatine to as high as 180 degrees F. with no noticeable detrimental effects if the gelatine be added immediately to the ice cream as soon as it is brought to this temperature; however, I desire to call your attention to the fact that at the present time it is customary in most of the leading ice cream plants to add gelatine to the ice cream mix before pasteurization and thus dissolve it along with the other constituents in the mix.

Now if the ice cream mix were to be heated to 180 degrees F. the resulting product would suffer from a very pronounced scorched flavor. Experiments by the writer, which, by the way, you will find in the June, 1920, issue of The Ice Cream Review, page 94, under the title of "Some Gelatine Experiments," will prove that

"In the service of the ice cream industry . . . ."

The Association of Ice Cream Supply Men in that service protects the ice cream business of the country in its purchases . . . .

Extends its influence . . . . . .

Assists its organizing efforts . . . . . .

Increases its opportunities for testing and comparing goods . . . . . .

Makes easier the adoption of scientific methods and equipment . . . . . .

Serves in every legitimate way its advancement, its enlargement, the cementing of its foundations in the continent's daily life.

In such a name, *the service of the ice cream industry*, is The Association of Ice Cream Supply Men organized and its whole energy expended.

The Seal

THE ASSOCIATION OF ICE CREAM SUPPLY MEN
1328 BROADWAY NEW YORK

of Safety

the better ice cream is made when gelatine is not prepared previous to adding to the mix but added to the mix and pasteurizing along with it.

You make mention of the fact that any temperature under 180 degrees F. will not sterilize gelatine as extentive tests showed some years ago when it was looked into. I would like very much to see those tests if you have them on file. In this connection I would like to state further that temperatures of 180 degrees will not sterilize any material in the true sense of the word. It is simply a high pasteurization temperature for complete sterilization of any liquid product which, as a rule contains spores of bacteria, a temperature of 212 degrees F. (boiling) for six or seven hours would be required.

You speak of commercially sterile gelatine and in this connection I suppose you refer to gelatine which contains no vegetative form of bacteria. I suppose we could speak of pasteurized milk as commercially sterile milk or could use the term of commercially sterile ice cream mix if we were speaking of this product, however, the germs which really have a detrimental effect on ice cream or other dairy products are not, as a rule, the spore formers but rather the non-spore formers and these I think you will find are readily killed at a temperature of 145 degrees F. for thirty minutes, which is the pasteurization temperature and as I state the temperature used in most up-to-date ice cream plants for heating and pasteurizing their mix containing gelatine.

I thank you very much for writing this letter to me and I assure you that I am greatly interested in both the welfare of the ice cream manufacturer and the gelatine manufacturer. In fact I intend to have an article on the Wonderful Food Value of Gelatine in The Ice Cream Review in the near future.

A. D. BURKE.

* * *

Editor's Note: We will be glad to have other readers of The Ice Cream Review write us their opinions on this subject.



SOUTHERN EXHIBITION GIVES DIXIE ICE CREAM MEN GREAT OPPORTUNITY.

The Southern Exhibition of the Association of Ice Cream Supply Men was held in the Auditorium-Armory, Atlanta, Ga., November 28th to December 2nd inclusive. Ninety-two exhibitors occupying 123 booths participated, their displays filling the South's largest building for such purposes.

The exhibition was held conjointly with annual conventions of the Southern Association of Ice Cream Manufacturers, the North Carolina Association of Ice Cream Manufacturers and the Twri-State Association of Ice Cream Manufacturers of Alabama, South Carolina and Georgia. The registration totaled 750 persons affiliated with the ice cream industry of which 200 were owners or executives of ice cream plants in the following twenty States: Alabama, Arkansas, Florida, Georgia, Illinois, Indiana, Kentucky, Louisiana, Maryland, Minnesota, Mississippi, Missouri, New York, North Carolina, Ohio, Oklahoma, South Carolina, Tennessee, Texas and Virginia.

The exhibition opened Monday morning, November 28th. Monday night a meeting of the Salesmen's Club of the Association of Ice Cream Supply Men was held in the Piedmont Hotel, attended by 250 persons, at which Thos. J. Stewart, president of the club presided.

Tuesday was featured by a well attended dance given on the roof garden of the Ansley Hotel by the Dixie Flyers, an organization of Southern supply salesmen auxiliary to the Southern Association of Ice Cream Manufacturers.

Wednesday the ladies of ice cream men and supply men attended a luncheon as guests of the Dixie Flyers and in the evening were theatre guests of the Association of Ice Cream Supply Men. The ladies also on the same day made up a motor party driving through and about Atlanta, Atlanta ice cream manufacturers acting as hosts. The Dixie Flyers in a meeting the preceding day elected B. B. Scott, Providence, R. I., president and P. N. Miller, Jr., Birmingham, Ala., vice-president.

Thursday a Southern Ice Cream dinner, entertainment and dance was held under the joint auspices of the Southern Association of Ice Cream Manufacturers and the Association of Ice Cream Supply Men, W. M. Sidebottom, Jr., and O. S. Jordan, presidents of the respective organizations acting as toastmasters. Speakers of honor following the dinner were Governor Thos. W. Hardwick of Georgia and Herbert Clay, president of the State Senate of Georgia.

"The Southern Exhibition was promoted and managed," according to O. S. Jordan, president of the Association of Ice Cream Supply Men, "in order to give the South, a section that has been the last to show broad signs of recovery from the great industrial depression of several months ago, but which on the contrary enjoys the most favorable ice cream weather in the country and has before it perhaps greater unrealized possibilities in ice cream than any other region—to show this wide section the latest developments in the modernized production and merchandising of ice cream, believing the providing of such opportunities to be the greatest service possible at this time and in present conditions to the national ice cream industry as a whole. We believe this purpose to have been justified by the Southern Exhibition and are glad to have the realization that our organization has been of aid."



ICE CREAM IN A CHOCOLATE KIMONA.

The idea and popularity of the chocolate bar has eventually found itself developed as a sales promoter for the ice cream trade.

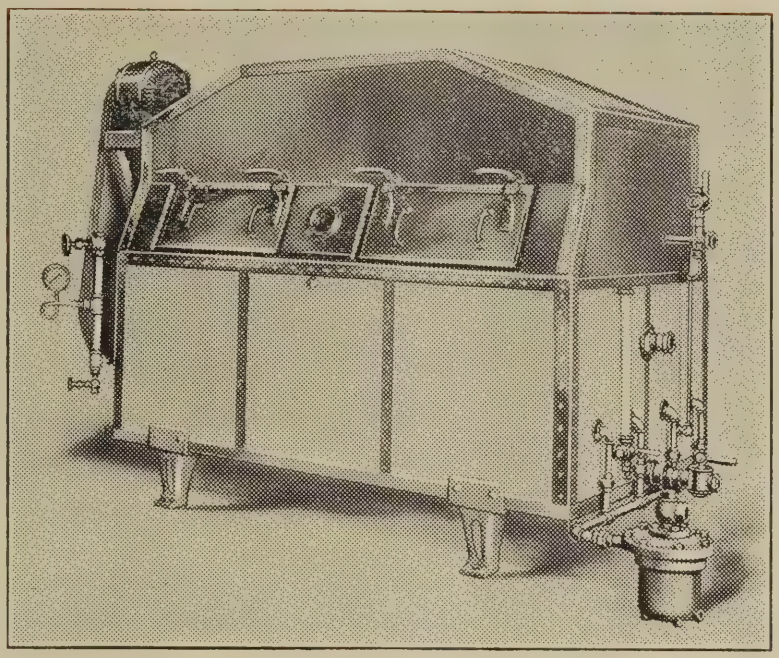
Right now the Central West is alive with interest in this new style ice cream product. It is a slab of brick ice cream about one inch square dipped in an especially prepared chocolate and then put in a foil wrapper. These chocolate covered "ice cream bars" are then packed in paper boxes or cartons, one or two dozen to the box, and handled in regular ice cream packers. The bars retail at 10c and are sold to dealers at about 80c a dozen bars. This leaves the manufacturer a fair margin for the extra trouble and makes it attractive for retailers to feature the confection. So far much push has not been needed to win the favor of the public and it has been a long day since anything has sprung into such immediate favor as ice cream in this chocolate coated bar form.

Ice cream in this latest fashion can find sale, especially at this season of the year, through a good many avenues that bulk ice cream would not be handled. At cigar counters, news stands or on railroad trains, chocolate coated ice cream will prove a popular confection.

The manufacturing equipment needed is not elaborate and no doubt as the demand increases and becomes known nationally, considerable improvement will be made to effect a lower cost of putting up ice cream in this form.

This chocolate coated ice cream bar is only another demonstration of the possibilities of promoting ice cream sales and the fundamental popularity of ice cream itself.

Ruff Milk Condensing Evaporator



1922 Improved Model Motor Driven



CREAMERIES { STROUDSBURG, CHERRY VALLEY, SAND HILL } P. O. BOX 615

STROUDSBURG CREAMERY CO.

MANUFACTURERS OF
ICE CREAM AND CREAMERY BUTTER
PASTEURIZED MILK AND CREAM A SPECIALTY

STROUDSBURG, PA.

Sept, 10, 1921.

The Ruff Process has no equal when you consider Quality and Economy.

The Cream Production Company,
Port Huron, Mich.

Gentlemen:

Having used one of your Condensers for sometime, we are so well pleased with its merits and the product that it produces that we gladly recommend same to all that might be desirous of turning their skim and surplus milk into money.

At this time of the year we are using our whole milk and butter, and by condensing it slightly we get the finest mix, and the best ice cream ever produced.

We find that by using your Condenser that we are saving the money, you claimed we would.

Yours very truly,

Stroudsburg Creamery Co.
Fred H. Fabel
Treas.

Your correspondence solicited

THE CREAM PRODUCTION COMPANY

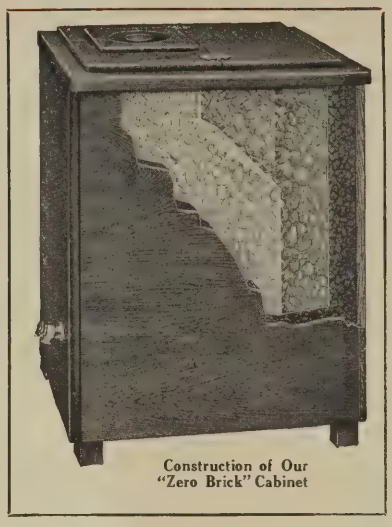
PORT HURON — *B. Trudell & Company, Montreal, Quebec Manufacturer and Jobber for Canada* — MICHIGAN

The Grand Rapids

ICE CREAM CABINET OF QUALITY



STYLE No. 5



Construction of Our "Zero Brick" Cabinet



STYLE No. 4

An Important Part of Your Equipment

IT is to the advantage of any manufacturer to recognize the true importance of the ice cream cabinet and the necessity for employing only the kind which will afford perfect preservation of his product on an economical basis.

For many years, Grand Rapids Ice Cream Cabinets have demonstrated in actual service that they are the answer to the ice cream cabinet question. They are constructed with a thorough understanding of the qualities which a cabinet must have in order to effect ice conservation and withstand the action of the refrigerating agents.

Standardizing on Grand Rapids Ice Cream Cabinets is a step which leads to saving expense and promoting all around satisfaction.

GRAND RAPIDS CABINET COMPANY

Successors to CHOCOLATE COOLER COMPANY

55-59 Alabama Avenue N.W. GRAND RAPIDS, MICH.

New England Sales Office and Warehouse, MERROW BROS., Inc., 44 N. Market St., BOSTON, MASS.
South Eastern Sales Office and Warehouse, CHERRY-BASSETT CO. { 33 So. Charles St., BALTIMORE, MD. / 1106 Arch Street, PHILADELPHIA, PA.
North Western Sales Office and Warehouse, A. C. BLACK, 515 Lumber Exchange, MINNEAPOLIS, MINN.

VALERIUS JOINS DAVIS-WATKINS ORGANIZATION.

Mr. T. L. Valerius, Fort Atkinson, Wis., one of the best known designers and inventors of dairy machinery in the country, has resigned his position with the Creamery Package Mfg. Co., a position he held for 24 years, to accept a position with the Davis-Watkins Dairymens Mfg. Co.



T. L. VALERIUS

Mr. Valerius is well known throughout the dairy world as an expert of rare ability in properly laying out complete milk handling plants. He has originated and developed many new ideas for some of the largest ice cream and milk handling plants in and about our large cities. His principal work, however, has been connected with the invention and development of milk pasteurizing machinery, ice cream freezers, brick cutting and carton filling machines, combined butter churns and workers, bottle filling, capping and washing machines, milk and ice cream can washers, cheese making equipment, milk heaters, coolers, etc., etc.

In addition to this work, Mr. Valerius has had complete charge of the construction of these machines. He has actually built them, and put them into service for customers. This has given him a wide practical knowledge, such as can only be gained as the result of many years hard and efficient work. He will now use this practical knowledge in helping the Davis-Watkins organization with the building of the most modern and efficient dairy equipment and machinery in their four large factories.

Mr. Valerius plans to continue his policy of keeping in close and constant personal contact with those men who are interested in the development of new equipment which must reduce the cost of handling and improve the product. Work of this sort builds customer satisfaction, which can be oftained in no other way. It is an expert service, such as cannot be secured from any outside source, other than the manufacturing company properly equipped with men having wide practical knowledge of the problems and how best to handle them.

MAY ESTABLISH BRANCH IN EUROPE.

Mr. Arthur Mory, of the Mory Ice Cream Co., Appleton, Wis., set sail on November 25th for Europe, where he will look over the manufacturing field relative to establishing a branch of the Mory Ice Cream Co. There are few, if any, ice cream factories in Europe and the ice cream that is offered is of a very inferior nature and it is believed that a taste for the American product can be created and that there is a bright future for an American ice cream concern in Europe. Mr. Mory will make his headquarters in Paris for several months.

You cannot clear your conscience by straining it.



Get Them From Your Supplyman

ALLEN'S ONE-PIECE SANITARY CAN LINERS

These Dealers Sell Them:

The Creamery Package Mfg. Co., Chicago, Ill., and Branches.
The Schmitz Supply Co. - - - St. Paul, Minn.
A. H. Arnold & Bro. - - - - Chicago, Ill.
N. A. Kennedy Supply Co, Kansas City, Oklahoma City
J. G. Cherry Co., Cedar Rapids, Ia., and Branches
A. H. Barber Creamery Supply Co. - Chicago, Ill.
The Dairy Supply Co. - - - Minneapolis, Minn
Peaslee-Gaulbert Co. - - - Louisville, Ky.
J. W. Allen & Co. - - - - - Chicago, Ill.
Spurbeck Lambert Co. - - - - Algona, Iowa
The Maas, Keefe Co. - - - - St. Paul, Minn.
The Crandall Pettee Co. - - - New York, N. Y.
Dairymen's Supply & Construction Co., Pittsburgh, Pa.
Owatonna Creamery Supply Co. - Owatonna, Minn.
Davis Watkins Dairymen's Mfg. Co., No. Chicago, Ill. and Branches.
Meyer Dairy Equipment Co. - - St. Louis, Mo.
Liebers Farm Equipment Co. - - Lincoln, Nebr.
Dairy Machinery Co. - - - - Seattle, Wash.
Consumers' Gelatine Co. - - - St. Louis, Mo.
The Crane Co. - - - - - - - Chicago, Ill.
Cherry-Bassett Co. - - - - - Baltimore, Md.
The Hurley Co. - - - - - Denver, Colo.
Hawkeye Supply Co. - - - Mason City, Iowa
The Hudson Mfg. Co. - - - - Chicago, Ill.
Chapman & Smith Co. - - - - Chicago, Ill.
Kennedy & Parsons Co. - - Sioux City, Iowa and Omaha, Nebr.
E. B. Adams Co. - - - - - Washington, D. C.
Monroe & Crisell - - - - Portland, Oregon
El Paso Butcher & Dairy Supply Co., El Paso, Tex.
Gowing Dietrich Co. - - - - - Syracuse, N. Y.
H. C. Schranck Co. - - - - - Milwaukee, Wis.
Northwestern Bakers & Conf. Co., Minneapolis, Minn.

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THE ALLEN CANDY CO.

Sole Manufacturers

PONTIAC ILLINOIS

Samples and Prices on Request



Association of Ice Cream Manufacturers of Pennsylvania

Proceedings of Annual Convention held at Erie, October 31, 1921.

President Crane introduces J. B. Arbuckle, of Erie, Pennsylvania.

Mr. Arbuckle: Mr. President, Ladies and Gentlemen of this Association, the local manufacturers greet you upon this occasion, and thank you for having Erie as the place for holding this meeting, which we hope will be a source of pleasure and profit to you.

I am admonished to make my remarks short, so will say this,—we have a gentleman present whom I have known for many years, a man brought up on the farm, and who knows its associations. I have the pleasure of introducing to you the Hon. Miles B. Kitts, mayor of the city of Erie. (Applause).

Mayor Kitts: Mr. Arbuckle, Mr. Chairman, and Ladies and Gentlemen: I am sure it pleases me greatly to be introduced by such a staunch citizen of this community as Mr. Arbuckle. When my father used to bring me to town to market, I remember listening attentively to what Mr. Arbuckle and my father said to each other. I have known Mr. Arbuckle all my life, and it is indeed a pleasure to receive this introduction from him.

I am glad the chairman has admonished everyone to make short speeches. I have been so occupied with matters of state, church and office, I haven't had time to think of preparing a speech, so my few rambling remarks this afternoon will be extemporaneous. I have been staying temporarily at the hotel, and have watched the arrival of the delegates and the business of the convention, and you look to me like real business men. It is the duty of the Mayor, whenever a convention meets in the city to extend the hand of fellowship and give a sort of welcome address. We have many conventions in this city, and I am always glad to have people from north, east, west and south meet with us, especially Pennsylvanians,

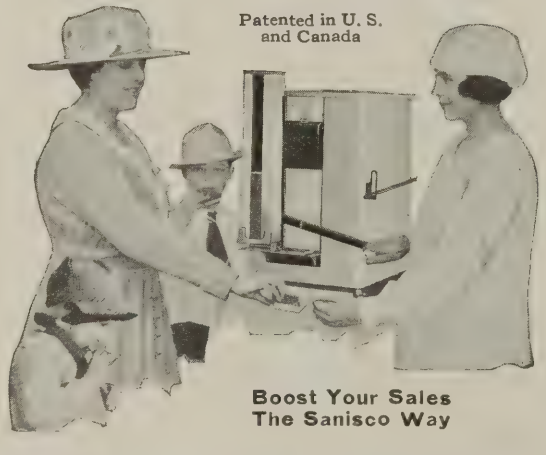
It is not necessary to go into the history of Erie, but I do want to say that in the last ten or fifteen years the city has taken on a new life. I remember the street markets, stone pavements I believe in the market houses, where milk, cream, butter and everything was sold at one time, with no regard to regulating the commodity or the purity of the product.

One of the greatest civil engineering problems in any city of the size of Erie, I believe, is the Mill Creek tube; and you will do well to go up to 19th and French streets, up near the Erie County Milk Association, and see the gigantic work now under process of construction. I would also like to have you visit the Soldiers' and Sailors' Home, down where the vessels come in from the Great Lakes. At that point you will see an exact replica of Anthony Wayne's block house, and here the land is almost hallowed with the foot prints of men like Washington, Lafayette, and other heroes in the early struggles during the French and Indian wars. West, there is Gridley Park, and a monument on Cascade Park, in honor of the great hero, of whom Dewey said, "You may fire, Gridley, when you are ready." I am referring to Capt. C. M. Gridley, of Spanish war fame. Down at the foot of State street we have just completed a pavement and sidewalks to the steamboat landing. Here on the left you will see a replica of Perry's flagship, in which he won the battle of Lake Erie in the War of 1812. It is an exact replica of the boat sunk in Misery Bay one hundred years ago, and raised and reconstructed for the 100th anniversary of the battle, the Perry Centennial. The public library contains many relics of interest and education, which I cannot enumerate here.

We hope in the course of two or three years, when you come back to this city, to have a new depot. We got the contract through a few days ago, and the officials of several railway companies and other parties concerned assured us that they would start operations on the first day of April, 1922. When you get out at the depot, it makes you think we have a very ordinary town, indeed; but I am proud of Erie, proud of its growth, and proud of its people; and, as mayor of the City of Erie, I take pleasure in extending a hearty welcome to this convention of business men.

The manufacture of ice cream is in my estimation a very important industry, in its relations bringing in other milk products. There is no greater pleasure to me than going out on the farm and beat the hired man at milking. We do it by hand, too. I take a great interest in dairying, because I feel that from the soil I received enough strength to battle with the problems of life. Now, gentlemen, I have with me the great key to the city of Erie, which I am going to present to the chairman, (Presents a large gilded key tied with ribbon to the chairman, with the applause of the association). Gentlemen, I don't want you to in any way mistake this presentation. It will not unlock cellars.

Thanking you for the privilege of extending this address of welcome, which has been rather rambling,



Boost Your Sales
The Sanisco Way

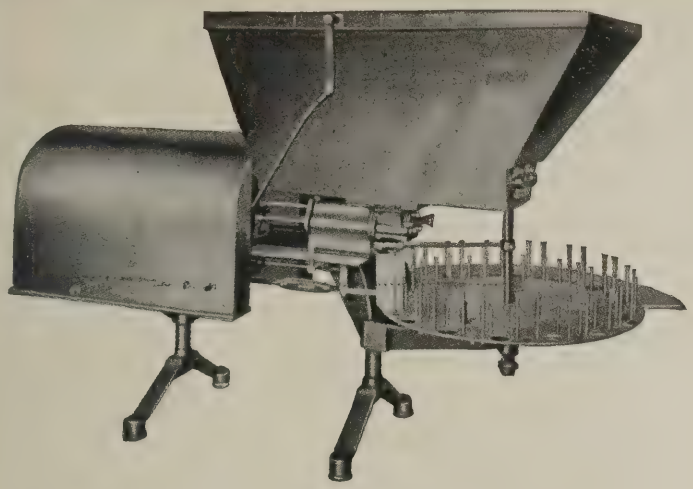
Extra Business

Awaits the progressive Ice Cream man who lets the fact become known that he can furnish a "SANISCO"—the popular, clean, sanitary and rapid dispensers of ice cream for social events, as

Dances—Parties—Bazaars

Full Details on
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SANISCO CO. MILWAUKEE WISCONSIN



Mojonnier Ice Cream Packaging Machine
Patented December 17, 1918. Process and other patents pending.

Mojonnier

Ice Cream Packaging Machine

THE Mojonnier Ice Cream Packaging Machine is a LABOR SAVER. It has reduced the labor of packaging from twelve to seven operations; has reduced number of helpers from seven to three; has reduced hardenings from three to one. It eliminates pouring into molds, dipping, cutting, wrapping and exposure to heat and air after hardening, thereby improving quality and texture of the brick ice cream. It prevents loss of ice cream and does not reduce overrun. The hopper is jacketed containing brine coils and outside insulation. Cream has been held in hopper for four hours without change.
Now in successful operation in plants of Goodman-American Ice Cream Co., Hydrox Co. and Lawrence Ice Cream Co., Chicago. These three big firms pack their entire output of three layer bricks on the Mojonnier Ice Cream Packaging Machine.

Sold on either a liberal rental basis or outright sale.

Write for descriptive circular and prices.

Automatic Force feed Positive in action. Fills exact measured quantity in either quart or pint cartons; carry home pails or round cartons.

Mojonnier Bros. Co.
MILK ENGINEERS
739 W. Jackson Boul. Chicago
Sales Branches:
NEW YORK ST. LOUIS ATLANTA SEATTLE COLUMBUS

Capacity 1200 per hour. Occupies practically the same space as 80 quart freezer.



Sethness Company,

Western Branch
DENVER, COLORADO
2910 Huron Street

Cosco TRADE MARK

Pittsburgh Office:
609 Chamber of Commerce Building
PITTSBURGH, PA.



718 N. CURTIS STREET
CHICAGO, ILL.

COSCO BRAND

FRUITS

ICE CREAM CRUSHED FRUITS (BULK)
SOLID PACK FRUITS IN NO. 10 TINS
COLD PACK STRAWBERRIES
C. P. CRUSHED FRUITS IN BULK PKGS.

EXTRACTS

FLAVORING EXTRACTS, ARTIFICIAL
TRUE EXTRACTS
ORANGEADE EXTRACT (FOR ICES, SHERBETS AND PUNCHES)
CONCORD GRAPE EXTRACT (FOR ICES, SHERBETS AND PUNCHES)
VANILLA COMPOUNDS
VANILLA EXTRACTS, PURE
MARVEL PURE VANILLA BEAN EXTRACT
VANILONG
WALNUT FLAVOR
MAPLE COSCO CONCENTRATED
PINEAPPLE JUICE
QUINTOLS
EMULSIONS

COLORS

LIQUID CERTIFIED COLORS
CERTIFIED DRY COLORS
CARAMEL SUGAR COLORING
BUTTER COLOR ANILINE
NEW YORK ICE CREAM COLOR

TRUE FRUIT PASTES
CERTIFIED PASTE COLORS
MARSHMALLOW TOPPING
COCOA
BUTTERSCOTCH SUNDAE
CARAMEL SUNDAE
GELATINE
CITRIC ACID
GUM, PURE INDIA, POWDERED
ICE CREAM POWDER
SOLUBLE SKIM MILK POWDER SPRAY
KREMOLIN R. ICE CREAM RIPENER AND BINDER
VANILLA BEANS
VANILLIN
COUMARIN
GLYCERINE
TARTARIC ACID

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from lack of preparation, I will close. I thank you. (Applause).

Chairman Crane: Does this include a free ride in the hurry-up wagon?

The Mayor: If you keep that key in your possession anything of that kind will fade away in the dim moonlight.

Hon. S. S. Robertson responded to the Mayor: It gives me great pleasure, in the name of the Association, to thank the Mayor for the cordial welcome which he has extended to us. Erie to me is not a new place at all. I am thoroughly acquainted with it, as I come every year to Chautauqua, and almost invariably stop off at this beautiful city.

I can scarcely remember a time in the history of the institution with which I have the honor to be connected, that we have not depended upon Erie for supplies and machinery. I might say also that our institution is closely connected with and interested in a new industry which we have started in Erie, which ultimately promises to be one of the big industries of the city in the near future. To my mind Erie is destined to be a very great city. Its progress in the last 10 or 15 years, to which the mayor has referred as predominant will, because of the natural advantages it has, and the knowledge which its sons are exhibiting, be a great manufacturing center.

I have the honor to be a friend of one of Erie's great citizens. This man finally found his true place from serving on the local bench, and was elevated to the Supreme Bench of the State of Pennsylvania. He is a gentleman whose modesty, fortunately for the citizens of Pennsylvania, wase not strong enough to entirely obscure the character which Supreme Justice Walling has. (Applause). So I have a good many ties, one might say, with Erie. I thank the Mayor for coming here and giving us this welcome. (Applause).

Chairman Crane: I will ask Mr. Robertson to read the Chairman's address, owing to my inability to do it myself.

Mr. Robertson: For the past several years I have been, as you all know, somewhat less closely in touch with you than I used to be, less well posted in regard to your day-to-day affairs; not so well informed about the details of change and progress in the industry. For this reason, perhaps, you will think I ought to confine myself at this time to a simple greeting to old friends and leave you, with your more intimate knowledge of conditions as they are today, to find your clear road to further progress in the industry and continuing and greater success collectively and individually.

But I have come to realize, as some day you will too, that as to some matters relating to our business we see with greater clearness after we are drawn away and become less directly concerned in them, just as our elder statesmen often see clearer, as to things political, than our younger men, whose sense of proportion is thrown off balance by the very keeness of their interest. Youth is intense and draws close to everything with which it concerns itself, and for that very reason may, and often does, see things somewhat out of focus. We "oldsters" on the other hand, push a thing from us to see it clearly, whether it is the page of a book or a fact or a principle of business.

We hear that there is a widespread and growing feeling, maybe some of you share it, that too much new competition is springing up, that too much new capital is flowing into our field, and that the cause is too much education, a too liberal and too wide dissemination of knowledge about the processes, conditions and possibilities of our industry. Well, that is nothing new, it is the oldest bugaboo of business, of all business that has been proved a thing of straw over and over again and laid away, only to be dragged up again whenever weather conditions gave us a bad season or when we experienced other set-backs less easy to explain.

It is even being said now, if I am not misinformed, that all our trade associations are too active in spreading knowledge of our business, and that if we are to continue our meetings at all it should be behind closed doors. It is being said, too, that exhibitions, such as those of the Supply Men and the National Dairy Show, are all wrong because they tend to create competition for us. All that is not new either, it is simply one of the ways in which the same old bugaboo presents itself from time to time.

Looking back, I can recall times when that bugaboo affected me in much the same way that it is affecting some of our friends today. But I know now that I was helped, not hurt; that to dam back the flow of knowledge in those days would have been hurtful and would be as hurtful now.

Let us consider a little the history of our industry since the organization of this Association, which followed closely upon the organization of our National Association. In those days the best of us had but little knowledge of our products and our business compared with what we have today, and of the possibilities of development we really had no realization. We though we had a big industry when it was taken all together; but the output of ten of our leading plants of today will easily match, if not overmatch, the total output of all the plants in the country in that day, and in total output our industry has increased to all of ten times

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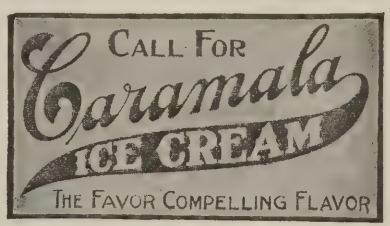
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what it was then. To look back to the comparative crudity of our plants and methods is almost appalling, and I'll not dwell on that subject. In any case, most of you, if not all of you, are as familiar as I am with the improvements and developments from that day to this. All this change in the brief period of 15 or 16 years. You'll agree with me that it is little short of marvelous.

And how did it all come about? Chiefly through the dissemination of knowledge about our industry, which has always been one of the main objects, professed or implied, of all our associations, national and state. Whenever the policy of pursuing that aim has been questioned and looked into, it has always been found that the advantages so far outweighed the disadvantages that the disadvantages counted not at all. Of course, competitors were strengthened in many cases, but it made them better competitors. Equally of course new competition was created, new capital and new blood drawn in. Were any of us hurt, ever? I can't recall a single case. I am absolutely confident that without a single exception we were benefitted, and increasingly benefitted as knowledge increased and was spread about among us. We all grew, some beyond their wildest dreams, in spite of (perhaps in part because of) increased and increasing competition. Competition spurred us, and we went back, and back again to our conventions and our exhibitions, and even to our competitors themselves for the newer knowledge that would enable us not only to meet the most progressive competition, but to continue our own growth.

I doubt that any ice cream manufacturer would say, that any can say, he builded alone, that he got no help from the rest of us. I doubt that any of us can say we gave more than we received of help; indeed, I am sure that we progressed as we have progressed in 15 years only because we all worked for the good of all, contributing each a little and each gaining much.

Out of competition ill-feeling arises some times, and even bitterness. But these pass, and the older we grow the surer we are that they will pass. There remain always the fundamental facts that progress in any industry cannot continue without continuing increase in knowledge nor without a more or less constant inflow of new blood and new capital.

So I say in this, perhaps my last message, continue your seeking for knowledge, continue trading, openly and freely, your little for the aggregate much of your fellow-manufacturers, and put behind you once and for all the bogey of increasing competition. Dam up the stream of knowledge and you will not only slow up your own pace but will invite unintelligent competition. Were I a young man again and making my start I should fear nothing else as much as I should fear unintelligent competition.

You are gathered here today to discuss many topics relating to our industry. About them we still lack something of full knowledge; otherwise your program committee would not have brought them forward. If what I have said helps but a little to stimulate discussion of these topics, to bring out facts known to some of you and hidden to others, then I shall know that my message has gone home. (Applause).

Chairman Crane: I thank you.

Chairman Crane introduces Hon. Jas. Foust, Director of the Bureau of Foods, State of Pennsylvania. Subject, "Difficulties in Enforcing the Pennsylvania Ice Cream Law."

Mr. Foust: Mr. President and Members of the Association: I assure you that I enjoy the privilege of meeting with you again. There are three conventions I always particularly note. One is the Specialty Manufacturers Association, another the Wholesale Grocers Association, and third the Association of Ice Cream Manufacturers. I wish that all the branches of the trade were connected with some organization of this kind. It makes it much easier for any controlling body to administer the laws under its supervision, if every ice cream manufacturer in Pennsylvania belongs to this association. You would be a great help to one another, your industry would grow with leaps and bounds, because, instead of a feeling of jealousy and envy existing in the membership and the trade you would get together in these conventions and get to know each other and become helpful to each other; for when you are helping your competitor in business, you are helping yourself. Those are some of the things we need to think about. These are trying times in which we are now living, in fact people in all conditions I believe, need to know themselves and get real well acquainted with each other. Just now you business men need to watch your accounts as you never watched them before, because this readjustment period is not over. I might say there is a man in our department who is in the ice cream business, who was telling me of some of the accounts he had, one in particular that he was carrying of several thousand dollars,—money that they got for products that he made and sold to them, turned it into cash right away, and have held his money for nearly a year. I said to him, "You need to have someone go into court and ask for a trustee to be appointed to look after and manage your affairs." And I want to say, my friends, there is something to this. If a man isn't worth the money you are trusting him with in representing your goods, you had better not sell him,

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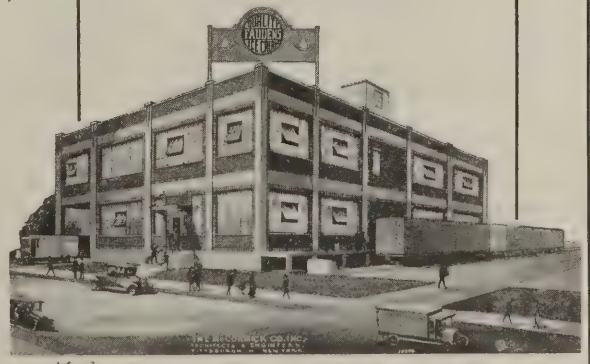
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and do less business. On the other hand, if a man is worth it, carry him, for of course we have to carry one another. But you can't pay for material and carry people along who are doing business on your money, taking your goods and converting them into money and existing on it.

I will go back to the point where I said I am sorry every ice cream manufacturer is not a member of the association. We would get to know each other, understand each other, tell each other how to make a better product and how to please the people, how to increase the consumption of ice cream; for the best advertisement that any ice cream manufacturer can put out to the world is the quality of the product he makes. I don't care where your factory is, or where the store is. If you make a better product than somebody else, the people will find it, and go there and pay the price to get it.

Since the last meeting I have been in touch with the secretary of your association and the legislative committee, trying to work out some questions we are confronted with, and I think we are now in shape to handle them. I am going to suggest that when the legislature meets again, we amend our ice cream law at one point. It is only a very brief amendment, but will make doubly sure. One question I know is bothering some of you, if not all more or less, is to make it unlawful to manufacture or sell ice cream containing any foreign fat or oils. That is the only thing I can think of that is necessary to be amended and made a part of the ice cream law of this state.

In order to better protect the legitimate ice cream industry, and incidentally the consuming public, (applause) some months ago, while the legislature was in session, I suggested to Mr. — —that he make three grades of ice cream—one a normal ice cream, to be known as No. 1; a second containing ten per cent butterfat and five per cent cocoanut oil, known as No. 2, and a third to be made from skim milk and all cocoanut oil. I suggested we send them out to our chemists, one of them at Erie, one at State College, one at Scranton, and one at Philadelphia and Pittsburgh; and tell them to find out and determine the percentage of butterfat, and if they were in any way adulterated. Dr. LaWall, of Philadelphia, reported the following results from the examination of Nos. 1, 2 and 3:

No. 1, total fat present.....10.42
No. 2, total fat present.....15.41
No. 3, total fat present..... 4.29

I will read you Dr. Treat's letter: "My Dear Mr. Foust: I submit herewith a report on the several samples of ice cream submitted by the —— Ice Cream Co. These samples were received in a very bad state, just before the close of laboratory hours on Saturday, the 7th. I have learned indirectly that neglect of an employee of the postoffice was the cause of the delay. All the samples were badly soured and coagulated, and the container of No. 3 was broken and most of the material lost, and what small amount was retained, was soaked into the paper and walls of the container. Since the fat and the other locals did not with any certainty absorb at the same rate,—that is, in the same proportion, I did not undertake to determine the quantity of fat present in that mixture. Indeed, we had difficulty in securing from it a small amount of the fat for chemical examination, and it was altogether too small to carry out the examination strictly in parallel with No.'s 1 and 2.

All of the samples showed soured curd, and had the odors more or less of sour milk products. In the case of No. 1, it is clear that the fat of this mixture is composed of normal butterfat. Yet, owing to the wide range extracted, by the tone of it, the presence of a small amount of foreign fat is not altogether excluded.

In the case of No. 3, this fat was obtained in a clear, slightly yellowish oil. The refractive index is that of butterfat and palm olive oil, the only other oil having a refractive index lower than butterfat. The quantities of fat were so small that it was impossible to obtain for No. 3 the same quantities as used in the tests for No.'s 1 and 2, only 2½ grains being obtainable. However, it shows that the fatty material used in No. 3 is cocoanut oil, with little or no butterfat, suggesting a proportion of all skim milk products, and some stiffening agent or agents.

In the case of No. 2, the fat had little more color than No. 3. It was not, however, brown by the action of acid. It had some slight butter odor, but not nearly so marked as in the case of No. 1. The question naturally arises, what foreign fat, added to butterfat, would tend to produce the qualities determined in the case of No. 2. The only fat whose presence would produce the changes of this character in certain indexed numbers is cocoanut oil, and I come then to the conclusion that No. 2 is a mixture of butterfat and cocoanut oil. When I come to figure out the quantity in which cocoanut oil has been added to the butterfat my data does not bring me to identically the same conclusions. The properties are so similar it is impossible, and the only way we can proceed is by the method of approximation."

NOTE—The figures and technical analysis given in the letter are here omitted.

Mr. Foust: I think we get this out of the report: first, that all of the mixtures were sour; second, that

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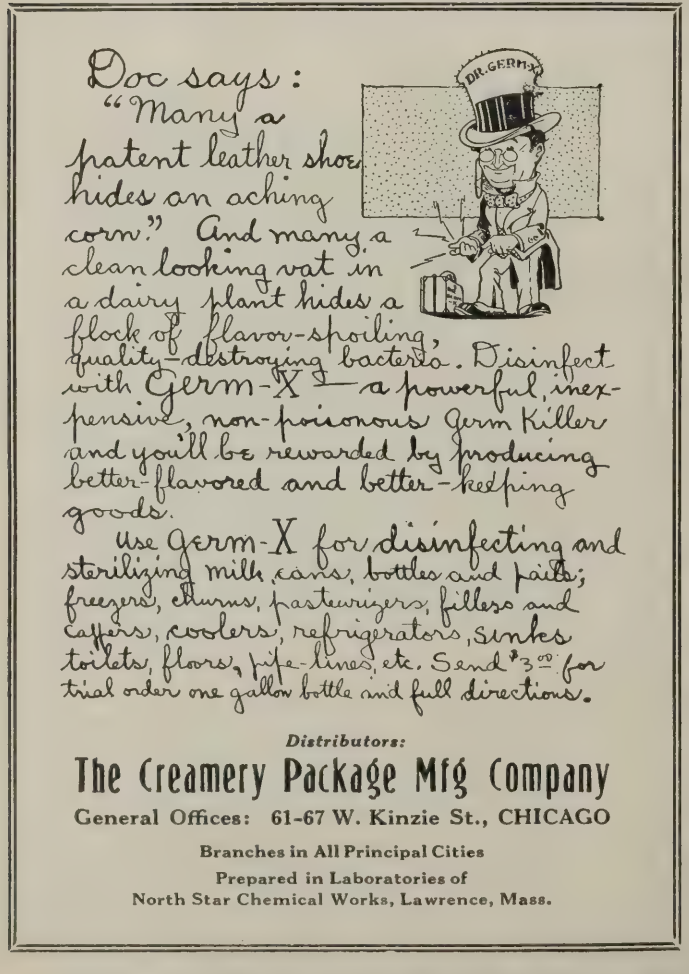
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some of them possessed undesirable odors; third, that in the case of some of the fats, when the chemical analysis is applied, it doesn't determine the exact proportions in which they art present in the mixture,—that is, the proportion in which cocoanut oil is mixed with butterfat. He does determine, however, that in one case there is butterfat, in another there is less, and in the third very little. Other cases than that of Dr. Treat, of State College, were approximately the same: No. 1 being normal, No. 2 was ⅔ butterfat and ⅓ cocoanut oil, No. 3 was skim milk and cocoanut oil. There is no question but we can determine them without any doubt whatever; but to separate the fats and determine the proportions is not an easy thing for a chemist to determine. That will not be necessary if you will just put an amendment to our ice cream law, that it shall not contain any foreign fat, when we will only have to determine its presence. Now, we have to determine the percentage of butterfat,—it must have a fixed amount of butterfat. So far as any other fat is concerned, just where we would be at I am not prepared to say. It must have the legal amount of butterfat fixed by the Act in order to make it lawful to sell. Therefore, under our present law, they can't sell it unless they put in over and above the amount of butterfat finished ice cream must have. I don't think we need have any fear of trouble until the next legislature meets, then I think the legislature ought to be instructed to amend this law upon the one point,—prohibiting the manufacture and sale of ice cream in Pennsylvania if it contains any foreign fat or oil. That, to my mind, would make our law stronger, easier for our chemists, and easier to prove in court. We would not have to separate and determine the quantities of butterfat and cocoanut oil or any other oil that might be used. We have this summer, as well as last summer, been watching this very closely in the Middle West, where they have been using it some; and I have reports,—only reports,—that in some of the New England states it has been used some, but we have not found any in Pennsylvania, containing foreign fats or oils, although we have been looking for it ever since we learned that cocoanut oil was being so extensively used for so many purposes in connection with by-products of all sorts. Cocoanut oil, as a matter of fact, is one of the things used in the manufacture of oleomargarine, also many other food purposes; and we don't want it to get into our ice cream or our milk products. We have three laws we need to strengthen and make a little more specific, so as to make them easier to enforce, easier for our experts, and better, of course, all round for the consuming public.

Forty years ago, the ice cream industry was very small, and ice cream was eaten two or three months in the year by the classes. It is now an every-day diet, and eaten every day by the masses. So when we think of the ice cream industry in this country, representing one hundred fifty million dollars, just think where it is going to go to, when this country gets **real bone dry.** There is going to be more ice cream eaten, people are going to have more money to buy ice cream with for their families and themselves, we are going to be a better people, and the ice cream business is going to grow with leaps and bounds. Then your industry will not represent one hundred fifty million dollars, but will represent many times that amount. It is really in its infancy yet. So it is up to the ice cream manufacturers, by standing together, using the help of each other and the co-operation of each other, to continue as you have in the past to improve the quality of your product. As a result, no one can tell but that instead of being eaten for dessert at dinner, people will start to eat ice cream for breakfast, and, indeed, three times a day. (Applause).

I want to say, Mr. President, and members of the association, I am glad to be here today, and if there is any question or any problem confronting you in which I can help you where I have the tools to work with, help you to push your business ahead, make your product better, help you in your trade problems or in any way, I want you to be perfectly frank right here and now to state some of them. I am here to co-operate with you and want every one of you to co-operate with me. If you know anybody selling ice cream that you think don't meet the requirements of the law. Drop me a note,—we will be very glad to have it. This is a very large state, and ice cream is sold in thousands of places. We don't have many men to go out and apprehend all who are not complying with the law, but we do the best we can with the number of men available; so any information you can give, any assistance you can render, I assure you I will do all I can to see that our law is enforced and its provisions respected by everyone connected with the trade. While I am doing that, I am also protecting the consuming public of over eight and a half million people here. That is what the law is for, the protection of the people, but while we are protecting them, we are also protecting the industry, so if there is any branch of the industry not complying with this law, then it is our duty to see that it complies with the law and to enforce the penalty of the law in the regular way and through the proper channel.

If there is anyone who desires to ask questions, I will be very glad to answer. (Applause). One ques-



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tion that comes to me,—how much should a freezer of ice cream vary if a test is made, from the bottom of a two gallon freezer of cream, that your retail dealer is selling out of? Say you take a pint out of the bottom, a pint out of the middle and a pint out of the top,—how much will it vary. I have been going into that somewhat, and I am confused myself. Unless someone can show me I am wrong, with proper mixing in the factory, that mixture when frozen, will not vary one per cent in butterfat. Does anyone take exception?

Mr. W. E. Hoffman (Tyrone): We don't know exactly the amount, but it varies greatly. Every test we make seems to differ. I notice in reading the reports of Dr. Lawall and Dr. Freer that there is a difference of two per cent in butterfat in those samples as between the two analyses. Now, these are samples taken at the same time I suppose, and if they vary, they show what will happen.

Mr. Foust: I will say this, I trust you will bear in mind these were samples taken and sent Thursday, and that it was a mixture not frozen, and they never got the mixture until Saturday. Then again, as I said, to separate the fats and determine the proportions, is quite different from determining that nothing but butterfat is present. So there is no question but that butterfat can be very accurately determined, but where you mix butterfat and some other fat, is not so easy to determine the proportion of each. Now, I have talked to our chemists about it, and there is much of interest entering into it. Suppose you sell a freezer of ice cream which eventually melts, and you bring it back and re-freeze it. That is bad practice, and ought not to be done. I don't believe any member of the association would do that, but there are some people in the industry who possibly do that, and that will make a difference.

I don't know what your system is of filling the cans, but if always well mixed when you do your freezing, and the mixture well above our standard, there is no danger of any trouble from the top, middle or bottom of the freezer varying to any extent as to butterfat content.

Chairman Crane: You will remember the meeting in Harrisburg, when we were there to frame that bill, and get down to a standard, President Pierce told us it would take forty gallons to determine the exact amount of butterfat.

Mr. Foust: I don't remember that.

Chairman Crane: Acting on your suggestion, I will appoint the following Legislative Committee: S. S. Robertson, chairman; James W. Neuman, Thomas Hall, W. E. Hoffman.

Chairman Crane introduces Ex-Mayor W. J. Stern, secretary of the Wholesale Credit Mens' Association of Erie.

Mr. Stern: A few days ago I was called by a friend of mine saying, "I want you to come over Monday or Tuesday, and talk about our credit association in Erie. I told him I would, and now I haven't had a chance to think about it since that time. Your president wanted me to speak on the several articles which he had marked in that report. I haven't had a chance to look over it, and will have to glance at it.

When I stand on the corner and see the trucks of ice cream go by I think of the wonderful strides in this industry. I don't think I am so very old, but thirty-five years ago, when we used to buy ice cream for the girls it was a great treat, and a fellow who earned five or six dollars a week, if he could afford to take her out and buy her a fifteen cent dish of ice cream, was doing well.

I remember Franklin's, colored family, had a place on West 6th street, where the Erie Club now stands. They charged fifteen cents, and if a fellow had any money he went to Franklin's and thought he was the whole thing in doing it.

In traveling around, I see the empty ice cream cans and I thinkit remarkable how they have gone about specializing and have built up a wonderful industry. That is only one phase of it,—another is that twenty-two million gallons have been made in Pennsylvania to October of last year and thirty-five million dollars invested in the industry. When I was a boy I don't suppose there was two hundred thousand dollars invested in it in Pennsylvania.

Some firm in Erie advertises "Eat a Plate of Ice Cream Every Day." I think many people in Erie eat ice cream every day. I was reading an article in some magazine about the prohibition question. The article was rather neutral,—spoke about the effects of alcohol in the system, and then went on to say that possibly people were eating too many sweet things, too much ice cream and confectionery and making their own alcohol. I hope you won't have the same trouble. We have got to have some vent, you know.

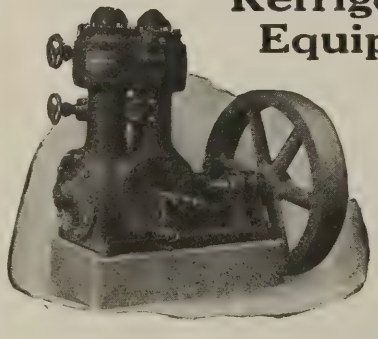
About this credit business, I don't think it is generally known just how great our state of Pennsylvania is. Here are two hundred people here today representing a great industry, a new industry you might say. I don't think the people are conscious of what this means, or what we have in Pennsylvania. They would not even give a second thought to it as an agricultural state, although it ranks third in agriculture. Just think what a help you are to those farmers, think what it

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Here is simplicity—

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Refrigerating Equipment



is in a class by itself for simplicity.

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Atlas Pure Vanilla Extracts are guaranteed to be of Highest Quality and Purity and to give absolute satisfaction in each and every case.

Before placing your next order, let us send you a trial quantity

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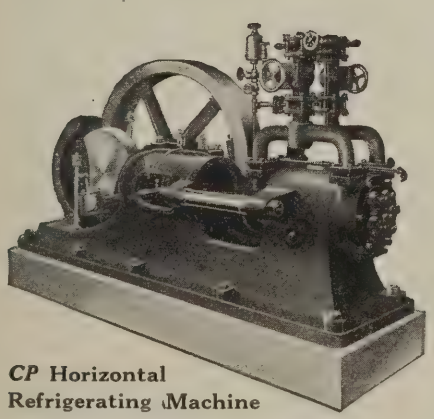
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CP Refrigerating Machines are built in both horizontal and vertical types, in capacities from ¾ ton up. Write for free refrigerating machine catalogue.

THEY know it from the ground up for they have been installing refrigeration equipment in ice cream plants for over 25 years. They know the exact refrigeration requirement for the freezers, the coolers, the storage room, and other ice cream making apparatus, because they install such equipment as well as refrigerating machinery.

Creamery Package Representatives are calling on ice cream plants at regular intervals, year in and year out. Consequently, they must retain their good will by installing a refrigeration machine which will give lasting service.

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Chicago, Ill., 61-67 W. Kinzie St.
Buffalo, N. Y., 133-137 E. Swan St.
Kansas City, Mo., 1408-10 W. 12th St.
Minneapolis, Minn., 318-20 3d St. N.
Omaha, Neb., 113-15-17 So. 10th St.
Philadelphia, Pa., 1907 Market St.
Portland, Ore., 6-8 N. Front St.
San Francisco, Cal., 699 Battery St.
Toledo, Ohio, 119 St. Clair St.
Waterloo, Ia., 406-8 Sycamore St.

means to those dairies,—the ice cream you make for the people. The forests of forty years ago are cut down, and you find herds of cattle where those forests used to be, and the farmers building up a nice industry in the dairy business. I want to say this is a great thing for the people, and a great thing for the state.

Here in Erie we have a Wholesale Credit Mens' Association. In that, or will be, every wholesale dealer in all lines in the city of Erie. Now, these men have thought of such an association for years, have met once a month and talked things over in a way,—the people to whom they were selling goods, some would write letters, which the secretary would read, and somebody say, "He is good" or "He is slow" or "He pays me every month." There was no general report of any kind. Now, the wholesale dealers of Erie are determined upon having a proper system of giving credit. They want to ascertain first of all "How much does everybody owe they sell to?" That is, after all, the key to the whole thing. When you are selling goods, you can better determine whether you should sell a man if you know what he owes. So we are doing this now, establishing a system in our office by which every dealer in Erie who belongs to the association,—and I hope every dealer will belong,—will get a report on the first day of November, giving the names of all the customers in Erie and contiguous territory, telling what each customer owes. We will list the parties name and address, and there will be twelve divisions, so that for each month in the year will be an account of what the debtor owes to the trade. Each member of our association will have a key number and we will put down according ao key number what each party owes on the first day of November and what jobber, so we will know what each dealer in Erie owes to the different jobbing concerns in the city of Erie. We believe that is the basis of all credit,—what a man owes and how he stands financially.

To give an illustration of how little a debtor knows as to what he owes, I went to a store two weeks ago, and said, "I am representing the Wholesale Credit Mens' Association of Erie, and have come here to ask you a few questions. First of all, "What do you owe?" He said, "About $800." I said, "If I told you a party has $1,610 against you, would you believe it?" He said, "Oh my, no." I said, "You certainly do, you owe $1,610." Before we got through, I found he owed $2,000, when he thought he owed $800. Now that fellow is actually insolvent and didn't know it, nor did the wholesalers of Erie.

Another case: I asked a man what he owed, and he said, $2,600. I said, "I have a bill against you for $4,000," and when I got through that man I ascertained owed $6,800 when he thought he owed $2,600. Now, we believe that where you find a man is slow pay, or not paying his bills, if you call our office and ascertain what that man owes, you will know in future whether to keep him on your books. That is the most important thing, and where such a man goes out, the quicker the better.

Now you may say "We can't have this correct, that there is a lack of honor." I told the members that I wanted an exact statement of what debtors owed each month, and I would give that information right from the office. All this will mean a tremendous responsibility when you stop to think there are about 60 or 70 jobbers of all kinds in the city of Erie, each one of them having a line of customers; and a tremendous amount of work to have in our office. Yet, it will be worked out with much benefit to the trade.

I don't know how you handle your collections, but I say you can't be too careful. We have passed through such a period of prosperity, with people living way beyond their means, many of them are very indifferent about how they stand,—in fact I believe two-thirds of them don't know how they do stand. For instance, a fellow saves up two or three hundred, and the first thing you know he buys an automobile and has a pretty good time. He moves into a more expensive place, buys a lot of fancy things, and the consequences is that today all these fellows are running behind in their bills, and are using the creditors to carry them. I believe we are going to have great results by this system we are installing. Surely it will be a place of turning, for how much better our dealers will feel when starting credit, they can call our office and find out how much a party owes.

We expect also to size up business conditions, and make a report as we see these conditions. We are going to try it all out here, and if I should be so fortunate as to live another year, and you so fortunate as to come back to Erie another year, and my friends invite me to speak again, I may be able to tell you a lot more of how this thing can be worked out. I believe that this system of ours will save its patrons many thousands of dollars every year, besides doing away with a great many cases where they have been working in the dark. First of all in my estimation, it is a matter of whether a man is entitled to credit. If a man is absolutely solvent and of good reputation, has money back of him, and is worthy of credit, well and good. On the other hand, if he is slow pay, he wants to be looked after very carefully.

I don't know as there is anything else to say other than we are going to work hard to bring this into a successful work. I am glad to have had the oppor-



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WILL
bring your tubs back

Furthermore, Tag-Baks tell you just who have the tubs that do not come back as quickly as they should.

Our circular tells in detail what Tag-Baks are and what they can do for you. GET ONE.

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183 Ogden Ave **Milwaukee, Wis.**

Dunn's Celebrated Ice Cream Gelatines

Produced as a result of our 42 years experience as purveyors of Gelatine to the Ice Cream Industry

THE ORIGINAL STABILIZER THAT NEVER FAILS

"DUNN'S GELATINE"

Guaranteed to Comply With all State and National Pure Food Laws

THOMAS W. DUNN COMPANY

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"UNITED" Ice and Refrigerating Equipment



exclusively made in a large modern plant, designed and equipped with the latest improved machinery for this purpose, IS THE REASON *WHY* your choice first and last should be

"STERLING"

Thirty years of continuous study and work has enabled us to PERFECT equipment that is offered you at a price commensurate with the SERVICE RENDERED. THE PRICE of an article invariably represents THE VALUE you receive. PERMIT US TO FIGURE WITH YOU.

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TULSA, OKLA.

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EVANSVILLE, IND.

tunity to come here this afternoon. I appreciate for the City of Erie what a convention of this kind means.

Chairman Crane: The Chair has to announce for the next part of the program an open discussion of the printed collection system, and while we have Mr. Stern here, perhaps he can suggest something, so we will open the topic.

Mr. Stern: I will be glad to stay and answer any questions.

Mr. O. S. Jordan (New York): What is your idea on the moral credit question? You know, when you go to a bank to borrow money, there is a certain element taken into consideration, that is,— just a moral credit, or moral risk?

Mr. Stern: I think there is a whole lot in that, and will answer this way—a man who makes a good moral risk is usually a very desirable customer. In fact, some of our very best men started in a very small way, young men of excellent habits, great industry, and having very little money, and yet they have been worthy of being helped. A young man as a rule, will always know what he owes, and keeps track of his bills, because he knows the only way to get credit is to pay his bills. He is always watching his business and he keeps his books and accounts in proper shape and is always attending to business. He doesn't spend more than he takes in. That fellow is a mighty good risk. You go to his place of business and see this fellow working hard, and his wife working hard with him. Such a fellow usually pays his bills and will succeed where the fellow who has no morals or reputation will go under. Does that answer the question?

Mr. Jordan: It does in a measure. I will quote a man in the insurance business,—the New York Life. He said that where they had preferred risks, and where several men were examined, if he were to stand on Broadway and take every thousandth man that came along, those would be a better risk than the investigations they had. In my experience I have found that the moral risk has been better than Bradstreet.

Another case you exemplified of where a man keeps his place of business in good order. Yet, you have got to know your man, for if you rely absolutely on credit information, you are following a shadow.

Mr. Stern: Let me say this, that the moral risk you mention is a great factor up to a certain point. You know that if a man has some basis for credit, owns property and has money, that he is generally a safer risk than the man upon whose honesty you depend. Some times that man, who is a very good moral risk, becomes unfortunate. He intends to pay, but can't pay, and has nothing back of him. I would say the moral risk is a great factor in the extension of credit, but should be carried only to a certain point. If a man has nothing, has a few bills, but is paying them, he is entitled to a short line of credit, because something might happen that he can't forsee. A man who has property or something back of him, if anything happens, he can be made to pay. I think in dealing with anybody, you ought to consider the moral feature. It is a great factor, and as such must be considered.

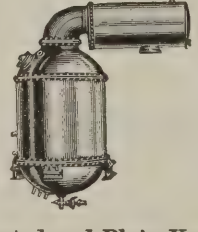
Chairman Crane: You all know that every circus has a side show, so as a side show, I want to call on the manager of this side show, Mr. Jordan.

Mr. O. S. Jordan (President Association of Ice Cream Supply Men): I notice that I was billed here to extend an invitation to visit the display of the Association of Ice Cream Supply Men. It has been impressed upon my mind what does a man mean who ostensibly goes to the convention and yet doesn't come to the meetings. Between the remarks of Mr. Stern and Mr. Foust, if you stop to think, will show you the broad minded manner in which they look at things. Mr. Robertson mentioned something which I understood referred to inviting competition. Take in the history of your own business, whenever there was excessive competition, or what you deemed excessive competition, that was the stimulation of your industry. You found that you did just as much business, if not more, than the other fellow, or did most as much. Now that the Association of Ice Cream Supply Men are allied with the Pennsylvania Association, never in the history of any line of business was there a better example of friendship, understanding and co-operation between buyer and seller, for the ice cream manufacturers realize they are sellers as well as buyers. So we have dovetailed in to the extent we are one great brotherhood.

The Association of Ice Cream Supply Men welcome you, gentlemen, to Buffalo. We are in Buffalo with one of the greatest shows, one of the greatest exhibits, something that will dignify the ice cream industry. Men like myself, who were associated with the industry thirty years ago, when it grew up from a little hand machine, realize the importance of the industry, and our part is to dignify it. When the New York Tribune will come out with a half page devoted to the ice cream industry you men must understand you are being brought to a point where if you don't have co-operation, if you don't have this feeling, it will take fifty years to do it.

With the spirit of co-operation in mind, I want all of you when you adjourn, when you have finished entertaining or enjoying the hospitality of Erie peaple, knowing as I do that they will more than go the limit

Condensary and Dairy Equipment Manufacturers Since 1878



Vacuum Pans any Size to meet your requirements.

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Rusted Milk and Ice Cream Cans retinned and repaired. Can life renewed with a heavy plating of Straits Tin.

All Types of Ice Cream Freezers Repaired.

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Grape Pineapple
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Ready for shipment now. Send your orders.

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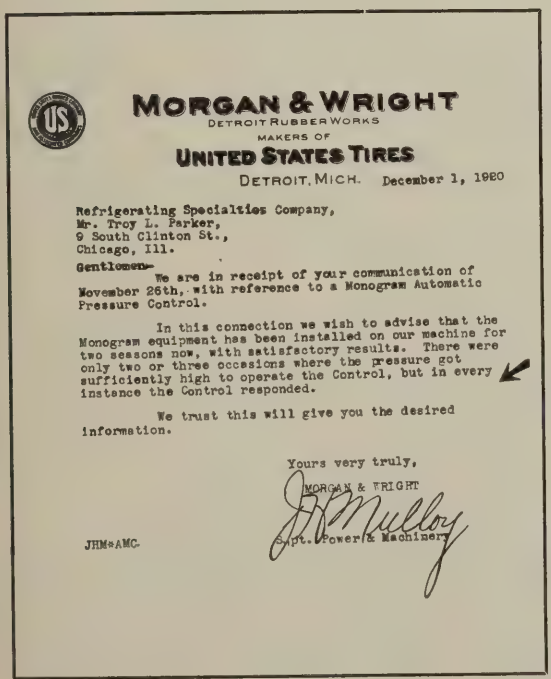
Whole and Broken Cherries

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You need Keystone Products. Why not send a trial order for "first hand information" on Keystone goodness?

"In Every Instance the Control Responded"



MORGAN & WRIGHT
DETROIT RUBBER WORKS
MAKERS OF
UNITED STATES TIRES
DETROIT, MICH. December 1, 1920

Refrigerating Specialties Company,
Mr. Troy L. Parker,
9 South Clinton St.,
Chicago, Ill.

Gentlemen—

We are in receipt of your communication of November 26th, with reference to a Monogram Automatic Pressure Control.

In this connection we wish to advise that the Monogram equipment has been installed on our machine for two seasons now, with satisfactory results. There were only two or three occasions where the pressure got sufficiently high to operate the Control, but in every instance the Control responded.

We trust this will give you the desired information.

Yours very truly,
MORGAN & WRIGHT
Supt. Power & Machinery

JHM:AMC.

That tells the story and thats why you should have a *Monogram* Pressure Control on your refrigerating equipment which will "respond in every instance" when ammonia condensing pressure gets too high.

For information, which we are glad to furnish, without any obligation on your part; mail us the attached data coupon.

REFRIGERATING SPECIALTIES COMPANY,
9 South Clinton St., Chicago, Ill.

Gentlemen: I want absolute protection against dangerously high ammonia pressure in my refrigerating equipment. I have a.....H. P., ...phase, ...cycle, ...Volt, A. C. or D. C. Motor, operating a ..... ton compressor. Don't bother me with a salesman, but quote what your system of safeguarding my plant will cost.

Yours truly,

Name .....

Address .....

City ..... State.....

being one of the finest bunches in this country, (applause) come with us to Buffalo. While there has been rather a misconception of the time this meeting was to adjourn, from the circular, we thinking it would be over at 12 o'clock noon tomorrow, so as to have all of you gentlemen adjourn to Buffalo and get there at 6:25, we understand that there is to be something of an entertainment tomorrow afternoon, and plans made so that you will get into Buffalo at 9 p. m. It doesn't make any difference whether you get there at 6 or 9 o'clock so far as the Supply Men are concerned,—they will be at the depot to welcome you and the gates are wide open. Tomorrow night a stag and smoker was planned, with a theater party for the ladies. On Wednesday, through the courtesy of the Buffalo ice cream manufacturers, the ladies will be entertained by a drive through Buffalo, and there will be a special movie picture shown, and a dance afterwards. On Thursday will be a dinner, an absolutely clean vaudeville and winding up with a dance.

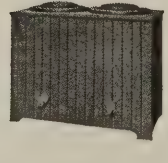
I will say we have one of the most beautiful displays, more varified and more of them than we have ever had before; and as President of the supply men, and by invitation of the president and secretary of the association, I welcome you, and assure you that it will be one to be remembered. (Applause).

Mr. Hoeffler (Hoeffler Ice Cream Co., Buffalo,): I want to follow for just a trifle, what Mr. Jordan has said. I was fairly amazed yesterday afternoon at my first visit to Music Hall to see the wonderful exhibit they have ready for you. It is something that eclipses anything that has ever been put before us, and anyone who doesn't go to Buffalo for that purpose alone is going to miss a treat.



Schroeder Perfection Cabinets

Take an Inventory of your cabinets today - and know your requirements for 1922.



"Insulation is the thing"

JOHN SCHROEDER LUMBER CO.

"A Dozen Cabinets or a Dozen Carloads"

WALNUT ST. --- MILWAUKEE, WIS.

So far as the entertainment features are concerned, the manufacturers of the city will of course, do their best, but there is very little left for us to do, as the program of the supply men is so varied, something doing every minute, that I trust you will come in a body.

Chairman Crane: We have to get out at a certain time, and I want to appoint some committees, and I want them to get together and report at the beginning of tomorrow's meeting. I will appoint

On Resolutions: Hon. S. S. Robertson, B. R. Walker, Wm. H. Duff.

On Auditing: W. H. List, Jr., D. E. Wiseman, Geo. Brink.

On Nomination of Directors: M. D. Hoffman, Clark Dixon, Calvin Leichtman.

It will be up to this committee to elect somebody to take my place, as I have now been with you fifteen years.

Adjournment to 9:30 Tuesday morning, November 1, 1921.

* * *

MORNING SESSION, 9:30, NOV. 1, 1921.

Secretary's Report (J. W. Neuman, York, Pa.)

New active members since last meeting: Penn Ice Cream Co., Glenside, Pa.; B. Lascaris, Union City, Pa.; The Perfection Dairy Co., Kent, Ohio; Puritan Ice Cream Co., Newark, N. J.; C. A. Tharp & Son, Shamokin, Pa.; Yoenglings Ice Cream, Pottsville, Pa.

New associate members since last meeting: Arbuckle Bros., Pittsburgh, Pa.; Keystone Fruit products Co., Cincinatti, Ohio; Menasha Printing & Carton Co., Menasha, Wis.; Parker Vanilla Products Co., Baltimore, Md.; B. L. Roman & Co., Canton, Ohio; Frank A. Smith, Harrisburg, Pa.; Bellville Condensed Milk Co., Bellville, Pa.; Solar-Sturges Mfg. Co., Columbus, Ohio; Orange Crush Co., Chicago, Ill.; Bryan-Duvall Co., Inc., New York.

Resignations received during 1921: Pennsylvania Chocolate Co., J. L. Westbrook, J. H. Huston Company, Inc., French Bros. & Bauer, Widlar Co., Cleveland, O.

Reports of the Secretary and Treasurer were read and approved.

Chairman Crane introduces Thomas Hall, of Russ Bros., Harrisburg, who talks upon the subject of "Microscopic and Thermal Analysis of the Texture of Ice Cream."

NOTE—Mr. Hall's paper, which he read in connection with an enlarged chart, was not handed in for the minutes, as it was necessary to revise it before doing so. Mr. Hall arranged to send this paper on direct to the journal. He closed his paper with the applause of the association.

Howard A. Hartzell (Easton, Pa.): I think the thanks of the association ought to be extended to Mr. Hall for that very able talk. I move a rising vote of thanks be given him.

Chairman Crane: The motion is before the house, that a rising vote of thanks be given Mr. Hall. Motion seconded, and unanimously carried.

Report of Directors.

(Read by W. E. Hoffman, of Tyrone, Pa.)

Mr. President, and Members of the Association: Your Board of Directors met for organization at Atlantic City, immediately after the convention adjourned, and elected all the old officers.

November, 1920, the Board met in Philadelphia to take steps to prevent unfavorable legislation. On motion, the President was directed to appoint a committee

Why Pay For Unnecessary Alcohol

When it is absolutely worthless from a flavoring stand point and simply means extra freight?

Why Pay Freight On Water?

USE NEW MEXOCINE

A Concentrate Eliminating All Wastage

BEAN VANILLA, VANILLIN, COUMARIN AND TONKA FLAVOR

M eans Service.
E conomy of use, freight, stock space, etc.
X tra power for working results.
O ur guarantee of satisfaction.
C an be used for ice cream, confectionery, baking.
I mpossible to freeze out it's true flavor.
N o comparison on the market.
E xceptional in all merits.

It's Economical

Use quarter ounce or dessert spoonful to flavor 10 gal. batch Ice Cream. Use quarter ounce or teaspoonful to flavor 50 lb. batch Candy. Average cost about one cent, to flavor each gallon of ice cream.

$7.00 per Pint

5 pints $6.75 per pt. 10 pints $6.50 per pt.
25 " 6.25 " 50 " 6.00 "

Terms: 2% 10 days 30 days Net

Samples cheerfully sent on request

REX EXTRACT COMPANY

257 PACIFIC STREET BROOKLYN, N. Y. CITY

THE ASSOCIATION OF ICE CREAM SUPPLY MEN MEMBER

PURITY
STRENGTH
UNIFORMITY

ARE STANDARDS COVERING THE PURCHASE OF GELATINE

BOSTON
CRYSTAL GELATINE

IS STRONGEST - IS GUARANTEED PURE UNDER ALL PURE FOOD LAWS - IS ALWAYS UNIFORM

A TRIAL ORDER WILL CONVINCE YOU

CRYSTAL GELATINE COMPANY

121 BEVERLY STREET BOSTON, MASS.

Branch Stores

New York	Philadelphia	Chicago	St. Louis	San Francisco
14 Ferry Street	418 Arch Street	3630 Iron Street	408 Elm Street	Fairfax Avenue and Rankin Street

to look after same. Messrs. Neuman, Hall and Hoffman were appointed.

The committee met January 6, 1921, with the Pennsylvania Dairy Council and the Ice Cream Manufacturers' Association to frame a bill prohibiting the use of foreign fats in milk, cream and ice cream. The bill was introduced by Representative Cook, and passed the House. Your committee attended the hearing before the Senate committee, April 7th, 1921, but unfortunately the bill was killed by that committee. A bill covering the same points has been introduced in Congress, and we hope to have a national law passed that will take this product off the market.

The board met in Philadelphia to select a place of meeting. Altoona and Erie were considered, and Erie was selected and the dates Oct. 31 and Nov. 1 fixed, so that we could attend the Supply Men's show at Buffalo the same week. Messrs. Walker, Neuman and Hoffman were appointed a committee to go to Erie and make the necessary arrangements.

The committee came to Erie Sept. 10th, and, in conjunction with the members here, arranged for this convention.

Messrs. Reick, Neuman and Hoffman attended the National Convention at Minneapolis, and, following the lead of the National Association strongly recommended a resolution condemning the use of foreign fats, and that this association give all the assistance in its power to the proper authorities, in prosecuting any person or firm discovered using the same.

Chairman Crane: What do you want done with this report?

Motion it be accepted, and seconded. Motion carried, and report ordered filed.

Committee on Nominations Reports.

(Mr. M. D. Huffman.)

The following members have been nominated to serve as Directors for the coming year:

W. H. List, Jr., Newark, N. J.; Robert Crane, Philadelphia; E. Walker, Warren; Harry Breyer, Philadelphia; Howard A. Hartzell, Easton; W. E. Hoffman, Tyrone; J. W. Neuman, York; E. E. Rieck, Pittsburgh; F. M. Slater, Sharpsburg.

Chairman Crane: What shall be done with this?

Mr. Rieck (Pittsburgh): Moves that the Secretary cast one ballot, which motion was duly seconded, and carried.

Hon. S. S. Robertson: On every occasion where a convention has been held, it has always been helped out by local men in the particular place where the convention was held. I don't remember a single occasion, however, in which such extraordinary exertions were put forth, as has been done in this case of our visit to Erie.

First, I am told that there was an organization of the local men here, who, sinking all their differences, if they had any, united in a common effort to make the visiting members of the association welcome to Erie. They met us at the station as you know, looked after our accommodations before we came here, and then they brought their influence to bear upon the Mayor and other good citizens of the city to join in the welcome which they had prepared for us; and last night they furnished a magnificent banquet at great expense, to which they not only invited members of the association, but their families. All this without regard to the trouble involved in preparing it, or without regard to the cost of the entertainment.

So it has been thought proper that we should extend to these gentlemen a vote of thanks for their great generosity, and for the pains to which they put themselves to make our entertainment here, and this convention an overwhelming success, as it has been. I therefore move you, Mr. Chairman, that a rising vote of thanks be extended to the gentlemen and the companies in question.

Chairman Crane: What shall we do with this motion?

Motion seconded, and unanimously carried with applause.

Chairman Crane: Introduces Mr. Wm. White, of the Grove City Creamery, Grove City, Pa., subject, "Possibilities of Building Milk Supply in Small Dairying Community."

Mr. White: Mr. President, and Members of the Association: From some of the conversation I have heard around the convention, I think more people are interested in the subject of disposing of the surplus product. However, it is up to me to talk on the possibility of providing more raw material, and in doing so I am not going to discuss the various possibilities applicable to your location, but will relate what has been done in Grove City.

Prior to the establishment of the creamery at Grove City, in May, 1915, the rural community round there was somewhat backward, and not very prosperous. There were a few cows there, but very poor—in fact, as a whole, would be classed as scrubs. When the creamery was established in May, 1915, many of the farmers were skeptical about patronizing it, and during the first month of its operation only fifty-four brought milk or cream to the plant. However, each

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month showed more patrons, and before the end of the first year the number of patrons had increased to 380.

The Dairy Division of the United States Department of Agriculture had a decided conviction that in a community where there was a good market for milk and cream, and where the natural conditions favored dairying, a field man would greatly stimulate and put real life into the dairying community, and here the farmers were not producing any one group, and the taxes and income on the farm were very low, it seemed that this community would be an ideal location, and they transferred one of their experienced field men to Grove City.

When he arrived and looked over the field, he found very little indication of scientific dairying. He first realized that one of the things needed would be better cows. I have already mentioned that most of those there were scrubs. There were two ways of going about this—either purchase them, or make an effort to get a few good cows in there and breed good stock. To have a few good cows would be a good thing, so that the rest of the community could see what a good cow was. So he talked good cows to the farmers, but they said they had no money to spend on dairy stock. They went to a banker, a gentleman interested in the establishment of the creamery, and talked good cows to him. This banker was a man of vision who saw the possibilities of developing good business for himself, right at home, and at the same time assist the farmers in developing their dairy stock. Arrangements were therefore made where by th bank was to loan money to the farmers on their personal note, but only for the purchase of cows. When the first cows were brought in, the bank arranged to have one cow go to a farm, and this proved a very good plan. So these first farmers each got a real good cow, pure bred, which he took home, feeling that he had an aristocrat of the dairy family. Naturally, that good cow, which he had paid good money for, got the best stall, the best feed and the best care; and quite as naturally the cow responded to that treatment and produced well. So the farmer was thoroughly sold on good cows, and wanted more. More cows were brought in—carload after carload, and eventually the farmers became convinced that their scrubs should be disposed of and be replaced with good cows.

With a good cow, it is necessary to have a good bull, so the subject of bulls came up. The farmers didn't feel like coming across individually with the money to buy good bulls—couldn't afford it. So the plan was resorted to which has been followed in a good many communities, that of forming a bull association. Some thirty farmers in Grove City were interested in Holsteins, all having a few, or wanting some. These were divided into four blocks, each farmer subscribing $75, which made the fund sufficiently large to purchase four very good Holstein bulls, one being placed in each block, where the 6, 7 and 8 farmers in the block could use this one bull on their entire herd, whether purebred or not. After two years, the bulls were changd round to prevent in-breeding, and at the end of another two years were again changed. Thus on an initial expenditure of $75, these 25 or 30 farmers have used a very good sire for eight years.

A Jersey Bull Association was also formed on the same plan as the Holstein association. Naturally, the question comes up, "How good are these cows—how are they doing?" To answer that question a cow testing association was formed, with which you are probably all familiar. The test has been one day per month at each farm, where the milk is weighed from each cow for two milkings, and that one day test taken as an average for the month. At the end of the first year, the average test on the production per cow for the year was 5,000 lbs. of milk and 225 lbs. of butterfat. This association has just completed its fourth year, and the average per cow for the fourth year was 6,300 lbs. of milk and 300 lbs. of butterfat. This increased production per cow per year, compared with the rate of production for the first year, shows that the same number of cows produced twenty thousand dollars worth of milk more than the first year. During the first year only five herds churned 300 pounds of butterfat per cow, but the fourth year eighteen herds churned 300 pounds of butterfat per cow, per year. During the first year only eleven cows exceeded 400 pounds of butterfat, but last year 42 cows exceeded that. Results like that make the farmer see the dollars and cents of it, and they are therefore sold on this question of good cows, not only from the standpoint of milk production, but also from the standpoint of the profit to be made from raising and selling good stock. One farmer bought a purebred cow when the second carload came in, paying $225 for her. He had that cow for four years, bred to a purebred bull, selling her and her offspring for $1,425. During that time, he was of course getting milk from the cow, and perhaps one of her heifers. Another farmer brought in Jerseys, a bull and five cows, paying $3,000 for them. His health failed him recently, and he sold these cows, with their offspring, for $7,000. So the farmers around Grove City are strong for purebred stock.

Another thing that was done to stimulate interest along the idea of increasing production was to interest the boys and girls on the farms in good calves. The field man, through the co-operation of the local banker, established a calf club, the banker financing it, so that boys and girls on the farms bought purebred stock, and

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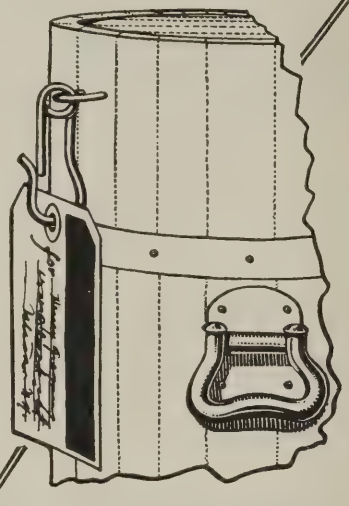
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joined the calf club. They took home their calves, very proud of the fact, as all farm boys and girls are especially proud of anything they can call their own. When these were of breeding age, they were bred to purebred bulls, and pretty soon these members of the calf club had producing cows, and calves from those cows. In a great many instances, the interest of the boy or girl in purebred stock caused the farmer himself to become interested, whereupon he would turn his herd into high producers. In one case a man had a very poor herd of scrubs. He had two sons who had joined the calf club, and after these calves got to the breeding age, this farmer came to the field man and told him he wanted those heifers bred to the best bull that was available. The field man recommended a certain bull to this farmer who had kept nothing but scrubs, and who paid a service fee of fifty dollars for each of those heifers to be bred to this fine bull. That farmer is today developing into one of the progressive farmers of the community, and is a producer of purebred stock, which all started with those boys joining the calf club. Of course this development on the farms has been noted by increased receipts of milk and cream at the creamery. During the first year of its operation the butterfat received ran a little over 150,000 pounds, and last year nearly reached 600,000 pounds. During the first year only 183,000 pounds of milk were received, but later an addition was made to the plant, and arrangements made for the manufacture of cheese. The new addition provided more than the original floor space, and last year 6,000,000 pounds of milk were received—an increase of several hundred per cent.

This field man stationed there by the Dairy Division was there only two years, when he left to go to another and bigger field. After he had been gone for a few months the people in the community began to feel his loss, and realized that they couldn't afford to be without a field man, so arrangements were made to get a field man on the job again. The farmers didn't feel able to carry it themselves, but with the assistance of the creamery and the Commercial Club, they employed a field man, who, by the way, is the one originally sent, so things are once more going ahead at full speed.

In developing dairying at Grove City it was felt desirable to have the herds tuberculin tested, and over half have had their herds tested and accredited as being tuberculin free according to the plan of the state and federal departments. This accredited herd association, which has been formed and had their herds tested, also includes in its program the sale of surplus dairy stock. Every year, for the past five years about, this association, together with the creamery. has held a dairy show. This last year at the show were 305 purebred tuberculin tested dairy animals shown. Some five thousand people attended this little exhibition.

Because of the fact that the creamery was in the town, and is the scene around which the development is taking place, and because of the fact that every man had his residence in the town, as was also the banker, the farmers have become affiliated with the town more closely than before. Also because of this dairy development the farmers have been getting a check from the creamery once a month, so that they have had more money to spend, and the merchants report that the farmers have bought more and better merchandise, paying for their purchases with cash instead of asking for credit. The town is strong for development, because every business man is profiting by it, and the banker has increased his deposits within the last five years by a million dollars, one-half of that being in the hands of the farmers.

The Commercial Club of Grove City are a good, live bunch, and they have taken a great interest in developing the dairying round there; also have invited the farmers to become members. Now fifty are members, some of them very active. The Ladies' Auxiliary of the Commercial Club, known as the Women's Civic League, also has a good many members who take an active part. So the development of the dairy business has brought the farmer into town and taken the town interests out to the farmer, all of which is developing a community spirit. Anything to be done in connection with farm development is entered into by more than the farmers, in fact the whole town. In preparing the dairy show, for instance, there were two clean-up days, and the business men of the town went out and helped the farmers prepare the grounds. This association has purchased five acres of ground as a permanent home, and as soon as circumstances will permit, will erect a pavillion.

What has been done in Grove City is a matter of co-operation between the farmer, the merchant and the banker. It would appear that something could be accomplished in any community where there is a good market for dairy products, and where the people are willing to co-operate and push the proposition. (Applause.)

Chairman Crane: Is this creamery co-operative?

Mr. White: It is owned mostly by stockholders in town. There are some farmers that own stock.

Chairman Crane: The government is not interested?

Mr. White: The government has a 15-year agreement with that creamery and in that agreement it provides for supervising the operation of the plant, and a certain part of the building is used by the operating division for investigating the work. Several men are stationed there. The government doesn't own the plant, or put any money into it.

Chairman Crane: Is a certain amount of the expense borne by the government?

Mr. White: No, the only money the government pays to the creamery is the equivalent of the rental for the part their department uses. They have laboratories, and an experimental creamery room.

Mr. Robertson: Did the government do something in the way of assisting in the beginning?

Mr. White: The government started it, yes. It was at the request of the government, and with the agreement that the government should supervise the operation of the plant, that the thing was started.

Mr. Robertson: The point was, it wasn't financed by the people?

Mr. White: No, the government started it because they wanted a place to do investigation work on a commercial scale,

Chairman Crane: If some of us wanted to do likewise, is there such an opportunity?

Mr. White: That would not be the case, because the government needs only one plant for investigation work.

Chairman Crane: Calls upon J. L. Shoemacher, of the Crane Ice Cream Co., Philadelphia, who addresses the conventnon as follows:

Mr. Shoemacher: Mr. President, Friends and Fellow Members: First, I want to thank all the kind friends who helped me search for my hat last evening. I have to announce that I found it this morning.

One of the beatitudes is "blessed is the man who makes short speeches, for he shall be asked again," so I will not attempt to make any formal talk, but will just

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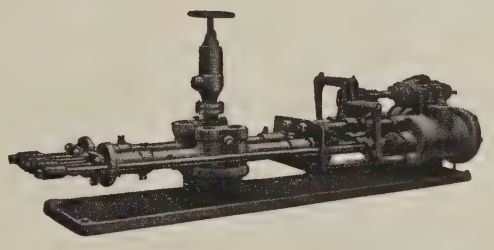
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pass on to you a few thoughts now going through my mind.

I wonder if you realize what this association means —what this industry means to the country. Every big industry passes through three stages—first, development; second, competition; third, co-operation. There are many men in this room who have seen this business from its inception, and who can remember the time when the ice cream soda brought ice cream before the people as a cheap article of food; and they can remember when the ice cream cone further popularized it. We are now searching for something else to further extend its popularity.

I know some of you have come to this convention, and have asked yourselves, "what does this Pennsylvania convention mean to me?" It means to you and to me just exactly what you put in and what you give it. Your officers, your directors, can't make this association. This association is just as big as the individual members in the industry make it; and I can say to you in all seriousness that the growth of any industry in this country has been measured by the strength of its association. Possibly the biggest example before us is the California Fruit Growers' Association. I trust and hope this industry will not have to be brought together for the same reason as was that. You know there is nothing that brings a family or community together like trouble or death. Brothers who have been estranged for years will be united, and the same thing over in Dayton, Ohio, will save Patterson from the penitentiary, and make him a benefactor. It was trouble that brought the California Fruit Growers together—they had to stick together or see the industry go by the board. We have an industry here, developed like that was, by co-operation and competition. If there is any message we should take from these splendid topics, it seems to me to be this—that this industry is today in competition, and that it remains with us as men in the business to determine how long it is going to be before we come into such co-operation. What advantage is it to the industry if I take a customer from a competitor; what advantage is it if I get other people to use ice cream who have used it before? What advantage if I devise some new way of selling or distributing if I cannot devise new methods and new uses for ice cream?

I wish I had the brains to be able to determine what the next development of this industry will be. I firmly believe that something will come along in the next year or two. As during the days of the Centennial in Philadelphia, when ice cream was made popular, we hear a lot today about that word **service.** I don't care what your relations or politics are, you look up and worship some man whose life has meant service to the world,—some man who as a stellar light, has in history rendered something to their fellow men. If you go to the bottom of your heart, you will find there is one thing we are striving for,—business; and the keynote of business is service. The more you give, the more you get; and the more you take away from somebody else, the less you get.

For countless centuries men have been fighting one another,—from the time of stones and clubs until they have got to this miserable poison gas of the war; and we can point out men who have built their reputation on the bodies of those they have trodden down. It seems to me we have come to a degree of intelligence, when all sensible thinking men will see the future of this world of industry we are so vitally interested in,—see that it depends upon a knowledge of the method of co-operation. First, co-operation and service to the community, because the community will regard us just to the degree

we render service. You can't put anything over on the public, if you try to, you can't get anything out of it; but if you render to the people a real service, you will get your reward. If instead of merely talking about it we honestly try to bring this period of competition into one of co-operation we will find this industry more quickly attaining the goal to which it is entitled, a goal to which it has been leaning for the past fifteen years.

There is no question but that the ice cream business stimulates the milk business. It has created a business whereby the over-supply of milk in the summer time is used; and in the winter time, and when not produced so abundantly, it goes to the milk people. So the industry is rendering a service to every man who is producing milk, and if we will come to that point where we are willing to try to bring about co-operation in our industry, the more industry will prosper, and each member must of necessity prosper accordingly.

So folks, I just simply plead with you this one thing,—here in Pennsylvania we make possibly 22 million gallons of ice cream. Let us make this Pennsylvania Association the biggest thing in the United States; let us by the conduct of our business, attract the attention of other states in the Union so that they will believe the state of Pennsylvania the finest state in the Union. (Applause).

Mr. Hartzell: Mr. President, and when I say it I hope it will be as long as this Association lasts,—I want to make a motion that we give a rising vote of thanks to the gentleman who just made this address.

Chairman Crane: What will you do about this motion?

Motion seconded, and unanimously carried.

Chairman Crane introduces Geo. M. Brink (Pottsville) who speaks on "Benefits of Regional Ice Cream Associations."

Mr. Brink: Mr. President and Members of the Association, as Secretary of the Central East Ice Cream Association, I want to toot the horn for our members, so I have prepared a little stuff here entitled, "Benefits Derived from Regional Associations."

The benefits derived from regional associations are numerous and of various kinds. These benefits can best be summed up under the following heads,—adjustments, advertising, arbitration, compilation of trade information, cost accounting, elimination of excess varieties, elimination of abuses in trade practices, labor problems, insurance matters, investigations, (both technical and practical) legal advice, market reports, production problems, research work, standardization, technical information and traffic work, (both express and freight) and last but not least establishing good fellowship among competitive manufacturers.

In all probability the Central East Ice Cream Association can be looked up to as a good example of benefits derived; this association having stood as a body, the acid test for almost two years. We have had several ups and downs, but have always come through with colors flying high. One of the biggest benefits that have been derived has been the fact of meeting a competitor face to face and holding a **friendly** conversation, thus allowing each to study the other, and the result has been a **permanent** friendship. Before this association was organized in this district, the competitor's usual method of talking about another was in an unprintable way. Today, you will find this condition practically eliminated in the district we cover, which includes the following counties: Franklin, Chester, Northumberland, Northampton, Cumberland, Montgomery, Carbon, York, Berks, Lebanon, Lehigh, Lancaster, Luzern, Dauphin,

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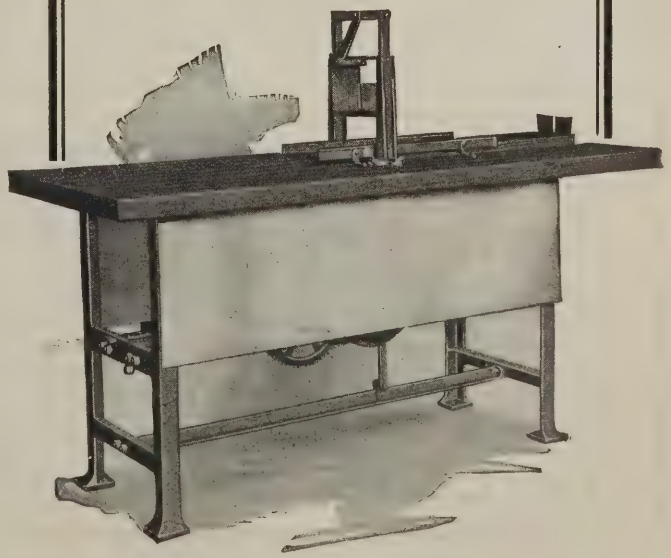
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Our circulars tell all about this simple, practical machine. Get one.

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Schuylkill. We have found that to take in a larger area brings about many difficulties. It is a well known fact that commercial conditions differ largely when you travel from one territory to another, and that is the reason that a small association with set rules cannot dictate for a large area.

This association has several examples of the good work that has been accomplished. As a general condition in our region, you will not find what may be termed "over advertising." For instance, if a customer comes to a manufacturer and asks for a large, elaborate electric sign or else lose his business, the manufacturer knows that he can stand fast and not give this sign, because his competitors would not do so. Another example, is the matter of loaning money to a customer to get his trade, and as an example of what has actually happened in our association I will quote something like this: A customer called a certain manufacturer and asked him to loan $500 in cash so that he might further his business. The manufacturer refused to grant this request and was immediately informed that his competitor would do it, and that he, the manufacturer, should have his cabinets removed, thus signifying he was out the trade. The first manufacturer immediately called the other fellow who was said to have made this arrangement, and learned from him that it was not true. Had this man not been an association member, this would not have been done, or maybe the customer would have carried out his $500 proposition. As it stands now, the customer could not use the manufacturer as a bank, nor would the first manufacturer lose the trade by having the customer try to jockey him.

Undoubtedly the small manufacturer has reaped a larger benefit from this association than some of the larger ones. It is a well known fact that the small manufacturer could not stand the overhead of an elaborate cost system, thus doing a business more or less in the dark and allowing the customer to use a club on him, beating him down in his price, even below what his material would cost. The larger manufacturers in the Association have been good enough, and they should be, to give the small fellow cost values, which enable him to get an approximate cost of his own material without any overhead attached to it. By doing these favors for one another, it can readily be seen that the customers in this region are being canvassed and sold to on a quality and service basis, and not a price proposition.

On matters of arbitration as to troubles that arise between competitive manufacturers, we have appointed a man in each district to listen to the arguments and adjust the difficulties to the satisfaction of both parties concerned. It has usually been found that when troubles exist between manufacturers, it is a case of the customer being a better buyer than the manufacturer is a seller. In many instances too numerous to mention, these arbitrators have stopped the customers from bulldozing the manufacturer and having him almost give his product away by threatening that if this fellow would not give him what he wanted. This association has been instrumental in keeping legislation that had to do with our industry, within reasonable bounds.

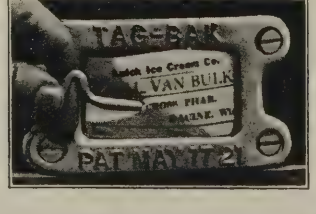
We did good work at the time the auto license fee was to be raised; also at the time our so-called competitors tried to put over their cocoanut fat proposition. The Pennsylvania State Association should thank the Central East Ice Cream Association for bringing forth such a man as Thomas Hall, of the Russ Bros. Ice Cream Co., who undoubtedly would not have come forth to the front had it not been for this association. With very few exceptions, we have met each month in different cities, at the option of the membership. We have had outsiders make addresses, but with such wonderful talent in our own association, it is very rarely that we have to go outside for men to lecture and talk on subjects in which we are interested.

This association has been termed "a price-fixing association." This is absolutely wrong and untrue. Our main object is to eliminate unfair practices and methods of making business, and to place the ice cream industry as a whole, on the highest plane possible.

The friendship established among our members can never be destroyed. We have grown to know one another by our first names, and each treats the other as a man.

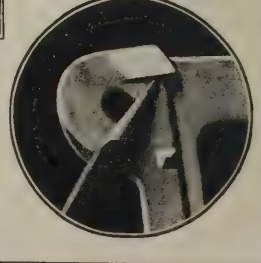
Some subjects to be taken up that lay on our association desks at the present time are: The rental charge per hole for cabinet service to a customer; our idea being to try and abolish the customer's using of too large a cabinet for the size business they do. Another is the matter of establishing a trade credit bureau, and a third a central purchasing and pricing bureau in regard to raw materials and supplies. As regards cabinets, one of our members had just been compelled to buy three carloads of cabinets, which not only broke his heart, but busted his pocketbook. He remarked, "How am I going to get my living?" In our association, the idea was proposed of charging a rental per hole in the cabinets placed in stores,—take the interest on our investment, depreciation, labor, etc., and apply that on the renting of the cabinet, charging each customer a rental on a monthly basis. Our association is going to try and put that over, but you can't put it over unless you have an association like the Central East, that will stick together. I hope by the time we meet again, we will have these

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is best explained by the special patented construction of the TAG-BAK itself and by those who have used them.

The projection on the back is the little device that lets the tag slip in easily and prevents the tag from coming out again. Only a sharp pointed tool; deliberately inserted in the tag can remove it from the TAG-BAK System.



Learn more about the TAG-BAK System thru one of our circulars—write

TAG-BAK, 183 Ogden Ave., Milwaukee, Wis.

things working, so I can tell you how they are working out.

Now, I want to plead with some of you fellows about putting free regional associations in your district. As a general average, I have found that a man puts out 75 pounds of ice and 15 pounds of salt for every 15 gallons of ice cream. You can't find that in the Central district. We don't go to another man's customer and say, "Here, we will give you so much." I defy anybody going into the Central District and find our association doing that. We are sticking together on that, also on our advertising. We don't paint a man's building, refurnish his store, or finance him,—that is not being done. We are giving a customer all he can figure on, and making a legitimate profit. We are not at each other's throats. When this or that happens, we go to the telephone and say, "Did you promise this man this or that?" and he says, "No." And when that man says "No" who is an association member, we know he means no.

We have no price fixing association in our district,—have a price variation of from $1 to $1.40 for the same kind of service. But we are staying clean, and not going out and saying this or the other fellow is a dirty bum, and he is using this thing or that, or other things that are unfair. We are meeting on the level, and doing business in a clean way. I want to say to you we are going over the top, going to save money for each of our members, and give the customer dollar for dollar for what he is paying. I don't see why you can't have such an association in Philadelphia, Pittsburgh or Erie, and I hope next year we will have several instead of one. Applause).

Chairman Crane introduces Mr. L. M. Hendler, of Baltimore, who addresses the Association on the subject, "Boosting Winter Business."

Mr. Hendler: I am not surprised at President Crane calling on me. He is just getting back something I owe him. I arrived a little late, but early enough to hear the gentleman talk about co-operation.

I started in the ice cream business with some of the older fellows, when we used hand grinders, and I have been fairly successful. I have been able to make a good living, provide for my family, drive an automobile. I think I have got about everything the Good Lord owes me, and the world doesn't owe me a thing. I have done that through what I thought was co-operation, but I have reached the point now where I have decided I am not going to try and reform anybody else,—I am going to let them go to h—l, as they please.

We are today in Baltimore giving what we feel is a fair price for good ice cream. I believe that every man here knows that at one time we made the poorest ice cream in the United States, but we did the best we could at the price we were getting, and you have got to give us credit for being able to come from 50c ice cream to $1.20,—that was the hole we had to climb out of. When our Philadelphia friends were getting 80c and 90c we were getting 50c and 60c. Today our friends in Philadelphia are kicking one another over the door steps for $1, and we are still getting $1.20.

Competition was getting so that I had about decided to give up, when we decided to take stock of ourselves. Whether here, or in Baltimore, co-operation is not going to be a success; you will not do certain things; you can talk all you please, but unless deep in your heart you are going to do these things, your association will not be a success. We thought we were co-operating in Baltimore. Some of you men have interests in Baltimore, which possibly should be looked after before they go to

Increases Winter Business



Think what it would mean to you to ask thousands of customers their first choice of fruit, and flavors, and then offer those same customers a combination of a dozen or more of those first choice fruits and flavors, made into a **Supremely Delicious Ice Cream.**

Blanke-Baer Honey Fruit Salad

The Marvelous Fruit Combination means much in overcoming Winter Selling difficulties as Honey Fruit Salads adds to your Ice Cream just the Fruit and Flavor your customers want.

Put up in gallons cans, 10 gal. kegs, ½ bbls. and bbls.

Don't lose time or wait for sample. Order TODAY a case (6 gal. cans) of this heavenly mixture. You'll be surprised at wonderful results and low cost.

Blanke-Baer Extract & Preserving Co.
3230 South Kings Highway
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THE TEXAS BARREL COMPANY manufactures the most durable Ice Cream Tub on the market. Sizes in half gallon and up.

Our 29 inch five gallon tub prevents cream from melting at the top. A cream saver.

Specially prepared bottom so constructed as to withstand extremely rough treatment.

CABINET TUBS SPECIALTY

Can make immediate delivery—Write for prices

Texas Barrel Company
HOUSTON, TEXAS

VAN-MUL

The King of Ice Cream Vanilla Flavors

Made of **Mexican Beans** and Fortified

Will Not Freeze or Cook Out.

¼ Oz., 7c. Flavors, 5½ Gal. Mix of Ice Cream
3 Drams, 10c. Flavors, 100 Pounds of Candy

Many Satisfied Users

Packed	Price Per Pint
1 Pint Bottle	$5.00
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Downey-Turnquist & Co.
Manufacturing Chemists and Importers
Makers True Fruit Extracts
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the devil. They have the same conditions there as in Philadelphia. I say these things openly, because that has been my method, and so as to benefit the entire association here. We are not in business for our health, but profit; and unless you fellows take stock among yourselves first, all this association and co-operation talk doesn't amount to a damn.

As I said before, I am not much of a talker, but I can argue a question much better than I can talk. So I am willing to take up and discuss this subject, but so far as making a speech is concerned, I can't do it.

Mr. Rieck: What do you think ought to be done?

Mr. Hendler: Take stock of ourselves first.

Mr. List: How are you going to do that?

Mr. Hendler: Down deep in your hearts you know whether you are doing right or wrong. I am not the most honest fellow in the world,—can do a trick as well as anybody else, and anybody who thinks he can pull a trick on me, is kicking me and defying me to go and pull a trick on him,—that is just exactly what he is doing.

Question: Are they underselling you in Baltimore?

Answer: That is a pretty broad question.

Q. Are they cutting prices?

A. We have four prices: 90c to $1.20.

Q. We have five: $1 to $1.50.

A. When you sell that ice cream at one price, and another ice cream at another, it is a question of getting down to quality.

Q. What is the idea of so many different grades?

A. You can't sell any person quality ice cream at a low price. You cut quality until you go out of business.

Q. I understand Philadelphia is hauling ice cream to New York?

A. Because they can't get enough out of it in Philadelphia. I believe all Philadelphia manufacturers deem they are not making a great deal of money out of it, at $1 per gallon. I heard a man say the other day "They want to make the dealer pay for their business out of the dealer's business." If a man wants an electric sign he comes to you and says, "If you don't give it to me the other fellow will." Putting two and two together, the other fellow won't do it. Of course, there are two ways of looking at an electric sign, and it is all right if a man has enough business to justify it. Whether you put it in electric signs, bill posters or newspapers doesn't make any difference, but when I paint a man's place, and he is my customer; then my competitor comes along and gives him $50 for that same place, after I have painted it, that is where you are stepping on my corns. That is what the association is for.

Mr. Rieck: Don't look at me, I don't belong in Philadelphia.

Mr. Hendler: Do you know why I look at you? I like to look at a fellow who has good sense enough not to do those things.

Mr. Rieck: But you might create a wrong impression.

Mr. Hendler: You are a good scout. You know how it is. Here is a cabinet over here. Some salesmen don't know a thing. It is "Whose ice cream are you using? Oh, that fellow Rieck? He just put in a beautiful cabinet for a fellow two blocks away, painted a sign on his wall, fixed his windows." That is the kind of feeling that causes trouble. He may say "The water is all over your floor. Why don't you get them to connect that to the sewer,—we did that for the fellow down the street?" "You ought to see the cabinets we put in. You don't have to have that counter there at all, as this

cabinet comes as a counter and everything else." Those are the things that get you into trouble, and those are conditions you have got to take stock for among yourselves.

I heard the remark here about a charge for the service and cabinets, and about the only time people get together is when somebody has died. When the ice cream people get close to death, then they realize something has got to be done. In Baltimore we got pretty close to death, so we formed a little association and decided to charge a fine of one cent per gallon for every gallon he sold, to the first fellow who jumped the price. We put a service charge on every customer, and I believe it is one of the best things we ever did. We charge every man $2 per week for service. That regulates his price, and if he uses 25 gallons of ice cream a week, his ice cream costs him 8c per gallon for additional service. If he uses 100 gallons, it costs him 1c per gallon. That took care of the big customer at a little lower figure. It took care of the situation as easily as anything we could do, and there wasn't a great deal of bookkeeping.

At one time we made three flavors—vanilla, strawberry and cherry. Today we are making six known flavors, and a couple with names nobody knows. We run strawberry, cherry, vanilla, peach, and two private brands. We run extra names and occasionally drop out a flavor. Something has got to be done to give the fellow a little better service, and I am frank to admit I would do it myself.

Some of the manufacturers give to the trade individual bricks—vanilla, strawberry, cherry. Now, if you give a fellow those individual bricks, price doesn't mean anything at all. When we were near death, at 60c a gallon, we formed our little association, we got together, and we never made so much money in our lives as we made after that.

Mr. Rieck: Does your association still exist?

Mr. Hendler: No. Some of our patrons died, some went out of business, etc., and we are now waiting for another death.

Mr. Rieck: Couldn't you get the new fellows to consider it?

Mr. Hendler: I don't think it has gone so far that something couldn't be done, but I wouldn't want Baltimore to be held up as an example to the rest of the world. The salesman is the one who is responsible for it, you know. (Applause).

Chairman Crane closes the session, with announcing and having read a telegram from Wm. D. McCormick, Pittsburgh, Pa., regretting his inability to attend the convention.

Adjournment.

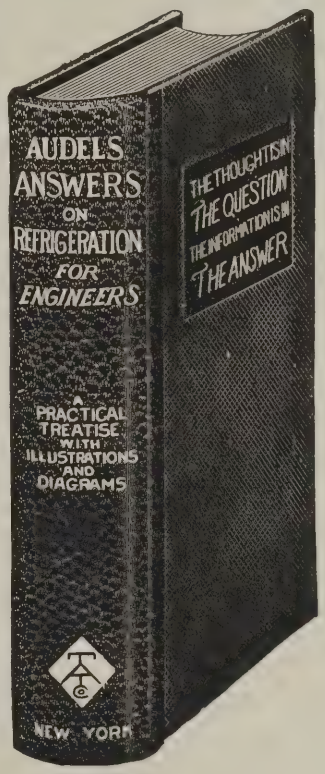
NEW BASIC FRUIT PRODUCTS.

Puyallup, Wash., is in the midst of a most wonderful valley stretching from the foot of Mount Rainier, whose summit is cold-storaged with a perpetual ice crop covering fifty square miles. Rimmed in by three distinct ranges of foot-hills, and influenced by the great Puget Sound, the Puyallup Valley is favored with an equitable temperature the year around.

The research laboratory of the Puyallup & Sumner Fruit Growers Canning Co., Puyallup, Wash., is increasing the efficiency of its laboratory equipment. This department, under the direction of Dr. W. S. Beekman, will investigate the basic by-products of bush fruits.

Over ten million pounds of bush fruits are handled annually through the Puyallup & Sumner Fruit Growers' canneries.

Can You Answer These Simple Questions on Refrigeration?



How may refrigerator machines be classified?

What are the different forms of compressors? What conditions make top expansion desirable and what bottom?

What is the first process in pumping out expansion coils?

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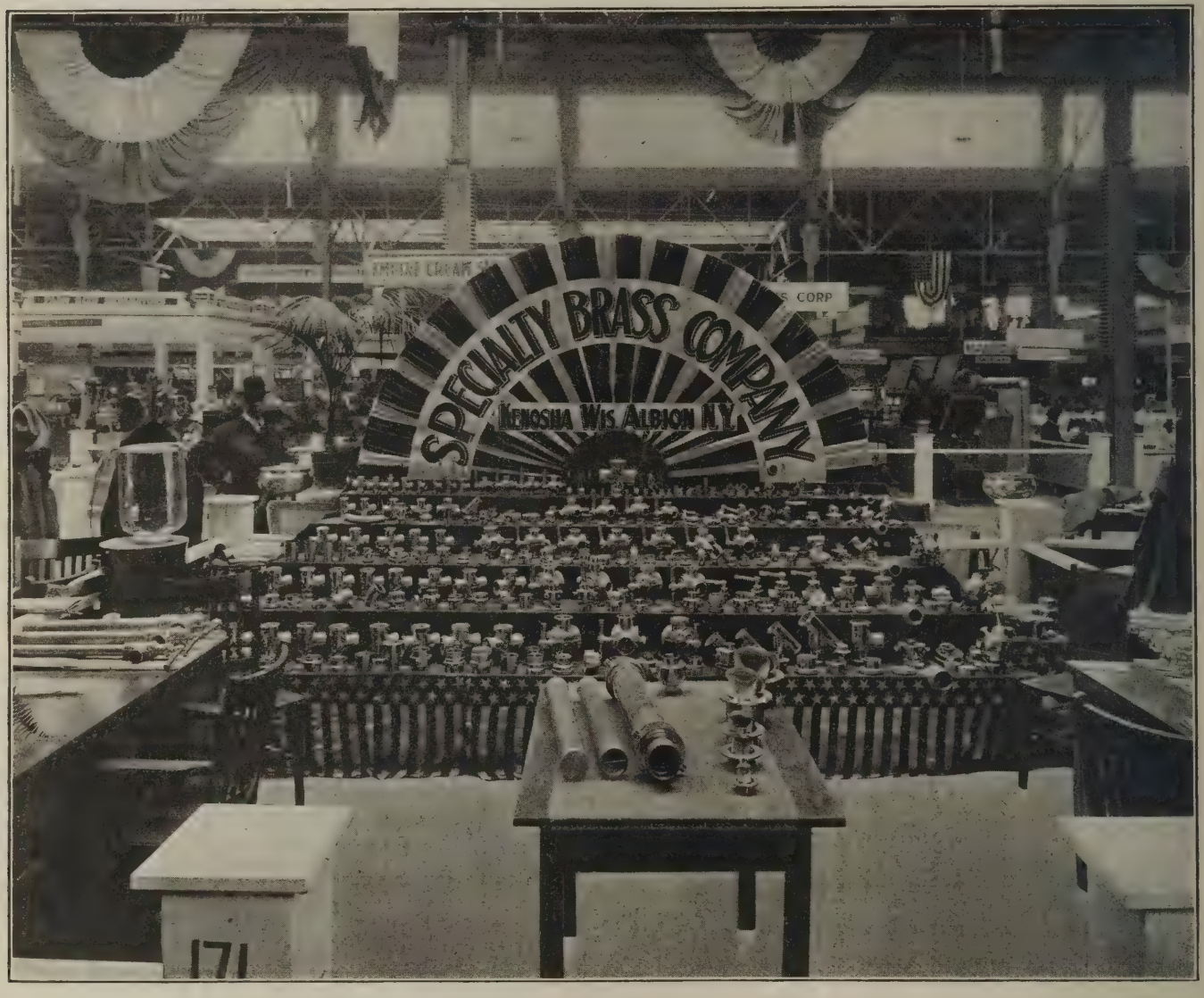
The Olsen Publishing Co.

210 Sycamore Street

Milwaukee, Wis.

SPECIALTY BRASS COMPANY HAD COMPLETE FITTINGS ON DISPLAY.

The Specialty Brass Company, of Kenosha, Wis., had a most complete and interesting line of sanitary creamery fittings at the National Dairy Show; and several new innovations in fittings were shown at their attractively decorated booth.



One of the new accessories was a strainer used where large quanities of milk are taken care of, principally on homogenizers and such other machines.

A sediment tester was on display which was designed by Mr. Kendall, of Potsdam, N. Y. The sediment in the milk is quickly and accurately located in a few moments' time. A patent has been applied for on this machine by the inventor.

A no-foam can filler, which is considered an improvement on the older type, in that it can be taken apart and cleaned in the proper way, attracted no small attention at the show. This filler facilitates cleaning regardless of condition and misuse, as in some of the older types it is most impossible to take them apart and clean in the proper way.

Drains for ice cream cabinets and a new sanitary check valve were shown.

Mr. Chas. Anderson had charge of the display.

ICE CREAM IS KING.

According to statistics presented by the National Association of Ice Cream Manufacturers since prohibition the consumption of ice cream in this country has increased by 100,000,000 gallons a year. In other words, instead of putting a foot on the rail and ordering three fingers of bottled in bond, the citizen in search of refreshments, strolls into a soda emporium, studies the list of flavors as keenly as he used to ask "What brands do you serve," and once served ladels his order into his interior, instead of pouring it down at a gulp, with a chaser and wry face to follow.

It's a good sign, every way you take it. It pays the farmer better to feed his grain to cows and sell his milk to the ice cream maker than to sell his corn or rye to the distillery, and 100,000,000 gallons of ice cream a year requires a lot of cows to produce the necessary milk. And the ice cream business is a better business all around than the corner saloon.

"But," says the man on the other side of the prohibition fence, "there is not a kick or a punch in a whole gallon of ice cream," and that, brother, is why the ice cream box is more popular with the wife and kiddies than the old-fashioned "package" some folks used to take home.—Harrisburg (Pa.) Telegram.

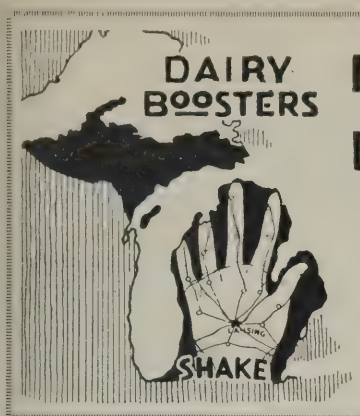
Headquarters for Chocolate Covered ICE CREAM BAR WRAPPERS

Sixty hours' service on all orders

MILWAUKEE PRINTING CO

Idea-ists in Confectioner's Printing

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MICHIGAN ALLIED DAIRY ASS'N

Dairy Booster Officers:
Pres., R. J. ELLWANGER
1212 Bemis Ave.,
Grand Rapids.

Secy., C. J. W. SMITH
c/o Creamery Package
Mfg. Co., Detroit.

OBSERVATIONS.

By C. J. Yuncker, of Rex Extract Company.

Buckeye Dairy Co., Marion, O., is now making ice cream. Mr. E. A. Williams is the proprietor.

* * *

Salem Sanitary Milk Co., Salem, O., will install an ice cream plant. Mr. Smith is the buyer.

* * *

Mr. Mitchell, formerly with Tiffin Pure Milk Co., Tiffin, O., has taken a position with the Seneca Dairy Co., Fostoria, Ohio.

* * *

The Paige Dairy Co., Toledo, O., is building a new addition to their dairy plant.

* * *

C. O. Wells Creamery Co., Crestline, O., will install a new ice tank and cold storage room.

* * *

Mr. and Mrs. Chas. Beardsly are spending a vacation with relatives in North Carolina. Mr. Beardsly is manager and buyer of the C. O. Wells Creamery Co., of Crestline, Ohio.

* * *

Sanitary Tinning Co., Cleveland, O., will have an exhibit in Booth 32 at Michigan Show in Saginaw, Mich., February, 1922. Mr. A. J. Miller will see to the booth.

* * *

Bryan Ice Cream Co., Bryan, O., just purchased a two-ton Wilson truck to add to their fleet of automobiles.

* * *

Esmond Dairy Co., of Sandusky, O., will erect a creamery and condensed milk plant at Fulton and Railroad Sts., Port Clinton, O., the building will be three stories. Ice cream for wholesale trade will also be made in the plant. It is also expected that they will later manufacture artificial ice. Mr. R. E. Miller will be the manager.

* * *

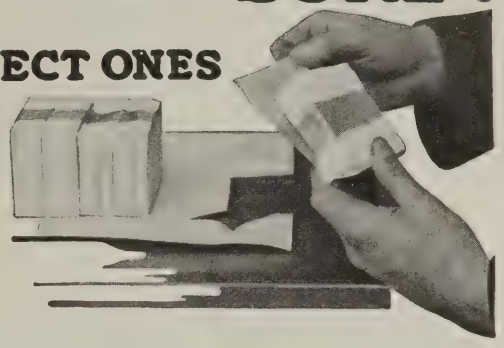
The A. E. Hughes Dairy Co., Bowling Green, O., has installed a Rapid Bottle Washer in their milk department. They are making other improvements.

* * *

The prize winners for the Ice Cream Supply Men's Salesman Club was announced in Buffalo, N. Y., during the convention there last week. They are as follows: C. J. Yuncker, Toledo, O., first prize; J. W. Mulligan, Louisville, Ky., second prize; A. A. Senor, Cleveland, O., third prize; S. W. Mendelson, Chicago, Ill., fourth prize. The first and second winners represent Rex Extract Co., Brooklyn, N. Y.; third winner represents National Paint and Varnish Co., Cleveland, O.; the fourth winner represents A. Daigger & Co., Chicago, Ill. The

INDIVIDUALS ? — SURE !

PERFECT ONES TOO!



Rogers' Automatic
Ice Cream Brick Maker

Fills individuals—either 6, 7 or 8 to the quart so perfectly they can be taken from the carton and sold or served in the original package.



Filling quarts, pints or individuals at the rate of 4 gallons per minute bricks can be made in

One, Two or Three Colors

At a single operation and color divisions are perfectly defined.

Viscolizers Too!

John W. Ladd Company

"National Approved Ladd *Distributors Specialties"*

DETROIT CLEVELAND

Salesmen's Club held a meeting on Friday night when Mr. Yuncker made a speech to them.

* * *

Mr. Chas. A. Beall, President of Rex Extract Co., Brooklyn, N. Y., and his southern representative, Mr. J. W. Mulligan, attended the Atlanta convention as the firm had an exhibit there.

* * *

Look out now and make arrangements to attend the Michigan Allied Dairy Convention in February, 14th to 17th, 1922, for the show will be a good one and have plenty of exhibits there. Let us all be there.

* * *

All ice cream manufacturers, cheese manufacturers, dairies and creameries in Ohio and Indiana, especially

The Shore Acres Creamery Co., Pontiac, Mich., are thinking of building an ice cream plant.

* * *

The Widlar Co., Cleveland, O., will have an exhibit at the Michigan show at Saginaw, Mich., in February, 1922. Howard Black will take care of the booth.

* * *

Rex Extract Co., Brooklyn, N. Y., will have an exhibit at the Michigan show to be held at Saginaw, Mich., in February, 1922. Their representative, C. J. Yuncker, will take care of the booth. He invites you to make their booth your headquarters while attending the show.

* * *

A. J. Miller of Sanitary Tinning Co., Cleveland, O.; Howard W. Black of Widlar Co., Cleveland, O.; A. E.



those who are located along the state lines, should attend the Michigan Allied Dairy Convention and show at Saginaw, Mich., on February 14th to 17th, 1922, and get acquainted with the manufacturers in Michigan so as to know each other more and work closer together. You will see a show with nice exhibits, for Michigan has always had good exhibits. You will no doubt find the attendance will be good and surely will enjoy yourselves while there. Think this over and see if you can not attend this show.

* * *

The City Pure Milk & Ice Cream Co., East Liverpool, O., will erect a modern plant for their business.

* * *

C. J. W. Smith, Detroit, Mich., representative for Creamery Package Manufacturing Co., also secretary of Michigan Dairy Boosters, has had his hands full as Mrs. Smith has had a long spell of sickness.

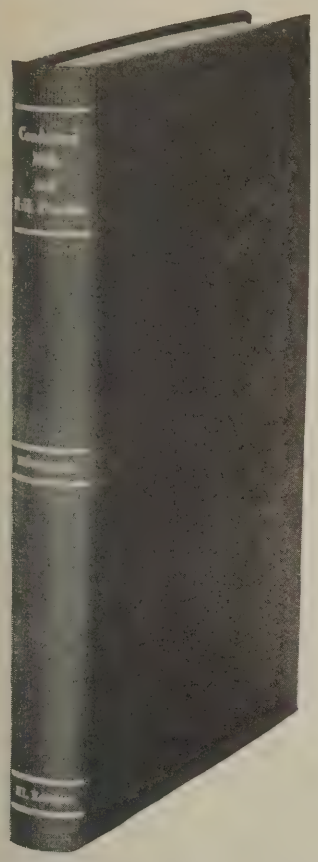
McFarland, Chicago, Ill., who sells Essex gelantine, will be at Michigan convention as usual.

* * *

Some of the salesmen returning on their way home from the Buffalo convention stopped off at Cleveland, O., Sunday night and were entertained at the home of A. J. Miller of the Sanitary Tinning Co., and they all had a good time, as Mr. and Mrs. Miller know how to entertain their friends. Of course Miller would make you split your sides a laughing for he is such a hearty laugher himself.

* * *

Mansfield Pure Milk Co., Mansfield, O., will install new boilers in their plant, also build a new cold storage room and make some other improvements. Mr. Sam Isaly has become the buyer for the firm, taking the place of his father, as buyer. Mr. William Isaly has



Condensed Milk and Milk Powder

(BY OTTO F. HUNZIKER)

THE THIRD EDITION of This Book Has Just Come from the Press.

This work represents a new book from cover to cover. It contains the description of the latest equipment and of the most improved methods and practices in the manufacture of every marketable line of condensed and dried milk products.

The More Outstanding New Features Are:

New methods for cooling sweetened condensed milk to prevent grittiness and sugar sediment.

New methods for sterilizing evaporated milk to prevent formation of a permanent curd.

Viscosity tests.

Condensing and drying of buttermilk by commercially practical methods.

The use of the Ruff Condenser.

Description of 20 different processes of desiccating milk by the dough-drying principle, the film-drying principle, and the spray-drying principle.

Detailed discussion of the commercial manufacture of powdered milk.

Cost of manufacture, composition solubility, properties, defects and keeping quality of milk powders.

All other chapters have been revised so as to make available such information as will be of the greatest service in the successful manufacture and marketing of condensed and dried milk products under the new and changed conditions of the industry.

The price of this new and enlarged volume is $5.75 per copy.

Send your order with remittance to

The Olsen Publishing Company

210 Sycamore Street **MILWAUKEE, WIS.**

been on the sick list but is now able to be around the plant.

* * *

The Defiance Ice Cream Co., Defiance, O., purchased the Defiance Dairy Co. plant and added it to their business. W. C. Hopkins and Geo. Watts are the new managers.

* * *

The American Ice Cream Co., Cincinnati, O., will remodel their plant.

* * *

Mr. W. D. Axtell, formerly with the Esmond Dairy Co. and also the Martin Ice Cream Factory at Sandusky, O., is now manager of the Dickson Creamery Co., Mansfield, O.

* * *

Dairy Products Co., Bucyrus, O., has completed the new two story brick addition to their plant and also has added a cheese plant to their business.

* * *

The Paige Dairy Co., of Toledo, O., is building a two story brick building all up to date for a branch dairy and ice cream plant in Mansfield, O. It is being built on Franklin St.

* * *

A. D. Baumhart, Vermilion, O., is planning to build a new building for his ice cream plant. His business has grown so large that he needs more room.

* * *

Mr. Charles Isaly, manager, and Mr. W. H. Yuncker, salesman for the Isaly Dairy Co., Marion, O., made a trip to Maine for deer, and as both are good hunters, they came back home with a deer each.

The Ice Cream Review editor's sidekick is some writer. Come to Saginaw for convention and see the happy bunch who attends it for they are hustlers.

* * *

The following people attended the convention at Buffalo, N. Y.:

J. H. Cline, Cline Ice Cream Co., Athens, O.
J. J. Schmidt, Cline Ice Cream Co., Athens, O.
S. E. Conklin, Fleming Ice Cream Co., Bay City, Mich.
W. M. Ely, Piper Ice Cream Co., Kalamazoo, Mich.
R. E. Fleming, Fleming Ice Cream Co., Jackson, Mich.
Chester A. Francke, E. D. Francke & Sons, Saginaw, Mich.
A. J. McColgan, M. & B. Ice Cream Co., Saginaw, Mich.
R. J. Colgan, M. & B. Ice Cream Co., Saginaw, Mich.
A. E. Williams, A. E. Williams Ice Cream Co., Saginaw, Mich.
John Hanway, Raeher Dairy Co., Saginaw, Mich.
W. G. Ginch, M. & B. Ice Cream Co., Saginaw, Mich.
Chas. Dinger, Fred Sanders, Detroit, Mich.
J. Miller, Fred Sanders, Detroit, Mich.
C. F. Wallace, Fred Sanders, Detroit, Mich.
L. Meacham, Detroit Creamery Co., Detroit, Mich.
R. F. Petria, Detroit Creamery Co., Detroit, Mich.
B. F. Tayler, Detroit Creamery Co., Detroit, Mich.
J. F. Kelly, Kelly Ice Cream Co., Grand Rapids, Mich.
C. J. Schminder, Connor Ice Cream Co., Owosso, Mich.
J. R. Replogle, Arctic Ice Cream Co., Detroit, Mich.
H. F. Zeller, Arctic Ice Cream Co., Detroit, Mich.
J. D. Lyon, Connor Ice Cream Co., Owosso, Mich.
M. Markle, Thumb Creamery Co., Bad Axe, Mich.
H. F. Roberts, Fleming Ice Cream Co., Jackson, Mich.
Frank Komminsk, White Mountain Creamery Co., Lima, O.
Harry Komminsk, White Mountain Creamery Co., New Bremen, O.
F. H. Hook, Sanitary Milk Products Co., Canton, O.
L. H. Noaker, Noaker Ice Cream Co., Canton, O.
A. Rothenackers, Noaker Ice Cream Co., Canton, O.
R. W. Scarlott, Noaker Ice Cream Co., Canton, O.
J. H. Andrews, Sanitary Milk Co., Canton, O.
H. W. Booman, Sanitary Milk Co., Canton, O.
H. H. Fuestone, Noaker Ice Cream Co., Canton, O.
Mr. Bennet, Red Wing Corporation, Dayton, O.
Mr. Sutermeister, Rtd Wing Corporation, Dayton, O.

J. W. Edwards, Gem City Ice Cream Co., Dayton, O.
L. E. Ellis, Gem City Ice Cream Co., Dayton, O.
Joseph Evans, Youngstown Sanitary Milk Co., Youngstown, Ohio,
A. B. Osler, Moores & Ross Milk Co., Columbus, O.
J. W. Swisher, Moores & Ross Milk Co., Columbus, O.
T. C. Edwards, Moores & Ross Milk Co., Columbus, O.
Geo. Horen, The Ohio-Toledo Ice Cream Co., Toledo, O.
D. Sanford, The Ohio-Toledo Ice Cream Co., Toledo, O.
L. W. Webber, Crockery City Ice Cream Co., East Liverpool, Ohio.
V. V. Holmer, Furnas Ice Cream Co., Columbus, O.
Everett Antrim, Furnas Ice Cream Co., Columbus, O.
R. C. Davenport, Furnas Ice Cream Co., Akron, O.
R. Mendenhall, Furnas Ice Cream Co., Akron, O.
S. R. Smith, Mt. Healthy, O.
O. W. Gleason, Bryan Ice ream Co., Bryan, O.



At the Southern Exhibition, Atlanta.

Ed. Frappier, Bryan Ice Cream Co., Bryan, O.
R. M. Jewell, Jewell Ice Cream Co., Mt. Vernon, O.
Wm. R. Lyons, Boss Ice Cream Co., Alliance, O.
E. Lindsay, Geneva Dairy Co., Geneva, O.
A. A. Brust, Chillicothe Bottling Works, Chillicothe, O.
I. S. Phelpin, The Conneaut Creamery Co., Conneaut, O.
L. D. Upson, The Conneaut Creamery Co., Conneaut, O.
B. Marchiono, American Ice Cream Co., Cincinnati, O.
R. E. Frizzell, Telling-Belle-Vernon Co., Cleveland, O.
J. F. Mullen, Telling-Belle-Vernon Co., Cleveland, O.
R. E. Kershaw, Telling-Belle-Vernon Co., Cleveland, O.
W. H. Thompson, French Bros. Bauer Co., Cincinnati, O.
H. W. Loeser, L. Baum Ice Cream Co., Cleveland, O.
S. Francke, Kokomo Creamery Co., Kokomo, Ind.
John L. Taylor, Model Ice Cream Co., Terre Haute, Ind.
Robert Taylor, Model Ice Cream Co., Terre Haute, Ind.
W. L. Jones, Furnas Ice Cream Co., Ft. Wayne, Ind.
Verne Schlosser, Schlosser Bros., Ft. Wayne, Ind.
B. W. Mahmen, Schlosser Bros., Ft. Wayne, Ind.
Elmer King, Schlosser Bros., Ft. Wayne, Ind.
H. Schlosser, Schlosser Bros., Ft. Wayne, Ind,
W. S. Howard, Terhune Creamery Co., Muncie, Ind.
A. E. Jones, Furnas Ice Cream Co., South Bend, Ind.
G. P. Cowan, Arctic Ice Cream Co., Detroit, Mich.

* * *

NOT A "FLYER" BUT A "BOOSTER."

C. J. W. Smith, secretary of the Michigan Dairy Boosters, and Detroit representative for the Creamery Package Manufacturing Company, wrote us a letter and informed us that we had titled his picture in the November issue of The Ice Cream Review a "Dixie Flyer" when he was just a "Michigan Dairy Booster" and was proud of it. So we make this correction, folks, to let you know that he is not a Flyer but a Booster, though we'll wager he could do both if he were called upon.

The letter reads as follows: "Hurrah! Also Huroo! I see on page 26 of the November Ice Cream Review I am all pictured and listed as 'A Dixie Flyer.' That's good, and I would be glad to be one of them, especially as I see our friend Adolph Skinner, who really is a 'Dixie Flyer,' is set in on the same page.

"The Dixie Flyers are all good fellows, and while I am proud to be so listed, still, however, notwithstanding and what is more to the point, I am really not entitled to that honor. As a matter of fact, I am a 'Michigan Dairy Booster' and proud of it. And don't forget we are boosting for the biggest and best ever convention at Saginaw, Mich., February 14-17, 1922. Floor space is being taken rapidly. Secretary Wendt tells me he is now worrying because there is a probability there will not be space enough and late comers will be disappointed.

"We are going to have a real exhibit of machinery and supplies by the creamery, ice cream and dairy supply houses.

"The program promises to be exceptionally fine. A banquet and smoker are also on the list. Not a combination, but a real banquet put on by the Allied Dairy Association and a smoker by the Boosters.

Brother Yunker of the Rex Extract Company writes that he has taken space 31—also space 30 for the Widlar Company of Cleveland—and space 32 for the Sanitary Tinning Company of Cleveland. That's the spirit that makes the Michigan Boosters."



BRING THE LADIES.

Secretary Caughey of the Wisconsin Association of Ice Cream Manufacturers has authorized us to state that special arrangements will be made for entertaining the ladies at the January convention. Bring them along.

The annual meeting will be held at Hotel Plankinton, Milwaukee, January 17-18. Secretary Caughey and President Smith are both working on a good instructive program which we expect to be able to publish in next issue.

It has also been reported that Secretary Harwood, of the "Badger Flyers," and his committee are busy working on the entertainment program to be given by that live organization during the convention. We could tell you right here about some of the "flying stunts" that Harwood is spending many a night's sleep over, for instance, how can a Badger fly." But we are not going to let the cat out of the bag. All we can say, there is going to be plenty of fun and entertainment on tap. Come and see for yourself.



If whistlers are allowed to go to Heaven a second rebellion may occur.

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THE OLSEN PUBLISHING CO., 210 Sycamore St., Milwaukee

Powdered Milk Market Report for November, 1921

By Bureau of Markets and Crop Estimates, United States Department of Agriculture.
Prices Paid for Raw Material Delivered During October, 1921, F. O. B. Factory.

Geographic Sections	Whole Milk			Buttermilk per gallon	Skimmilk per cwt
	Price per CWT	Butterfat Basis	Allowance 0.1 p. c. fat		
New England	$2.21	3.5	4.5	...	..
Middle Atlantic	2.07—2.23	3.5	4—5	...	8
South Atlantic	1.90	3.5	...	...	8
E. North Central	1.70—2.00	3.5	4—5	...	..
W. North Central	1.82—2.14	3.5	...	¾—.8	10
South Central	....	...	...	...	..
Northwestern	1.85	3.5	5	...	..
Southwestern	2.10—2.34	3.5—4.0	...	...	..

Manufacturers' Wholesale Selling Prices During October.

The wholesale prices given below are based on rep orts of manufacturers covering actual sales made to jobbers, wholesale grocers, and similar buyers on basis of cash or short time credit with freight included to distributing point in each section.

Prices in the column headed "Range of Prices" are the highest and lowest reported by all firms. Those given under "Bulk of Sales" are the highest and lowest reported by different firms as the "bulk of sales" prices.

Geographic Sections		Whole Milk Powder		Skim Milk Powder		Buttermilk Dried	
		Range of Prices	Bulk of Sales Prices Fresh Goods	Range of Prices	Bulk of Sales Prices Fresh Goods	Range of Prices	Bulk of Sales Prices Fresh Goods
N. E.	Case	.....	.....	.....	.....	12½	12½
	Bulk	27–34	27–34	9½–14	9½–13	8–12½	8–12½
M. A.	Case	40–43	40–43	18–23	18–23	11½	11½
	Bulk	27–34	27–34	3–14	4–13	6.4–12½	6.6–11½
S. A.	Case	55	55	.....	.....	11½	11½
	Bulk	27–45	27–34	10–13	10–13	11½–12½	11½–12½
E. N. C.	Case	55	55	11½	11½	10½–11.9	10½–11.9
	Bulk	27–34	28–34	7½–13	7½–13	5½–12½	5½–11½
W.N.C.	Case	55	55	.....	.....	10½–11.6	10½–11.6
	Bulk	27–45	28–34	6½–13	6½–13	3½–11½	3½–11½
S. C.	Case	.....	.....	.....	.....	10½	10½
	Bulk	28–34	28–34	8–13	10–13	6½–12½	6½–11½
N. W.	Case	.....	.....	20	20	10½	10½
	Bulk	28–35	29–35	7½–14	7½–14	7¾–12½	10.3–11.5
S. W.	Case	.....	.....	.....	.....	10–10½	10–10½
	Bulk	35–40	35	7–14	7–14	5¾–11½	6–11½

NOTE—Bulk goods includes that sold in barrels and drums. Case goods includes that sold in tin containers.

NOTE–Skimmilk powder for export trade was reported at 8½c to 13c per lb., f. a. s. Atlantic seaboard and 13c per lb., f. a. s. Pacific seaboard.

New England (1)—Maine, New Hampshire, Vermont, Massachusetts, Rhode Island and Connecticut. Middle Atlantic (2)—New York, New Jersey, Pennsylvania. South Atlantic (3)—Delaware, Maryland, Dist. of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia and Florida. East North Central (4) Ohio, Indiana, Illinois, Michigan and Wisconsin. West North Central (5)—Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska and Kansas. South Central (6)—Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, Oklahoma and Arkansas. Northwestern (7)—Montana, Wyoming, Idaho, Washington and Oregon. Southwestern (8)—Colorado, New Mexico, Arizona, Nevada, Utah and California.

(Continued on Page 133)

PLEASE MENTION THE ICE CREAM REVIEW WHEN WRITING TO ADVERTISERS

Condensed and Evaporated Milk Market Report

By Bureau of Markets and Crop Estimates, U. S. Department of Agriculture.

Manufacturers Wholesale Selling Prices of Condensed and Evaporated Milk (October)

The wholesale prices given below are based on reports made by manufacturers covering actual sales of condensed and evaporated milk to jobbers, wholesale grocers and similar buyers, delivered at manufacturers' distributing points on basis of cash or short time credit. Foreign prices are given as F. O. B., or F. A. S., points of export in section in which sales were made.

Geographic Sections	Sweetened Condensed, Bulk, Per Cwt. Unskimmed	Sweetened Condensed, Bulk, Per Cwt. Skimmed	Unsweetened Evaporated, Bulk Per Cwt. Unskimmed	Unsweetened Evaporated, Bulk Per Cwt. Skimmed
New England—				
Range	9.05—11.00	4.00—7.50	.....	.....
Average	9.74	5.86	....	4.00
Mid. Atlantic—				
Range	9.00—11.00	4.00—7.50	8.25—12.16	2.26—7.40
Average	10.06	5.34	9.74	4.12
So. Atlantic—				
Range	9.05—11.00	4.00—7.50	.....	.....
Average	9.89	5.80	10.28	4.00
E. N. Central—				
Range	8.50—11.00	4.00—7.50	6.45—10.00	2.50—6.50
Average	9.56	5.49	8.01	4.34
W. N. Central—				
Range	8.50—11.00	6.00—7.50	8.33—10.46	.....
Average	9.41	6.71	9.40	3.88
So. Central—				
Range	9.05—11.00	6.80—7.50	.....	.....
Average	9.85	7.10	....	3.50
No. Western—				
Range	9.05—12.00	7.20	....	4.55
Average	10.39	6.80—7.50	.....	4.20—4.95
So. Western—				
Range	9.05—9.50	6.80—7.50	.....	.....
Average	9.28	7.15	....	....
United States—				
Range	8.50—12.00	4.00—7.50	6.45—12.16	2.26—7.40
Average	9.79	5.92	8.82	4.19

New England—Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, Middle Atlantic—New York, New Jersey, Pennsylvania. South Atlantic—Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida. East North Central — Ohio, Indiana, Illinois, Michigan, Wisconsin. West North Central—Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas. South Central—Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, Oklahoma, Arkansas. North Western—Montana, Wyoming, Idaho, Washington, Oregon. South Western—Colorado, New Mexico, Arizona, Utah, Nevada, California.

RELATIVELY HEAVY PRODUCTION OF CONDENSED AND EVAPORATED MILK FINDS BUT MODERATE DEMAND.

Condensed and evaporated milk markets are still featured more or less unsatisfactory trading conditions, with the November demand apparently offering little support beyond the very moderate movement which has continued to take place. From nowhere are there encouraging reports indicating a domestic or export demand which seem sufficient to absorb this season's production of canned milk. Export buying seems to be limited mostly to relief agencies, but latest available export figures indicate a marked falling off even of this class of business. This outlet is recognized to be of a temporary nature only and cannot be depended upon indefinitely. Other export business is difficult because of unsettled foreign trade conditions, making it more of a problem as to how the anticipated production is to be disposed of. The domestic outlet has been somewhat enlarged through advertising, but even with retailers in some quarters featuring the goods at attractively low prices the lessened purchasing power of the public presents itself as a new factor to contend with. The pressure of this condition has been felt mostly by the less known brands, although numerous manufacturers indicate that their standard brands have been affected. Late figures on production are not available, and it cannot be stated definitely whether production is being materially curtailed, but there is talk around to that effect. It appears that at present prices other manufactured milk products would offer considerable competition. Milk production has kept up remarkably well for the season, favored by the mild fall, and in certain districts the surplus is reported to be quite heavy. The advent of winter weather will materially reduce this, although there are said to be plentiful supplies of cheap feed in some of the principal producing sections.

Lighter Exports for Relief Purposes.

The October figures furnish the latest available export data, and show that but for a lighter movement the heaviest shipments continued to be made to the same countries as during August and September. However, exports to Germany were materially reduced during October, especially evaporated milk. As in September, exports of condensed constituted only about one-third of those of evaporated goods. In 1920 the reverse took place, the shipments of condensed goods being much the heavier. October exports this year of both classes of

(Continued on page 133)

MANUFACTURERS UNSOLD STOCKS OF CONDENSED AND EVAPORATED MILK

Includes all stocks held by manufacturers which were not sold or under contract for delivery on unfilled orders.

Commodity	Total Unsold Stocks Nov. 1, 1921		Comparison of Unsold Stocks For Same Firms Reporting			% Inc. or Dec. Nov. 1, 1921 over Nov. 1, 1920
	Firms	Pounds	Firms	Oct. 1, 1921 Pounds	Nov. 1, 1921 Pounds	
Condensed Case Goods	14	22,065,660	14	24,918,366	22,065,660	— 50
Condensed Bulk Goods	41	13,914,646	39	15,592,927	13,914,646	— 46
Evaporated Case Goods	33	66,203,586	32	54,100,739	66,203,586	— 51
Evaporated Bulk Goods	26	689,951	24	670,553	689,251	+106
Total		102,873,843		95,282,585	102,873,843	— 50

UNFILLED ORDERS FOR CONDENSED AND EVAPORATED MILK

Includes the amounts of each commodity for which orders have been received by manufacturers whose orders were in excess of their unsold stocks.

Commodity	Total Unfilled Orders Nov. 1, 1921		Comparison of Unfilled Orders For Same Firms Reporting			% Inc. or Dec. Nov. 1, 1921 over Nov. 1, 1920
	Firms	Pounds	Firms	Oct. 1, 1921 Pounds	Nov. 1, 1921 Pounds	
Condensed Case Goods	1	290,000	1	.....	290,000	— 85
Condensed Bulk Goods	..	.....	..	.....	.....	—100
Evaporated Case Goods	4	347,120	4	836,234	347,120	+100
Evaporated Bulk Goods	..	.....	..	.....	.....	.....
Total		637,120		836,234	637,120	— 79

MONTHLY POWDERED MILK MARKET REPORT.

(Concluded from Page 131)

Manufacturers' Total Stocks of Powdered Milk.

Includes all stocks held by manufacturers reporting whether their own or stock of others; whether on their own premises; in storage; or in transit (unsold) for warehouse consignment; and whether sold or contracted for sale but not delivered.

TABLE I.

Total Stocks of Powdered Milk Products.

Commodity	Code	Pounds Nov. 1, 1921	Pounds Nov. 1, 1920
Whole Milk Powder	Case	317,011	479,692
	Bulk	790,843	856,692
Skim Milk Powder	Case	70,661	474,103
	Bulk	7,880,743	10,898,232
Park Skim Milk Powder	Case	.....	.....
	Bulk	25,391	20,200
Cream Powder	Case	.....	.....
	Bulk	82,114	60,040
Dried Buttermilk	Case	.....	.....
	Bulk	2,358,585	1,378,772

Manufacturers' Unsold Stocks of Powdered Milk.

Includes that portion of stocks reported in Table 1, not covered by current sales or future delivery contracts.

TABLE II.

NOTE—Bulk goods includes that sold in barrels and drums. Case goods includes that sold in tin containers.

Unsold Stocks of Powdered Milk Products.

Commodity	Code	Pounds Nov. 1, 1921	Pounds Nov. 1, 1920
Whole Milk Powder	Case	317,011	.....
	Bulk	685,443	49,500
Skim Milk Powder	Case	70,661	0
	Bulk	6,146,126	4,589,425
Part Skim Milk Powder	Case	.....	.....
	Bulk	25,391	.....
Cream Powder	Case	.....	.....
	Bulk	82,114	.....
Dried Buttermilk	Case	.....	.....
	Bulk	2,099,185	700,228

*Do not include stocks of one large firm included last month.

EXPORTS OF CONDENSED AND EVAPORATED MILK FROM THE UNITED STATES.

	Condensed Lbs.	Evaporated Lbs.
Total, October, 1921	8,371,371	23,860,235
Total, October, 1920	16,161,015	3,985,640
Jan. October, Inc., 1921	80,373,504	168,939,432
Jan. October, Inc., 1920	254,973,120	119,629,810

EXPORTS OF POWDERED MILK FROM THE UNITED STATES DURING SEPTEMBER, 1921.

Total exports, October, 1921 ..... 1,014,625 pounds
Total exports, October, 1920 ..... 62,486 pounds
January-October, Inc., 1921 ..... 8,180,744 pounds
January-October, Inc., 1920 ..... 2,271,140 pounds

RELATIVELY HEAVY PRODUCTION OF CONDENSED AND EVAPORATED MILK FINDS BUT MODERATE DEMAND.

(Continued from page 132)

goods were considerably heavier than those of October, 1920, approximately an increase of 12,000,000 lbs., but the total movement for the first ten months of the year lags behind the similar period for 1920 by some 125,000,000 lbs.

Comparisons of the stocks held by manufacturers show that they were close to 50 per cent lighter on November 1, 1921, than on November 1, 1920. This is also true of unsold stocks. Comparison with the previous month reveals slightly lower total stocks, but heavier unsold stocks. Figures showing this comparison appear in the accompanying tables. The relatively heavier movement of case evaporated during the past few months may have contributed to more interest in the manufacture of this class of goods, for from a comparison made of the total stocks of firms which reported on both November 1 and October 1, it is noted that stocks of evaporated were heavier on November 1 and stocks of condensed were lighter than the previous month. Just the reverse was true in August and September.

A Mammoth Gelatine Factory

The Ice Cream Review Editor Enjoys a Trip Through the United States Gelatine Plant at Carrollville, Wis.

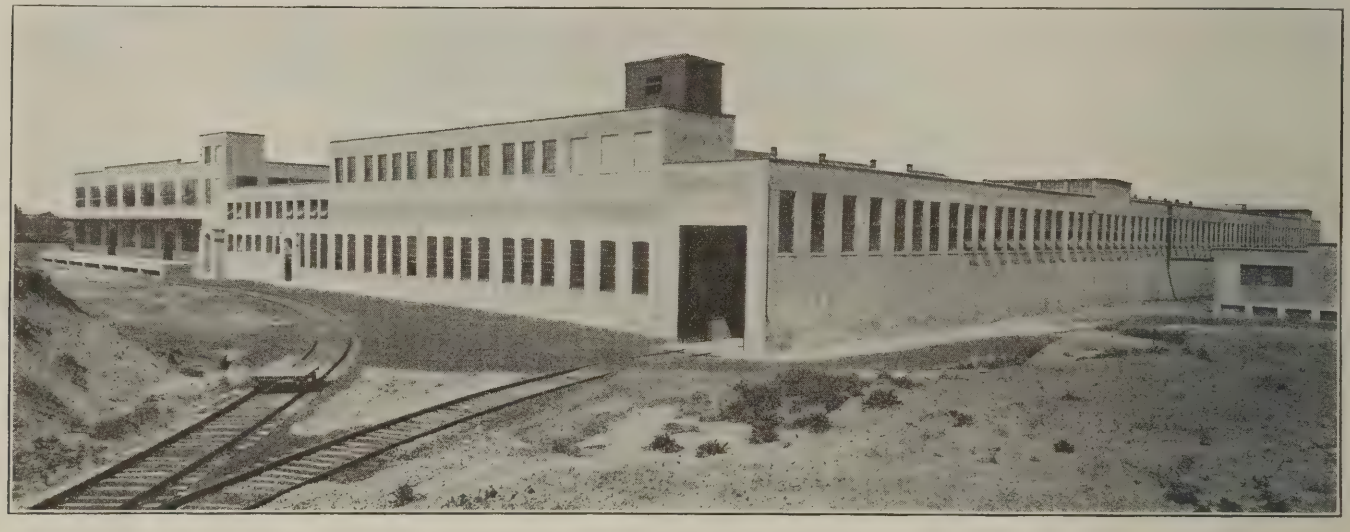
For a long time we have wanted to see gelatine made. We have a well-developed bump of curiosity anyway, and then we have heard so much about gelatine in years past, pro and con, that we just naturally wanted to get some first-hand information.

Our work used to bring us in close touch with the high dignitaries in food control work, in the different states and in the nation, and we recall the time, not many years ago, when to accuse an ice cream manufacturer of using gelatine in his product was to accuse him of a serious crime. Some of these men still like to refer to gelatine as "an adulterant," "a filler," "a stretcher" or an aid to "air blowing." It is hard for them to recede entirely from the position they took in the early stages of ice cream making.

Gelatine is now looked upon by everybody, not only as necessary to commercial ice cream making, but as a most valuable food element.

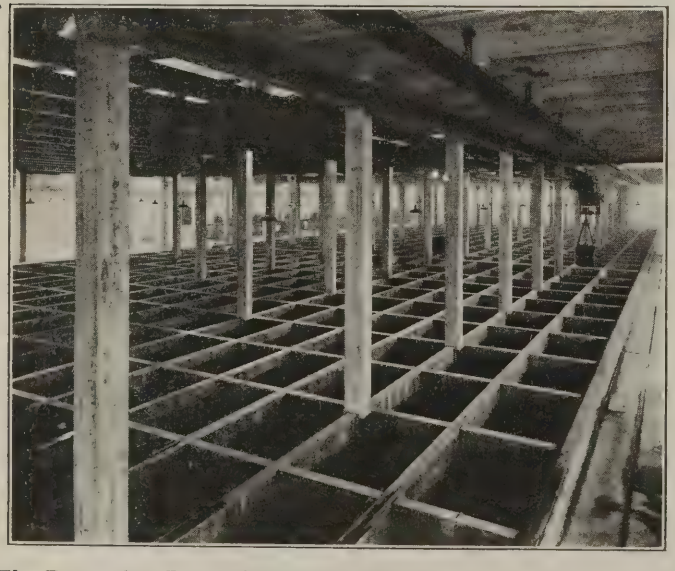
So we wanted to see it made and in these days of high travelling costs it was the most natural thing in the world for us to go for information to a place where we could "fliver" rather than pay railroad fares.

We went to Carrollville, Wisconsin, and we surely "got an eyeful." The pictures accompanying this article will give the reader some idea of the magnitude of the business of the United States Gelatine Company, but they can't tell the whole story. Neither can we, but we want to give you some of our impressions. We were cordially received by Mr. H. W. Luscher, secretary of the company, and Mr. Carleton Bates, superintendent.



The $2,000,000 Plant at Carrollville, Wisconsin.

We asked Mr. Luscher if he couldn't tell us something about the business that would be of interest to the readers of The Ice Cream Review and he replied, "I don't know what there is to say about gelatine. Gelatine is gelatine and that is all there is to it." After our visit through the plant with Mr. Bates we were forced to the conclusion that Mr. Luscher would starve to death in the newspaper business.



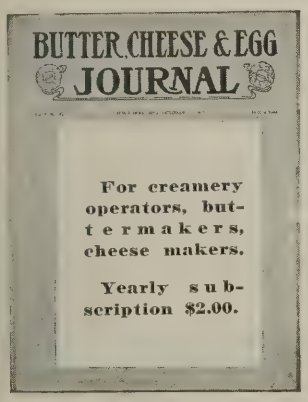
The Processing Room, 610 Big Tanks Where the Gelatine Stock Is Held for 14 Weeks.



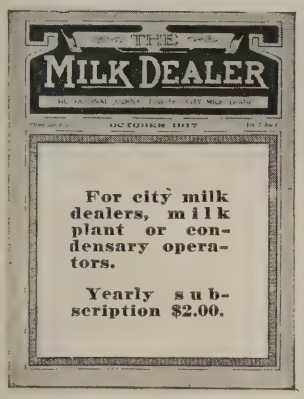
The "Cook House" Where the "Boilings" Are Made and the Gelatine Run Off.

The main plant is 357 feet wide and 500 feet long, made of solid concrete and is absolutely fireproof. White tile and white enamel walls and ceilings and terrazo floors are found in most of the departments and

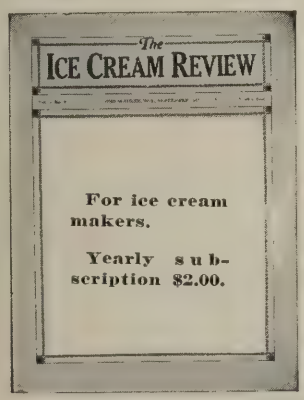
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FOR THE CHEESE MAKER.



FOR THE MILK PLANT OPERATOR.

FOR THE ICE CREAM MAKER.

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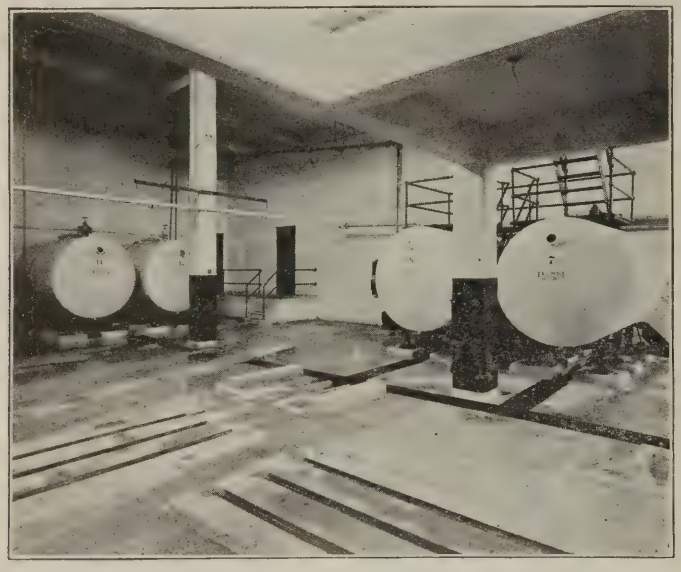
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every means known to modern architecture have been employed to make the plant and equipment absolutely sanitary and practical. We got our first shock upon entering the big room where 610 holding vats, each 5½x7x 11 feet, lie "side by each" and containing from two to five million pounds of gelatine "stock" in the process of cleansing and purifying. The "stock" is held in these vats for 14 weeks, being occasionally moved from one vat to another to permit constant cleaning. The different vats are reached by huge grab buckets which travel on mono I beam rails, of which there are 10,680 feet installed.

Along both sides of this large room are twenty-four washing mills, each twenty feet in diameter and five and one-half feet deep. A mammoth filter purifies the water for this big plant and they use 9,000,000 gallons of water



A Section of the Condensing and Evaporating Room Where 12 Big Elyria Glass Lined Tanks Are Installed.



A Section of the Storage Room Furnishing Facilities for Holding 5,000 Barrels of Gelatine Ready for Shipment.

daily. An industrial railway system furnishes all the transfer facilities not furnished by the overhead system.

After the 14 weeks' period of processing and cleansing the "stock" goes to the "cookhouse" on the second floor where there are 50 cook kettles, seven and one-half deep by seven and one-half inches diameter. Twenty-five kettles are in use while the other 25 are being cleaned. The boiling of the stock in these big kettles extracts the gelatine which is drawn off. Successive boilings—four in all—follow at higher temperatures and eac hsuccessive "run" shows, of course, less jelly strength. Dump cars travel from kettle to kettle so that the highest labor efficiency is obtained.

Twelve big Elyria glass lined tanks, six and one-half feet in diameter and twelve feet long are installed in the evaporating and condensing room, as well as four mammoth Swenson evaporators made of special cast aluminum. Glass lined Elyria piping is used throughout for handling the liquid gelatine.

Cooling of the condensed product congeals and forms the gelatine which is carried in thin sheets from the refrigerating machines by long belts on to wire nets, and thence to the drying rooms. Eight big drying tunnels, 15 feet wide, and 6½ feet high and 100 feet long furnish drying facilities. Two especially constructed Davis-Watkins pre-coolers add to the efficiency of the operation. From the big drying rooms, which are heated by warm, purified air, the sheets of gelatine go to the grinding rooms where the gelatine is prepared for market. There are five of these rooms, each turning out a special "blend" or "mix" and are separated to avoid the possibility of error. Each blend is made up of several "runs" and individual boilings are rarely put upon the market. The different "runs" or "boilings" are blended so as to get uniformity in grade, viscosity, jelly strength, clarification, color and physical appearance, in fact, standardization in everything.

A fully equipped laboratory is one of the features of this modern plant and is one of the most essential features as well, inasmuch as the manufacture of high-grade gelatine is a constant fight against bacteria growth. The product furnishes an ideal medium for bacteria propagation, hence the necessity of the best possible equipment to insure sanitation.

The company has branch offices in New York, Chicago, Cincinnati, and Grand Rapids, Mich. The following representatives call on the trade in the sections mentioned:

Hans P. Johnson, Wisconsin, Minnesota, Iowa.

M. C. Patton, Wisconsin.

Wm. C. Valentine, Chicago (Branch Manager).

Ralph Garvey, Illinois and Missouri.

Fred Volkman, Illinois.

T. W. Steward, Michigan and Canada. (Branch Manager at Grand Rapids).

R. P. Driscol, Michigan and Indiana.

C. H. Nieman, Ohio and Kentucky. (Branch Manager at Cincinnati).

Herman Schwandt, Southern States.

W. J. Grothaus, Southern States.

W. E. Hughes, New (Branch Manager at New York City.)

J. K. Upham, New York and Pennsylvania.

Harold Cooper, New England States.

F. W. Baker, Jr., New England States.

The trip through the modern plant was a revelation to us and we only wish that every reader of The Ice Cream Review might enjoy seeing this necessary food article manufactured. It would do the layman good too. He would better understand the merits of gelatine as a food product and would be impressed by the extreme care taken in its manufacture.



PROF. BAER'S INQUIRY DEPARTMENT

Dear Sir:—What do you think of the following ice cream formula?

12 lb. sugar, 1 lb. gelatine and flavor (12 oz. gel. and 4 oz. flavor).

87 lb. of 14 per cent cream (made with cream, about 30 per cent, and skimmilk). In an upright 40 qt. freezer what speed should be used to get a good overrun? It takes about 52 lbs. to make a 10 gal batch. G. R. J.

Reply: I am glad to give you below in Table No. No. 1 the analysis of your ice cream mix.

Ingredients	Fat	Serum Solids	Total Solids
12.0 lb. sugar			11.40
1.0 lbs. filler and vanilla			.75
87.0 lbs. 14 % cream	12.18	6.68	18.86
100.0 lbs. mix	12.18	6.68	30.01

You will notice that you have a total solids content of 30 per cent and about 18.5 per cent milk solids. You stated that you are getting ten gallons of ice cream from about fifty-two lbs. of mix. This is all you should expect from your mix containing only 30 per cent total solids. You could very easily improve your formula by adding 2 per cent milk serum solids either in the form of condensed milk or skimmilk powder and that would assure you a little higher overrun, and I believe also a little better ice cream.

* * *

Dear Sir:—Will you kindly make an analysis of the enclosed note, as to fat, solids, etc. How are the proportions? We do mostly a family and some Hotel trade—and make a high grade ice cream, that is we try to.

10 cans 20 per cent cream, 5 cans 40 per cent cream, 4 cans 8 per cent condensed, 3 cans skim condensed, 11 cans 4 per cent milk, 495 lbs. sugar, 12 lbs. gelatine.

This batch is pasteurized and homogenized.

F. S.

Reply: You will find an analysis of your ice cream formula given below in Table No. 1.

Table No. 1.

Ingredients	Fat	Ser.Sol.	Total Sol.
10 cans—840 lbs. 20 % cream...	168.00	59.81	227.81
5 cans—400 lbs. 40% cream...	160.00	21.36	181.36
4 cans—360 lbs. 8% condensed	25.8	64.80	90.60
3 cans—270 lbs. skim condensed		45.90	45.90
11 cans—946 lbs. 4% milk.....	37.84	80.82	118.66
495 lbs. sugar	.....	.....	470.25
12 lbs. gelatine	.....	.....	11.40
3323 lbs. mix	391.64	272.69	1145.98
Per cent	11.78	8.206	34.5
Per cent sugar	14.8		

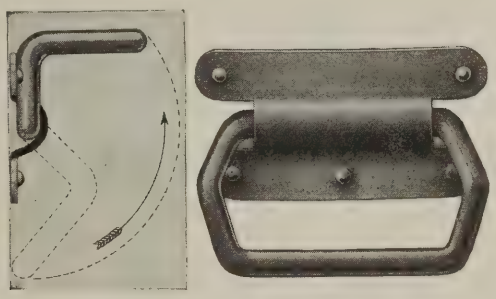
You will easily see that you have a formula which should give you excellent results for your family and hotel trade. If, however, you are doing any fountain business I believe your ice cream would be too sweet, containing, as you notice, 14.8% sugar. Your ice cream formula is also pretty well balanced for butter fat and other milk solids. You have perhaps noticed a number of times that I have recommended at least 20% milk solids. Your formula figures out 19.98%.

* * *

Dear Sir:—I would like to ask you to analyze the following ice cream mixes for me if you please.

304 lbs. 20% cream, 72 lbs. unsweetened skim condensed, 56 lbs. sugar, ½ lb. I. C. powder, 10 lbs. gelatine

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ICE CREAM TUBS



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ST. LOUIS, MO.

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For Quality Buyers

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SALES CORP.
RICHMOND VIRGINIA



CONDENSED MILK MACHINERY
The Better Kind

We teach you to make condensed milk.

C. E. ROGERS
Builders of Better Condensing Equipment
8731 Witt St. Detroit, Mich.

and water, 4 lbs. skimmilk powder, 1½ oz. flavor vanilla, 3 oz. color.

How much finished ice cream should each formula make? E. F. H.

Reply: I have analyzed your two ice cream formulas for you and you will find the figures given below in formulas No. 1 and No. 2.

Formula No. 1.

Ingredients	Fat	Serum Solids	Total Solids
204.0 lbs. cream 20%....	52.80	18.78	71.58
64.0 lbs. evaporated 8%.	5.12	11.52	16.64
40.0 lbs. milk 3.5%....	1.40	3.32	4.72
56.0 lbs. sugar	.....	.....	53.20
10.0 lbs. skimmilk powder.....	.....	.....	3.80
4.0 lbs. skimmilk powder.....		3.80	3.80
.5 lbs. ice cream powder....		.....	.45
.2 lbs. vanilla & color		.....	.05
438.7 lbs. mix	59.32	37.42	154.24
Per cent	13.28	8.5	35.1

Formula No. 2.

Ingredients	Fat	Serum Solids	Total Solids
304.0 lbs. 20% cream ...	60.80	21.72	82.52
72.0 lbs. skim cond. 27%		19.44	19.44
56.0 lbs. sugar.....	.....	.....	53.20
10.0 lbs. gelatin & water	.....	.....	3.80
4.0 lbs. skimmilk powder.....		3.80	3.80
.5 lbs. ice cream powder.....		.....	.45
.2 lbs. vanilla & color		.....	.05
446.7 lbs. mix	60.80	44.96	163.26
Per cent	13.6	10.0	35.5

With either of these formulas you should be able to secure a gallon of ice cream for each 4.7 lbs. of mix. You can easily calculate how much ice cream you should get from either of the two mixes. I suggest that in order to make the calculation of your mixes more simple you try to figure out both of these formulas, or either one which you intend to use, on a 500 lb. basis. That is, making the total number of pounds of ingredients weigh 500 lbs. instead of a fraction like 438.7 lbs. By doing this you will easily know what the per cent of fat and solids are in each mix.

* * *

Dear Sir:—I am well pleased with the people I am working for now. My employer is very much pleased over my work although I do not have charge of the plant. He told me as soon as I could get hold of the plant and understand the work and machinery he would like me to go ahead.

Have found out considerable about formulas but don't quite get on to mixes over 1,000 lbs., also do not understand how you figure on condensed milk in the Review you give 35 lbs. of condensed milk, 40 per cent sugar, 8 per cent fat. You figure 2.80 fat, that I understand; but your serum solids 6.10, total solids 22.90. I don't. Is this condensed milk sweetened? Also do you figure the 35 lbs. condensed double the amount of raw milk?

Mr. —— gave me the formulas that he had and I have worked them out satisfactorily.

I am. I. S. O.

Reply: I have your recent letter and I am glad to know that you are satisfied with the position at ——. I should be glad to have you come to Stillwater for a week or longer as I am sure you could spend the time very profitably and learn a good deal about the calculation of ice cream mixes, and about other matters which would probably help you when the season opens next spring.

Referring to the calculation in your letter relative to the solids in 35 lbs. condensed milk, the calculation was made as follows: 35 multiplied by 8 per cent amounts to 2.8 lbs. of fat; 35 multiplied by 40 per cent amounts to 14 lbs. sugar solids; 35 multiplied by 18 per cent amounts to 6.3 lbs. serum solids; which makes a total of 2.80 plus 14 plus 6.30 or 23.10. This calculation is made on the basis that the condensed milk contains 8 per cent butterfat, 40 per cent sugar, and 18 per cent serum solids.

If you should decide to come to Stillwater for a week the only expense you would have would be for your board and room as there would be no fee attached to such a course. Board and room would possibly cost you $2.00 per day.

* * *

Dear Sir:—Will you kindly tell me through your column what effect ordinary soda has on yield, when added to the mix at the freezer?

How long should it take to freeze a run in a Perfection freezer, brine at 19° and obtain the best overrun? With brine at 10° we find the cream freezes too soon to incorporate air. Should it be whipped before turning the brine on, or allowed to freeze with brine valve half open?

Is air whipped out of cream by prolonged agitation in the freezer after it has reached the proper point for drawing? G. C. I.

Reply: Replying to your inquiry regarding the effect which ordinary baking soda has on the yield when added to the mix at the freezer I am glad to say that this soda should have absolutely no effect on the yield and there is every reason that the addition of this soda should be prohibited.

If your mix is handled correctly, aged properly, after mixing and pasteurizing you should have no difficultiy in securing the proper yield. If you have trouble in this respect I should be glad to have you tell me exactly how you prepare your mix and handle it before freezing.

Ordinarily it should not take over ten to twelve minutes to freeze a batch in the freezer. If your ice cream mix is in the right physical condition it should not be necessary to whip it in the freezer before turning on the brine. The ice cream should not be over frozen in the freezer. If agitated too long and frozen too hard the yield will be less than when the ice cream is drawn at the proper stage.

* * *

Dear Sir:—We are wanting to make our ice cream better by using more butterfat, and we have been experimenting along this line, but for some reason we cannot make any headway. We were sure we could get advise from you so we are writing to you in regard to this matter.

Say for instance a ten gallon batch, our ingredients as follows: 3½ gal. cows milk (part Jersey), 7½ lbs. sugar, 1 cup gelatine, 1 oz. meloine, 1 tablespoon Olio-Venild, 1½ gal. evaporated or condensed milk. The brand of this milk is Plow Boy and is said to contain 25.54 per cent solids and 7.8 per cent butterfat.

Drug stores say our cream is not of the standard.

Please send us formula and also please give this formula so as to have the correct per cent of butterfat and correct per cent of solids that the standard cream ought to have, and the state laws require.

How many pounds in a 10 gallon mix? How many gallons in 100 pound mix?

If there are any charges on these formulas let us know and we will forward same.

V. I. C. Co.

Reply: Replying to your recent letter with request for analysis of your ice cream formula, I have figured over your ice cream mix and you will find the calculations given below in Table No. 1.



Table No. 1.

Ingredients	Fat	Serum Solids	Total Solids
3½ gal. or 30 lbs. 4% milk.	1.2	2.5	3.7
1½ gal. or 13.2 lbs. evap 78%	1.3	2.4	3.43
7.5 lbs. sugar	...	...	7.07
1.0 lbs. gel., mel. and flavor	...	...	.50
51.7 lbs.	2.23	4.9	14.70
Per cent	4.3	9.4	28.4

You will notice that your ice cream tests only 4.3 per cent butterfat and with total solids of 28.4 per cent. You understand of course, that your ice cream is not up to your state standard. I suggest that you try the mix given below in Table No. 2.

Table No. 2.

14.0 lbs. sugar	....	....	13.30
3 gal. 26.4 evap. milk.....	2.05	4.75	6.80
14.0 lbs. 30% cream	4.2	.86	5.06
44.6 lbs. 4% milk	1.8	3.81	5.61
100.0 lbs. mix	8.05	9.52	31.37

This, you will notice, tests 8 per cent butterfat and about 31 per cent total solids. I am sure that you will have no difficulty in making a satisfactory ice cream with the mix in Table No. 2. It is best to work with a mix of this kind on a basis of exactly 100 lbs. because in that case the number of pounds of butterfat, serum solids and total solids also represents the percentage of these ingredients. One gallon of this mix will weigh 8.8 pounds.

Trusting that this information will assist you in making a better quality of ice cream.

* * *

Dear Sir:—I want you to give me a formula for a 100 lb. mix of 8 per cent butterfat ice cream. I want to use Carnation brand milk 8 per cent and 4 per cent cows milk. I have something like 500 lbs. of Purity powder on hand and if they will help would like to use them too. Let me hear from you at once. Can I make good ice cream by just using Carnation milk 8 per cent. cows milk 4 per cent, gelatine, Purity powder, flavor and sugar? I. E. P.

Reply: I have your letter of recent date with a request for the formula of a 100 lb. mix containing 8 per cent butterfat ice cream which you wanted calculated by using condensed milk 8 per cent and sweet milk 4 per cent. This will absolutely be impossible and you will have to use either some cream or some sweet butter to bring up the butterfat.

Kindly advise me which of these two ingredients you desire to use and I will suggest a formula for you.

⚜

BOHEMIA

I am tired of the garrets
All crowded with junk,
Where smock covered aliens
Talk futurist bunk.
I am tired of the "tam"
Crowning frowsy bobbed hair,
The easels and paint pots,
The onion-kissed air.
I am tired of the models
Who hate so to eat—
So goodbye forever
Bohemia Street.

Al. S.

WASHINGTON—MAINE

News From Far and Near

CALIFORNIA—FLORIDA

Mobile, Ala.—The Columbia Ice Cream Co. have made extensive improvements lately and the purchase of a five or ten ton refrigerating machine is soon to be considered by Mr. Betha, the manager.

Montgomery, Ala.—The Mellilotus Creamery Co. has organized with W. L. Lancaster, president; B. F. Miller, vice-president and manager; J. T. Fowler, Jr., secretary and treasurer and will go into the manufacture of ice cream.

Little Rock, Ark.—The Clem Cream Co. has incorporated at $50,000. It will engage in the manufacture of ice cream.

Searcy, Ark.—Searcy is to have an ice cream factory. The owner and manager of the Kensett ice cream factory will move same to Searcy and it will be operated in connection with the ice company. Ben Grisham is the owner and a resident of Kensett.

Fort Smith, Ark.—Enlargement of the Ward Ice Cream plant is forecasted as J. Ward has purchased an additional lot.

Brentwood, Calif.—The Oakland Ice Cream Co. of Oakland has purchased the ice cream manufacturing plant of George Davis.

Chico, Calif.—The Ellamore Ice Cream Company of Marysville plans to be represented in Chico with a $15,000 factory. The company also plans to erect factories at Redding and Sacramento.

Los Angeles, Calif.—A $700,000 ice cream plant will be erected. This new company will be headed by W. E. Keller of the Globe Milling Co., and by A. A. Comey.

Redding, Calif.—The Ellamore Candy Co. of Marysville is reported to have decided to put in an ice cream factory and creamery in Redding, the total cost of the building and equipment to be $57,000.

Stockton, Calif.—The Gloria Ice Cream Company are adding 12,000 square feet to their plant and the cost will be in excess of $25,000.

Greenville, S. Car.—The Carolina Ice Cream Co. of Greenville, S. C., has incorporated with capital stock of $75,000. C. M. McGhee is president; J. G. Sherrer is vice president, and L. E. Girardeau is secretary and treasurer. The company has purchased the plants of the Garrison Ice Cream Co. at Greenville and of McKay Ice Cream Co., at Anderson, and will operate both plants. The main office will be at Greenville.

Wilmington, Del.—The Quaker Ice Cream Co. has incorporated at $250,000.

Tallahassee, Fla.—The Leon County Milk Co., purchased the plant o fthe Purity Milk Company of Jacksonville in Tallahassee and will install machinery for the manufacture of ice cream.

Macon, Ga.—A corporation is the result of the merging of the Kinnett Coal & Ice Co., The Odom Ice Cream Co., and the Purity Ice Cream Co. The capital stock of the new Kinnett-Odom Company is valued at $400,000.

Waycross, Ga.—B. J. Ford, owner of the Glynn Ice Cream Co. of Brunswick, Ga., announces that he will open a new ice cream factory in Waycross.

Belleview, Ia.—Not long ago the Bellevue Co-operative creamery had an over supply of ice cream on hand and they gave the youngsters a treat. Fifty-five gallons were consumed in less time than it takes to tell it and the children will long remember their treat.

Muscatine, Ia.—The Leu & Stein Ice Cream Company has started clearing a site for a new factory which will cost $20,000.

Sioux Rapids, Ia.—F. R. Ballantyne has sold his ice cream business to Howard Sawyer. Mr. Ballantyne intends to resume the business in some larger city.

Pocatello, Idaho.—The American Ice Cream Co. is planning the erection of a new $10,000 ice cream factory, to be ready for the spring trade. The site has already been selected.

Twin Falls, Idaho.—The Sterling Dairy Products Company intends to purchase complete equipment for the addition of a wholesale and retail pasteurized milk department to its ice cream and butter factory.

Chicago, Ill.—Kosmos Ice Company is adding a plant to its buildings for the manufacture of ice cream. They expect to have it in operation in the very near future.

Chicago, Ill.—The Kosmos Ice Cream Co. has increased its capital stock from $50,000 to $75,000.

Rock Island, Ill.—O. G. Sturtevant, president of the Sturtevant, Wright and Wagner Dairy Company and Chas. E. Baker a former employe of the S. W. W. Co. of Beloit, Wis., have increased the capital stock of the Sturtevant-Baker Ice Cream factory at Rock Island, Ill., from $70,000 to $250,000, and will begin construction soon of a $200,000 factory in the Illinois city. The Rock Island factory uses eight motor trucks to handle deliveries and is one of the largest industries of its kind in the district. C. E. Baker is the active manager.

Springfield, Ill.—Marshall & Lawrence Co. has changed hands and is now called the Capital City Ice Cream Co. Mr. Schuze is manager of the new concern.

Providence, R. I.—The Puritan Ice Cream Co. will move into their new plant in the spring of 1922.

Elkhart, Ind.—The Phend Dairy Company will purchase some new milk wagons. The company uses horse-drawn equipment.

Fort Wayne, Ind.—The Fort Wayne Dairy Co. has recently elected Mr. King as their new manager.

Laurens, Ia.—A new co-operative creamery company is being organized at Laurens. It has purchased the ice cream factory and creamery of J. G. Hinn and is now open for business. Tom Edge is president.

Lawrenceburg, Ind.—The Batesville Ice Cream Co., has incorporated with a paid capital stock of $30,000. The officers are: president, Louis Goyert; vice-president, Daniel W. Foley; secretary, Louis Goyert; treasurer and general manager, Wm. B. Goyert.

Monticello, Ind.—Mack & Company have sold their Monticello ice cream factory to C. R. Byers.

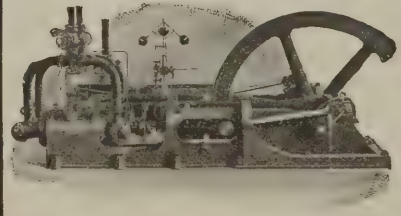
South Bend, Ind.—The Reliable Dairy Co. has incorporated with a capital stock of $100,000. The incorporators are G. C. Palmer, W. H. Palmer and I. D. Shirk. The company will manufacture ice cream.

Garden City, Kas.—C. E. Nuttle has purchased the rink building and will convert it into an ice cream factory.

Goodland, Kas.—D. W. Dillingham, secretary and treasurer of the Dillingham Ice Cream Mfg. Co., of Otis, Colo., expects to locate in Goodland and transfer his company there.

Kansas City, Kas.—The DeCoursey Creamery Company is building an addition to their plant sized 50 x 40. The structure is of two story brick and will cost $20,000. The addition will give more room for the ice cream department and thereby enable them to handle a larger volume in the

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Ice Cream Packing Tubs
Made right
Keep tight
Write For Prices
Crescent Tub Manufacturing Co.
Johnson City, Tenn.

The Vilter Manufacturing Co.
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Ice Making and Refrigerating Machinery.
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Make more ice cream for less money!

Our Business is to Show You How

A thorough knowledge of ice cream making, together with our long experience in simplifying a wide variety of manufacturing operations, enables us to analyze your plant and offer practical suggestions for its improvement.

If you want to extend your present factory or build a new one, our staff of engineers can design low cost, high efficiency quarters for you that will make every foot of floor space pay dividends.

It will pay you to get in touch with us.

FRANK D. CHASE, Inc., *Engineers*

645 North Michigan Avenue, Chicago, Ill.

1922 season. A new 100 quart freezer, together with the battery of other freezers, will turn out a volume of 5,000 gallons per day.

Kansas City, Kan.—The Atwood Ice Cream Company has begun the erection of a one-story and basement building, to be occupied next summer.

Manhattan, Kans.—A new ice cream factory will open here Dec. 3rd. The contract for the erection of the new building has been let to a Marysville, Kans., firm.

Pratt, Kans.—The Kaufman creamery is installing a York compressor, size 7½x7½ hardening rooms, to hold 3,000 gallons of ice cream, butter storage for 40,000 lbs. of butter, and a No. 8 Perfection churn is also being installed.

Ashland, Ky.—The Imperial Ice Cream Company, of Clarksburg, W. Va., will build a new plant this winter at Ashland, Ky., as well as in Huntington, W. Va.

Newport, Ky.—It is planned to manufacture ice cream next spring at the Feldman Milk and Cream Company.

Lowell, Mass.—The Cameron Ice Cream Company's new plant is now ready for occupancy.

North Adams, Mass.—The Country Maid Ice Cream Co., of which C. H. Mauser is proprietor, is now building a new plant and will equip it fully.

Webster, Mass.—The Nectar Products Company will have a new ice cream plant.

Worcester, Mass.—An ice cream plant will be built by the C. Brigham Company.

Pontiac, Mich.—An ice cream plant will be added to the Shore Acres Creamery Company, according to F. W. Lambert, manager.

Port Huron, Mich.—The Carlisle Ice Cream Company is erecting a new two story concrete building which will be used for the manufacture of ice cream.

Minneapolis, Minn.—The Northwestern Ice Cream Company will begin work on an ice cream factory next March. G. A. Ball, president of the Ball Pharmacy, is interested. The building will cost about $100,000.

Minneapolis, Minn.—A five story brick and concrete cold storage plant will be built by the Kemp Ice Cream Co.

Northfield, Minn.—The manufacture of ice cream at Northfield will begin in the near future by the Twin Cities Milk Producers' Association. They will cater to the trade in and around Northfield.

St. Paul, Minn.—The Creamery Package Mfg. Co., of Chicago, Ill., will build a new factory and warehouse in St. Paul. The cost will be about $120,000.

Rochester, Minn.—The Cairo Food Products and Dairy Manufacturing Co., of Cairo, Ill., will manufacture ice cream in the Schuster Brewing Company building at Rochester.

Jefferson City, Mo.—The Weber Ice Cream Co. is planning to build another plant in the state of Missouri in addition to their plants in Jefferson City, Moberly and Sedalia.

Kansas City, Mo.—The Okey Ice Cream Company has chartered with $10,000.

Louisana, Mo.—The Weber Ice Cream Co. recently added equipment and will distribute milk hereafter; bottle crates and bottles are soon to be purchased.

Neosho, Mo.—The Quality Ice Cream Company, of Tulsa, Okla., have leased and remodeled the creamery building at Neosho.

St. Joseph, Mo.—The Thomson Ice Cream Company has been compelled, owing to a big increase in business, to occupy larger quarters. Their new plant is on 15th street.

St. Joseph, Mo.—The Thomsen Ice Cream Company is now in their new home.

David City, Nebr.—J. G. Duncan and Arnold Reid will soon have their ice cream factory ready. It was purchased from Tom Case and several changes made.

Minot, N. D.—Campbell & Tompkins have been succeeded by the Purity Ice Cream and Dairy Company.

Trenton, N. J.—An incorporation for $100,000 has been formed by the Hildebrecht Ice Cream Co. C. F. Hildebrecht, A. B. Hildebrecht and Wm. H. Titus, of Trenton, are interested parties.

Albany, N. Y.—The Albany Ice Cream Co. is planning to erect a two-story brick addition to their present plant, which will involve an expenditure of $20,000.

Amsterdam, N. Y.—The Kirk-Naher Company has purchased the ice cream plant and business of Messrs. Hill, Marks & Heath. The business will be continued under the name of The Amsterdam Ice Cream Co., Inc. The company is capitalized at $75,000. Mr. H. L. Hadlock will manage the organization.

Buffalo, N. Y.—The capital stock of the Rich Ice Cream Co. of Buffalo has been increased from one to two hundred thousand dollars.

Elmira, N. Y.—The Nestles Ice Cream Co. is planning to build a plant in Elmira, N. Y. This company is now operating a large plant in Ithaca, N. Y.

Freeport, N. Y.—Fire destroyed the ice cream factory of H. Wiebold. The loss includes the damage to machinery and has not been determined but will run into thousands, it is estimated. Origin of the fire is unknown.

Schenectady, N. Y.—The Presto Ice Cream Equipment Corporation has incorporated with a capital stock of $10,000. W. L. and F. X. Daly, F. Hovey and A. E. Bishop are interested.

Bryan, O.—The Bryan Ice Cream Company intend adding two freezers to their present equipment.

Cincinnati, O.—The DeHaven Ice Cream Company will have a two-story structure, 60x100 feet, with equipment, costing about $75,000 in all.

Cincinnati, O.—The DeHaven Ice Cream Co. will build a new ice cream plant and will be in operation about January 1st. Mr. Connolly and Mr. DeHaven are members of the concern.

Columbus, O.—The Furns Ice Cream Company has purchased the ground south of its present factory for the purpose of building an up-to-date garage and storage building. No better indication can be given of the steady growth of this firm than the present expansion which makes it one of the finest and largest ice cream plants in the state.

Cresline, O.—C. O. Wells Creamery Company will add a freezer, ice tank and cold storage room to their creamery for the manufacture of ice cream.

Dayton, O.—Plants at Piqua and Xenia, O., have been opened by the Red Wing Ice Cream Corporation.

Defiance, Ohio—The Defiance Ice Cream Co. has incorporated for $25,000. The officers are: W. C. Hopkins, president; L. W. Hopkins, vice president; G. E. Watts, secretary and treasurer. They plan to make improvements on plant and to build a new plant later.

East Liverpool, O.—Ambrose E. Webber, manager of the City Pure Milk and Ice Cream Co., announces that the company is preparing to erect a modern ice cream plant.

Findlay, O.—The Findlay Dairy Company will soon add some glass lined tanks and two new freezers to their plant.

Port Clinton, O.—The Esmond Dairy Co., of Sandusky, O., will manufacture ice cream in a branch plant which will be opened in Port Clinton. An artificial ice plant will be established also.

London, O.—The London Creamery plans within the next year to enter the ice cream manufacturing business.

Miami, Okla.—Harry Plummer purchased the Miami Ice Cream factory. He was the superintendent of the Miami Ice Company.

Mansfield, O.—The Paige Dairy Company, of Toledo, is erecting a two-story building, of brick, on Franklin St., in Mansfield.

Mansfield, O.—The Mansfield Pure Milk Co. is intending to add two 60 H. P. boilers and will also have a new cold storage room. Sam Isaly is the competent buyer for the plant.

Marion, O.—The Buckeye Dairy Company, of which E. A. Williams is proprietor, are now manufacturing ice cream.

Norwalk, O.—Gelatines and extracts just now are what the Norwalk Dairy Company is mostly concerned about.

Norwood, O.—Mr. F. A. Huck, the buyer for the Norwood Ice Cream Co., will soon purchase a brick cutter and an ice cream sandwich machine.

Salem, O.—The Salem Sanitary Milk Co. is adding an ice cream department to their plant and will purchase a freezer, cans, tubs and other necessary equipment for the full equipment of same.

Springfield, O.—The Purity Ice Cream Co. is building an addition to the plant and will purchase new cabinets.

Springfield, O.—The Springfield Dairy Products Company will soon purchase a full line of supplies.

Vermillion, O.—Improvements and a new building for the ice cream plant of A. D. Baumhert are now being made.

Purcell, Okla.—A 40 quart brine freezer is the next addition which the Binner Ice Cream Company will make to their equipment in the ice cream plant of that company.

Charleroi, Pa.—One of the most complete and up-to-date ice cream manufacturing plants will be erected in Charleroi by Calistic & Sons.

DuBois, Pa.—Smith Brothers will erect a new ice cream plant.

Kittanning, Pa.—F. F. Bowling, G. R. Schnars and others are interested in a corporation to be called the Kittanning Pure Milk Company. They will manufacture ice cream.

Lancaster, Pa.—The Lancaster Sanitary Milk Company will build a three story building to be used as an ice cream factory.

Milton, Pa.—The Pleasant Valley Creamery Co. will soon install piping for their hardening room. Electric signs, street signs, tubs and cabinets will also be added to the ice cream department.

Osceola Mills, Pa.—An incorporation has been formed by W. R. Swett, A. Britton, F. D. Askey, T. C. Estep and G. M. Estep called Superior Ice Cream Corporation. They will manufacture ice cream.

Scranton, Pa.—The M. G. Ice Cream Co. broke ground for the erection of one of the largest ice cream plants in eastern Pennsylvania. John Mealey, president of the company, presided at the ceremony, which attracted much attention in Scranton.

Tarentum, Pa.—Ganoe and Lee, of the Ganoe and Lee Ice Cream Company, have severed partnership, Mr. Ganoe retaining control of the business.

El Paso, Tex.—About January 1st the Sanitary Ice Cream Company of Cisco, Texas, will be moved to El Paso, and a new name will be decided upon. A new building is being erected and a twenty-five ton ice plant will be in connection.

Huntsville, Tex.—Huntsville is to have an ice cream factory in the near future. Messrs. J. H. and J. V. Ash of Conroe, Texas are interested in the project.

Corpus Christi, Tex.—Plans have been consummated for a large two-story concrete building to be occupied by an ice cream factory.

Sweetwater, Tex.—The Abilene Ice Cream Co., of Abilene, Texas, will have a new ice cream plant in Sweetwater.

Roanoke, Va.—The Westover Dairy Co. will open an addition to their plant and will indulge in the manufacture of ice cream in the spring.

Richmond, Va.—The Horn Ice Cream Co. has purchased a $100,000 ice cream plant.

Spokane, Wash.—The Curlew Creamery Company of Curlew, Wash., will build an ice cream plant in Spokane in the spring. They also have a factory at Chewelah, Wash., and at Grand Forks and Nelson, British Columbia. John J. Helphrey, of Curlew, is president, Ira Carter, of Chewelah, is manager.

Monroe, Wis.—The J. Gempeler Company has purchased five cheese cellars of the Badger Cheese Company and will go into the manufacture of ice cream. The plant will be ready in about two months time. Jacob Gempeler, Jr., is principal owner and manager of the Gempeler Company.

LIST OF

Ice Tools

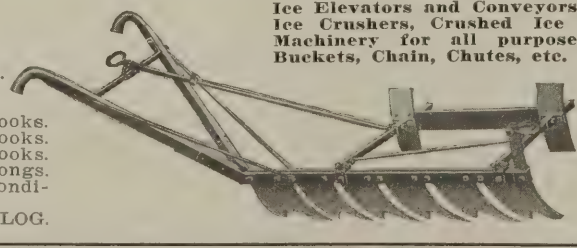
Suitable for Harvesting 500 Tons of Ice

1 No. 315 8-in. Ice King Plow.
1 No. 412 Plow Rope.
1 No. 422 5-ft. Ice Saw.
2 No. 444 Splitting Forks.
1 No. 457 Calking Bar.
1 No. 458 Bar Chisel.
1 No. 470 Floor Shaver.
1 No. 476 Ring Splitting Chisel.
1 No. 500 Line Marker.
1 No. 505 Scoop Net.
1/4 doz. No. 520 4½ ft. Ice Hooks.
1/12 doz. No. 520 6-ft. Ice Hooks.
1/12 doz. No. 520 12-ft. Ice Hooks.
1/12 doz. No. 540 24-in. Boston Tongs.
This list may be added to if conditions demand.
SEND FOR COMPLETE CATALOG.

Ice Tools Suitable for Harvesting 500 Tons of Ice

The Ice Cream, Soda Fountain and Confectionery Trade appreciate the value of a good cold storage and plenty of Ice during the summer. The set of tools suggested here are suitable for harvesting 100 to 500 tons of Ice.—Everyone gathering Ice can afford his own outfit.
Place your order early.

WE MANUFACTURE
Ice Elevators and Conveyors, Ice Tools, Hoists, Ice Crushers, Crushed Ice Carts, Conveying, Machinery for all purposes, Wagon Leaders, Buckets, Chain, Chutes, etc.



Gifford-Wood Co.
Hudson, N. Y.
New York Chicago
Buffalo Boston

Ashland, W. Va.—The Imperial Ice Cream Company of Parkersburg, W. Va., will also build a plant at Ashland, the contract has already been awarded. A. G. Sine is president of the company, W. M. B. Sine, general manager, Geo. W. Strong, vice-president, and J. H. Randolph is secretary and treasurer. The company has factories at Wheeling, Parkersburg, Clarksburg, Fairmont, Cumberland, Md., and Steubenville, Ohio.

Huntington, W. Va.—The Imperial Ice Cream Company of Parkersburg, W. Va., and operating a chain of factories in West Virginia, Maryland and Ohio, will begin the erection of a modern factory in Huntington immediately. A. G. Sine, Parkersburg, is president. The plant will have a daily capacity of 4,000 gallons and storage capacity of 12,000.

Antigo, Wis.—The Howe Creamery Company, which has been established in a portion of the old Citizens' Brewing Company building is now installing machinery for the manufacture of ice cream. O. W. Johnson is a member of the company. A ten-ton ice machine and a 40-quart freezer have been purchased, which will give a capacity of 400 gallons daily. An expert ice cream maker has been engaged.

Cumberland, Wis.—Officers of the company of the Cumberland Creamery announce that they will also manufacture ice cream in their new plant which is soon to be erected.

Kenosha, Wis.—A. C. Blommer, manager of the Blommer Ice Cream Co., of Milwaukee, Wis., opened a new branch factory which is one of the finest of its kind in the west, at Kenosha recently.

Milwaukee, Wis.—The Luick Ice Cream Co. is building a five-story addition to its plant.

Dallas, Texas.—The plants of Smith's Ice Cream factory and the Crystal Ice Cream Company have been purchased by the M. B. Ise Kream Co. of Waco, Tex., and the two Dallas plants will be consolidated under the name of M. B. Ise Kream Company of Dallas. A. P. McLendon is the president.

San Diego, Calif.—The Globe A-1 Grain and Milling Co. is branching out into the ice cream manufacturing business. They propose to operate a plant in San Diego. Three new plants will be erected, the principal new plant will be in Los Angeles. The president, Will E. Keller, has been interested in the manufacture of ice for some years past and his experience in the ice business led to the ice cream project.

Berlin, Wis.—The Berlin Ice Cream and Dairy Products Co., which has been operating in a factory building, is soon to have a new location. Other property has been purchased and a general renovation is in process preparatory to occupying the new place.

Waukon, Ia.—L. B. Stilwell purchased the Waukon Ice Cream factory from Thompson & Hansmeier. New modern machinery will be installed and the present equipment will be overhauled. The Purity Ice Cream Manufacturing Co. will be the name of the new company.

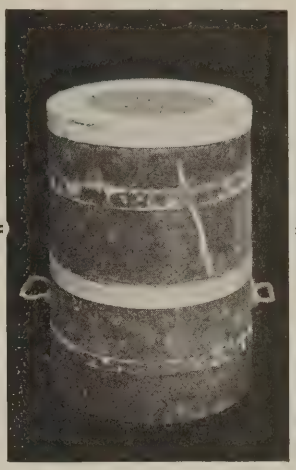
Forest City, Ia.—F. R. Ballentyne of Sioux Rapids will put in an up-to-date ice cream freezing plant equipment which will necessitate an expenditure of over $10,000 in his plant which will be established in Forest City.

Minneapolis, Minn.—Installation of a new ice cream manufacturing plant at the University Farm at an approximate cost of $3,500 is now completed and the plant is in operation.

Fairmont, Minn.—The Fairmont Ice Cream Company has started a second addition of its plant. The new addition will be 20x30 feet with full basement and when completed will represent an investment of more than $5,000.

NEW STAFF MEMBER FOR MATHEWS COMPANY FROM PACIFIC COAST.

The "Servants to the Dairy Industry" announce that Miss P. A. Grant, of Vancouver, B. C., has recently joined their staff. Miss Grant has for some years past been advertising manager of the Fraser Valley Dairies, Ltd., of Vancouver, one of the largest milk distributing and ice cream manufacturing organizations on the Pacific coast. Prior to this connection she had been associated with advertising agency work, publishing and department store advertising. Thus she brings to her new work a useful fund of practical experience as well as a fine record for successful achievement, and the Frederick C. Mathews Company are to be congratulated on their policy of building an organization that not only knows the perplexing selling problems of the dairy industry, but also knows how to solve them.



Have Your Tubs This Protection?

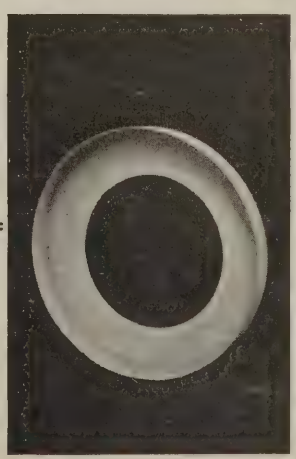
When your packers are dragged along over rough concrete floors—flung around as so much junk by the express companies, and given innumerable severe bumps when unloading from trucks,—what is there to protect the bottom against the "springing" this vicious abuse sooner or later must cause?

The Roman Reinforcing Hoop Ice Cream Tub Protector is ample protection. A substantial metal rim that needs no tools to apply except those illustrated.

These Protecting Hoops have proved their worth wherever employed. They will do the same for you.

Write for circular and prices.

The B. L. Roman Mfg. Co.
608 Cherry Avenue, N. E.
Canton, Ohio



ANNUAL MEETING, NATIONAL DAIRY COUNCIL.

The National Dairy Council held its annual meeting December 1st, 1921. The meeting was held at the Auditorium Hotel, Chicago, and was largely attended. Representatives were there from every branch of the dairy industry. Considerable enthusiasm was manifest regarding the council work.

M. D. Munn, president, first of all outlined briefly the status of the dairy industry at the present time and the favorable financial conditions existing among dairymen compared with other interests of agriculture. Mr. Munn commented on the work of some of the manufacturers and dealers of socalled substitutes for dairy products featuring the need of the dairy industry to inform the public as to the truth.



Sealright Co. Exhibit at the Southern Exhibition, Atlanta.

Following Mr. Munns' report came the secretary's report which showed that the National Dairy Council during the past year has been co-operating with and supplying literature to more than 40,000 school teachers, Red Cross nurses, and other educational agencies and leaders.

The report showed that over four million (4,000,000) pieces of literature have been distributed by the National Dairy Council during the past year. Furthermore, the Council has participated in milk and dairy products campaigns in more than one hundred (100) cities, counties and towns. Among these are such cities as Philadelphia, Cleveland, Minneapolis, St. Paul, Youngstown, Canton, Bloomington, Trenton, Wilmington, and many others.

During the past year the National Dairy Council has prepared considerable new material including a series of four 24-sheet billboard posters with others in course of preparation; also three moving picture films and a series of moving picture slides; also three mechanical devices, one of which has been shown very extensively in which milk rings the bell.

During the past year the National Dairy Council has had exhibits at numerous national conventions and some state conventions and fairs. The National Dairy Council had exhibits at the National Educational Association convention and the American Medical convention, Pageant of Progress, and the National Dairy Show, and numerous others.

Representatives of the National Dairy Council have spoken during the past year at over fifteen hundred (1,500) meetings.

The "Milk Fairies" play has been staged in over one thousand (1,000) schools.

There are now engaged in milk and dairy products campaign work thirty-three (33) National Dairy Council workers, twenty of them engaged in nutrition and education work, and thirteen in "Milk Fairies" work.

The National Dairy Council has been instrumental in organizing a system of serving milk in schools for health's sake, during the past year. Thousands of children are now being weighed and measured and taught health habits.

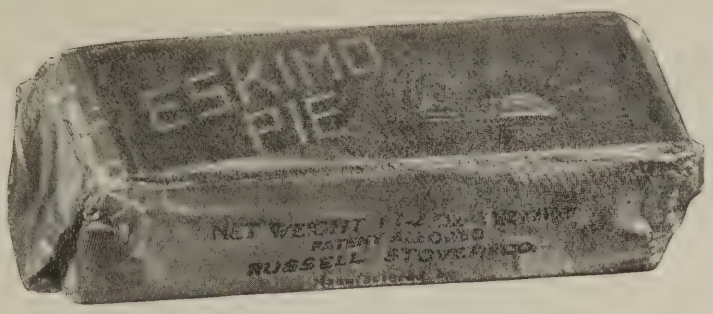
The work of the National Dairy Council, according to the Secretary's report now under way, consists of—

First, the organization and promotion of additional local dairy products campaigns;

Second, the continuation of national publicity through the schools, women's clubs, the press, and various conventions and meetings. Additional material will be prepared, one piece being a 32-page booklet by Dr. E. V. McCollum, entitled "Child Health Demonstration," and another booklet on butter.

Following this report came an address by Mrs. Ira Couch Wood, director of the Elizabeth McCormick Memorial Fund, a national organization promoting child health. Mrs. Wood spoke very complimentary of the work of the National Dairy Council and of the desire of her organization to work along hand in hand with the National Dairy Council. Mrs. Wood presented in a very pleasing and forceful manner the conditions of undernourishment and how to overcome them, outlining the general program of health for children.

Following Mrs. Wood came Miss Louise Fitzgerald, in charge of the National Dairy Council Nutrition and Milk Fairy Play workers, who outlined in a very instructive way the milk campaign work now being con-



Trade Mark Registered, U. S. Patent Office.
Patent Allowed Russell Stover Co., Chicago

What Is Eskimo Pie ?

Ask any one of these Ice Cream Manufacturers:

Luick, Benfelt, Mansfield and Blommer—*all of Milwaukee.*

Hutchinson Purity Ice Cream Company—*Des Moines, Iowa.*

Harding Cream Co., Fairmont Creamery Co.—*Omaha.*

Beatrice Creamery Company —*Dubuque, Iowa.*

THESE are but a few of the many ice cream manufacturers who have so far taken out a license from the Russell Stover Co. to manufacture Eskimo Pie.

Any reliable manufacturer of ice cream may secure license from us to manufacture Eskimo Pie.

Eskimo Pie will keep increasing your Winter Sales. The uniform contract provisions under which Eskimo Pie is sold standardizes the quality, size, shape and wrapper, and insures uniform selling prices and a satisfactory profit to retailer and manufacturer. No exclusive contracts granted.

Sooner or later you will be called upon to meet the demand for this product. Get in touch with us at once and enjoy the benefits of increased winter business.

WRITE

RUSSELL STOVER CO., Mallers Bldg., Chicago, Ill.

ducted by the National Dairy Council, using St. Paul and Minneapolis as examples.

After a brief recess for a dairy lunch, Mr. Robert Balderston, secretary of the Philadelphia Inter-State Dairy Council, spoke of the milk and dairy products campaign work being conducted in Philadelphia and surrounding cities. The campaign is financed equally by the producers and the dealers, each contributing 1 cent per 100 pounds on all milk sold or purchased. The campaign is conducted as all other campaigns—purely as a health measure, through the schools, women's clubs, and other organizations. The campaign is a **continuous** campaign.

Next came a very instructive talk by Dr. C. W. Larson, chief of the Dairy Division at Washington, D. C. Dr. Larson illustrated by graphic chart the trend of the dairy industry, and stated that the American nation should consume much larger quantities of dairy products than are now consumed. The United States ranks way down the list among nations in the consumption of dairy products. Dr. Larson commented very highly on the work of the National Dairy Council, stating that the secretary would have been unable to make a statement that 100,000,000 more pounds of butter were manufactured during the first ten months of 1921 than in the corresponding period of 1920, with less in storage now than a year ago, without the National Dairy Council having done some wonderful work.

Following Dr. Larson came Dr. E. V. McCollum, who gave a powerful talk on the need of using more dairy products in the diet. Dr. McCollum is recognized as the foremost authority on nutrition in the world today. He outlined very clearly and emphatically the present status of nutrition; also how earlier peoples lived and their daily diets. Dr. McCollum pointed out very plainly that if the American nation expected to maintain its high standard of mentality and physical development that it is very necessary that we, as a nation, consume more dairy products and leafy vegetables. At the close of Dr. McCollum's talk the large attendance present gave him a rising vote of thanks. President Munn referred to him as the "keystone" of the dairy industry.

The following were elected to constitute the board of directors: H. G. Van Pelt, W. B. Wanzer, E. M. Bailey, John LeFeber, H. S. Johnson, J. A. McLean, Frank Lowden, T. H. McInnerney, T. B. Lewis, W. F. Luick, J. A. Walker, A. E. Wilkinson, C. Bechtelheimer, H. E. McClintock, R. W. Balderston, W. P. B. Lockwood, E. M. Harmon, H. D. Wendt, S. H. Greene, E. S. Brigham, J. J. Farrell, A. E. Haecker, Mr. Engle, W. C. Davis, E. W. Chandler, C. M. Burdette, S. J. Van Kuren, W. S. Moscrip, D. D. Aitken H. E. Van Norman, Fred Pabst, M. D. Campbell, M. D. Munn, W. A. West.

The executive committee which was elected consists of the following: D. D. Aitken, A. E. Wilkinson, H. G. Van Pelt, W. C. Davis, T. H. McInnerney, John LeFeber, M. D. Munn, W. B. Wanzer, J. A. Walker.

The officers elected were as follows: President, M. D. Munn; vice president, J. A. Walker; treasurer, T. A. Borman; assistant treasurer, C. T. Hays; secretary, M. O. Maughan.

A summary of the financial report showed the following:

INCOME.

Milk Producers	$ 7,509.21
Butter Manufacturers	18,427.95
Milk Distributors	1,319.10
Ice Cream Manufacturers	3,037.00
Dairy Machinery Supply Dealers	32,966.70
Barn Equipment	200.00
Miscellaneous	100.00
Sale of educational literature	50,162.69
Total income for 10 months ending Oct. 31, 1921	$113,722.65

DISBURSEMENTS.

Preparation and distribution of literature	$42,519.41
Salaries and expenses of officers and field workers	26,101.96
Office labor	6,041.98
Stationery	678.56
Postage	1,430.92
Telephone and telegraph	872.65
Office supply and expense	428.25
Rent	3,819.28
Lights	82.40
Miscellaneous	34.23
Pageant, Shows, Exhibitions	3,759.22
Total disbursements for 10 months ending Oct. 31, 1921	$ 85,768.86
Leaving a balance to income account	$ 27,953.79

All present were of the opinion that the time is ripe for every man engaged in this industry to recognize the opportunities and possibilities lying ahead. Had it not been for the educational work conducted by the National Dairy Council and other organizations along similar lines, such as the Dairy Division at Washington, the dairymen would possibly be facing at the present time a financial crisis such as is being faced by the corn producers, the wheat growers, hog raisers, and by all other branches of agriculture.

The work of the National Dairy Council has a big future. The best move on the part of every man engaged in this industry is to support this big movement, which will mean increased profits for the industry and improved child welfare and national development.

No! It's Not Graphite



Freezer Gear troubles eliminated and **Roller and Link Belt Chains** wear longer if lubricated with **"Chainolene"**

Write us for full guarantee

CHAINOLENE MFG. COMPANY
564 Randolph St. Chicago, Ill.

RUSSELL STOVER CO., PROMOTERS OF ESKIMO PIE.

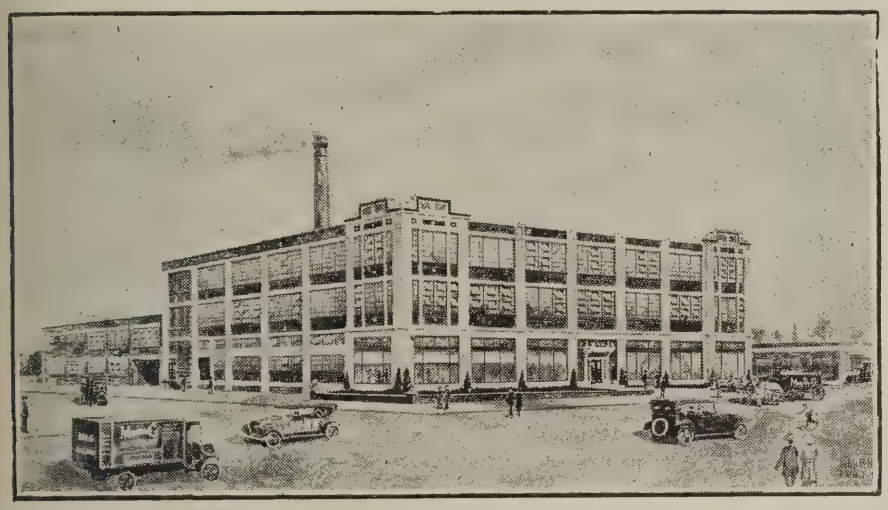
Those who were not at the Illinois Ice Cream Manufacturers Convention at Chicago this month, have no doubt heard a lot about Eskimo Pie and many are wondering how this name and the product it represents sprung into the limelight of the ice cream industry so rapidly.

We are informed that a trade-mark registry has been secured for the name Eskimo Pie by the Russell Stover Company, havin goffices at the Mallers Building, Chicago. They are the promoters of the chocolate coated ice cream bar under this name, contracting with ice cream manufacturers for the use of it. Ice cream manufacturers interested in this product can learn more about it by writing the promoters.

PACIFIC ICE CREAM MANUFACTURERS HOLD SIXTH ANNUAL CONVENTION.

The sixth annual convention of the Pacific Ice Cream Manufacturers' Association, held at the New Washington Hotel, Seattle, Wash., November 14, 15 and 16th was a rousing success.

Twenty-two new members were added to the association at the time, while fifteen additional came in since the meeting a year ago, and that is "going some" for that territory. Four of the new members are Canadian manufacturers, which speaks well for the friends across the line, and there was a very nice delegation from California also.



Proposed Plant of the M. & G. Ice Cream Co., (See Page 60).

The attendance was fine and the convention program was quite up to the previous year's program at Portland, while the entertainment far surpassed it. There was nothing undone to make the members and guests feel at home and the Seattle ladies' committee were wonderful hostesses to the visiting ladies.

A little disappointment was felt at not having some of the speakers present; illness prevented a few appearances.

Monday morning's session began with registration. This was followed by "America" preceding the address of welcome to Seattle given by Mayor Hugh M. Caldwell; response by F. N. Martin; president's address by J. E. Dunne; report of the secretary by Bert H. Walker; report of the treasurer by A. F. Bird and the appointment of committees.

The afternoon session opened with a speech by Paul Heath of the Heathmade Carbonated Products Company, Chicago, Ill., "A Year's Progress." A. R. Fernald of the Frederick C. Mathews Company of Detroit, Mich., chose "Broad-Minded Advertising" for his subjest. Nettie May Miller, of Oakland, Calif., contributed "A Talk by a Silent Partner."

In the evening "The Ice Cream Mix" met in the hotel and were conveyed in automobiles to the Seattle Yacht Club, where informal dancing was enjoyed.

Tuesday's session began in the morning by a talk, "Silent Salesmen in Ice Cream," by W. R. W. Nichols of Garrett & Co., San Francisco, Calif.; followed by "Creating New Business," given by H. C. Stokes of the Stokes Ice Cream Company of Seattle, Wash.; W. P. Abel of the Impruv-Mix Company, New York City, spoke on "Ice Cream Improvers—Do They Improve?" "California's Fight Against Selling Ice Cream by Weight," by Robert J. Dryden of the Dryden Corporation, Oakland, Calif., was a paper read due to Mr. Dryden's inability to attend. "Long Distance Delivery by Auto and Its Cost," was handled by W. C. Robb of the Puyallup Ice Cream Company, Puyallup, Wash.

Tuesday afternoon's session was ushered in by "The Ice Cream Business in Idaho," by J. R. Brown of the Farmers' Co-operative Creamery, Payette, Idaho. This was followed by "Importance of Progress in Applied Refrigeration," by J. C. Corbin of Seattle, Wash., Henry W. Stern of A. Daigger & Co., Chicago, Ill., spoke on "How to Put Pep Into Production and Profits." Mr. L. O. Thayer of Delft Gelatine Co., New York City, was unable to attend, but sent in his paper on"Let's Understand Gelatine." "Consistency, Thou Are a Jewel," was given by Frank Flood of the Broadview Dairy, Spokane, Wash. "Cabinets, Containers and Re-Icing," was chosen by E. C. Schmidt for his talk. Mr. Schmidt is with the Mutual Creamery Co. of Seattle.

Tuesday evening the ladies were entertained at a theater party and the men adjourned to the Automobile Club, where the supply men and western Washington ice cream manufacturers were the hosts at the biggest night, it is whispered, ever featured at an ice cream men's convention.

Wednesday morning's session began with "Echoes from the National Convention," by F. N. Martin of the Hazelwood Company, Ltd., Spokane, Wash. Then followed "Modern Accounting Methods in Ice Cream Industry," by C. B. Terwilliger, a certified accountant of Portland, Ore. F. E. Miller of the Miller Creamery Company of Oakland, Calif., favored with "Co-operation With the Public." Dr. S. A. Huntington selected "Knowing Milk for Quality's Sake." Dr. Huntington is connected with the Royal Ice Cream Company of Tacoma, Wash. Wyn Morris of Barker, Duff & Morris, Pittsburgh, Pa., gave a speech on "Observation," and the speech of "Bacterial Control," given by E. G. Emery of Bellingham, Wash., ended the morning program.

At the afternoon session on Wednesday the report of the auditing committee was given, followed by the reports of the resolutions committee and nominating committee. The election of officers was as follows:

W. V. S. Robb, Seattle, Wash., president; G. W. Weatherley, Portland, Ore., first vice-president; D. M. Dorman, Los Angeles, Cal., second vice-president; A. F. Bird, Seattle, Wash., third vice-president; Bert H. Walker, Tacoma, Wash., secretary; Jay H. Kugler, San Francisco, Cal., field secretary.

The directors are: W. V. S. Robb, Seattle, Wash.; G. W. Weatherley, Portland, Wash.; F. N. Martin, Spokane, Wash.; J. E. Dunne, Portland, Ore.; A. F. Bird, Seattle, Wash.; G. S. Helphrey, Sand Point, Idaho; H. B. H. Hirsch, Butte, Mont.; V. A. Sampsell, Billings, Mont.; S. J. Simonson, Yakima, Wash.; H. C. Stokes, Seattle, Wash.; D. M. Dorman, Los Angeles, Cal.; Bert H. Walker, Tacoma, Wash.

The annual banquet of the Pacific Ice Cream Manufacturers' Association was held on Wednesday evening and a full evening of royal entertainment completed the very successful convention given by an association which Bert H. Walker, the secretary, still maintains is the best state association in the country. It will be our pleasure, in subsequent issues, to publish some of the addresses delivered at the convention.

Associations of Ice Cream Manufacturers and Affiliated Bodies

NATIONAL ASSOCIATIONS.

NATIONAL ASSOCIATION OF ICE CREAM MANUFACTURERS.
Pres., Charles G. Morris, New Haven, Conn.
Secy., N. Loewenstein, 155 No. Clark St., Chicago, Ill.

NATIONAL ASSOCIATION OF ICE CREAM SUPPLY MEN.
Pres.. Oliver S. Jordan, 29 Broadway, New York, N. Y.
Secy., Roberts Everett, 1328 Broadway, New York, N. Y.

STATE ASSOCIATIONS.

ARKANSAS ICE CREAM MANUFACTURERS' ASSOCIATION.
Pres., J. R. Jones, Little Rock.
Secy., G. A. Meyer, Stuttgart.

ARIZONA ASSOCIATION OF ICE CREAM MANUFACTURERS.
Pres., D. A. Donofris, Phoenix.
Secy., Charles LePine, Douglas.

CALIFORNIA ICE CREAM MANUFACTURERS' ASSOCIATION.
Pres., L. W. Wilson, Benham Ice Cream Co., Fresno, Calif.
Secy., R. J. Dryden, 5702 San Pablo Ave., Oakland.

CONNECTICUT ICE CREAM MANUFACTURERS' ASSOCIATION.
Pres., John Semon, 110 Bristol St., New Haven.
Secy., C. E. McEnroe, 72 West Main St., New Britain.

ILLINOIS ASSOCIATION OF ICE CREAM MANUFACTURERS.
Pres., L. W. Roszell, Roszell Ice Cream Co., Peoria, Ill.
Secy., N. Loewenstein, 155 No. Clark St., Chicago.

INDIANA ICE CREAM MANUFACTURERS ASSOCIATION.
Pres., A. P. Holly, LaFayette.
Secy., C. A. Reeves, Indianapolis.

ASSOCIATION OF ICE CREAM MANUFACTURERS OF IOWA.
Pres., W. S. Wilcox, care E. B. Higley & Co., Mason City.
Secy., B. T. Crowley, 709 Citizens National Bank Bldg., Des Moines, Ia.

KANSAS ASSOCIATION OF ICE CREAM MANUFACTURERS.
Pres., J. R. Manley, Topeka Pure Milk Co., Topeka.
Secy., B. T. Perkins, Pittsburg.

LOUISIANA ASSOCIATION OF ICE CREAM MANUFACTURERS.
Pres., W. W. Campbell, Campbell's Ice Cream Co., Shreveport.
Secy., N. F. Manning, Watson & Aven, Monroe.

MICHIGAN ASSOCIATION OF ICE CREAM MANUFACTURERS.
Pres., Albert Williams, West Saginaw.
Secy., W. H. Bechtel, Caro.

ASSOCIATION OF ICE CREAM MNFRS. OF MARYLAND.
Pres., L. M. Hendler, Baltimore and East Sts., Baltimore.
Secy., J. Z. Davidson, 612 No. Carey St., Baltimore.

MINNESOTA ASSOCIATION OF ICE CREAM MANUFACTURERS.
Pres., J. E. Woolsey, Minneapolis.
Secy., W. M. Paulson, 2830 Colfax Ave. South, Minneapolis.

MISSISSIPPI ICE CREAM MANUFACTURERS' ASSOCIATION.
Pres., P. L. Farrell, Brookhaven.
Secy., N. D. Brookshier, Meridian.

MISSOURI ASSOCIATION OF ICE CREAM MANUFACTURERS.
Pres., George A. Bang, St. Louis.
Secy., H. E. Schottmueller, Carpenter Ice Cream Co., St. Louis.

NEBRASKA ASSOCIATION OF ICE CREAM MANUFACTURERS.
Pres., Howard Graham, Omaha, Neb.
Secy., R. W. McGinnis, Fremont.

ASSOCIATION OF ICE CREAM MNFRS. OF NEW YORK STATE.
Pres., Wm. Palmer, Suite 6, Buffalo Ins. Co. Bldg., Buffalo.
Secy., A. M. Le Messurier, Box 676, Syracuse, N. Y.

NORTH CAROLINA ICE CREAM MANUFACTURERS ASSN.
Pres., L. A. Corning, Hamlet, N. C.
Secy., A. E. Dixon, Carolina Ice Cream Co., Fayetteville.

NORTH DAKOTA ICE CREAM MANUFACTURERS ASS'N.
Pres., Frank O. Knerr, Frank O. Knerr Dairy Co., Fargo.
Secy., O. A. Amundson, Bridgman-Russell Co., Jamestown.

OHIO ASSOCIATION OF ICE CREAM MANUFACTURERS.
Pres., L. J. Noaker, Noaker Ice Cream Co., Canton.
Secy., A. S. Burkett, 415 Spahr Bldg., Columbus.

OKLAHOMA ASSOCIATION OF ICE CREAM MANUFACTURERS.
Pres., J. B. Porter, 310 West 1st St., Tulsa.
Secy., M. T. Cochran, Altus Ice Cream Co., Altus.

ASSOCIATION OF ICE CREAM MNFRS. OF PENNSYLVANIA.
Pres., Robert Crane, Crane Ice Cream Co., Philadelphia.
Secy., James W. Neuman, H. L. Neuman Co., York.

TENNESSEE ASSOCIATION OF ICE CREAM MANUFACTURERS.
Pres., W. M. Sidebottom, 145 Sixth Ave. No. Nashville.
Secy., Geo. A. Decker, John Decker & Son, Nashville.

TEXAS ICE CREAM MANUFACTURERS ASSOCIATION.
Pres., Frank B. Wester, Wester Bros. Cry., Sulphur Springs.
Secy., H. F. Owsley, Crystal Ice Cream Co., Dallas.

VIRGINIA ICE CREAM MANUFACTURERS ASSOCIATION.
Pres., I. H. Fill, Purity Ice Cream Co., Richmond.
Secy., L. K. Shepherd, Richmond.

ICE CREAM MANUFACTURERS' ASSN. OF WEST VIRGINIA.
Pres., W. M. B. Sine, Imperial Ice Cream Co., Clarksburg.
Secy.. C. F. Jamison, Huntington.

WISCONSIN ASSOCIATION OF ICE CREAM MANUFACTURERS.
Pres., D. D. Smith, Sessions Ice Cream Co., Fond du Lac.
Secy., Frank Caughey, Mansfield-Caughey Co., Madison.

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NEW ENGLAND ASSOCIATION OF ICE CREAM MNFRS.
Pres., John Semon, New Haven, Conn.
Secy., George W. Kenison, Lawrence, Mass.

PACIFIC ICE CREAM MANUFACTURERS' ASSOCIATION.
Pres., W. V. S. Robb, Seattle, Wash.
Secy., Bert H. Walker, Royal Ice Cream Co., Tacoma, Wash.

ROCKY MOUNTAIN STATES ICE CREAM MNFRS. ASSN.
Pres., H. J. Walsmith, Corbett Ice Cream Co., Denver, Colo
Secy., D. W. Thomas, 521 Chamber of Com. Bldg., Denver, Colo.

SOUTHERN ASSOCIATION OF ICE CREAM MANUFACTURERS.
Pres., W. M. Sidebottom, 145 Sixth Ave. No., Nashville, Tenn.
Secy., J. W. Clopton, Decatur Ice Cream Co., Decatur, Ala.

TRI-STATE ASSOCIATION OF ICE CREAM MANUFACTURERS.
(Georgia, South Carolina, Alabama.)
Pres., M. J. Costa, Costa Ice Cream Co., Athens. Ga.
Secy., John Sancken, Georgia Carolina Dairy Co., Augusta, Ga.

AFFILIATED BODIES.

NEBRASKA CORN HUSKERS (NEBRASKA)
Pres., J. R. Freitag, Boerner-Frey Co., Iowa City, Iowa.
Secy., George A. Lessenhop, G. F. Lessenhop & Sons, Inc., Lincoln, Nebr.

HOOSIER WILD CATS (INDIANA)
Pres., Edwin J. Small, J. B. Ford Co., Indianapolis, Ind.
Secy., H. A. Stevens, 717 Railway Exchange, Chicago, Ill.

POODLE DOG ASSOCIATION (IOWA)—Official Barkers.
Pres., Gus H. Bulger, 5677 Waterman Ave., St. Louis, Mo.
Secy.. Arthur O. McCune, Morton Salt Co., Chicago, Ill.

KANSAS JACK RABBITS (KANSAS)
Pres., J. L. Nelson, C. Nelson Mfg. Co., St. Louis, Mo.
Secy., Edwin F. Weil, 514 N. Y. Life Bldg., Kansas City, Mo.

MICHIGAN DAIRY BOOSTERS (MICHIGAN)
Pres., R. J. Ellwanger, John W. Ladd Co., Detroit.
Secy., C. J. W. Smith, Creamery Package Mfg. Co., Detroit.

MISSOURI MULES (MISSOURI)
Pres., F. E. Sutemeier, Warner Jenkinson Co., St. Louis.
Secy., J. L. Nelson, C. Nelson Mfg. Co., St. Louis.

OKLAHOMA WOLF HOUNDS (OKLAHOMA)
Pres., C. R. Hauk, 524 West 12th St., Oklahoma City, Okla.
Secy.. Claude C. DeRoche, Box 575, Oklahoma City, Okla.

NATIONAL ORDER OF WHITE CAPS (TEXAS)
Pres., George L. Boedeker, Dallas, Texas.
Secy., W. W. Wren, Fort Worth, Texas.

TEXAS ICE CREAM SUPPLY MEN'S ASSOCIATION (TEXAS)
Pres., G. F. Bein, Fort Worth, Texas.
Secy., J. B. Huff, Prall-Huff Co., Fort Worth, Texas.

BADGER FLYERS (WISCONSIN)
Pres., Robert Carswell, 773 So. Smith Ave., St. Paul, Minn.
Secy., O. E. Harwood, A. H. Barber Creamery Sup. Co., Chicago.

DIXIE FLYERS (SOUTHERN ASSOCIATION)
Pres., P. N. Miller, Jr., 2913 11th Ave., Birmingham, Ala.
Secy., T. J. Stewart, Mercantile Library Bldg., Cincinnati, O.

OTHER ASSOCIATIONS.

CANADIAN ASSOCIATION OF ICE CREAM MANUFACTURERS.
Pres., W. H. Foster, Hamilton, Ont.
Secy., T. A. Burke, Hamilton, Ont.

PLEASE MENTION THE ICE CREAM REVIEW WHEN WRITING TO ADVERTISERS

WANT DEPARTMENT



Orders for this Department must reach our Office not later than the 10th of the month. Orders received after that date will be carried over to the following months issue.

"WANT" AND "FOR SALE"

Notices will be published at the rate of 2 cents per word, cash with order. For blind address 15 cents extra.

NOTE: Names and addresses of advertisers using blind address cannot be furnished direct from this office. The advertiser can be reached only by using the key number and addressing your reply care of "The Ice Cream Review."

NOTICE.

The Ice Cream Review disclaims any responsibility for the reliability of parties advertising in the Want and For Sale Department, nor for the truthfulness of statements made in such advertisements. In answering such ads, ask for references if parties are unknown personally, before sending money. Our subscribers are requested to assist us in keeping unreliable parties from advertising by reporting any suspicious dealings to us at once.

HELP WANTED

WANTED—Ice cream maker; capable man, who understands manufacturing; good opportunity for hustler. Would prefer one who could invest to some extent. Write fully experience, age, etc., in first letter. Address: R-87, Ice Cream Review. 12-21

"LIVE WIRE" not afraid of work who thoroughly understands the game, is open for engagement. If your business is in a run-down condition or competition too keen, I'll put it on a paying basis again. Will locate anywhere. Address: R-88, Ice Cream Review. 12-21

WANTED MANAGER—A practical ice cream man in new up to date factory in city of 40,000 in Oklahoma. Must thoroughly understand ice cream business and be able to invest two or three thousand dollars in business. Address: R-106, Ice Cream Review. 12-21

HELP WANTED—Fine opening for young man with capital enough to make him interested. Must know manufacturing and selling end of the ice cream business. New refrigerating plant, capacity 350 gallons, value $15,000 unencumbered. Three railroads. One-half block from express office. Ten thousand people within four miles. Richest fruit and trucking section in Florida. Owner more interested in other business and wants to be away at least three months every summer. Will eventually turn over entire management. More machinery needed for making commercial ice cream. Present business principally retail and family. Explain fully your qualifications, how much money you could put in business and wages expected to start. Sias Ice Cream Company, Bradentown, Fla. 12-21

SALESMEN WANTED—An opening in several desirable territories—established line to wholesale ice cream manufacturers—worth while opportunity for A No. 1 men who are two-fisted fellows with money-making ability. Give complete details in first letter. Chicago factory. Address: R-89, Ice Cream Review. 12-21

WANTED—Position with party contemplating the installation of dry milk machinery; 8 years' experience in installing equipment and condensing and drying of milk. Address: R-91, Ice Cream Review. 12-21

ADVERTISING MAN—Competent to handle the advertising for an ice cream concern. Must be qualified to edit copy, analyze conditions, create ideas and follow up advertising leads. At present all copy is prepared and campaign directed by an agency. Material is bought from various sources. Give previous experience, qualifications, age, references and salary expected in first letter. Address: R-95, Ice Cream Review. 12-21

PRODUCTION SUPERINTENDENT—An ice cream concern with several plants throughout the South requires the services of a man competent to inspect and superintend the manufacturing at the various plants, which necessitates being away from home at least four or five days every week. He must know the ice cream business and freezing methods thoroughly and be able to figure solids, fat and overrun. This is a man's job with plenty of opportunity for promotion. State experience and qualifications in detail in first letter, also age, whether married or single, references and salary expected. Reply to R-96, Ice Cream Review. 12-21

SALESMEN WANTED—Some desirable territories are open in the East and Middle West states for the sale of the "Glacifer Dry Packer for Shipping Ice Cream." Commission business only, with protected territory. For the present it may be handled as a side line. We want an unusually high type of salesman who can produce results. Acquaintance with the trade desirable, but not necessary. Interviews will be arranged after January 1st. Tell us all about yourself in your first letter, which will be treated confidentially, what you have done, are doing and territory now covered. The Glacifer Company, 102 Merrimac St., Boston. 12-21

WANTED—First class salesman to sell a full line of materials to ice cream and candy manufacturers. Great opportunity for man who is able to produce. The Wexmar Co., 2712 Montrose Ave., Chicago, Ill. 2-22

POSITION WANTED

HIGH GRADE ICE CREAM MAKER, capable all around dairyman, open for engagement. Thirty years' practical experience, expert on testing, standardizing, pasteurizing milk, cream. Thoroughly experienced in all departments inside, and outside work, steam, refrigeration; good mechanic; reliable; best of references. Will guarantee to save and make you money in your plant. Desire position with reliable firm. Address: R-48, Ice Cream Review. 7-21tf

POSITION WANTED—By thoroughly experienced person who understands modern methods of ice cream making, as superintendent or ice cream maker. Address: R-68, Ice Cream Review. 12-21

POSITION WANTED—By up to date ice cream maker. Wholesale or retail. Understands all methods, also care of cold storage plants. First class references. State wages in first letter. Address: Wm. Williams, Necedah, Wis., Box 183. 12-21

POSITION WANTED—As a well known member of Supply Men's Association I cannot openly lend my name to recommend a man for managerial and buyer's position, but I have in mind a man who knows as much all around about the scientific and practical side of the retail milk and wholesale ice cream city and country as any manager I have met in 25 years travel all about the country, he is of the highest type of executive. He is well situated but might make a change of location, 29 years' experience. Nothing under $7,500 or $10,000 considered. Address: R-92, Ice Cream Review. 1-22

POSITION WANTED—By ice cream maker with broad experience in large plants. Good references. Address: R-94, Ice Cream Review. 12-21

POSITION WANTED—By a man with seven years' practical experience in making commercial and fancy ice cream and sherbets. Have just completed a contract with a plant in a large Texas city, where the output was 1,200 gallons daily. Am experienced in the use of all machinery used in modern plant, including refrigerators. Can furnish references regarding abiuity to handle the help found in modern plants as well as the making of a real quality product. Write H. M., 200 Bird St., San Angelo, Texas. 12-21

POSITION WANTED—As superintendent or plant foreman in up-to-date ice cream or combination plant. Understand all latest methods in mixing, freezing, homogenizing, pasteurizing, testing, standardizing and refrigeration. Dairy school course. Married. Age 28. Can come on short notice. Best references. State salary and describe plant in first letter. South preferred. Address: R-100, Ice Cream Review. 12-21

POSITION WANTED—As ice cream maker; 10 years' experience. Capable of handling 3,000 gallons a day. Address: R-101, Ice Cream Review. 1-22

POSITION WANTED—By an ice cream maker, who knows the business in all of its branches. Also ice making and refrigeration, in all of its branches. Can come on short notice. W. A. Waring, Barton, Md., Box 51. 12-21

POSITION WANTED—Ice cream maker and general creamery man of ten years' experience would like position as ice cream maker or take charge of plant. Can also handle refrigeration machinery. Address: R-103, Ice Cream Review. 12-21

POSITION WANTED—As an ice cream maker or superintendent; 25 years' experience in the business; expert at brick ice cream, also good salesman. Address: R-107, Ice Cream Review. 12-21

FOR SALE BARGAINS

FOR SALE—Wholesale ice cream, milk and sweet cream business and equipment, located in best city in Iowa. Doing a good business. Write for information. Address: R-85, Ice Cream Review. 12-21

FOR SALE—Controlling interest in prosperous ice cream business in live Wisconsin manufacturing city. Would consider as trade northern lakes property, improved or unimproved, in Wisconsin, having summer resort possibiilties. Excellent opportunity—good reason for selling. Address: R-105, Ice Cream Review. 1-22

FOR SALE—An ice cream factory, with two brick buildings, each building is 25 by 60 feet. A good paying business in a city of 5,000, with two railroads. For information write W. J. Booton, Elk City, Okla., Box 511. 12-21

FOR SALE—Cheese factory. If you want to buy a factory write to us. We have some in Taylor, Clark, and Marathon counties in prices from $4,200 up to $11,000, all are located in the Clover Belt of Wisconsin. For any information write to F. D. Steinert, Abbotsford, Wisconsin. 3-22

MACHINERY AND SUPPLIES AND

BOILERS, NEW AND SECOND HAND—Electric Motors, Engines, Pumps, Pipes and fittings, Valves, Belting, Shafting, Bearings and Pulleys. Money Saving prices. Harris Machinery Co., Minneapolis, Minn. 12-20tf

FOR SALE—One 40-quart belt-driven Emory Thompson ice cream freezer in good condition. Freezer is being removed to install a motor driven machine. Will sell at a bargain. Carolina Ice Cream Co., Fayetteville, No. Car. 12-21

FOR SALE—Three new Cherry model "I" 60-quart freezers; motor driven. Rich Ice Cream Co., Buffalo, N. Y. 3-21tf

FOR SALE—De Laval No. 1 belt drive emulsor, used very little. Original cost, $400; price $150. The Bloomington Ice Cream Co., Bloomington, Ill. 12-21

FOR SALE—In excellent condition, one 1000-gal. copper tinned Cherry ice cream batch mixer with direct connected A. C. 220-volt, 3-phase, 60-cycle motor. Immediate shipment. Address: Box 250, Elyria, O. 9-21tf

FOR SALE—4 new glass lined steel tanks, 7 ft. diameter, 8 ft. long inside; 2,200 gal. capacity. Can be taken apart in middle, $200 F. O. B. cars. The Genevieve Cry. Co., Ste. Genevieve, Mo. 12-21

FOR SALE—Cottage cheese in one, two or five tub lots, shipped date of make. Rock Lake Creamery, Lake Mills, Wis. 1-21

75-TON MOTOR DRIVEN ice machines, over 1 75-ton York horizontal refrigerating machine, motor driven, and 1 75-ton De La Vergne horizontal ice machine, motor driven, including high side. $18,000 for both machines loaded on cars; hardly been used. Charles S. Jacobowitz, 1382 Niagara St., Buffalo, N. Y. 12-21

FOR SALE—1, No. 1 DeLaval Emulsor, good as new, new bowl, spindles and bearings; 12 Babcock tester, 8, 10, 12 bottle sizes; 1 24 bottle Crepaco Babcock tester; 1 24 bottle Wizard Babcock tester; 1 Toledo Print scale, good as new; 1 small Blackmer Pump, bronze, ½ inch connections; 1 Jensen Bronze Sanitary 1¼ inch connection pump; 1 Trahern Iron 1 inch connection pump; 1 Farrington enameled moisture oven; 1 continuous double disc ice cream freezer, 100 gallon capacity, with counter shaft and pulleys; 1 250 gallon Wizard disc vat; 1 Ventura 18 inch wall suction fan (new); 1 12 bottle Troemner cream scale. Ottawa Condensing Co., Ottawa, Kans. 4-22

FOR SALE—One 100 gallon belt drive Viscolizer, in perfect condition, $500.00. Will give terms if desired. R. J. Wade & Co., 208 So. Canal St., Chicago, Ill. 12-21

FOR SALE—Meyer refrigerator body, No. 202, Type A, for 2½-3 ton chassis, used April to October this year, perfect condition but too small for route. Immediate delivery. White Dairy Products Co., Raleigh, N. C. 1-22

FOR SALE—About 800 2-gallon capacity brick molds. Can make an attractive price. Lawrence Ice Cream Co., 937 W. 21st St., Chicago, Ill. 12-21

FOR SALE—2 500 gallon, 54 inch 1-D upright, open jacketed, glass lined Pfaudler mixing tanks with motors; A1 condition; used only a few months; price $800.00 cash. Lawrence Ice Cream Co., 937 W. 21st St., Chicago, Ill. 12-21

FOR SALE—Cherry upright batch mixer, 100 gallon size; good as new. Prairie du Chien Cry Co., Prairie du Chien, Wis. 12-21

FOR SALE—Ruff condenser, two-roll, No. 6 machine; used one season. Located in Pennsylvania plant. Address: R-98, Ice Cream Review. 12-21

FOR SALE—800 gallon C. P. coil vat. Excellent condition. Used only short while, $600.00. Address: R-99, Ice Cream Review. 12-21

FOR SALE—Mojonnier Over Run Tester, guaranteed as good as new, 50 per cent less than cost price. Price $150.00, net F. O. B., Kansas City, Mo. Address: R-97, Ice Cream Review. 12-21

FOR SALE—The following good ice cream equipment: Cabinets, cans, tubs, vats, viscolizer, ice cream freezer, ice machines, flavors, ice breakers, motors, automobile trucks and wagons. For information apply Kelly-Lester Milk Company, Twelfth and Pine Streets, Philadelphia, Pa. 1-22

FOR SALE—Three Cherry 40-quart brine freezers, belt drive. All in first class condition. Overhauled last year. We are replacing with larger size Cherry freezers. Will sell, one, two or three to first bidder. Address: R-104, Ice Cream Review. 4-22

FOR SALE—3 80-quart Miller and 4 40-quart Fort Atkinson motor drive freezers, equal to new; also other makes of belt and motor drive freezers; two, three, five hundred and thousand gallon vats, 80, 200 and 400 gallon homogenizers; very attractive prices. Send for complete list. Philadelphia Retinning Co., North Philadelphia, Pa. 12-21

FOR SALE—One 6-ton vertical enclosed Frick Compressor with high side, complete, used but 6 months; good as new. W. C. Hardy, 1215 Filbert St., Philadelphia, Pa. 12-21

FOR SALE—One six-ton creamery package machine with high side complete, also hardening room coils. Can be seen at work every day. Fertig Creamery, Shelbyville, Ind. 12-21

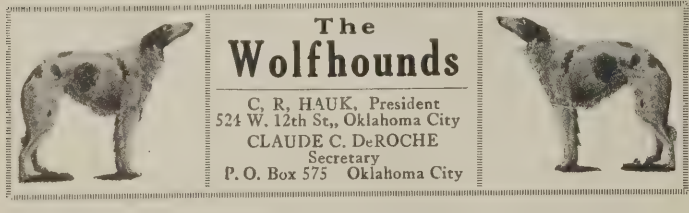
WANTED TO BUY

WANTED TO BUY—Established wholesale ice cream plant. Must be good shipping point. Address: Box 296, Claremont, Ill. 12-21

WANTED EQUIPMENT—Three or four thousand pound tubular milk cooler, double end milk bottler, for pints and quarts. Milk bottle washer, rinser and sterilizer; 350 gallon Jensen batch pasteurizer. Advise price, present condition and make. Address: R-102, Ice Cream Review. 12-21

WANTED TO BUY—Used 40-quart horizontal brine freezer, belt driven, same must be in good running order. Give full particulars in first letter. Address: R-93, Ice Cream Review. 12-21

WANTED TO BUY—Established ice cream plant. Middle west preferred. Describe fully in reply. Address: R-90, Ice Cream Review. 1-22



"YOUNGEST WOLF HOUND" NOW HAS A BABY SISTER.

At the last annual meeting of the Oklahoma Wolf Hounds "the youngest wolf hound in captivity," Master Benjamin Ralph Hauk, was duly initiated. "Ben" has been revelling in his honors but now he must at least share them with a baby sister who came to visit him on Nov. 21st and who evidently intends to stay. Ben and the new Wolf Houndette make their home with Mr. and Mrs. C. R. Hauk, of St. Louis. Congratulations, folks!

COPY OF TELEGRAM TO SECRETARY OF WOLF HOUNDS.

Fort Worth, Texas, Dec. 10, 1921

Mr. DeRoache, Sec. Oklahoma Wolf Hounds,
Oklahoma City, Okla.

After full consideration am compelled to resign my position as official. Nurse of Wolf Hounds.

Noting the new addition to the Hank family I do not feel that I can do the position justice. Have a white elephant on my hands here in Texas.

Suggest that a committee of six, with Pete Miller as chairman be appointed to assume duties of the position I have had honor to hold.

M. S. PENNYPACKER.

ILLINOIS ICE CREAM MANUFACTURERS HOLD CONVENTION.

The Illinois Association of Ice Cream Manufacturers held their twenty-second annual convention in the Sherman Hotel, Chicago, Ill., December 6-7. The attendance was large and the program was an interesting one. The following officers were elected: L. W. Roszell, Peoria, Ill., president; A. D. Cunningham, Chicago, Ill., vice president; N. Loewenstein, Chicago, Ill., secretary; E. L. Joehl, Alton, Ill., treasurer.

The directors are: The officers, F. W. Holmes, Manteno, Ill.; A. A. Chapell, Chicago, Ill.; G. E. Thompson, Chicago, Ill.

National Director: W. A. Schwindeler, Quincy, Ill.

A more complete report of the convention proceedings will be published in the January number of The Ice Cream Review.

FOIL WRAPPERS FOR ICE CREAM.

With the advent of ice cream being sold in the popular "chocolate bar style," a new field is also opened for the foil wrapper. Much experimentation was necessary to make foil wrappers adaptable to the various products they were intended to wrap.

Today aluminum foil, on account of its lightness and inherent nature that keeps it from rusting, has probably found its widest use for wrapping confections and food products.

The Milwaukee Printing Company, with offices and a modern equipped plant at 377 Florida Street, Milwaukee, Wis., have developed a large line of wrappers for the confectionery and food trade known as "Radio" wrappers and the progressiveness of this concern will no doubt secure a good share of the wrapper business resulting from this new departure in the ice cream industry.

WHY THE KANSAS MEETING WAS POSTPONED.

The Ice Cream Review:

Owing to a small pox epidemic which prevails in Kansas City, the convention of the Kansas Association of Ice Cream Manufacturers has been postponed until some time in January.

B. T. PERKINS, Secy.,
Kansas Assn. of Ice Cream Mnfrs.

Davis-Watkins
Catalog No. 6

This catalog is the result of many years work, and the experience of many men, working together to build the best milk handling equipment which can be, and is produced. The information recorded is that of experts in each line. If you operate a milk plant, creamery or ice cream factory, you should have it handy.

Here is a list of the Sections:

SECTION ONE	Milk Cans, Ice Cream Cans, Can Washers, Can Fillers, Can Strainers, Dippers, Brick Moulds, etc.
SECTION TWO	Bottle Fillers and Cappers, Valves, Rubbers, etc.
SECTION THREE	Milk Pasteurizers, Heaters, Holders, Coolers, Coil Vats, Milk Tanks, Receiving Vats, etc.
SECTION FOUR	Pressure Bottle Washers, Small Washers, Turbine Washers, Brush Washers, Tanks, Brushes, etc.
SECTION FIVE	Milk Pumps, Sanitary Fittings, Bottle Cases, etc.
SECTION SIX	Butter Churns and Workers, Cream Ripeners, Batch Pasteurizers, Starter Cans, Weigh Tanks, Testers, etc.
SECTION SEVEN	Small Butter Making Outfits, Churns and Workers, Printers, Cartons, Coolers, etc.
SECTION EIGHT	Ice Cream Freezers, Homogenizers, Batch Mixers, Emulsors, Brine Outfits, Carton Fillers, etc.

Perhaps the complete catalog contains many things you are not interested in. With this in mind we are also printing the eight sections in separate books. You can have the whole catalog in one book or any of the several sections. It is up to you to tell us what you want sent.

If one or more of the Sections will answer your purpose, we would prefer to send them, as the complete catalog costs us more money. However, if you are interested in all that pertains to milk handling, you should by all means have a copy of the complete catalog so you can study it over as you have time.

Write us on a postal card or in a letter: "Send me the Davis-Watkins Catalog No. 6" or "Send me Sections ....."

Davis-Watkins Dairymen's Mfg. Co.

130 No. Wells St., Chicago, Ill.

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The
ICE CREAM REVIEW

PUBLISHED THE FIFTEENTH OF EACH MONTH BY

THE OLSEN PUBLISHING COMPANY

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Also Publishers of

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OFFICIAL ORGAN

North Carolina Ice Cream Manufacturers Association
Ice Cream Division Indiana Mfgs. of Dairy Products
Oklahoma Association of Ice Cream Manufacturers
Wisconsin Association of Ice Cream Manufacturers
Michigan Association of Ice Cream Manufacturers
Nebraska Association of Ice Cream Manufacturers
Southern Association of Ice Cream Manufacturers
Kansas Association of Ice Cream Manufacturers
Louisiana Ass'n of Ice Cream Manufacturers
Iowa Association of Ice Cream Manufacturers
Texas Ice Cream Manufacturers Association
Arkansas Ice Cream Manufacturers Ass'n
Poodle Dog Association of Iowa
National Order of White Caps
The Nebraska Cornhuskers
Indiana Hoosier Wild Cats
Wisconsin Badger Flyers
Michigan Dairy Boosters
Oklahoma Wolfhounds
Kansas Jack Rabbits
Texas Longhorns
Missouri Mules
Dixie Flyers

JANUARY 1922

IT'S a little late to talk about New Year resolutions, and to wish you a Happy New Year, but that isn't the editor's fault. New Years comes too early. However, we are still sentimentally reminiscent, but we are not counting the mistakes of last year—simply because we don't believe in that sort of thing. We would rather build air castles any time than to worry about last year's errors. So we are wondering what 1922 has in store for the men in the ice cream industry.

That probably depends a good deal upon us. Business prophets are all telling us that the new year is going to bring about a big revival in business and that we are about due to get "out of the woods," so to speak.

We have a "hunch" that these fellows are right, but we advise the man who wants more business in 1922 not to expect that Dame Fortune is going to come along and throw it into his lap of her own free will and accord. Conditions are not going to change so much and so good that business is going to come very fast for the man who doesn't hustle for it.

We believe, however, that the man or the firm who goes out after business the way business men used to go after it before the world war, will get it. The war spoiled lots of folks. Business came so easily that they didn't have to hustle for it. Then the reaction came in and the change was so violent that they gave up. They are still waiting for "good times" to come back. The kind of "good times" they are looking for will not come back unless another war comes on. We believe that normal, honest-to-goodness good times are just ahead, but we have got to hustle if we catch up with them.

The ice cream manufacturer or the ice cream supply man who wants to do a bigger business in 1922 than ever before can do it if he plans accordingly. The business is in sight, but he must go after it "hammer and tongs."



THE elimination of the government tax on soda fountain sales will undoubtedly result in increased sales of ice cream. This increase may not be marked on account of unfavorable business conditions, but as the situation improves tax-free ice cream will surely find favor among the consumers of the country. The kid who has been hanging on to his nickel waiting for Dad to give him another penny so that he can buy a cone has no occasion to wait longer. He will not get a nickel as often as he once did, but the old times will return and the consumption of ice cream cones will again help to swell the total.

We believe that there never was so good a time before to push the sale of good ice cream. The tax barrier has been removed and it was more than a financial barrier—it was a sentimental barrier as well. There is no question but what the consumer of ice cream resented this tax more than other forms of taxation. The action of many retailers in boosting their profits, using the tax as an excuse, helped to aggravate that resentment. People refrained from buying ice cream cones and ice cream dishes many times because they felt they were being imposed upon.

Now, with the tax removed, old time prices will return, as a general thing, and consumers will feel that they have won their fight. They will spend their money more freely and will be boosters for ice cream instead of being enemies.

The progressive ice cream manufacturer is going to take advantage of this changed attitude on the part of the buying public to "sell" his ice cream in every way at his command. He will spend more money on advertising than he ever did before. He will "sell" ice cream in general to his people and will then "sell" his particular brand of ice cream. If he backs it up with quality and service he stands to win great results. We believe the time is ripe for such an advertising campaign in every community. Don't wait until hot weather to do it, either. Get your people in the habit of eating ice cream as a food and a dessert, not merely to cool themselves off in hot weather.



THE next few weeks will conclude the series of state conventions that are being held over the country. If your state convention is still ahead, don't let anything short of sickness keep you from being there. It will be time and money well invested.

THE ice cream manufacturers in a few of the states in the Middle West set apart only one day in the year for a convention. They reach town in the morning and take a train home in the evening. They spend the hours between talking business. They call it a day and go away.

Now, we believe in attending to business during business hours, but this kind of an arrangement doesn't leave any time for play and social intercourse. Yes, that's it, we are arguing for a two or three days' convention and we believe it is the proper thing to do. "All work and no play makes Jack a dull boy," and a convention that doesn't afford opportunities for the delegates to loosen up a little and be sociable is—well, it isn't our idea of a real ice cream manufacturers' convention.

Ask the Texas ice cream manufacturer, for instance, when he arrives, whether he could get done in one day. He would probably tell you that a three days convention is none too long and he wouldn't bother to leave home for a one day's meeting. The Oklahoma man would tell you the same thing. These men would ask, "How about the White Caps and the Longhorns and the Wolf Hounds, where would they come in?" The man in Kansas would tell you that a successful convention would be impossible without the Jack Rabbits. Then there are the Cornhuskers in Nebraska, the Poodle Dogs in Iowa, the Badger Flyers in Wisconsin, the Hoosier Wild Cats in Indiana, and the Dairy Boosters in Michigan. No ice cream manufacturer in those states would want to attend a convention without them.

These auxiliary associations are impossible in those states where a one day's meeting is held. They operate only during play hours and these play hours are essential to the best interests of the ice cream manufacturers' association. Of this we are firmly convinced and we suggest to the officers of those state associations where one day meetings are held to enlarge their program next year and use at least two days. The Ice Cream Review stands ready to help you in any way it can to make your annual convention a bigger thing. It will increase your attendance and increase the usefulness of your organization.



WHEN the secretary of your association asks you to "please remit" for your dues it is well to keep in mind that right there you can help him in the good work he is doing. We realize that for the "jiner" this is the most expensive time of the year. In addition to the holiday demand upon his suffering wallet, his dues are due. He gets a notice from the secretaries of the various lodges, clubs and associations to which he belongs that his membership will be worth just about as much as a last year's bird's nest if he doesn't pay up within a certain definite period. Of course the information is conveyed to him in more brotherly language, but it means the same thing.

When you get a notice from the secretary of your trade organization give it "preferred position" among the pile of bills that you intend to pay when you have recovered from the demands of Christmas time. Don't let your membership lapse or even worry the secretary with a delay. When he is spending time trying to collect delayed dues he can not be spending time doing constructive work for you and for your organization. The most encouraging message of all the year that it is possible for you to send him is, "Here are my dues."



ESKIMO PIE." Who hasn't heard about it? Surely no ice cream manufacturer. Probably nothing since the advent of the ice cream cone and the ice cream sandwich has stirred up a like interest, not only among ice cream manufacturers and retailers, but among all classes of consumers as well.

Some folks think that chocolate covered ice cream is but a passing fancy and hesitate to adopt it as a regular product, but we feel they are making a mistake. We are strongly in favor of any product that will mean a larger consumption of ice cream and enable the ice cream manufacturer to run his business at a loss a less number of months during the year. One large ice cream manufacturer testifies that the manufacture of Eskimo Pies enabled him to show a profit in December, the first time in the history of his business.

Why not use such a legitimate means of increasing the consumption of ice cream? Why not give the people what they want, especially when it can be done at a good profit? We believe the ice cream manufacturer who does not seize upon every opportunity to develop his business is standing in his own light.



IN THE Ice Cream Review office we feel that this issue if just about the most interesting one that we have ever pubilshed. Notice the volume of news regarding the activities of the various associations of ice cream manufacturers and of the supply men. Pages and pages of live reading matter of real interest to the men in the business. We call special attention to this issue, not to pat ourselves on the back, but to make sure that you will not let the size of the paper discourage you from reading every page carefully. Each page has something that will interest you.

BULLETIN OF EVENTS

Wisconsin Association of Ice Cream Manufacturers, Annual Convention, Hotel Plankinton, Milwaukee, Wis., January 17-18, 1922. F. E. Caughey, Secretary, Madison, Wis.

Louisiana Association of Ice Cream Manufacturers—Annual Convention, New Orleans, La., Jan. 19, 1922. Headquarters hotel to be announced later. N. F. Manning, Monroe, La., Secretary.

Minnesota State Association of Ice Cream Manufacturers—Annual Convention, Hotel St. Paul, St. Paul, Minn., Jan. 20, 1922. W. M. Paulson, Minneapolis, Minn., Secretary.

Association of Ice Cream Manufacturers of Iowa—Annual Convention, Cedar Rapids, Jan. 24-25, 1922. P. W. Crowley, 709 Citizens National Bank Bldg., Des Moines, Secretary.

Kansas Association of Ice Cream Manufacturers—Annual Convention dates changed to January 26-27, 1922. B. T. Perkins, Secy., Pittsburg, Kans.

Ohio Association of Ice Cream Manufacturers—Annual Convention, Deshler Hotel, Columbus, Ohio, Jan. 31-Feb. 1, 1922. Arthur S. Burket, 509 Outlook Bldg., Columbus, O., Secretary.

Michigan Allied Dairy Association—Annual Convention, in Municipal Auditorium at Saginaw, February 14, 15, 16, 17, 1922. H. D. Wendt, General Secretary, Lansing.

Nebraska Association of Ice Cream Manufacturers—Annual Convention, about April 1, 1922. Room 4, Chamber of Commerce Building, Lincoln, Nebraska. R. W. McGinnis, Secretary and Treasurer, 1024 O Street, Lincoln, Nebraska.

Wisconsin's Convention at Milwaukee Expects Large Attendance

We've written up so many conventions for this issue and now that we are down to the last one (and it's far from being the least important — being in the "home town") we've nearly run out of gas. Chap at the next desk suggests that we try ether—but this not being a dental parlor — suggestion was "scrapped."

The main idea is to urge you all to attend—the best way, in our estimation, to get all you fellows and your wives over to this "Ex-Beer" city of ours for a nice little vacation trip and the best time ever to get some of the newest ideas in the ice cream industry—is to call to your attention the BADGER FLYERS "Rogues' Gallery" we have printed in this issue of THE ICE CREAM REVIEW for your special pleasure. These are the men you all want to meet—they are the boys who will be able to help you out in the coming heavy ice cream season, they are the ones who will help swell the all-year sales in ice cream in the state of Wisconsin.

When the spacious mezzanine floor of the Hotel Plankinton throws open its portals and session halls for the opening meeting of the Wisconsin Association of Ice Cream Manufacturers—we want you all to be present when the roll is called—in fact, we want it to be so crowded that we shall be obliged to seat some outside the doors—nothing will please us more. Don't disappoint us, for we have YOU particularly pictured in mind and we shall miss you even before the roll is called if you don't attend. Don't forget the dates—January 17-18. Don't forget the place — HOTEL PLANKINTON. Don't forget the city—MILWAUKEE. And last, but not least—DON'T FORGET THE LADIES. We have something in store for their entertainment—something they will like and enjoy, and now that Christmas is over, you fellows will be on the safe side.



City Hall Square With City Hall.

Next to New York and Chicago, MILWAUKEE is the greatest convention city in America. We entertain many conventions; you have read all about them in the newspapers. We are now perparing to entertain you; don't dis-



ROBERT CARSWELL,
J. G. Cherry Co.
President.



O. E. HARWOOD,
A. H. Barber Creamery Supply Co.
Secretary.



GEORGE H. SWITS,
Morton Salt Co.
Vice-President.

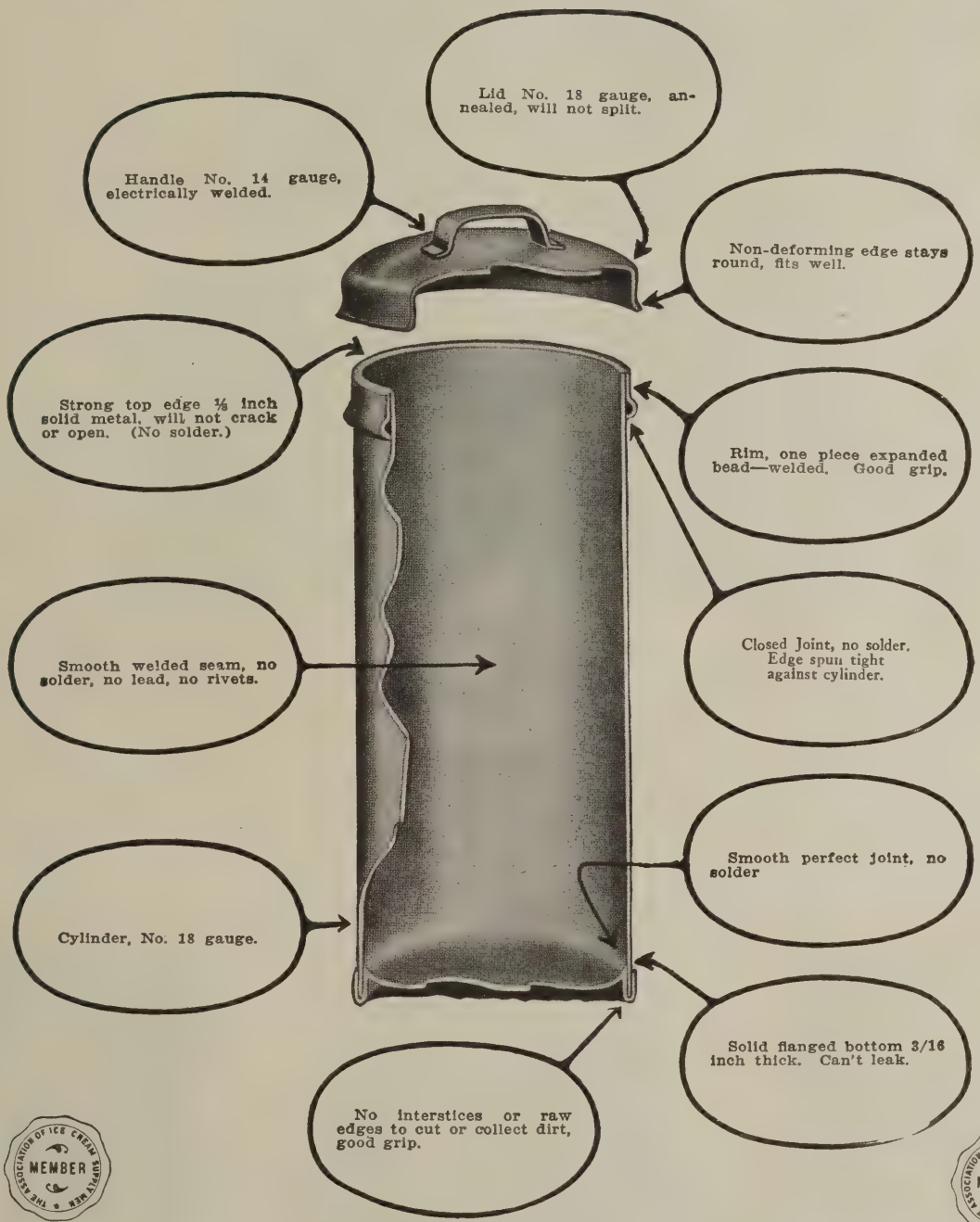
The Badger Flyers' Officers.

Electric Weld

RIVETLESS—SOLDERLESS

"LOW MAINTENANCE COST"

ICE CREAM CANS



MEMBER THE ASSOCIATION OF ICE CREAM SUPPLY MEN

MEMBER THE ASSOCIATION OF ICE CREAM SUPPLY MEN

RECLAIMING 1000 CANS? SOLDERLESS? THEN SAVE $300!

The Retinning Feature of Rivetless—Solderless Ice Cream Cans is too Important to Overlook. Ask Your Retinner. Write for Our New Low Prices Stating How Many Cans You Need.

JOHN WOOD MFG. CO. Conshohocken, Pa.

CHICAGO OFFICE (320 E. North Water St.) CLEVELAND OFFICE (1841 Carter Road) BOSTON (60 Pemberton Sq.)
BROOKLYN (No. 5 Bush Terminal Bld.) OAKLAND, CAL. (35 Cypress St.)

appoint us for we have planned long and hard for your benefit and entertainment.

During the twelve months from September 1, 1920, to September 1, 1921, Milwaukee entertained 346 conventions, the total attendance at these conventions was 527,230 persons. We want the ice cream manufacturers and supply men of the state of Wisconsin, and all other states, are also very welcome, to co-operate with us and help make this 1922 meeting one long to be remembered. Never was the opportunity to do good for the association members and other fellow manufacturers of ice cream of the state of Wisconsin, who, we hope, will soon join our association, better than at the present time of the reconstruction of business conditions. Ice cream making has grown to be a mighty powerful industry and there are problems which come up from time to time which must be made clear to the manufacturer if he is going to make his ice cream of a better grade — these problems find the real place for discussion in no better place than right in the convention meetings. We cannot urge upon you strongly enough to attend so that you may be benefited by the many valuable suggestions that are offered at just such meetings as these conventions afford. It is very vital to the success of your business that you attend. The association is constantly on the alert to help its members—that is what these organizations are for—surely once a year is not asking too much of you manufacturers to come to the convention—they are for your benefit and for your good.



The Court of Honor, Grand Avenue.

Milwaukee is the metropolis city of Wisconsin—noted for its hospitality, good cheer and excellent accommodations—you will find your visit here very enjoyable—the city offers no end of entertainment, and right at the convention on the evening of the 17th of January, we promise you a big surprise—don't fail to attend—we are not letting the cat out of the bag but are keeping it all a dark secret in hopes that it will offer a little inducement for YOU to come. We promise you four hours of the finest entertainment you have ever had the pleasure of witnessing, and if you don't come you'll be sorry when the other fellow comes back and tells you about the fine time he had.

The Hotel Plankinton, convention headquarters, is one of Milwaukee's better hotels, noted for its hospitality, just rates and the rule that guests must be pleased. You will find its spaciousness and elegance pleasing to the eye—you will enjoy eating in the beautiful Sky-room which boasts of the best grill-room orchestra in the city of Milwaukee.

Directly opposite the Court of Honor pictured in connection with this article, you will find a public museum which is considered one of the finest in the world. The ladies will enjoy a visit there—they can linger for hours and see interesting things which have been salvaged from out of the ages.

Every ice cream manufacturer who is a member of an ice cream manufacturers' association will agree that the benefits he has received from belonging to the association have been a most wonderful factor in helping him to increase his business to the proportions that it now has attained. A prominent president of a certain association of ice cream manufacturers once made the remark that "he has never come away from a conven-



C. P. M'NAMARA,
Morton Salt Co.



W. H. MURPHY,
W. H. Murphy Co.



P. COURTESY,
Hudson Manufacturing Co.

These Badger Flyers Will Be at the Milwaukee Meeting.



Once Again Our

"NO-SWET" CABINET

has proven to be the most efficient and economical Cabinet for Ice Cream Manufacturers. At the Atlanta Show, the Jessup and Antrim Ice Cream Company of that city attended all cabinets used and gave it as their unbiased opion that our Cabinets were superior to all others. For low even temperature and perfect refrigeraation coupled with minimum comsumption they stand supreme. Add to this the "None-Swet" feature and and what more is desired.

They are made in a modern factory in Grand Rapids "The Furniture City" where skilled woodworkers are the rule. Standardization and the latest type machinery enable us to produce them at competitive prices.

Write For Particulars

GRAND RAPIDS TABLE CO.

Grand Rapids Michigan

J. G. CHERRY CO.
St. Paul, Minn.
Northwestern Rep.

S. M. NORMAN
Atlanta, Ga.
726 Atlanta Trust Bldg.
Southern Rep.

JAMES M. DECKER CO.
Baltimore, Md.
322 S. Hanover St.
Atlantic States Rep.

tion without feeling that the benefits he had received from meeting the wonderful aggregation of enthusiastic and successful ice cream manufacturers did not fill him with enthusiasm and make him fully believe that he was connected with one of the greatest industries in this great United States of America.'' The manufacturer who does not avail himself of the opportunity of attending his state convention is not doing himself or his business justice. Every live ice cream manufacturer in the state will be in Milwaukee for the 17th and 18th of January—every man that is alive to his opportunity will be found in attendance—every man, young or old, who wants to get out of his rut should be found at this convention—every man who wants to broaden his vision in order to serve his customers better will be found among us on these dates. We promise him food for thought.

THE STATE CONVENTION is the place to meet and exchange views and get the latest ideas from the most progressive people in the ice cream line—every manufacturer will be well repaid by attending. A prominent man who has been president of a southern state association of ice cream manufacturers stated that ''he would probably be working at one tub and can today had he not attended conventions and heard the men who know, speak.'' Therefore, we invite all you one tub and freezer ice cream manufacturers to the convention that we may help you grow, and you bigger fellows in the industry, we want you, too, so that we may help you grow even bigger. WE'LL SEE YOU AT THE CONVENTION IN MILWAUKEE ON JANUARY 17-18!

* * *

P. Courtesy of the Hudson Manufacturing Company of Chicago, Ill., is as courteous as his name for didn't he send us the last picture of himself for this issue of The Review? He's a well-known Badger Flyer and will be on deck at the Wisconsin convention in January like a rubber duck and will take your orders for flavors in the politest manner you ever witnessed for will not your order by signed ''Courtesy?'' Come over to the convention, all you Wisconsin ice cream manufacturers, and get better acquainted with the Sunday manners of all these regular fellows and see what a good time they can show you—for remember so far you have seen only the business side of these chaps. We promise you a humdinger of a time and we'll guarantee you won't regret the trip.

* * *

J. T. Purves, representative out of Appleton, Wis., for the Creamery Package Company of Chicago, will be at the Wisconsin convention of ice cream manufacturers which will be held at the Plankinton hotel on January 17-18. We certainly appreciate the way these boys turned out in sending us their photos—and most of those sent were the only ones the family possessed and we appreciate the favor of loaning them to us all the more for that reason. Take the case of J. T., for instance—they only had the one in existence—but they kindly sent it to us admonishing us to take extra care of same and to carefully preserve and return to Mrs. J. T. We did that—and we are patiently waiting for the convention date so that we may compare this good looking picture with said gentleman and then tell him he hasn't aged a bit since we last saw him (incidentally we are going to bump his hip at the same time). Get us?

* * *

Do you know who the boy is in the bag of salt? Of course you do recognize H. O. Fitch who travels out of the Milwaukee territory, representing the Morton Salt Company of Chicago, Ill. And he's a Badger Flyer, too, and he's flying over to the Wisconsin ice cream men's convention at Milwaukee in January, and we'll be glad to see him. We only ask that he doesn't come salted like he is in the picture—now this isn't an invitation to come pickled instead of salted—we only meant that we don't want anyone salted down at the convention—we want them to lay aside all cares and enjoy the excellent program that will be in force at the ''doings.'' We are going to have a nice program of acts in singing and dancing and won't Harry come out of that bag of salt life size, though, when he sees them!

* * *

J. G. Cherry Company boys, who are Badger Flyers, will be at the Wisconsin convention and they're a lively crowd too—and if you haven't met these ''cherries'' before you'll certainly have to meet them then. There's A. W. Campbell, who travels out of Beaver Dam, Wis., and W. R. Maguire (NOTICE: W. R. the Sidekick got your name correct this time, eh?) who travels out of Milwaukee, and then there's the honorable president of



W. M. LASHER,
Morton Salt Co.



H. BERNHEIM,
H. Kohnstamm & Co.



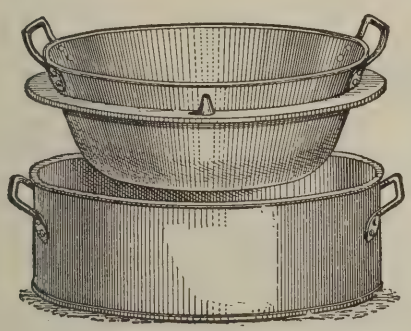
R. S. DAMUTH,
J. G. Cherry Co.

These Badger Flyers Will Be at the Milwaukee Meeting.

THE C-B CALENDAR

We Can Supply You With Everything Needed to Make Eskimo Pie

Let us help you get into the manufacture of Eskimo Pie, the latest ice cream confection. It requires very little in addition to your present equipment to make these delicious bars of chocolate coated ice cream.



Chocolate Melting Pan

To cut up the frozen ice cream into bars, there is nothing more suitable than the New Era Brick Cutter. It is an inexpensive machine, very simple in construction and operation and a fast worker. A direct connected motor or a belt supplies the motive power.

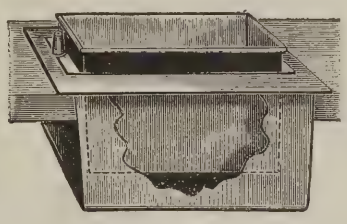


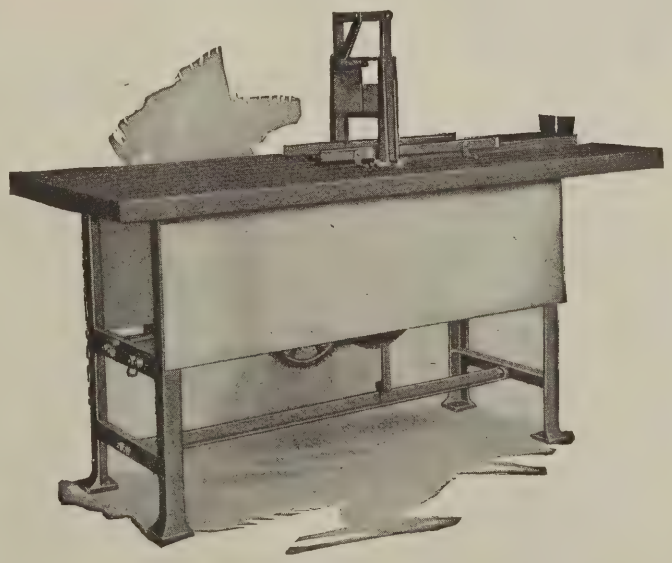
Table Dipping Chocolate Pan

Your present brick slabs can be used if you choose, or we can promptly supply you with special shallow slabs of heavy tin.

To prepare the chocolate coating a melting pan is needed. It may be possible to utilize your gelatine melter for this, or we can outfit you with a regular chocolate pan.

Finally you must have a table chocolate pan for dipping. Our pans can be fitted into any table; steam or electricity furnishes the heat.

Write us at once. Let us tell you just how the New Era Cutter handles the cutting. Let us explain fully about the other equipment. Act at once; the Eskimo Pie idea is taking a tremendous hold on the public. We will reply promptly.



CHERRY-BASSETT COMPANY

PHILADELPHIA BALTIMORE



E. A. PFEIFFER,
H. Kohnstamm & Co.



SOL. ZEIN,
Donaldson Litho. Co.



E. PEN OWEN,
J. B. Ford Co.



E. R. HANSEN,
J. B. Ford Co.

These
BADGER FLYERS
will meet and greet you
at the Milwaukee
Convention



J. T. PURVIS,
Creamery Package Mfg. Co.



B. L. BUCKINGHAM,
Morton Salt Co.



J. P. O'BRIEN,
J. B. Ford Co.



W. R. MAGUIRE,
J. G. Cherry Co.



The Buyer's Page

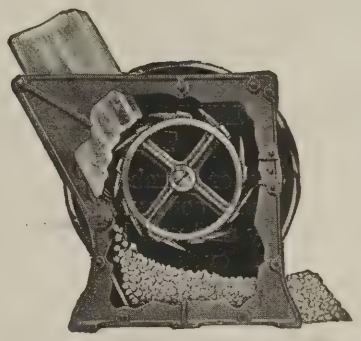


Standard Equipment for Ice Cream Plants

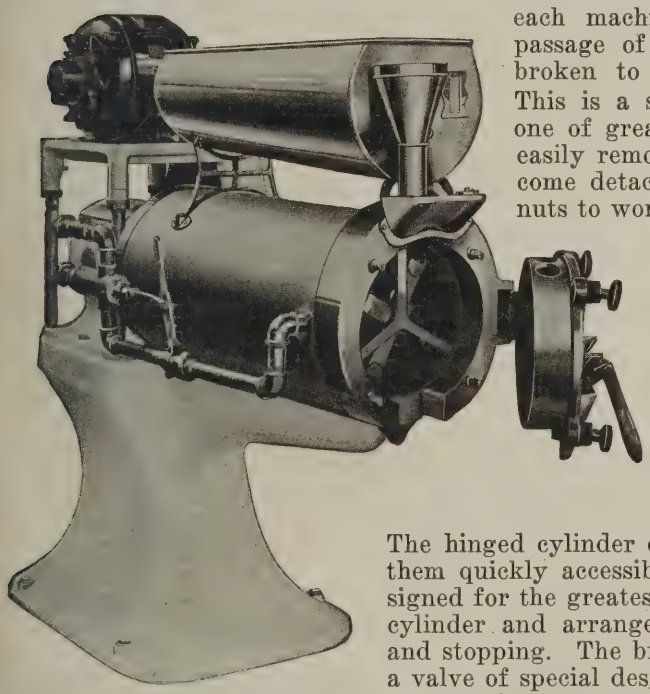
Immediate Shipment from Chicago or St. Paul

Creasey Ice Breaker

Every manufacturer of ice cream, large or small, needs this sturdy machine. Built over-size throughout—stands up under hardest service you can give it.



The size of the broken ice can be regulated by the use of fine or coarse combs—furnished with each machine—which prevent passage of the ice until it is broken to a certain fineness. This is a special feature, and one of great value. Picks are easily removed from drum when necessary, but they cannot become detached when in operation. No rivet heads or bolts or nuts to work loose.



More than 16,000 Creasey Breakers in use; why not put one to work in YOUR plant?

U. S. Brine Freezer

A large capacity freezer, heavily built throughout, with ample bearings and large gears. Furnished for either belt or motor drive, or can be converted from one to the other in your own factory when desired. Electric machine equipped with 3 H. P. motor.

The hinged cylinder cover is standard on all sizes of U. S. Freezers; makes them quickly accessible for cleaning. The brine jacket passages are designed for the greatest efficiency in cooling the cylinder and arranged to avoid all clogging and stopping. The brine flow is controlled by a valve of special design which gives complete control of the rapidity of the freezing process.

U. S. Freezers are made in 40, 60, 80, 100, 120, and 160 quart capacities; there is a size that will exactly meet your needs.

A handsome and practical machine that will pay for itself repeatedly in your plant. Let us give you further details and prices.



Have You This Catalog?



It is one of the most complete catalogs of ice cream machinery and supplies ever published. You will find between its covers the best of the things made by many of America's leading manufacturers —a valuable book for reference. We'll gladly send you copy on request —without obligation.

Twin City Branch: **2490-4 University Ave., St. Paul**

A.H.Barber Creamery Supply Co.
302 W.Austin Ave., Chicago, U.S.A.

A. H. Barber Creamery Supply Co., Chicago.
Gentlemen: Please send us complete information about:
☐Creasey Ice Breaker
☐U. S. Brine Freezer
☐Copy of your Catalog No. 72.
Name .....
Address .....

the Badger Flyers of Wisconsin—none other than our esteemed friend, Robt. Carswell, who has the St. Paul territory. These boys will all help to royally entertain the crowd and they are promising some excitement for all who attend.

* * *

The following is a little message from H. O. Fitch, representative for the Morton Salt Company, Chicago, Ill., to the boys who will attend the Wisconsin convention of ice cream manufacturers at Milwaukee on January 17-18:

"As a member of The Badger Flyers, I will be glad to meet again and shake hands with the boys who make the frozen goodies, and as we came smiling through a healthy season during 1921, let us all put our shoulder to the wheel and endeavor to make our good old state shine out during 1922 as the best yet."

H. O. FITCH.

* * *

SCHROEDER LUMBER COMPANY GIVES ASSOCIATION PRAISE.

The Schroeder Lumber Company will be represented at the Wisconsin convention of Ice Cream Manufacturers in January and will be glad to greet old friends and to make new ones. The worthy regard which the Schroeder Company holds for the association is best portrayed in the letter printed below:

Milwaukee, Wis., Jan. 3, 1922.

Olsen Publishing Co.:

We have been identified with the Ice Cream Manufacturers of this state ever since the organization of the Wisconsin association. The phenomenal growth of this association is indeed praise worthy, easily accounted for when we recognize the spirit of the men who have helped make it a success. We are proud to be identified in this movement and would not allow anything to interfere with our attending the convention.

JOHN SCHROEDER LUMBER CO.,
B. F. Springer, Secretary.

* * *

A FEW WORDS FROM THE SECRETARY.

Chicago, Ill., Jan. 4, 1922.

The third annual meeting of the Wisconsin Badger Flyers will be held in connection with the Wisconsin Ice Cream Manufacturers at the Plankinton Hotel, Milwaukee, January 17 and 18, 1922.

An entertainment committee consisting of Badger Flyers and ice cream manufacturers residing in Milwaukee, is busy making plans for the entertainment. The present plans are to provide a special entertainment for the visiting ladies.

Be sure and see the secretary at Room 205 and 207 on the Mezzanine floor and pay your membership on the first day of the meeting, as we must have the money to pay for the entertainment during the evening of the first meeting day.

A business session of the Badger Flyers will be held in the Ladies' Club Room, immediately after the close of the forenoon meeting of the ice cream manufacturers on January 17th.

Another meeting will be held on January 18th in the Ladies' Club Room, following the forenoon session of the ice cream manufacturers.

BADGER FLYERS,
O. E. Harwood, Sec.-Treas.

* * *

W. S. Sheley, the well-known representative for S. Gumpert & Co., of Brooklyn, N. Y., who has been traveling out of the Chicago, Ill., territory, has changed his residence now to St. Paul, Minn., and is covering the Minnesota, Wisconsin and the North and South Dakota territory. He is a loyal Badger Flyer and will greet all his old friends at the Wisconsin Convention in January. Mr. Sheley belongs to several ice cream associations and is well known in the middle west states.

* * *

THROWING A NEW LIGHT ON ICE CREAM.

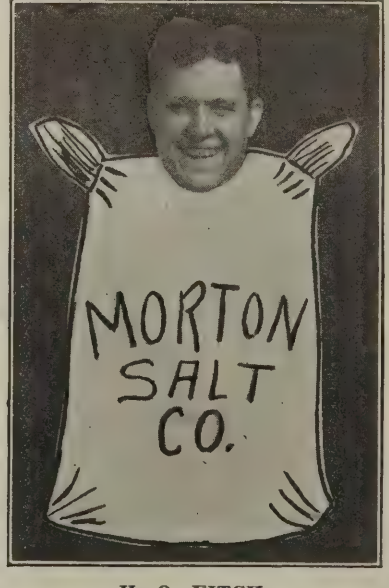
Kindly accept my thanks for the return of the photograph—but honestly and truly you could have consigned it to your waste-paper basket as it was not worth the two-cent stamp you paid for its return.

You ask me to relate a little story that may be of interest to some member of the state ice cream fraternity during the coming convention—well, here it is:

Several years back while I was shouting the merits of Wyandotte from the housetops, I had occasion to make a drive from Wausau to Merrill—it was a dark and stormy night and the roads were in very bad shape—and as a consequence so were myself and flivver. In some unaccountable manner I got off the main drag and



H. C. WETZEL,
John Schroeder Lumber Co.



H. O. FITCH,
A Salt Cellar.



B. F. SPRINGER,
John Schroeder Lumber Co.

These Badger Flyers Will Be at the Milwaukee Meeting.



Nelson (Patented) Ice Cream Cabinets

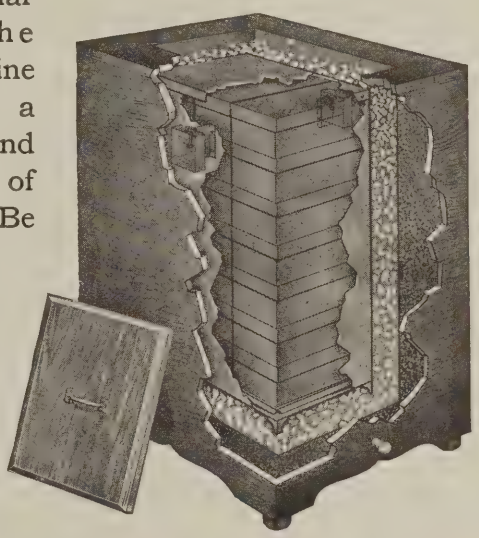
"Confessed The Best When Put to Test"

are constructed along scientific and practical lines to conserve ice and salt supplies and keep the ice cream in perfect condition until sold. The manufacturers have devoted thirty years of study and experiment toward the building of the best possible ice cream cabinets for the manufacturing trade. Each particular make of cabinet of the Nelson line is sold with a guarantee and on a plan of "You Must Be Satisfied"



Three Compartment Cabinet

C. Nelson Brick Cabinet
Patented May 8, 1906



42 Qt. Brick Cabinet with Ice Rail



Patented Nov. 11, 1919—1321120

This Proposition Will Interest You

Any responsible ice cream manufacturer—particularly wholesale ice cream manufacturers and dealers—may order from 1 to 100 Nelson patented Ice Cream Cabinets, place them in practical use, and after 30 days, if not entirely satisfactory, return at our expense for freight, both ways.

Can any manufacturer offer a more liberal or fair proposition? You owe it to yourself to thoroughly investigate the price, merits and construction of the Nelson Patented Ice Cream Cabinets before making any further purchase.

Plan on your season's requirements now, and have your supply on hand when needed.

C. Nelson Manufacturing Co.

2308 Division St. **St. Louis, Mo.**

before I realized it I was lost completely. No friendly passer-by came along to enlighten me so I followed the time worn direction—went as far as the first cheese factory—then turned to my right as far as the schoolhouse —then to the left as far as the red brick church—but all in vain—to save my life I could not get back to the main road nor could I see the lights of any familiar town. Suddenly while I was pausing at a cross-road debating which way to turn next—a flash of lightning revealed a sign of some description on the fence post. I immediately turned my spotlight on same, thinking that I would be rewarded by some information that would send me on my way rejoicing—but much to my chagrin all the information the sign imparted was "EAT CARVER'S ICE CREAM." If Howard Carver's ears ever burned I'll bet they did at that particular moment—as what I said (to myself) was a plenty. It is needless to say that Carver, his ice cream and his darned old tin sign were consigned to regions where the ice cream business is nil.

Here's hoping that the coming convention will be one grand success and that all Badger Flyers will be there with bells on and that the entertainment they will provide will be a humdinger.

E. PEN. OWEN.



CAUSES HIM TROUBLE.

The following is an exact copy of a letter received by the Kellogg Ice Cream Co., of Burlington, Wis., recently and is just one example of how popular their week-end special ice cream is:

"Burltown, Wese.

Mister Kellogue:

Deer Frient: i got your cart by the male man alrite, and why for got sake don't you told me where to find this Choclate—Amond Weak-End. i near lost my hied from my wife. You don treet me rite, is my money not so good as the otter faller. I waist too hour with your dealer he look for Chocolate—Amond he holler and swear like hail and no find in hees bocks and say soon he all sold out. i cum hum my wife shee raise hail say my face smell like moonshine and i bain so long shee near kilt me. if you dealer all sold out weak end why don't you tell him buy more or my wife take tim to bake pie. good bye, your fran.

(Name Withheld).

THE BIGGER THE INCREASE THE BIGGER THE BONUS.

By C. W. Esmond, a "Servant to the Dairy Industry."

An ice cream manufacturer in a certain territory is stimulating his salesmen with an effective selling plan for 1922. His annual gallonage is less than 100,000. He has no regular salesmen calling on the trade but he is interested in another business that has seven men covering his territory. These men solicit ice cream business for him.



C. W. ESMOND

To stimulate real interest for 1922, however, he is putting up an attractive bonus for increase in sales in each territory. For instance, Bill Jones covers Redwood, Burns and Macomb counties. Sales of ice cream in these counties last year amounted to 15,000 gallons. If Bill Jones pushes the sales up to 20,000 gallons in this territory he will get a bonus of two per cent of the sales, in addition to his regular salary. He will get one per cent if he increases above 15,000 but fails to reach 20,000. If he increases above 20,000 he will get 2 per cent on the sales up to 25,000, and if he puts it up to 25,000 or over he will get 3 per cent. These are not the exact figures but they illustrate the plan which applies in a general way to each man. The quotas, however, will be different in each case, depending on the sales in those districts last year.

I notice that ice cream manufacturers who have tried some such bonus or commission plan for stimulating their salesmen feel that it pays in a big way.



O. H. RUPRECHT,
Morton Salt Co.



CHAS. W. RUSS,
Crown Fruit & Extract Co.



A. W. CAMPBELL,
J. G. Cherry Co.
President.

These Badger Flyers Will Be at the Milwaukee Meeting.

PLEASE MENTION THE ICE CREAM REVIEW WHEN WRITING TO ADVERTISERS

The Sealright Process is Correct



TYPE "B" FOOT POWER

A Type Best Suited for Your Plant

Sealright Ice Cream Filling Machines are furnished in three types—Type "A", Motor Drive; Type "B", Foot Power; Type "C", Hand Power. "A" and "B" come mounted on heavy, strong, vitrified enameled cast iron base. "C" has flat base with provisions for securely bolting on table or work bench. We will gladly advise which type will be most practical and profitable for you to use.

The principle of the Sealright process is to displace the air from the package and fill by vacuum—no pressure, spill or push is used, and therefore no loss of yield.

Sealright Filling Machines

Simple–Rapid–Economical–Efficient

Just a year ago, the first machine was installed in Howe's Ice Cream Plant, Rutland, Vt. Unadvertised, and with practically no direct sales solicitations by us, demands for this machine became so insistent that within a few months we were compelled to make installations in seventeen states. Those who visited our booths at the National Dairy Show and Ice Cream Supply Men's Eastern and Southern Exhibitions know how quickly ice cream men recognized the superior merits of our machine. Certainly, no machine has gone over in so big a way and with such an amazing rapidity as the Sealright Filling Machine. "The operating principle is correct. It is the simplest, most easily operated, the most durable machine on the floor," say men who have made comparisons.

Break away from the cumbersome, costly, involved "brick system." Put out your good bulk cream in package form—efficiently, economically and satisfactorily—direct from the freezers. Use Sealright Filling Machines and Packages and earn larger profits.

Sealright Cylindrical Package For Bulk Ice Cream

Filled with One, Two or Three Flavors and in a Variety of Fancy Centers

Manufacturers, in large numbers, have discovered that this cylindrical package is the best one for keeping cream in fine condition. Being air-tight, the flavor does not freeze out in Sealright Liquid-Tight Cylindrical Paper Containers. It was from this discovery that demands resulted for a machine that would quickly, economically and satisfactorily fill these Sealright Containers.



Act Quick

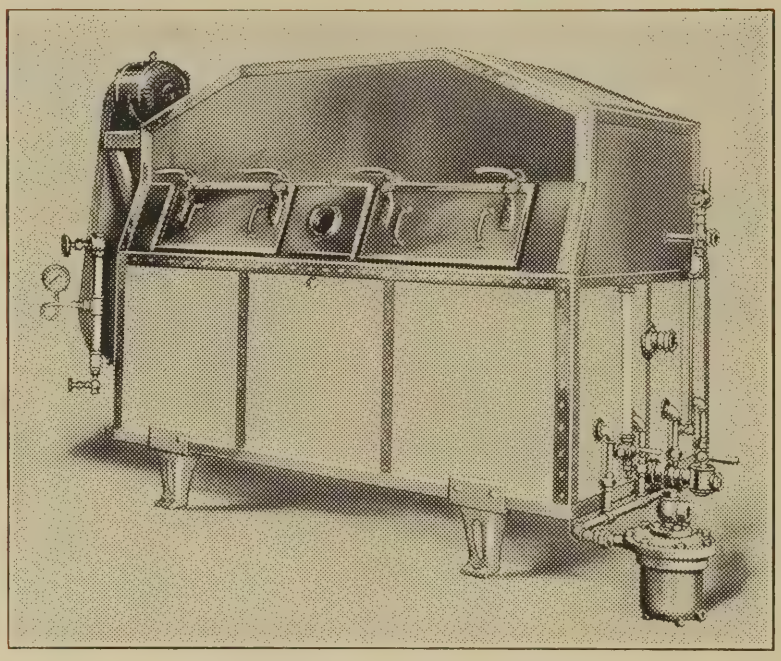
Place your order early for Sealright Filling Machines. From present indications we know our capacity to manufacture these machines will be taxed to the limit in the early spring months. Place your order now so we can have machine ready when you want it.

Order Containers Thru Your Jobber
Write Us For Samples

SEALRIGHT CO. INC. - Fulton N. Y.

Largest Manufacturers in the World of Cylindrical Liquid-Tight Paper Containers

Ruff Milk Condensing Evaporator



1922 Improved Model Motor Driven



The Ruff Process has no equal when you consider Quality and Economy.

CREAMERIES { STROUDSBURG, CHERRY VALLEY, SAND HILL

P. O. BOX 615

STROUDSBURG CREAMERY CO.

MANUFACTURERS OF
ICE CREAM AND CREAMERY BUTTER
PASTEURIZED MILK AND CREAM A SPECIALTY

STROUDSBURG, PA.

Sept, 10, 1921.

The Cream Production Company,
Port Huron, Mich.

Gentlemen:

Having used one of your Condensers for sometime, we are so well pleased with its merits and the product that it produces that we gladly recommend same to all that might be desirous of turning their skim and surplus milk into money.

At this time of the year we are using our whole milk and butter, and by condensing it slightly we get the finest mix, and the best ice cream ever produced.

We find that by using your Condenser that we are saving the money, you claimed we would.

Yours very truly,

Stroudsburg Creamery Co.
Fred K Dabb
Treas.

Your correspondence solicited

THE CREAM PRODUCTION COMPANY

PORT HURON

B. Trudell & Company, Montreal, Quebec
Manufacturer and Jobber for Canada

MICHIGAN

Oklahoma Association of Ice Cream Manufacturers

Proceedings of Annual Convention held in Oklahoma City, December 12, 13, 14, 1921

The seventh annual convention of the Oklahoma Association of Ice Cream Manufacturers, was called to order by President J. B. Porter, of Tulsa, Okla., at 2:30 P. M., Monday, December 12th, 1921, at Lee-Huckins hotel. Registration showed twenty-nine active members, eight visitors, and wolf hounds present.

Mayor Walton was unable to be present and Judge J. S. Estes, of Oklahoma City, delivered the address of welcome. He mentioned the fact that Tulsa was the oil city of the state, and that other cities of the state excelled in their particular line of industry, but stated that Oklahoma City had become the convention city as well as the wholesale center of the state, and in behalf of Mayor Walton he welcomed the Oklahoma Association of Ice Cream Manufacturers to Oklahoma City and that he was turning the city over to us. He also gave instructions as to how the police might be influenced should the members desire lenient treatment from the department for violation of the jay walking laws.

Response was made by Mr. D. F. Solliday, of Oklahoma City, who thanked Mr. Estes for the welcome given the association and assured him that all members would comply with the jay walking laws but would not answer further for the members.

President's Address.

Members, Wolf Hounds and Visitors:

This is the seventh annual convention of the Oklahoma Association of Ice Cream Manufacturers and it is indeed gratifying to see the continued increase in attendance. While we may never hope to have things just as we might like to have them still these meetings with their acquaintanceship and good times evidently prove profitable or we would not continue to come back.

As I see it, the president's address should be a summing up of the experiences of the past year, together with suggestions for discussion as how best to avoid the mistakes made and to profit by conditions for the coming season. It should be confined to a survey within the association territory.

The season of 1921 started with bright prospects as to prices, supplies, and enthusiasm, but ere long we had lost both prices and enthusiasm and low cost of supplies only saved many manufacturers from bankruptcy.

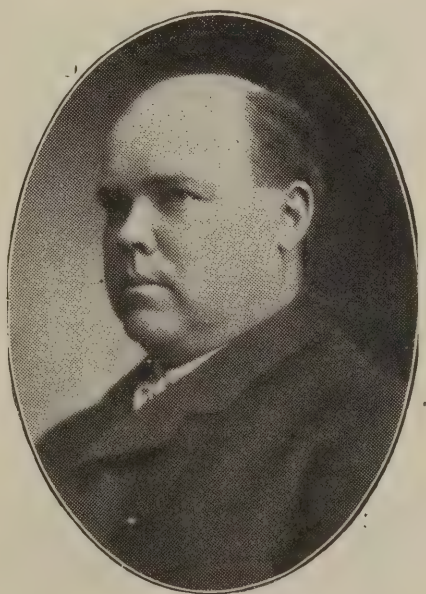
Weather conditions were backward and especially so in June, while the Fourth of July is usually referred to as a frost. However, the latter part of the season proved unusually long, hot and uniform and consequently profitable where good business tactics were enforced. Estimates for an average over the state would show about 75 per cent of the previous year's gallonage.

Various trade abuses were allowed to creep in in some parts of the territory and will prove a serious handicap unless discontinued. Realizing we are still in the reconstruction period and the cost of supplies are not yet established we should be on guard to recognize the menace of unfair practices. The standard for this season has been the highest ever and shows the results of the earnest effort and conscientious work of Prof. Baer and assistants. Under the present rating of ice cream as essential the public are being rapidly educated to its real value and more and more insist on standard quality, and the successful manufacturers must comply with the demand for best possible product.

Methods of manufacturing, delivering and selling have undergone great changes in a short time. Since the government has recognized the value of ice cream and furnished scientific information as to proper methods of handling and proportions of ingredients improvement in quality is noticeable everywhere. Owing to the high express rate, together with unsatisfactory service, much of the distribution of ice cream is now made by truck service, which offers many advantages to both shipper and dealer, and bids fair to replace express shipments entirely on short hauls. In regard to selling methods it would seem we have not improved so much as in manufacturing and too much effort and too many concessions are made the dealer and not enough effort made to exploit the goods to the con-



J. J. MEYER,
Hudson Manufacturing Co.



O. B. CORNISH,
Creamery Package Mfg. Co.



S. L. GERSBACH,
Warner-Jenkinson Co.

These Badger Flyers Will Be at the Milwaukee Meeting.

sumers. While many firms have spent liberal appropriations for advertising the results have not justified the expense, however, we must all admit that advertising does pay and I hope this subject will be given thorough discussion at the proper time.

Trade revival is well under way and brings with it probably more new conditions than in any other line, conditions which to be met successfully will require better methods in our business. It was my good fortune to hear Prof. McCullom address the ice cream manufacturers at national convention at Minneapolis in which he plainly stated their policies and methods were not to his liking and could not have his encouragement until improved. Good business is coming and its profits will go to the men and organizations who have recognized the change and increased the effectiveness of their methods. In finance and accounting customary practice of long time credits and loose methods must give way to prompt collections and quick knowledge of accounts. In organization the staff must be trained to work as a unit instead of picking up the force from the first men applying for a job. In production, such matters as purchasing, inventory control, cost finding, personnel management, quality and price must be under control to assure the success of your business and in marketing the field must be more intensively cultivated than ever before.

I want to extend a word of welcome to the supply men and assure them we appreciate their help and support and welcome their attendance at all regular sessions of the convention and I also want to urge our members to get better acquainted with our visitors from neighboring states as well as their fellow members.

Our secretary has endeavored to arrange a program which would prove instructive and interesting to every one interested in the ice cream business and so far as may be to confine it to plain, practical subjects of everyday business. This is your convention and we hope every member will express his views freely so that we may all gain new ideas.

The Wolf Hounds have arranged for entertainment for practically all time not devoted to convention matters and judging from the clean-cut program of the last convention am sure it will be enjoyed and appreciated by all.

President then appointed the following committees:

Nominating Committee—E. N. Ward, Chairman; H. B. Greer, E. L. Lindsay.

Resolution Committee—D. F. Solliday, Chairman; S. P. Lay, A. H. Klump.

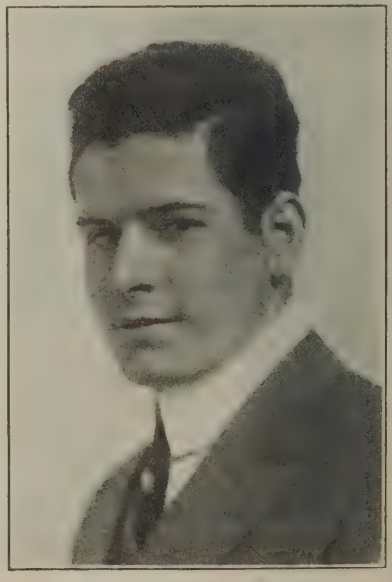




PAUL C. MOJONNIER,
Mojonnier Bros. Co.



SALLY MAHONEY,
Hudson Manufacturing Co.



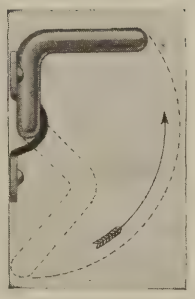
HUGH J. KRAMPE,
Armstrong Cork & Insulation Co.

These Badger Flyers Will Be at the Milwaukee Meeting.

PLEASE MENTION THE ICE CREAM REVIEW WHEN WRITING TO ADVERTISERS

Some Things to Consider When Selecting

TUB HANDLES





No. B–85
Patent Applied For

To Jobbers and Equipment Manufacturers

Our facilities for manufacturing metal products are practically unlimited. Metal stampings are a specialty with us and our long experience in this line makes it possible for us to offer an economical service to users of metal parts. Write us on your requirements.

A sharp bump on a cast iron handle, and the handle is cracked—off.

And a tub without a handle is like a ship without a rudder—it becomes awkward to handle, the possibilities of spilling are magnified, losses of ice are frequent and even the dumping of the cream itself results from a handle giving way at the critical moment of lifting packers from delivery trucks.

Hence the necessity of selecting a tub handle that will stand all sorts of abuse and be sure to provide a handy and positive grip for the delivery man.

Beehler Tub Handles

Are made from special steel of a toughness that defies destruction

They are light in weight, easy to put on, and once thoroughly fastened they outlive the tub, they are designed to facilitate handling.

Demand Beehler Tub Handles for your tubs. If your dealer can't supply them, write direct to us,

Beehler Steel Products Co.

Manufacturers of Complete Metal Parts

St. Louis, Mo.

Report of secretary-treasurer read and approved.

President appointed Mr. S. P. Lay, H. B. Greer and E. N. Ward as the auditing committee.

Mr. Lay, chairman of the executive committee, advised that he did not have his report in order and asked for more time.

Mr. Carl Glitsch, chairman of the legislative committee, advised that he did not have anything of interest to report.

Report of Express Committee—J. A. Oxley, chairman. Mr. Oxley not being present Mr. Lay advised that his report would be covered by the report of the executive committee.

As your delegate to the national convention I would like to bring you a report in which you might find something profitable.

The attendance was considered very good as the first session opened with about 300 members and associate members reporting.

An excellent program was outlined and carried out in full and as it would require too much time to report more than the high spots or subjects the detail can be read at your leisure in the trade journals. The most value of such convention is the information, enthusiasm and comparisons to be learned outside the convention sessions.

Following the opening exercises and reports of officers the president, Mr. Martin, made an address in which he referred to the rapid development of methods in manufacture, and to the comparatively small depreciation and light depression in the ice cream business as we dealt in perishables and had light stocks to carry. He thinks ice cream should be our national dish even as wine is the national drink of France. Attention was called to the exorbitant freight and express rates and claim made they are exceedingly detrimental to the ice cream business. He stressed sanitation as our watchward and as we cater especially to children our product should be right. He also urged that the fight against the use of substitutes be continued even more vigorously. A paper by Mr. Sine, who seems to have been quite successful in building winter sales of ice cream laid part of the blame for slow sales in winter, on the dealer, who is disposed to get grouchy when frost comes. His motto is, "Better Service, Richer Product, Advertise." This paper started discussion on brick ice cream which was again taken up next day. This discussion brought out more ideas and more information as to brick ice cream than ever before. It was admitted by practically all manufacturers that the trade and even their own families preferred bulk rather than brick ice cream, but few had ever stopped to think or inquire why. After discussion, however, they all agreed the public appreciated the difference in weight or contents without knowing the reason.

Another discussion which would be of very great interest to manufacturers at certain times was in regard to sandy ice cream. This trouble has been thoroughly threshed out and information to solve the problem can now be obtained from several sources.

An organization report was submitted as to formation of the American Research Institute, to be operated jointly by the National Association of Ice Cream Manufacturers and the International Milk Dealers' Association. Three objects are set forth,—Complete organization of a library of all dairy books and publications of the world.

Institution of commercial ice cream and milk plant for research work.

Establishment of fundamental research work on matters relating to public health.

While these matters seem a long way from the practical work of our commercial plants it is easily shown why they are needed and the benefits derived, for instance, in case of an epidemic and suspicion laid at door of an ice cream factory it is now hardly possible to escape damage even though innocent while a finding from such an authority, if innocent, would protect from civil damages, at least. When you stop long enough to realize the enormous volume of business in connection with the dairy industry of which the ice cream business represents only 4 per cent the need of such an institution is apparent. The U. S. department of agriculture market reporter under date of June, 1921, gives the total whole milk used in ice cream in 1920, 3,575,000,000 pounds, and total quantity of ice cream produced in 1920, 260,000,000 gallons.

The display of equipment was very complete and several machines showing latest ideas in freezing, packaging, wrapping, and delivering were shown. The most striking thing in the way of a freezer was an arrange-

(Continued on page 78)



C. T. HOLLINGER,
Hudson Manufacturing Co.



FRED E. ERIKSEN,
Advertising Counsel.



O. S. CHASE,
The Pfaudler Co.

These Badger Flyers Will Be at the Milwaukee Meeting.

PLEASE MENTION THE ICE CREAM REVIEW WHEN WRITING TO ADVERTISERS

Concentration

THIS month we approach our thirty-fourth anniversary. Back in 1888, The Hudson Manufacturing Company was established. Our business—Vanilla Products for the ice cream industry. In those days we knew all of our customers by "first name." Some of these we still call by first name; others have "gone beyond the great divide." Many of our present customers were mere babes and "kids" then, while some had not as yet come into this busy world. From a small beginning, nearly a generation ago, we have watched the ice cream industry grow. We grew with it. Always devoting our time, our efforts, our thoughts, our purpose to that of furnishing the industry high-grade Vanilla Products all the time. Naturally, when you speak of Hudson's Famous Ice Cream Flavor and Tonka Blend No. 52 Special, "old timers" will signify their approval and frankly sound its praises—for the name Hudson has always been synonymous to quality vanilla. We concentrated on producing quality goods, never wavering to the temptation of cutting the quality to make the product "cheaper." This policy earned us a reputation we shall not endanger at any time. Thru 1922, Hudson must signify, as in the past —Quality, Service, Fair Price.

The Hudson Manufacturing Co.

(*Incorporated*)

GABE S. WEGENER, Pres. ESTABLISHED 1888

VANILLA PRODUCTS

119-121 No. Union Avenue **CHICAGO, U. S. A.**

Hudson's Famous Ice Cream Flavor Vanilla and Tonka Blend No. 52 Special $5.00 per gallon in barrels—$5.50 per gallon in kegs

Hudson's Concentrated Vanilla No. 52—$25.00 per gallon. Special prices in quantities



Ice Cream Manufacturers, Supply Men, Poodle Dogs Will Attend Convention

We always look forward to conventions with a great deal of pleasure because we have always benefited by them and always enjoyed ourselves, too. But if there's one convention we have a little softer spot in our hearts for, it's the Iowa Association of Ice Cream Manufacturers' convention. And do you know why? Haven't you got a sneakin' idea that it's because that famous association of POODLE DOGS is also an Iowa product and that they are always on deck and making things hum? All you ice cream manufacturers and supply men who have previously attended these Iowa conventions, we know, will be there again without any urging; but those of you who have been lax in attending affairs of this sort are the ones we are after. Come away from your home town and visit Cedar Rapids on January 24-25 and get a lot of good ideas and start life right for the New Year. Let the Iowa convention solve your problems for you and give you some crackerjack suggestions that will help you be successful in business. And above all, get acquainted with that live bunch of POODLE DOGS—they will show you the time of your life for the two days of the convention. You won't regret the coming—make it a little vacation—you ice cream manufacturers won't get time for a vacation next summer, you will all be busy taking in the money which we hope 1922 will give you an opportunity to make.

Cedar Rapids is a fine little city of about 45,500 inhabitants; as one man said, "They have 44,496 inhabitants and 4 ice cream manufacturers" there. You will find plenty of amusement and you will like the Montrose Hotel, too. You will vote it one of the finest hotels for courtesy and hospitality that you have ever visited. They are preparing to entertain you—come and help make this convention one of record attendance.

Cedar Rapids is located in the center of a circle and is one night's journey from six great cities of the middle west, and it's the city where the women folks only have to wear their blankets as far as Chicago or Kansas City to find the halls of fashion and the marts of trade, so watch your wife at the station for she may decide to take a through train to one of these two cities instead of pausing at Cedar Rapids for the convention—and we need the ladies—for they always help make the conventions pleasant and enjoyable. But come to Cedar Rapids, fellows—even if you have to walk to get there—but there is no need of that mode of conveyance for you can reach the city by railroad or on highways galore and in any vehicle except a submarine.

Cedar Rapids has five of the largest diversified industries in the world and their trade territory embraces one hundred ten million hungry people. They feed the world with Quaker Oats, Sinclair Hams, Fidelity Bacon, Douglas Starch and Corn Oil and they expect after this convention to put Iowa's ice cream on the map forever. They say the sun never sets on an Iowa egg; they lay more eggs per yard than any place in the world outside of Shanghai, China, but the Shanghai rooster does not labor under the handicap of the Iowa Housing Law, which forbids chickens above the first story. Iowa eggs alone out-value the entire orange crop of the United States, and don't forget Iowa's butter; didn't they win the banner at the National Creamery Buttermakers' convention? Ask Minnesota. But nobody loves a statistician nor cares what he does with his decimals, so just let us add that we want you to come to the convention and see for yourselves just how much of a benefit it will be to your industry and just how much you will enjoy the visit.

These Iowa Poodle Dogs and Iowa Ice Cream Manufacturers are accused of owning more automobiles than bathtubs; but who needs as many bathtubs as he has automobiles? So when you come to Cedar Rapids let the ice cream manufacturer in his Packard and the Poodle Dog in his Ford, show you around, but don't all run for the Fords at once. They will drive you around a twenty-mile boulevard which encircles the town and links up a series of the most beautiful river and woodland parks in America. View the landscaped residential districts which total a thousand acres, exquisitely wooded, with every lot a park. The Cedar River bisects



MAURICE STRENITZ,
Swift & Co.



G. F. LESSENHOP,
Lessenhop Supply Co.



C. E. DOWNEY,
Downey-Turnquist Co.

These Poodle Dogs Will Be at the Cedar Rapids Convention.

Wood's Gelatine

IT'S PURE

Guaranteed Food Products

Gelatine
India Gum
Kreamine
Fairy Cream Powder
Yum Yum (Ice Cream Flavor)
A-XXXX Vanilla
Grinders of Cocoa

The Most Complete Line on the Market

Write for Price List

W. B. Wood Mfg. Company

Manufacturing Chemists
ST. LOUIS, MO.



G. H. BULGER,
Hudson Manufacturing Co.
President.



L. A. KLINE,
Massey & Massey Co.
Vice-President.



BEN OGDEN, JR.,
Warner-Jenkinson Co.
Treasurer.



FRED HOLLWEG,
Thomas W. Dunn Co.
Director.

Poodle Dog
Officers
who will make the
1922 Iowa Convention
the greatest
ever held.



W. S. HAMILTON,
J. G. Cherry Co.
Director.



J. L. NELSON,
Nelson Manufacturing Co.
Director.



ANDREW FLEUTSCH,
Dubuque, Past President, Iowa
Manufacturers.

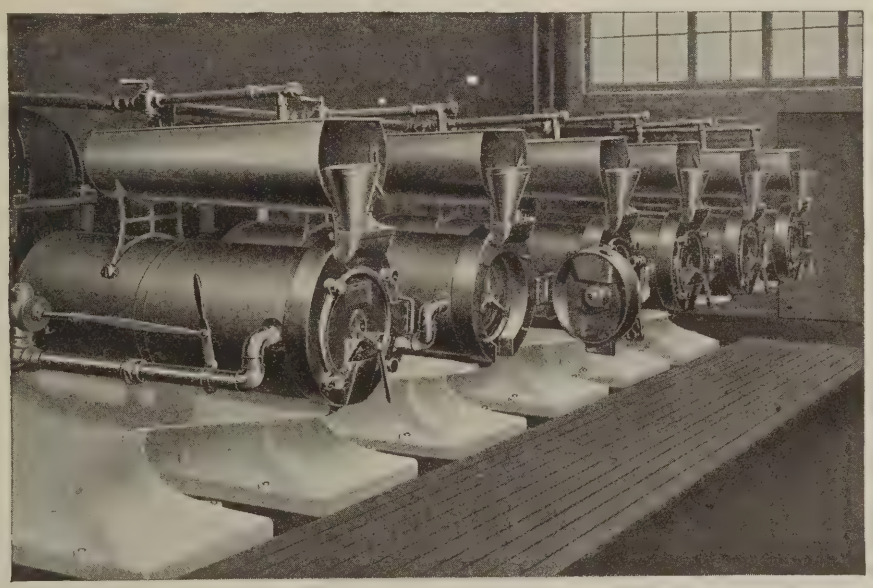


C. L. OSTROM,
Morton Salt Co.
Director.

The Colonial Ice Cream Co. Have Ordered More
U. S. Heavy Duty Freezers

The Colonial Ice Cream is one of the most progressive in their line. They finally decided in favor of U. S. Heavy Duty Giant Freezers to replace smaller units of another make only after making thorough tests of one of these modern up-to-the-minute Giant Freezers. They had installed one of these especially for that purpose on trial, to see what it would do under actual working conditions.

They found that a 160-Quart U. S. Heavy Duty Giant Freezer will turn out as many, and sometimes more 160 quart batches per hour, than other makes of machines of less than half the capacity, yet the Giants required no more attention or time on the part of the operators to keep them going continually, than did the smaller machines.



As a result of these tests, they ordered two more, and later another three. The above illustration shows the plant with six machines in place. Recently they have ordered still another three so there will shortly be nine altogether.

By trading in their smaller machines for U. S. Heavy Duty Giants, this Company have doubled their production capacity without hiring more help or requiring more floor space.

The Reason Why

If you want to know the reason why, and incidentally get the latest information about new developments in ice cream freezers, WRITE AT ONCE FOR OUR NEW CATALOGUE, just off the press.

U. S. FREEZER & MACHINE CORPORATION

Union Avenue and Frost Street **BROOKLYN, N. Y.**

Representatives and Distributors in All Parts of the United States and Canada.
May we not arrange to have one call on you?

21

the city and has transformed a magnificent island into a civic center. Of course, if the weather is cold, the Packard man is the one to cultivate the acquaintance of.

They say Cedar Rapids has never had a panic—but there will be one when all the ice cream manufacturers and supply men alight from trains on the morning of January 24th to see the savage splendors and the modern Babylon of the Iowa ice cream convention enacted in the little mid-western city which usually is satisfied with even, untemperamental life which flows like the song of a violin peppered by an occasional cashing symphony. But now Cedar Rapids is preparing to show you the super-achievements of the ice cream industry—so come prepared with your memorandum to jot down all the new, helpful and interesting facts with which to combat your problems in business.

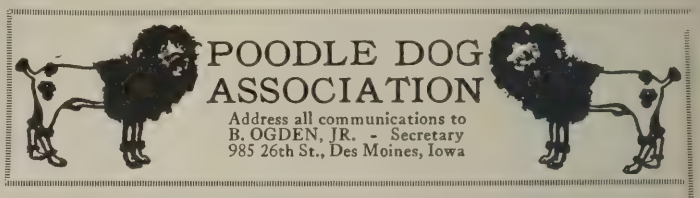
Cedar Rapids is a democratic city; it's a town where little, old ladies are helped off the street cars; and is as kind to the rich as well as to the poor; it is human, with Christian vices and pagan virtues; and they say there are a few citizens who even favor the ex-president's fiftieth point, light wines and beer. (We hope the Poodle Dogs don't see this last line; we don't want to scare them away from the convention).

You supply men, who are not members of the Poodle Dogs' Association, will be before you leave that convention; and you manufacturers of ice cream who are not members of the state association—beware—they'll get you. You all think you know what P. D. Q. stands for, but you don't—it stands for joining the POODLE DOGS QUICK instead. When you meet all those live, good looking men who belong to the Poodle Dogs, you will want to join P. D. Q.

We have tried to describe Cedar Rapids as it is—picturesque, progressive and prosperous, healthful, hospitable and human; a city whose name is a poem; and an association of Iowa Poodle Dogs who strive in the words of Mark Twain, so to live that even the undertakers will be sorry when they die (and that's going some!)

History has recorded the Poodle Dog Association of Iowa as the first organization of ice cream supply men to adopt THE ICE CREAM REVIEW as their official organ—and now the POODLE DOGS have grown to be some "Hounds"—the story of the origin of their name can be found elsewhere in this edition. They are waiting to greet you one and all at the coming convention.

DON'T FORGET THE DATE—January 24-25—DON'T FORGET THE PLACE—Cedar Rapids, Ia.—AND DON'T FORGET THE GIRL—Bring the wife along.



How the Poodle Dogs Came to Life.

St. Louis, Mo.

The Ice Cream Review:

The Poodle Dogs of Iowa owe a great deal to The Ice Cream Review and as president of this organization wish to thank you for courtesies extended in your splendid magazine in our behalf.

I am sure the January issue will be a wonder and will look forward to a copy with great pleasure.

It recalls to my mind the small crowd of supply men who had gathered at Waterloo, Iowa, in the fall of 1911, to attend the annual state meeting of the ice cream manufacturers. After the business session had adjourned we visited the various exhibits at the dairy show grounds where the meeting also was held. In our rambles around the grounds we chanced upon a booth operating a wheel of fortune which sold paddles containing several numbers. The wheel was turned and the lucky number was called, awarding a prize to the holder.

Like boys at a county fair with the gambling instinct, we took many chances and one of us (I cannot recall who it was) drew a stuffed Poodle Dog. Not to be outdone by this lucky fellow we continued to buy paddles until each one was supplied with a Poodle. We then went down to the Ellis hotel, decided to call a good-fellowship meeting to become better acquainted; the result was the birth of the Iowa Poodle Dogs, by unanimous vote, with a membership of about twelve



H. J. RYNER,
Perry Packing Co.



C. W. HUTCHINSON,
Cedar Rapids, Ia., J. G. Cherry Co.



C. W. HAUENSTEIN,
Western Rock Salt Co.
He is going to be a Poodle.

These Poodle Dogs Will Be at the Cedar Rapids Convention.

Economy of Space

The full utilization of plant space is a subject which is demanding greater consideration than ever before. Increased capacity and lower proportionate operative costs are the usual motives for erecting a new plant.

With a certain area of ground space, a certain volume of business to handle, and a limited amount of money to put into it, owners quite naturally want and expect every square foot of space to contribute towards maximum efficiency of the new or remodeled plant.

Every foot of unnecessary and useless space adds to the initial cost as well as to the daily operative expense.

Economy of space, therefore, is a most important problem, to which prospective builders should give their closest attention.

Prospective Builders may obtain full information relative to the application of McCORMICK SERVICE without obligation. Isn't it worth investigating?

Conspicuous among numerous other notable features of

McCORMICK

Architectural and Engineering

SERVICE

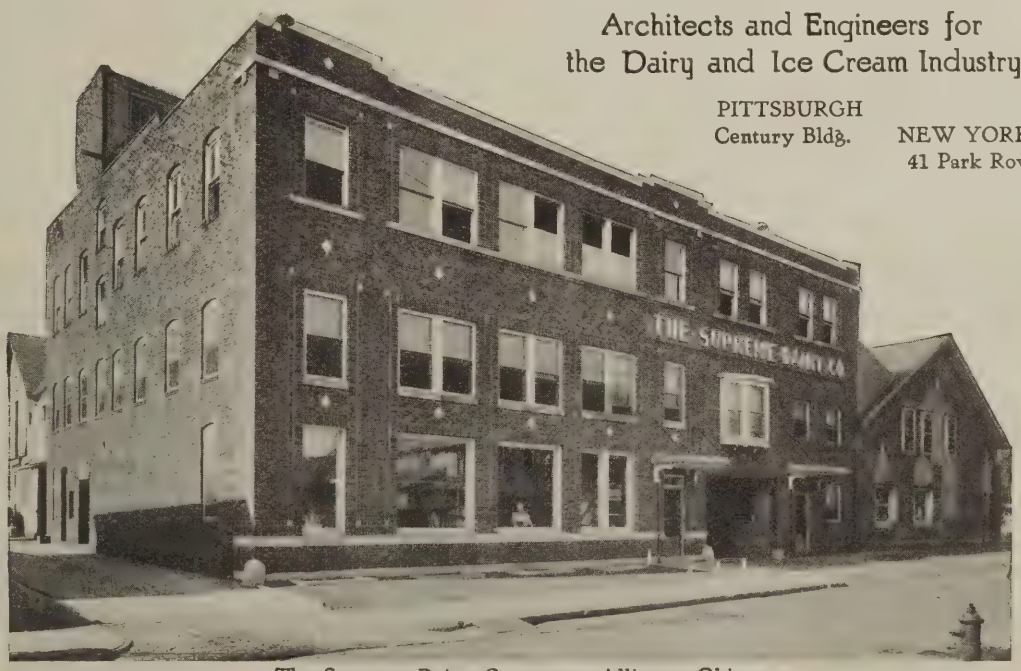
plants is the economic utilization of space. Areas and cubic contents are designed in scientific ratios by our experienced Engineers after an exhaustive study of machinery placements, steam, water and sewage lines, light, ventilation and the movement of labor. All these factors, which have a vital bearing on the economical uses of space, are elementary considerations executed in advance of the preliminary plans first submitted to our clients.

THE McCORMICK COMPANY, Inc.

Architects and Engineers for the Dairy and Ice Cream Industry

PITTSBURGH
Century Bldg.

NEW YORK
41 Park Row



The Supreme Dairy Company, Alliance, Ohio

Construction Executed by Your Own Contractor Under the Direction of Our Visiting Superintendents

supply men. Today our membership numbers eighty or more.

We are looking forward with great expectations to our next meeting of increasing our membership and the attendance of every old member making this the greatest meeting ever held.

May 1922 be the most prosperous for all in the industry, and with kindest personal regards, I am

Yours very truly,

G. H. BULGER,

President of Poodle Dogs' Assn. of Iowa.

N. B.—**Dont Forget,** Hotel Montrose, Cedar Rapids, Iowa, Jan. 24 and 25.

* * *

Ernest W. Wupper, with the Downey-Turnquist Co., Chicago, Ill., sent us his photo on the "off change" that he might still be able to use it. We did, and we are glad he sent it because he is leaving Milwaukee, the home town of The Ice Cream Review, and is now locating in Minneapolis, Minn., and we shall always have his photo, at least, to remember him by. We liked Minneapolis, too, when we went to the Dairy Show, but still we think Milwaukee is some town at that; but, when opportunity knocks, we suppose we ought not to mourn too much over the losing of our resident friends, so we wish him God speed and much success in the new location. Mr. Wupper was kind enough to take the trouble to hunt for his photo among household goods, which were still in the process of being moved—and we appreciate what a job that was; and say, you Poodle Dogs, don't you think E. W. looks just the same as he did some years ago? Downey-Turnquist ice cream and essential oil flavors seem to agree with him. Look him up at the Iowa state convention and give us a report.

* * *

"Danny" Webster, the Minneapolis and St. Paul salesman for the Elyria Enameled Products Company, Elyria, Ohio, promised us that he would "scramble around somewhere in the attic and see if we can find a photograph suitable to grace the pages of your next issue of The Ice Cream Review. We certainly trust that in case you insert same, it will not injure your circulation to any great extent," he writes. D. M. evidently went to the attic alone and has not been discovered yet, for we have not received his picture. But we've a good picture of him in our mind, fresh from the National Dairy Show, for didn't we visit with him a wee bit each day and didn't we enjoy it? Well, I guess. If you find his picture in this issue folks you'll know friend wife found him entangled in a pile of old shoes, and that the picture is the "survival of the fittest" among the Poodle Dogs. If he lives to tell the tale, we'll expect to see him at the Iowa convention.

* * *

Look around for Fred Hollweg's picture. Maybe you'll find it. Isn't he natural? We often wonder how he can look so well after all these conventions, and the evening parties we meet him at, for he takes them in and so do we (when the boss lets us go). F. E. beat us to a few conventions and one of them was the Seattle Show, which we were sorry to "escape" going to but the Rocky Mountains sent this little echo back to us and whispered that Fred Hollweg was the originator of this little joke:

Son: "Father, is ice cream technically a butter or a cheese?"

Father: "Cheese it my son, that's a very daring (dairying) question."

Not so rotton, eh? All this brilliancy comes from being associated with the Thos. W. Dunn Gelatine Co., we suppose. But, wait; maybe it's because he's a Poodle Dog—golly, we never thought of that. We'll find out for sure at Cedar Rapids, at the Iowa convention.

* * *

We almost played a little joke on A. W. Zimmer, Jr., traveling salesman for the Solar-Sturgis Mfg. Co., Chicago, Ill., with the aid of "Dad" Zimmer. A. W., Sr., sent on the photo of "Sonny" Zimmer during the latter's absence, (was working his way home for a good "square" on Christmas day, from the South) and we were going to surprise him by presenting him with his noble countenance all pictured out in the January number of The Ice Cream Review, when the cat got out of the bag and Junior sent a telegram not to publish said (what we really thought was a noble) picture. We cancelled the order for the cut upon his promise to send us another one. Father Zimmer says that "these boys just at that age mature rather fast and they think they



L. L. FLICKINGER,
Ames, Ia., J. G. Cherry Co.

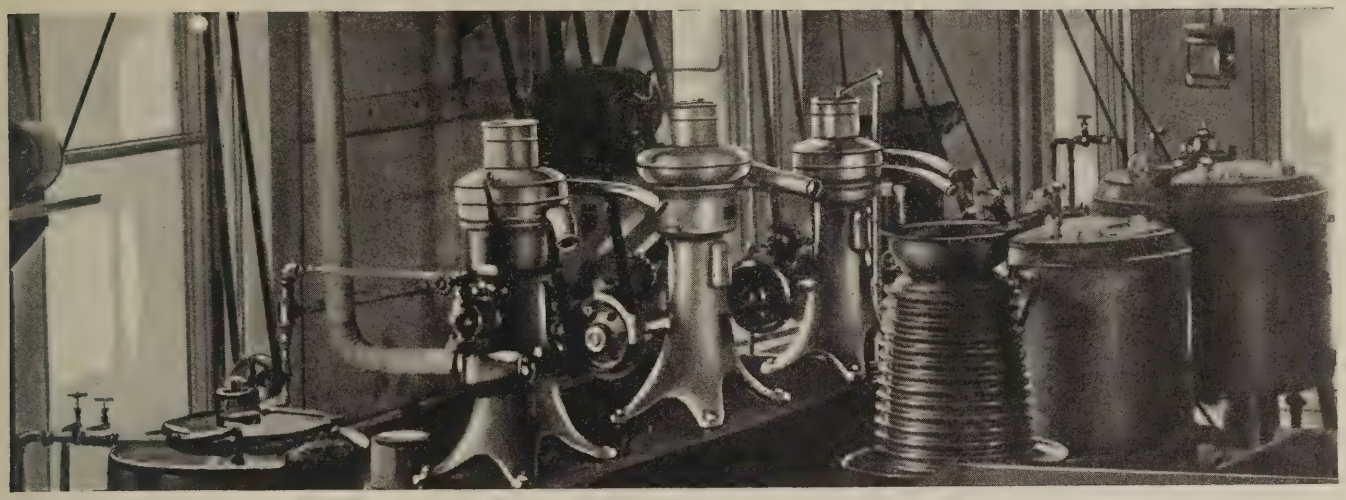


R. W. KELLY,
Massey & Massey Co.



A. W. ZIMMER, JR.,
Solar-Sturges Manufacturing Co.

These Poodle Dogs Will Be at the Cedar Rapids Convention.



From left to right: De Laval Cream Separator, De Laval Milk Clarifier and De Laval Emulsor in the Missouri Valley Creamery Company's plant, Washington, Mo.

"The De Laval Emulsor has considerably improved the quality of our ice cream"

—states the Missouri Valley Creamery Company. "It makes us entirely independent of the sweet cream supply, which feature alone is worth the price. We would not care to be without it."

Some ice cream makers are using the De Laval Emulsor merely to improve the quality of their product. It does this by giving the entire batch a most thorough mixing and aeration.

Others are using it to lower manufacturing costs and assure an ample supply of cream at all times. The De Laval does this, too, by enabling them to buy butter and skim milk powder when they are cheap and storing them for future use. These stored products are, from day to day, made up into real cream of any desired butter-fat content which whips and swells the same as the best "raw" cream.

Write today for the De Laval Emulsor Catalog and the book "What Users Say of the De Laval Emulsor."

The De Laval Separator Company

NEW YORK CHICAGO SAN FRANCISCO
MONTREAL PETERBOROUGH WINNIPEG EDMONTON VANCOUVER

Sooner or later you will use a De Laval

change more than they have." Take a look for yourself.

G. L. Matteson, who represents the Creamery Package Company, of Chicago, Ill., out of the Waterloo, Ia., territory, sent us a fine picture of his family, and incidentally we didn't find him on the picture until the last one for we were busy scanning the lovely countenances of a perfectly fine family. But we finally discovered him due to the fact that he wrote, "You will recognize me as the fat one with the round wind shields and shiny dome sitting at the head of the procession." We found him from his accurate description and we had no trouble. Sorry we couldn't publish the picture of the whole family, but we really wanted a few of you to notice "father." Mr. Matteson says he makes no claim to personal beauty beyond the ordinary, like most Poodle Dogs who depend upon their sales for a living, and he sent us his latest and only photo. All kidding aside, Poodlers, he's a good lookin' fella at that. What say? Say it at the Iowa Ice Cream Manufacturers' Convention in January.

* * *

Jos. X. Gubbins, well-known "Knight of the Grip," who was formerly associated with Fred K. Higbie in the Kansas Rock Salt Company, has for the past six months been affiliated with the Paterson Parchment Paper Co., of Passaic, New Jersey. His territory is out of Chicago. This Mr. Gubbins is coming to the Wisconsin Ice Cream Manufacturers' Convention, January 17-18, and we are looking forward to meeting him with much eagerness. We like his name—somehow or other, Gubbins was always connected with a round, jolly plum pudding in our minds, and that X in his name—well X always did stand for mystery, and we like 'em solved. We will find him when he comes. Then we'll already be acquainted for the Iowa ice cream convention.

* * *

There is one woman left in the world who still cares enough about her husband to want to retain his "best" and only picture. When we asked the President of the Poodle Dogs of Iowa for his physiog for the January issue of The Ice Cream Review, he came back and said, "I am forwarding my best photo, in fact the only one I have. Mrs. Bulger was rather reluctant to let it go, but I assured her it would be returned in perfect condition." So we took precious care of that picture and returned it intact, although there was one young lady here in our office who wanted to keep it after she saw it. We leave it to the Poodle Dogs if the women aren't always telling us that "good men are few and far between now-a-days" —well—we don't blame Mrs. B. for appreciating a good thing and from the reports we get of this "hound" president and his "kennel," fur will fly pretty lively at the livest convention of the season when the Iowa convention comes off on Jan. 24-25, at Cedar Rapids. Mr. Bulger says he thinks the December issue of The Review was surely a dandy, and he also says he is proud to be included in the January number. "We want the Poodle Dogs 'to the front' at all times and leave it to The Review to keep them there," he writes. We'll be there with the bark any time we can help these Poodles along.

* * *

The J. G. Cherry Company, of Cedar Rapids, Ia., has quite a number of Poodle Dogs among their list of able salesmen. We expect they will all be in attendance at the Iowa Convention in January, on the 24th and 25th. R. S. Damuth, L. L. Flickinger, C. W. Hutchinson, W. S. Hamilton and A. Granzow are all Poodlers. They plan to make things hum at the live wire convention which the Iowa State Ice Cream Manufacturers are famed for. So many Cherry men, each with a hand in the convention doings, are bound to make a success of a gathering, and they promise those attending a royal time.

W. M. Booth, who for fifteen years has represented the Crescent Manufacturing Company of Seattle, Wash., in Iowa, Minnesota, North and South Dakota, part of Wisconsin and part of Michigan, will be in Cedar Rapids at the Iowa State Convention of Ice Cream Manufacturers with bells on. If he is as liberal with the jug as he was with his last photo, none of the Poodle Dogs, of which he is a member, will go thirsty, we mean hungry—'scuse us; for when we asked for W. M.'s picture he wrote back that he had 'sent us the only picture he had of himself, and if we could use same we were welcome to it.' We could use it and to good advantage, and we did. Booth and the rest of the Poodlers will show everybody attending the Iowa convention in January a yelping good time. They want to meet you all there.

Another well-known famous Iowa Poodle Dog will be at the Iowa State Convention in Cedar Rapids when the boom of the first big gun announces that the convention is off. Jas. A. Steiger, representative of Kenne-



E. W. WUPPER,
Downey-Turnquist Co.



JOSEPH X. GUBBINS,
Paterson Parchment Paper Co.



A. J. EDHOLM,
The Pfaudler Co.

These Poodle Dogs Will Be at the Cedar Rapids Convention.



The Flavor Sells Your Ice-Cream

Here are 4 Types of Vanilla Flavoring that will sell your product

GIANT VANILLA COMPOUND
is all that the name implies.

MAMMOTH VANILLA COMPOUND
Different to Giant but equally strong.

VANILLA AND TONKA
Moderately priced. Hundreds of ice-cream makers swear by it.

STRAIGHT VANILLA BEAN EXTRACTS
Mexican, Bourbon, All Bean and Suva.
Contain 1 lb. of beans in a gallon of extract.

Inquire about our contract prices.

—o□o—

RED SEAL COLORS
Prices for 1922 are materially reduced. Our pure certified colors excell in strength and brilliancy.
Powder, Liquid or Paste.

—o□o—

RED SEAL RIPENER
Helps age the mix. Improves your ice-cream.

WARNER-JENKINSON CO.
ST. LOUIS

dy & Parsons, Omaha, Nebr., is his name. He may be named after a piano but he makes a better "Poodle." Everybody in the territory knows Jim and he will be greeting many friends at the convention.

* * *

A. J. Edholm, representative out of the Mid-West sales office of the Pfaudler Company of Rochester, N. Y., is another live Poodle Dog Ky-ute who will be in captivity at Cedar Rapids on the 24th and 25th of January, at the Iowa Ice Cream Manufacturers' Convention. When he sent us his photo, it was hooked up with another, but he says his was the one with the "X" over the picture and we hope we didn't look cross-eyed and get the wrong one in the Rogues' Gallery—but there's one consolation to an uncertainty of this sort and that is if A. J. doesn't like the way the picture "took" he can always say it is the other fellow. Mr. Edholm's territory is Minnesota, Iowa, Nebraska and the Dakotas, and he manages to keep the firm well represented and muchly on the map. A lot of us will be glad to meet him in Iowa, but we warn him, some of us have got an awful hearty handshake, and we ask him to remember that the "copper" isn't the only one who can pinch."

* * *

H. J. Ryner of the Perry Packing Company of Perry, Ia., has two titles and we are trying to find out which of the two he is the proudest to own. He is an official POODLE DOG and an E. P. E.—don't rack your brains trying to figure out what the E. P. E. is for you never can guess, although the stuff is fast becoming as famous as Monte Carlo—it stands for Esquimo Pie Eater. We publish for your perusal a letter received from Mr. Ryner—look over the list and find your name among those who attended a good, live convention a few years back.

* * *

Perry, Iowa.

The Olsen Publishing Co.:

Quite accidentally I ran across a clipping from our local paper, dated Jan. 24, 1918, which brought back quite vividly to my mind my first Ice Cream Manufacturers' Convention, which was held that year, I believe, at the old Savery hotel, Des Moines. I arrived at the hall just as the bunch were telling the world in stentorian and not altogether unmusical terms that "That man Corliss was style **all the while.**" The occasion of that particular outburst, as I learned later, being Mr. Corliss' invitation extended to the convention to a trolley ride of 35 miles to Perry and return.

That is how it came about that the last session of the 1918 convention was held in Perry, in the dining room of the Pattee hotel, an honor which brought out all the city officials and business men as a glad hand committee to welcome the distinguished guests and their Poodles.

The following is a list of those present as it appeared in the local paper. You will recognize 90 per cent of the names, and I earnestly hope they will all be in Cedar Rapids for the big 1922 meet, January 24th and 25th. Should any hesitate, just tip them off that they are now making Eskimo Pie at Cedar Rapids.

F. E. Fowler, J. H. Beers, Mrs. J. H. Beers, Mrs. W. F. Rick, Mary Lewis Chambers, Will A. Schwindeler, Mrs. W. A. Schwindeler, Geo. F. Robinson, Ben Ogden, Jr., J. H. Lessenhop, E. J. Grundy, Paul Beer, H. J. Hayes, George T. Irvin, Sam Middleton, R. I. Crowell, A. Fleutsch, A. D. Rippert, W. S. Wilcox, James Allan, W. S. Day, Lee Blue, Jim Nelson, H. M. Tyler, Ed. Spinna, C. J. Hutchinson, W. W. Hutchinson, J. M. McRaith, J. W. Schunck, C. E. Gear, J. H. Goeb, Chas. H. Willis, C. W. Blixt, L. R. Sanders, G. H. Burkendorff, F. G. Buntin, V. E. Sanquist, C. E. Brown, A. O. McLane, W. L. Garrett, H. J. Ryner, F. N. Carter, H. V. Lansch, C. A. Stevenson, W. A. Faris, Chas. E. Hays, L. O. Hausknecht, B. K. Peter, C. B. Madison, Edward Hruby, C. J. O'Neil, Albert B. Sidwell, J. L. Figi, Victor Hattison, Leroy Corliss, Geo. A. Emery, E. Hartman, H. Stein, C. F. Mullarkey, C. W. Hutchinson, E. T. Allen, J. L. Milligan, W. H. Murphy, B. B. Russell, W. S. Hamilton, O. J. Wittig, A. F. Ulrich, L. A. Kline, Lee Williams, G. H. Bulger, Hugh D. Harrington, Gabe S. Wagener, R. R. Hadley, J. R. Jackson, J. C. Paul, B. B. Corliss, Joe Celania, Chas. J. Celania, C. E. Williams, W. F. Scholz, Walter Evans, W. E. Clapper, R. O. Orin, Rufus P. Jones, Tom Walpole, C. A. Fesselman, T. P. Douglas, F. D. Hutchinson.

Very truly yours,
H. J. RYNER,
P. D., and E. P. E.,
(Poodle Dog and Eskimo Pie Eater).



F. ROSE,
Swift & Co.



G. L. MATTESON,
Creamery Pkg. Manufacturing Co.



E. P. BERGIN,
Solar-Sturges Manufacturing Co.

These Poodle Dogs Will Be at the Cedar Rapids Convention.



"Quality rather than price"

DO you know of any permanent business success established on the theory—"Sacrifice quality to meet a price which will attract sales?" Would you jeopardize your business with such a practice? True enough, there are extenuating circumstances—times when the temptation is exceedingly trying. But, really, how can any of us hope to fortify our business reputation by disregarding quality? It takes faith, we'll admit, and courage, to hold fast to "the trust imposed." Still, are not the leading business houses more highly regarded by you—those whom you know maintain quality "as represented?" Just how much faith do you honestly put in a product offered at a "cheap price" so you will buy? Let's continue to adhere to quality standard for the year 1922. We will all profit most.

The Boerner-Fry Company

Manufacturers of High Grade Extracts

Iowa City, Iowa

Washing of Ice Cream Cans Revolutionized

Hand washing of ice cream cans has never been satisfactory. It has been unsanitary, slow—costly.

The R & A Ice Cream Can Washer offers the solution of the problem – revolutionizes the washing of ice cream cans.

6-10 Cans Per Minute

It washes six cans per minute minimum speed and ten cans per minute maximum speed. Handles all size cans from 2 to 5 gallons. Covers and brick moulds are washed with the cans.



Hand washing of ice cream cans has never been satisfactory. It has been unsanitary — slow — costly.

Washes, Rinses, Sterilizes

The washer is a two compartment power driven machine. In the first compartment the cans receive 5 washings of solution water at 140 degrees and in the second compartment 5 rinsings at 190 degrees, followed by one sterilizing from jets of fresh boiling-hot water.

The cans are carried through the machine in the pockets of star wheels. No overhead shafting is required.

Clean, "Sweet," Sterile Cans

Cans washed by this machine are clean, sweet and sterile—far superior to cans washed by hand.

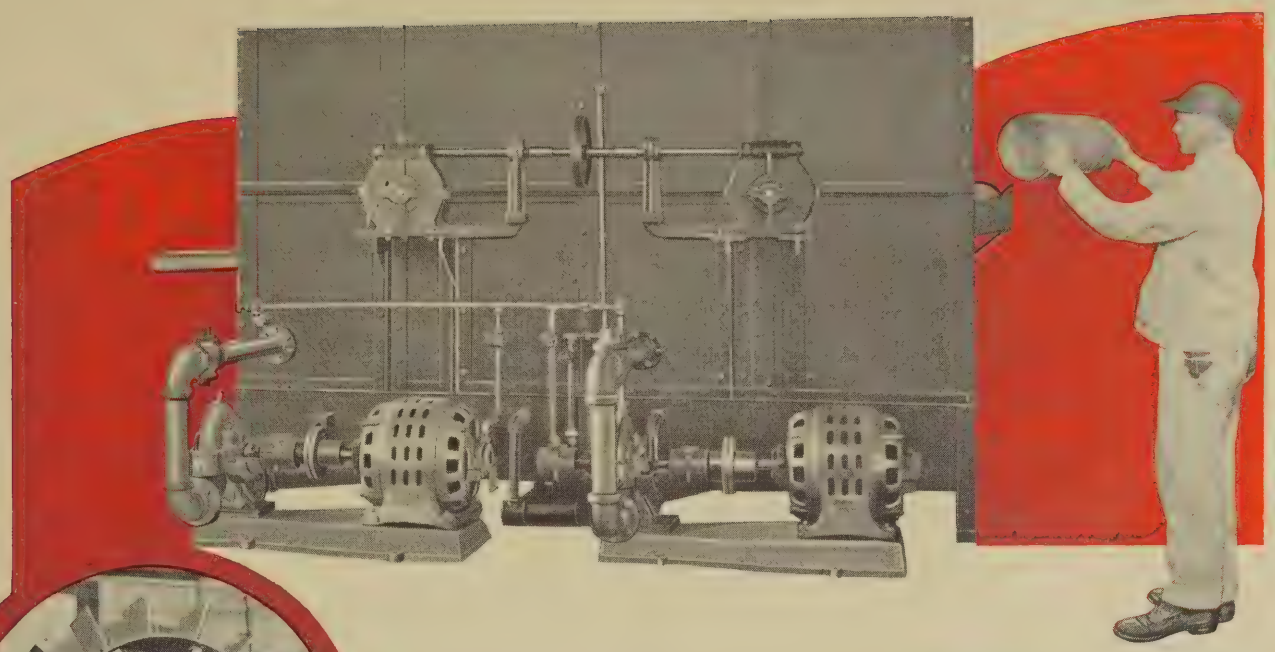
By producing cleaner cans this machine helps the manufacturer to produce a better and a more wholesome product.

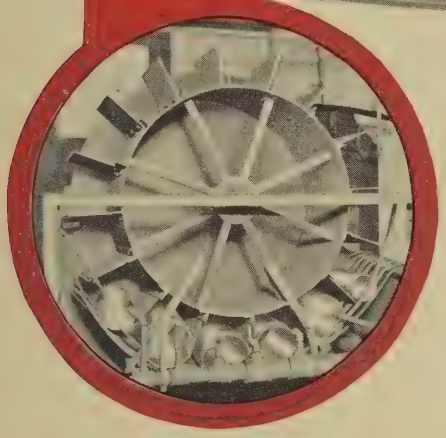
The machine will save enough in labor to pay for itself.

RICE & ADAMS CORPORATION
166-182 Chandler St. Buffalo, New York

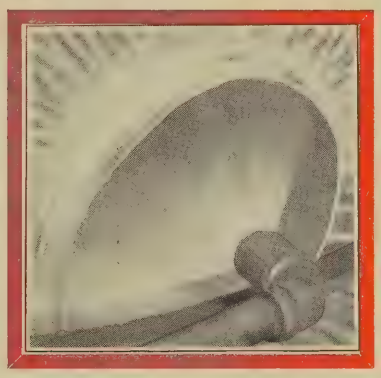
Branch Sales Offices:
150 Nassau St., New York, N. Y.
104 So. Michigan Ave., Chicago, Ill.
52 High St., Malden, Boston, Mass.

Rice & Adams Ice Cream





The machine is of the "star wheel" type which provides for washing the cans as they lay on their sides and prevents water from collecting in the bottom of the can. There is one "star wheel" in each compartment. The cans roll thru the machine, so that the jets strike all parts of the can.



The wash and rinse water is under 40 to 50 pounds pressure and is directed to every part of the can, inside and outside, by specially designed fan shaped jets placed at various angles.

Specifications

Pumps. Highly efficient, split shell type.

Tank. 3/16" tank plate, welded and galvanized after.

Hood. 1/8" tank plate, welded and galvanized after.

Screening. Heavy gauge galvanized.

Equipment. Pressure gauges, noiseless water heaters, steam and water supply pipes, overflow and drain pipe, temperature regulator for last tank, drain table with sloping top for draining the clean cans, dial thermometers, loose steam exhaust fan, etc.

Galvanizing. The tanks are made of 3/16" steel with welded seams dipped in hot galvanizing after they are made up. This seals the joints, prevents rough edges and makes the tanks rustproof.

Labor Required. The minimum speed requires one attendant who can both feed and unload the can. The maximum speed requires two attendants.

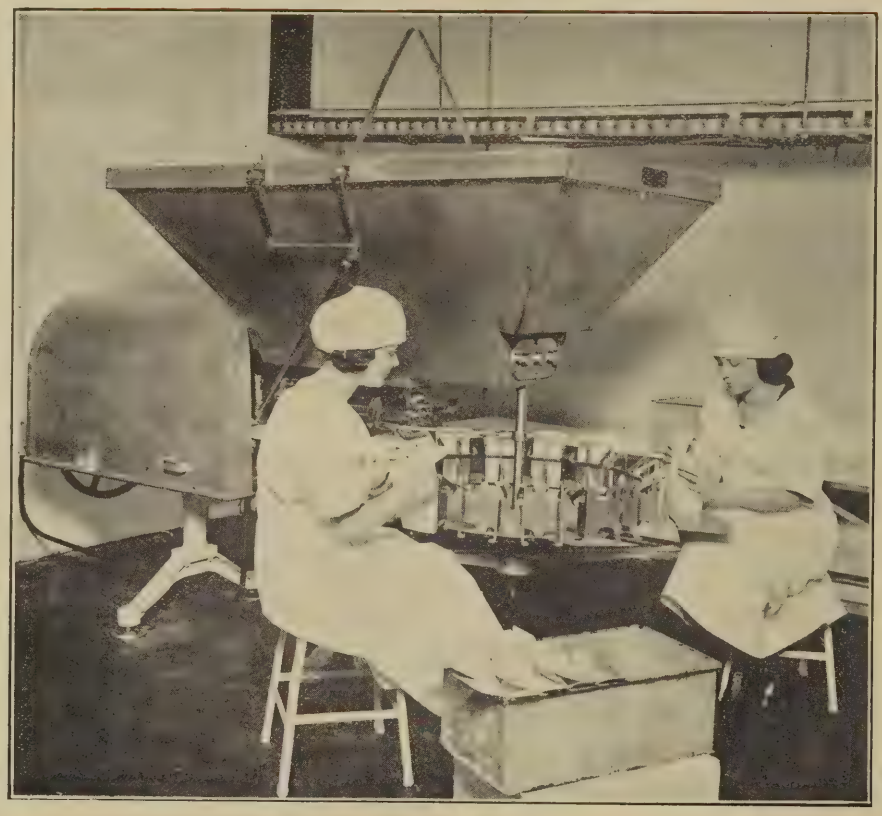
Can Washer

Mojonnier
Ice Cream Packaging Machines

are now in use in four large Chicago Ice Cream plants. They package the entire output of the one, two and three layer brick ice cream of these big companies.

Hydrox Company Goodman American Ice Cream Co. Lawrence Ice Cream Co. Carroll Co.

"SEEING IS BELIEVING." They Invite Inspection.



Mojonnier Ice Cream Packaging Machine in Use in Plant of Carroll Co., Chicago

Patented December 17, 1918. (Process and Other Patents Pending.)

The Mojonnier Ice Cream Packaging Machine is of the positive force feed type. It discharges an exact measured quantity of each flavor into each carton, which when hardened exactly fills that carton—no more, no less.

It fills your standard cartons, lined with parchment liner or without liner or practically any other type of carton, including the round containers and ice cream pails and small individuals, either 1/10 quart, ⅛ quart, 1/6 quart, ½ pints, pints, fifths or quarts.
Fills individuals in one, two or three flavors.

Sold on either a liberal rental basis or outright sale.—Write for descriptive circular.

Does not decrease overrun.

Automatic measured feed type.

Floor space 40x96 inches.

Mojonnier Bros. Co.

MILK ENGINEERS

739 W. Jackson Boul. Chicago

Sales Branches:

NEW YORK ST. LOUIS ATLANTA SEATTLE COLUMBUS

Two Models

Model A, capacity 1200 quarts per hour, $2,250.00

Model B, capacity 900 quarts per hour, $1,750.00

Neil D. Sutton, who represents the Corrizo Extract Company of New York, called at the office personally with his photo and said, "God help you if you don't take good care of that." So we told him the story of the young divorced couple and of their words at parting—the husband said to the wife, "God bless you if you stay away, and God help you if you come back." So we decided that we might have to go back with that photo and we took dinged good care of it. Say, but that man is a fooler on age—we thought him at least 15 years younger than he really is—he's got it all over the women—in not showing his age. He'll be at the Iowa convention and we would like to have all you good friends meet him.



DOWNEY'S HAT IN THE RING.

The Ice Cream Review:

Chicago, Illinois.

We are going to lend our very best efforts to making the Iowa, Wisconsin and Michigan ice cream association meetings bigger and better than ever. In addition to myself, our Mr. Tucker and Mr. Wupper will be in attendance this year.

We are not only pioneers in these movements, but are and have been great believers in co-operation. We have seen in the last twenty years the smallest ice cream manufacturer grow to the very biggest, and we take a certain amount of pardonable pride in the great progress the ice cream industry has made.

It is true that we have not been able to give very much assistance to the associations the past three years, but we are coming back with both feet and full of optimism for the new year and season.

Business conditions are no doblt looking up. Labor is becoming settled and the general lowering of prices on raw material of all kinds which enters into the manufacture and delivery of good ice cream is bound to result in that volume that every maker needs, which makes the profit.

Our new price lists for 1922 are now in the press and will carry a general reduction in price on many items without lowering or reducing our established qualities.

DOWNEY-TURNQUIST & CO.

Per C. E. Downey, President.

BURDANS TO ADVERTISE HEALTH AND FOOD VALUE OF THEIR ICE CREAM.

Burdan Bros., Lebanon, Pa., are going to advertise the health and food value of their ice cream all the year around.

Burdan Brothers first started making ice cream twenty-two years ago in Pottstown, Pa. Today Burdan Bros. have four big establishments at Wilmington, Pottstown, Lebanon and Reading, and each plant running most of the time to capacity.

In Burdan Bros. plant, health precautions are carried to extremes. This establishment is equipped with the latest mechanical apparatus. The equipment is constantly scrubbed, oiled, sterilized and kept in immaculate condition.

Mr. C. C. Burdan said: "Up to the present time ice cream has been considered a treat, or confection, for the summer time alone. If little Johnnine was a good boy he might have a dish of ice cream. Johnnie should have his ice cream regularly every day, winter and summer.

"It would make him grow. My own two boys, for instance, big six-footers, owe their health and strength to ice cream. They would eat it all the time.

"Aunt Jemima pancakes used to be made only in winter for no earthly reason. Now a lot of people eat Aunt Jemima pancakes the year around because there is every reason why they should.

"So it goes. People can eat ice cream in winter now —in their warm, cozy homes—and thrive on it."



TWO ARE NEARLY FROZEN TO DEATH IN REFRIGERATOR.

Stevens Point, Wis.—Locked in the refrigerator of a local ice cream factory for more than two hours, with the temperature eight degrees below zero, Julian Falkavage and H. J. Daniels escaped from freezing to death recently when the former forced his way through a window little more than eight inches square.

The door slammed shut and locked when the pair were inside the refrigerator placing some produce in cold storage. Efforts to reopen the door were futile.

Wearing light clothing, they soon became thoroughly chilled and finally decided on the plan which brought about their rescue.



JAMES A. STEIGER,
Kennedy & Parsons.



W. M. BOOTH,
Crescent Manufacturing Co.



NEIL D. SUTTON,
Corrizo Extract Co.

These Poodle Dogs Will Be at the Cedar Rapids Convention.

TEXAS ICE CREAM MEET.

The fourteenth annual convention of the Texas Ice Cream Manufacturers' Association held in Fort Worth, Texas, on December 7-8-9, was well attended and proved a success in every way. The Texas men always have a good convention and their last one was no exception.

A meeting of the executive committee and the board of directors was held the first day. Prior to the convening of the convention in the afternoon. Following the report of the secretary-treasurer, H. F. Owsley, Dallas, H. T. Pangburn, substituting for Frank W. Wester, president, who was unable to attend because of illness at the afternoon meeting which formally opened the convention, delivered the president's address.

A. J. Mays spoke on "Express Claims, Proper Manner of Filing and How to Prevent," in the absence of J. A. Crosswaite of the American Railway Express Company of Fort Worth, who was scheduled to make an address.

High labor costs and freight rates, coupled with other elements have prevented a reduction in price of ice cream, Harry A. Benners, Del Cambre, La., said in speaking on "Salt and the Reason for Present High Price." A. J. White of San Antonio spoke on "Cost of Re-Icing and Its Effect Upon Ice Cream Consumption." Mr. Owsley, the secretary, read a paper on "The Common Interest of Competitors," which was scheduled to be read by William A. Cocke of San Antonio, but the paper was written by him and forwarded to the secretary, as he was unable to attend.

S. S. Lard of Fort Worth was on the program for the second day's meeting for an address on "Proper Depreciation on Ice Cream Packers, Cans and Trucks."

One of the principal addresses was by E. H. Golaz, chemist in charge of the food and drug bureau, state board of health.

Professor J. W. Ridgeway, also spoke on "The Value of Increased Milk Production to the Ice Cream Manufacturer."

A complete report of the proceedings will be published in a later issue of The Ice Cream Review.

Election of officers resulted in the following:

Prsident—J. J. Sullivan, Houston, Texas.

Vice-President—N. C. Matthewson, Marshall, Texas.

Secretary-Treasurer—A. J. White, San Antonio, Texas.

A board of directors was elected consisting of W. A. Cox, San Antonio; A. Rant, El Paso; S. B. Bonner, Temple; M. Thomas, Beaumont; S. S. Lard, Fort Worth; J. D. Carruthers, Wichita Falls; M. W. Wortman, Waco; J. J. Juscan, Sherman; and George L. Boyd, Sherman.

The 1922 convention will be held in San Antonio.

JACK RABBITS
ELWIN F. WEIL, Secretary
514 New York Life Bldg.,
Kansas City Missouri



HOW TO GET TO THE KANSAS MEETING.

The Ice Cream Review:

Lest you forget, this is to remind you that the Kansas convention, which was postponed last month, will be held at the Baltimore Hotel, Kansas City, Mo., January 26th and 27th.

Am reminding you of this early so there will be no excuse for non-attendance. We want all Jack Rabbits present. Am informed that health conditions in Kansas City are now in first class shape and there need be no fear on this account.

Furthermore, if you attend the Iowa Convention in Cedar Rapids on the 24th and 25th inst., you can get over to Kansas City in time for the Kansas meeting on the 26th. Am arranging with the Rock Island to give special service so that there will be no slip-up. You can leave Cedar Rapids 7:00 P. M. on the 25th and arrive in Kansas City next morning at 7:20. The railroad will place a Pullman car at our disposal in Cedar Rapids and have a representative there to look after tickets, berths, etc., but they will require twenty-five (25) tickets for the special car, so if you are going to attend Iowa and go to Kansas City, wish you would advise me.

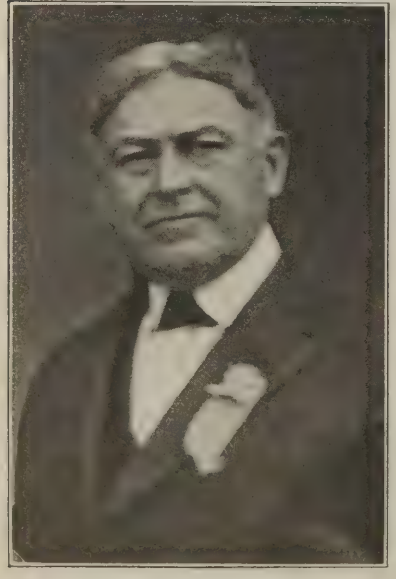
Invite everybody along the line to the Kansas meeting. Manufacturers from other states will be welcome. Will be disappointed if I do not meet you in Kansas City on the dates scheduled.

Wishing you a prosperous year in 1922,

Yours very truly,

J. L. NELSON,

President, Kansas Jack Rabbits.



W. S. RECTOR,
Hudson Manufacturing Co.

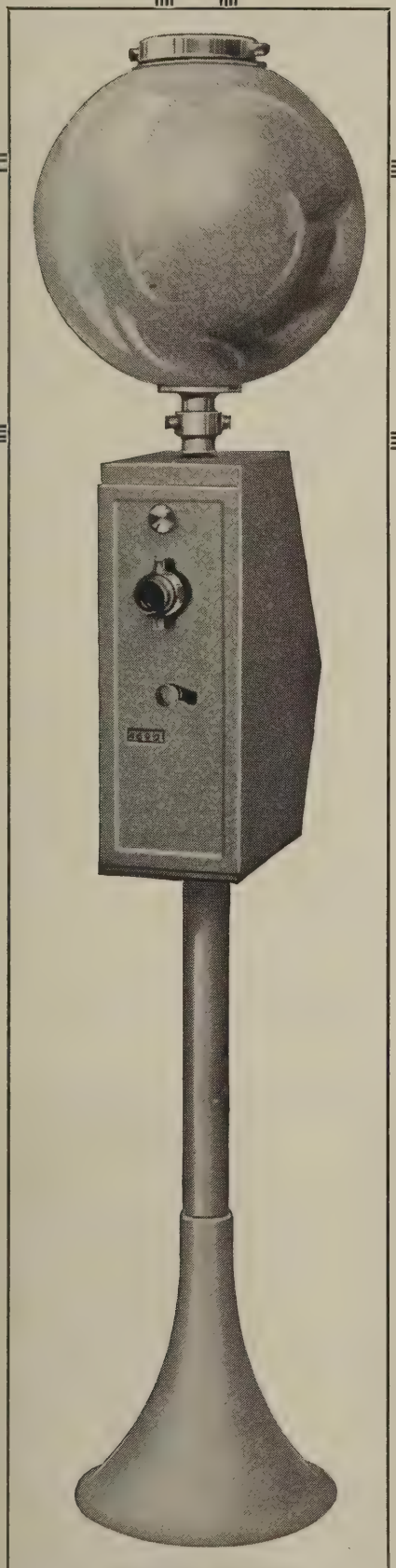


ALBERT F. C. GRANZOW,
Algona, Ia., J. G. Cherry Co.



G. S. WEGENER,
Hudson Manufacturing Co.

These Poodle Dogs Will Be at the Cedar Rapids Convention.



The WEIBATCH
It Weighs

THE desire of the up-to-date ice cream manufacturers for some simple method of accurately weighing the mix into the freezer has resulted in the development and perfection of the WEIBATCH. This batch control is now on the market and is in successful operation. The WEIBATCH is a Batch control which will automatically weigh, record, and deliver to the freezer a definite number of pounds of mix.

It is simple in construction, positive in action, accurate in results, and neat in appearance.

Its simplicity of consrtuction make it a fool-proof machine, while its accuracy gives a check on the handling of ice cream mix that has heretofore been impossible.

Every ice cream manufacturer knows that the specific gravity of mix is constantly changing, and that any **measuring** device, no matter how accurate it may be in **volume,** is very misleading when checking back against the mixing room or the freezer room.

If you are contemplating installing additional freezers, or have a desire to eliminate waste, save time, put out a uniform frozen product, by all means ask for our circular, "What the WEIBATCH will do for you."

WILLIAM G. FINCH CO., Inc.
45 Division Avenue, S.
GRAND RAPIDS MICHIGAN

Big Show and Convention At Saginaw

The big show and convention at Saginaw, Mich., Feb. 14-15-16-17, under the auspices of the dairymen's associations organized under the name of the Michigan Allied Dairy Association, is going to be one of the biggest events of the year in the dairy industry. During the course of the show there will be lectures on all subjects of dairy production and the manufacturing of all kinds of dairy products and a fine display of dairy, farm and dairy manufacturers' equipment. A butter scoring contest will also be held.

With but one or two exceptions, this show has always had a record attendance and the association is looking forward to a record-smashing crowd for the 1922 show. Great preparations have been made for the handling and entertaining of the crowds and it is estimated that every booth will be filled. It had been decided that for last year's show, the supply houses would simply send representatives and not set up an elaborate display of machinery such as had been done in other years. But the scheme was not as forceful or successful as anticipated and this year's plans are for a full exhibition of the latest and best dairy equipment that is to be had. The Auditorium where the exhibit is to be held, is large and spacious and will accommodate to fine advantage the very fine display which will be arranged.

The following affiliated organizations make up the Allied Association: Co-operative Association of Creameries, Exhibitors' Federation of the Michigan Dairymen's Association, Michigan Association of Ice Cream Manufacturers, Michigan Association of Creamery Owners and Managers, Michigan Buttermakers' Association, Michigan Guernsey Cattle Club, Michigan Holstein-Friesian Associaiton, Michigan Jersey Cattle Club, Michigan Milk Dealers' Association, Michigan Milk and Dairy Inspectors' Association, Michigan Milk Producers' Association and the Michigan Poultry, Butter & Egg Association. As Saginaw is situated in the center of a well developed dairy section, it would seem that all these associations mentioned would provide a good field for a record attendance of visitors interested in any line of dairying from A to Z.

The management will make this convention unique and attractive for a large crowd. Saginaw affords every opportunity for a good convention—it draws from the whole state. An excellent program will be furnished—prizes will be offered in various ways. The meetings will be held in the exhibit building in separate rooms; this will make it convenient for those attending and will also hold the visitors at the convention building.

The famous MICHIGAN DAIRY BOOSTERS will be there stronger than the "Light Brigade" and you can depend upon a royal welcome and a fine time—no need to dwell upon the reputation of these fellows for entertaining—no one ever left a convention where this organization held sway and was disappointed. There are lots of surprises in store for those attending this year and we urge all to be on deck when the show opens on February 14th and stick to the finish, for IT'S GOING TO BE SOME SHOW.

Look this issue over carefully and see the fine showing of boosters for the Michigan convention—you will find that all your old friends will be there—these boys have come forward and helped THE ICE CREAM REVIEW to boost for this convention's success—when there is loyalty, pep and spirit such as the co-operation these fellows have given us, behind a show it is bound to be a howling success. Predictions are that 1922 will be the turning point in business conditions from stagnation to one of bountiful returns—the best way to reap YOUR SHARE of success for this year is first of all by attending the convention and reaping the benefits which a show of this sort is bound to teach. Many important problems—problems which come up in your line of business frequently and which you are not sure just how to combat—will be discussed and you will carry home many helpful ideas. Men who are experts representing every phase of dairy industry that produces, manufactures and distributes products which contribute to the welfare of practically every man, woman and child in the United States, will be in attendance. It is important that you realize the necessity of attending the convention and the meetings of the different associations—for knowledge broadens one and your business is bound to profit by it. This show



WILLIAM G. FINCH,
William G. Finch Co.



A. T. PRATT,
Paterson Parchment Paper Co.



W. E. STEWART,
Swift & Co.

These Michigan Dairy Boosters Will Be at the Saginaw Meeting.

You Need Tin Foil Wrappers When You Make

ESKIMO PIE

Use our service in getting out an attractive sales making foil wrapper that will help introduce Eskimo Pie quickly in your territory. We know how these wrappers should be made and can produce them for you in large or small quantities at short notice.

They are made of "Master Metal", free from lead; it makes a beautiful package that protects these wonderful confections thoroughly. Color printing on foil is one of the things we do best, and we furnish designs that win friends at sight.

The country is going wild over Eskimo Pie. The demand is spreading over the country like wildfire. The Eskimo Pie is one of the most sensationally successful innovations the ice cream trade has known for years.

Be the first to introduce these delicious chocolate coated foil wrapped ice cream confections in your territory and you will reap a harvest.

Manufacturing rights of Eskimo Pies are controlled by Russel Stover Co., Mallers Bldg., Chicago.

Don't let anyone beat you to this wonderful new opportunity. Start with "Master Metal" wrappers and win the market while others are thinking it over.

Wire today for sample wrappers and prices.

UNITED STATES FOIL COMPANY

INCORPORATED

LOUISVILLE, KENTUCKY



R. J. ELLWANGER,
John W. Ladd Co.
Director.



C. J. W. SMITH,
Creamery Package Mfg. Co.
Secretary-Treasurer.



C. J. YUNKER,
Rex Extract Co.
Vice-President.
Entertainment Committee Man.

Michigan Dairy Boosters' Officers, Directors and Entertainment Committee.



LLOYD L. HUGHES,
Hughes Gelatine Co.
Director.

These are some of the men who are boosting for the SAGINAW MEETING to make it the best Dairy Convention and Dairy Machinery Show ever held in Michigan



S. A. VON JASMUND,
Diamond Crystal Salt Co.



HOWARD W. BLACK,
The Widlar Co.
Entertainment Committee.



H. D. WENDT,
General Secretary Michigan Allied Dairy Association.



D. W. SHIEL,
Solar-Sturges Manufacturing Co.
Entertainment Committee.



Billy Bell Says— "You Can't Test Them All"

If your desire to be a "good fellow" carried you to a point where you agreed to test the vanilla of every salesman who called, you wouldn't get much of anything else done.

And your ice cream customers would soon raise a roar because no two batches tasted alike.

Then, What's a Poor Fellow to Do?

Just this: Make **one batch** with

TISCO "545"

Taste it; satisfy yourself that it is better than any other vanilla you ever used at any price.

Then get everybody about the plant to taste it without telling anybody what vanilla you used. You'll see their faces light up with surprise and delight.

Be sure, also, to keep track of the customers you supply from that batch; don't tell **them** about any change in flavor; but watch and see how many of them **increase their next order.**

What Is "545"?

It is absolutely the best Ice Cream Vanilla ever produced by anybody.

Yes, best at **any price;** because it is exactly the **right** combination of pure vanilla bean (38%) and artificial flavors such as vanillin, coumarin, essential oils and fruit flavors (62%).

Better than **all vanilla,** because the pure bean extract is 50% alcohol, and so volatile that it loses flavor after the cream stands.

Much better than all artificial, because you have to have the **true** vanilla to give that delicious, palatable flavor which is looked for in high grade Ice Cream.

It's Best, because we put the stuff in the barrel! It's there, brother; and after you once use "545" you'll fight before you allow **anybody** to even **suggest** any other vanilla at **any** price—high or low.



Think of it—2 qts. of "545" will flavor 100 gallons of dairy mix or from 190 to 220 gallons of finished ice cream. We will send a 2 qt. test sample for $1.90. The barrel price is $3.80 per gallon.

THE TISCO COMPANY

Wm. M. Bell, Pres.

2 E. Lake Street CHICAGO

Northwest Office—523 Metropolitan Life Bldg., Minneapolis, Minn.
Southwest Office—208 E. Myrtle St., San Antonio, Texas.

places before men of the dairy industry an opportunity to gain knowledge of untold value; and in view of this, let every person who can possibly attend, arrange to be on deck at the best convention ever held by the Allied Associations of Michigan. Let the show, coming as it does before the beginning of the spring season's rush, be a vacation trip along with the more serious thoughts of benefitting by attending. If every manufacturer in the dairy industry would put into operation in his business the many great things that are given him by attending these conventions, our great industry would be still greater than it is. This year, above all others, it is highly necessary for all men in the dairy industry to know how to handle the situations which must be met in these times of reconstruction. This convention will be just the place to discuss the corners and angles which are constantly coming up so that we may be better able to master the difficulties in our business.

LET US ALL PUT OUR SHOULDER TO THE WHEEL and help make this convention a success and a record-smasher. The people you will want to meet will be there—the old friends you will want to greet will be there—take advantage of this opportunity placed before you. ALL ABOARD FOR SAGINAW IN FEBRUARY.

* * *

Convention Notes.

Oh, golly, today when word came into the office that A. J. Miller, of the Sanitary Tinning Company, Cleveland, O., was going to the Michigan Dairy Show at Saginaw on February 14-15-16-17, we sure did acquire an awful longing to go too. Know why? Well, "Millauw," has got the funniest laugh and its so catching that you have perpetual giggles all the time you are with him—he's a sonofagun all right and the way he can tell funny stories would make you want to travel way to Saginaw just to listen to him. You know the old saying, "Smile and the World Smiles With You; Weep and You Weep Alone?" Well, when you are with Achilles you do both, for first you grin and then you smile and then you laugh and then you roar until you weep anyhow—but not from sorrow, just from a pain in the "sugar plum" territory. He'll be at the Saginaw show, so if you haven't met "Axel" and his wares, just step right up and get acquainted.

C. J. Yunkers is the best little (?) booster we have got on our list. Say we wanted photos of a few of you famous Michigan Dairy Boosters and we appealed to C. J., the famous billiard player, and he sent us a whole suitcase full of fellows' pictures with a national reputation. (Wait! We didn't say what for), and they are all Dairy Boosters from Michigan. If we can't get up a worthy booster column for the Saginaw show with that material and beautiful scenery, we give up. That little "ole" Rex Extract man is going to be the busiest man at the show, busy seeing that everyone has a good time and that everybody is comfortable, and we only hope he doesn't meet Miller until the last day of the show, because we once saw him laugh so hard at "Millauw's" jokes that he nearly fell out of his seat and lost his dignity. Fact is, we almost did the same thing. Come on over to Saginaw, those of you who already know Yunkers, and greet him—and those of you who don't know him, come on over and get acquainted with the CHAMPION MICHIGAN DAIRY BOOSTER of the United States. * * *

We certainly expect R. E. MacFarland of the Essex Gelatine Company of Boston, Mass., back from his western trip in time for the Saginaw show. Why, if "Mac" didn't show up who would wipe the cob-webs off the ceiling? (He's a little short fellow—this is for the benefit of those who have not yet had the pleasure of meeting him). At that, we wonder why he tarries so long out west—can it be that some brunette has at last vamped this bachelor six-footer? Gee, we hope not—somehow or other we feel he wouldn't be half as much fun if he were married—and besides maybe you say Mulholland and Black and a few of the rest of them wouldn't miss him. The latest reports tell us that Mac will be at the show, however, so we decided not to worry about the other trivial matters. Get acquainted with him all you fellows who don't know him, for you never can tell when your decorations may drop from the ceiling and you will want a stepladder—believe us, then's when Mac comes in handy.

* * *

J. F. Schlick, Jr., of the Kalamazoo Vegetable Parchment Company, Kalamazoo, Mich., is a staunch MICHIGAN DAIRY BOOSTER and he'll be at the show in January. He sent us his photo and then wrote to tell



V. G. HARRIS,
De Laval Separator Co.



H. W. STERN,
A. Daigger & Co.



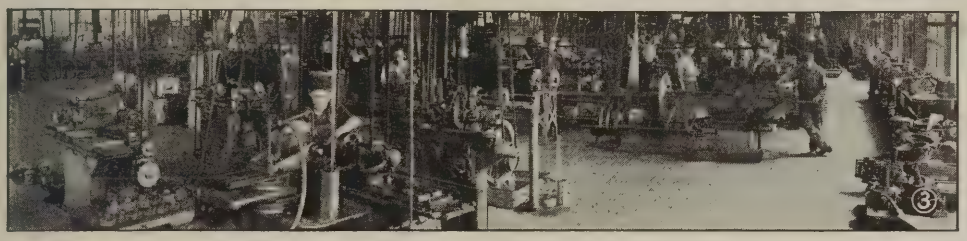
ELMER MACK,
Menasha Printing & Carton Co.

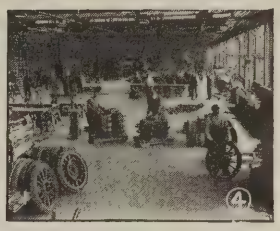
These Michigan Dairy Boosters Will Be at the Saginaw Meeting.

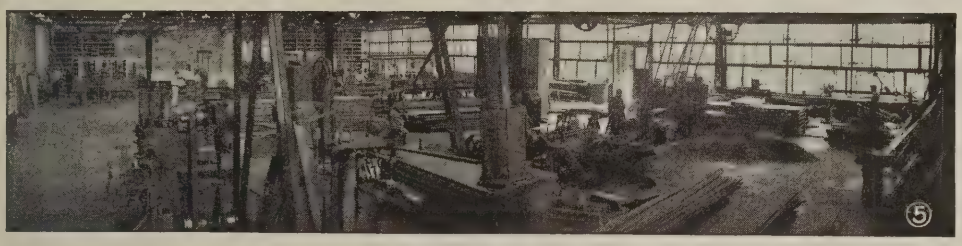


ELECTRIC









1. *Stock*
2. *Forge Shop*
3. *Machine Shop*
4. *Assembly*
5. *Wood Working*
6. *Paint Shop*
7. *Shipping*
8. *Front of Plant*





THE Assembly department is only a small part of this large C-T Electric truck plant. Excepting special G. E. motors designed by C-T engineers, bearings and springs, no finished parts enter the plant. C-T engineers supervise manufacture from bar steel and rough castings and forgings to the finished trucks. Efficient design is preserved through uniform and painstaking manufacture.

COMMERCIAL TRUCK COMPANY

PHILADELPHIA

NEW YORK CHICAGO ATLANTA

Representatives in other principal cities

Rear wheel drive models—Bantam, ¾, 1, 2, 3 and 3½-ton
Front wheel drive models—3½ and 5-ton.





C. GIBSON FORD,
Atlantic Gelatine Co.



JOHN KEATING,
A. H. Arnold & Bro.



JOHN F. SCHLICK, JR.,
Kalamazoo Vegetable Parchment Co.



E. K. SLATER,
The Ice Cream Review.

Meet these
BOOSTERS
at the
Saginaw Show



C. E. ROGERS,
Rogers Brick Maker.



A. J. MILLER,
Sanitary Tinning Co.



A. A. SENOR,
National Paint & Varnish Co.



C. A. GROVE,
John W. Ladd Co.





Um-m-m Good—

It takes mighty good ice cream to please them, and good ice cream can be made only with materials of high quality.

Manufacturers of good cream realize the importance of quality in the gelatin they use.

Swift & Company possesses many advantages that permit it to offer good gelatin with good service; that is, gelatin of the highest quality, graded to your requirements, delivered to you when you want it, and at a reasonable price.

We invite your inquiries regarding our product and our prices.

Swift & Company
U. S. A.

us that he neglected to place any marks of identification upon same. He says, "The only way you can possibly determine who it is, is from the wrapper." Why, old boy, we didn't have any trouble at all—the "slick" lookin' face that peeked out at us when we unfolded the wrapper just spelled Schlick all over—don't worry, we won't give anyone else credit for that face—it belongs to but one man and he shall have it. When we looked at his photo, we thought of the kind words he wrote us, saying, "I want to say now that you are some boosters for the ice cream business and hope that your efforts to boost the ice cream and dairy business will not go unrewarded. I hope that all the ice cream people will appreciate what you are doing to uplift their business." Thanks for "them" kind words, brother, and we hope to meet you face to face to thank you at Saginaw in February.

* * *

Mr. A. T. Pratt, eastern representative for the Paterson Parchment Paper Company, ought to be a MICHIGAN DAIRY BOOSTER, don't you think so, fellows? We trust he will at least be at the Saginaw show so that we can induce him to become one of us. He is a trusting fellow—we know, too, for didn't he loan us his last photo in order that we might have a cut made from same? That proves it, doesn't it? He sent the photo on and wrote us, "I hasten to send you my LAST photo. As soon as you are through with it, please return same as it is my last and only one. Be as gentle with it as you can. Would awfully hate to try and have as good a one taken again." Funny how these guys despise the picture galleries, isn't it? Some of 'em, we wager, wouldn't be a movin' picture actor for anything. Come on over to the Michigan show, A. T., and bring your parchment paper along and get in swing with the rest of us fellows and help boost whether you're an M. D. B. or not.

* * *

All the fellows who are Michigan Dairy Boosters, and a lot who aren't but ought to be, will all be at the Saginaw show in February. Among those who are not, are R. J. Decy and A. A. Senor—look their pictures up in this issue of the Review and see if you don't think they ought to belong to that association. We wanted to favor the bunch by printing the picture of an old member of the Michigan association, Mr. Emery Thompson, of the Emery Thompson Machine and Supply Company, New York—but his picture seems to be as unobtainable as the presidency is for William Jennings Bryan. Mr. Decy informs us that Mr. Thompson is too modest to entertain any proposition along the lines of having his picture published, but that he kindly requested a substitute—and the "sub" was no other than our friend R. J. and of course we were glad to get it but we really did have room for both of them. Really no need of putting a fellow like Decy before the limelight because he is already as well known as Napoleon or Julius Caesar, so we put the well-known sales manager of the Emery Thompson Company in this issue just for decoration instead.

* * *

Be sure and look up the photo of that famous "Gelatine Peddlar," W. E. Stewart, who represents Swift & Company gelatine department, Chicago, Ill., out of the Grand Rapids, Mich., territory. Don't let him tell you it's an old picture, cause it isn't—it was just taken. Says he hasn't had his "picture taken" since Hector was a pup and that he had to have a new one taken—nice of him, wasn't it? W. E. is a Michigan Dairy Booster and he'll be at the Saginaw convention and we all look forward to meeting him then.

* * *

WM. G. FINCH RESIGNS.

Wm. G. Finch resigned his position with the A. H. Barber Creamery Supply Company of Chicago, Ill., on December 1st, 1921.

Mr. Finch is now affiliated with a new company known as Wm. G. Finch Co., Inc., 45 So. Division St., Grand Rapids, Mich. The new company will manufacture and sell the Weibach and Signid weighing devices.

The officers of the company are as follows: Wm. G. Finch, president; L. R. Finch, vice-president; John S. Townsend, vice-president; H. M. Walker, secretary and treasurer; W. H. Martineau, vice-president and general manager.

The new company will have a large exhibit at the Saginaw, Mich., convention.

* * *

FOR THE NEXT FEW WEEKS LET'S BOOST.

In regard to the Michigan convention, from all appearances it is to be a real winner this year. Every-



R. E. MacFARLAND,
Essex Gelatine Co.



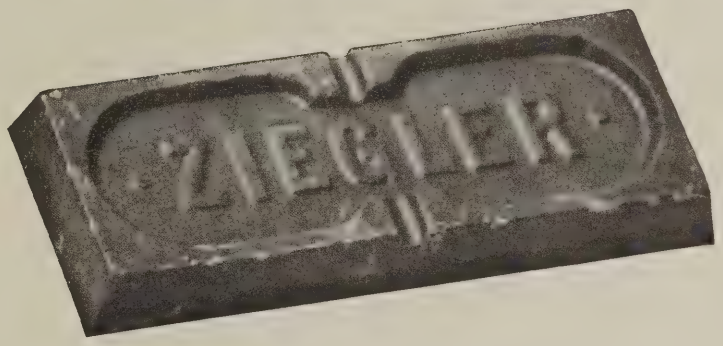
E. G. WEED,
Foot & Jenks.



A. C. HASS,
Thomas W. Dunn Co.

These Michigan Dairy Boosters Will Be at the Saginaw Meeting.

Eskimo Coating—



No additional Coco Butter or Liquor Required.

Zieglers



CHOCOLATE MANUFACTURERS

GEO. ZIEGLER CO.

364-366-368-370-372-374-376-378-380-382-384
FLORIDA STREET

MILWAUKEE, WISCONSIN
SINCE 1861

one in any way connected is putting forth every effort to make it a real success.

I have attended Michigan conventions for about 25 years, and for years we would speak of the convention as the "Big Michigan Show," as it was a real show, and a very close rival to the National show, with a very fitting program, very largely attended.

A few members, for a number of years, have been of the opinion a good meeting could be held without the machinery and supply exhibit; so when the freight conditions three years ago were so bad, it was suggested again and carried, with the result the interest was largely lost in the convention. At the last meeting it was voted unanimously to have, for the next convention, one of our old time dairy shows, and am very glad to say that every effort is now being made to make the 1922 convention the best ever held in Michigan.

Nearly all the available space in the large Auditorium at Saginaw is sold now and everything is going fine for the big show. Let's all get behind the men, behind the man, behind the show—and for the next few weeks, "BOOST!"

Verys very truly,
C. A. GROVE.

* * *

MICHIGAN DAIRY BOOSTERS NEWS.

By C. J. Yuncker.

R. E. MacFarland, representative for the Essex Gelatine Company, is expected to make a speech at the Michigan Dairy Boosters' smoker and he can do it for he knows how.

* * *

The editor's sidekick should attend the Michigan convention for there will be lots of snappy news to write up for the March issue of The Cream Review.

* * *

The Furnas Ice Cream Company, of Columbio, Ohio, has increased its stock to $100,000.

* * *

The Freeman Dairy Company, of Flint, Mich., is opening up a branch plant in Jackson, Mich., and will also manufacture ice cream.

* * *

Michigan Dairy Company, of Adrian, Mich., is a new firm incorporated for $100,000.

H. S. Adams Creamery Company, of Chillicothe, O., has incorporated for $15,000.

* * *

LaGrange Co-operative Creamery Co., of LaGrange, Ind., is a new firm and has incorporated for $50,000.

* * *

For the Saginaw convention, the floor space is practically all sold out and we are afraid some firms are going to be disappointed.

* * *

Vincennes Milk & Ice Cream Co., of Vincennes, Ind., has increased its capital stock to $250,000.

* * *

The Fort Wayne Dairy Co., Fort Wayne, Ind., has taken over the Bash Sanitary Milk Co., and J. M. King is the manager.

* * *

D. H. Gundrum, representative for the Keiner Williams Stamping Co., is expected to attend the Michigan convention at Saginaw in February and if he appears, he will be expected to help the dairy boosters entertain at the smoker with some of his dancing, as he is good at it and surely those who attend this smoker will enjoy it. So let's trust it to Dave and see him there.

* * *

The Beechwood Dairy Company, of Marion, Ind., is a new incorporation. They are capitalized for $10,000.

* * *

Foote Bros., of Hillsdale, Mich., who operate a bottling plant and ice cream company, report a nice business this season and are now painting up and getting ready for 1922, as they expect to increase their business.

* * *

Fred Hollweg, of the Thos. Dunn Co., while at the Buffalo convention, partially promised to attend the Saginaw convention. We hope he will do so for he will find the Michigan boys good and jolly, and a fine bunch, and Fred can sure be of help in entertaining them with his piano playing at the dairy boosters' smoker. We have already put him on the list of entertainers. Trust he will come.

* * *

The Michigan Dairy Boosters will give their smoker on Thursday night at the Saginaw convention, at 9 P.



C. W. KESTER,
Hazard & Co.

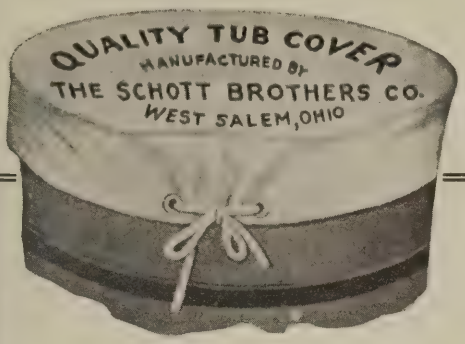


MARTIN H. MEYER,
Chr. Hansen's Labs.



GEORGE ROHRBECK,
John W. Ladd Co.

These Michigan Dairy Boosters Will Be at the Saginaw Meeting.



Buy from the Originator

We are the originators and patentees of this quality ice cream tub cover. No royalties to pay—no infringements to guard against. All good reasons why

Schott Brothers
Quality Tub Covers
Are Lower in Price

The fact that after six years as users, original buyers of *Quality Tub Covers* send in repeat orders each season for new tub covers, should be proof enough for you to investigate the quality, price and serviceability of Quality Tub Covers.

THE QUALITY TUB COVER COMES TO YOU COMPLETE WITH STAPLES, TIE STRINGS AND YOUR ADVERTISEMENT

Write for Prices Now

THE SCHOTT BROS. COMPANY

"If Made from Canvas We Make It"

WEST SALEM OHIO

M., January 16th. Be sure to be there for you will enjoy it. Then is the time for all to get acquainted with each other.

* * *

Are you beginning to think about the Saginaw, Michigan, convention which will be held in the municipal auditorium on February 14-15-16-17? You should not miss it for the Michigan Allied Dairy Association is going to give you a fine convention. The manufacturers are going to give you good exhibits; the banquet will be fine, for that entertainment committee will see to it that everyone present is pleased; and the smoker will be full of pep and enjoyment, for there will be good music, plenty of cigars, and ice cream and cake. Remember! We are expecting you there—do your best and try not to miss it.

* * *

Now let's see how big an attendance the Michigan dairy convention can draw at Saginaw. Everybody get ready and be there in full force and then go home and feel happy that you came and be ready for the big business year of 1922.

* * *

The Findlay Dairy Co., of Findlay, O., will install new freezers for 1922.

* * *

The Heckler Co., of Napoleon, O., has sold its building and has purchased another site to build upon. They will begin to build immediately and when their new ice cream and bottling plant is completed, they will have a model building. They are doing a nice business and are hustlers.

* * *

The Defiance Ice Cream Co., of Defiance, O., has taken in another partner. On October 6th, 1921, they incorporated for $25,000. The officers are: W. C. Hopkins, president; L. W. Hopkins, vice-president; G. E. Watts, secretary and treasurer. Later on they will erect their own building. They report a fine business.

* * *

Albert Joseph, Upper Sandusky, O., will start to build a new brick two-story building for his ice cream plant and will make other improvements to his plant.

Joe Dumit, Upper Sandusky, O., has purchased and will install a York Manufacturing Company four-ton refrigerator plant. He just completed a new garage.

* * *

Elmer Otto, of Sandusky, O., is touring Europe.

* * *

The Ashland Sanitary Dairy Co., Ashland, O., has just completed a new two-story brick addition to the plant which is 50x75 feet in dimensions. They will enlarge their retail sales room and move the offices to the second floor of the original building. They are doing a nice business and later will make more extensive improvements, such as enlarging their storage room and adding more equipment.

* * *

E. S. McGinnis, formerly with Baker Ice Cream Company, of Cleveland, O., is now connected with the Sweet Clover Dairy Company of Wooster, Ohio.

* * *

The Seneca Dairy Co., of Fostoria, O., will reorganize.

* * *

Look this issue of The Ice Cream Review over carefully and see the photos of those who will attend the Saginaw convention. They are the real MICHIGAN DAIRY BOOSTERS and represent reliable firms.

* * *

Joe Dumit, Upper Eandusky, O., suffered a heavy fire in his fine residence.

* * *

The Sweet Clover Dairy Company, Wooster, Ohio, has completed its new addition to the building. It is two stories high and is 33x100 feet, with a retail room 32x21 feet, facing North Beaver street. The floors and the walls are of white tile, with a marble counter 25 feet long and under the counter is a 10-hole cabinet for ice cream, which is made of porcelain, the tops are of German silver. The cabinet is cooled from the refrigeration lines. The refrigerator in the retail room is of white tile inside and outside and has white enameled doors. It is 8 feet high, 12 feet wide, 2 feet deep and is also cooled from the refrigeration lines. They

(Continued on page 76)



N. S. SCHLEY,
S. Gumpert & Co.



F. L. CARROLL,
Milligan & Higgins.

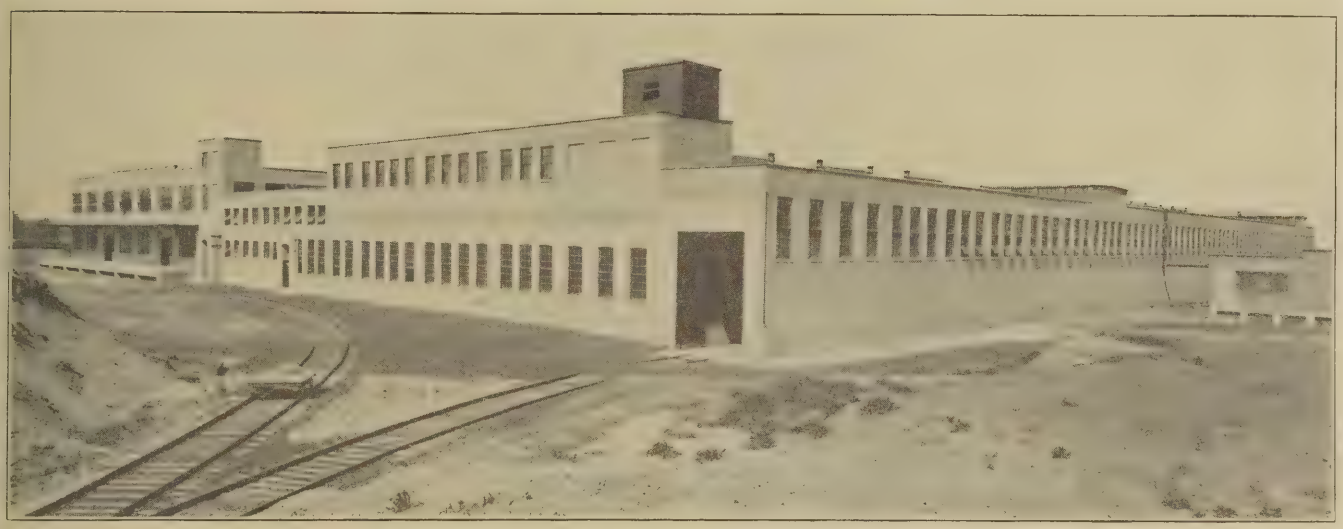


M. E. THOMPSON,
Creamery Package Mfg. Co.

These Michigan Dairy Boosters Will Be at the Saginaw Meeting.

PLEASE MENTION THE ICE CREAM REVIEW WHEN WRITING TO ADVERTISERS

"U. S. GEL"



WORLD'S LARGEST INDIVIDUAL GELATINE FACTORY

UNITED STATES GELATINE CO.

MILWAUKEE, WIS.

U.S. Gelatine is produced in the World's Largest Gelatine Factory, which means Uniformity, Purity, Strength at the Right Price. Stock used in the manufacture assures a bright, clean, odorless Gelatine. Its use means a smooth, high quality and superior texture Ice Cream.

LET US SEND YOU SAMPLES AND QUOTE ON YOUR REQUIREMENTS

Bulk Ice Cream
In Packages

No large investment in equipment.

Frozen in the package—No dripping or loss.

No waste space in freezing.

Same amount frozen as in bulk.

For local or out of town delivery will hold same quantity of ice cream as five gallon can with equal icing space.

Your present cabinets can be used.

No shrinkage—dealer sells the quantity he buys.

Requires no more attention or icing than bulk ice cream.

Same quality and texture as when it leaves the factory.

Round parchment lined sanitary package.

The Hunt-Crawford Company

Orchard and 14th Street

COSHOCTON, OHIO

EXPRESS TAX EXIT.

The public will save approximately $1,500,000 a month as a result of the elimination of the war tax on express shipments, according to George C. Taylor, president of the American Railway Express Company.

The "Revenue Act of 1921" eliminates the war tax of 1 cent on every 20 cents and fractions thereof in transportation charges on all express shipments. This tax during the year of 1920 amounted to $17,502,918. The average transportation charge for each express shipment was approximately $1.50 and the average war tax for each shipment was 8 cents.

The elimination of the tax, therefore, will virtually amount to a decrease in rates of a little over 5 per cent. Mr. Taylor believes that this should have a tendency to stimulate business and thereby accelerate the rapidly improving conditions throughout the entire country.

"The American Railway Express Company handles approximately one million shipments a day or nearly four hundred million shipments a year," Mr. Taylor goes on to say. "The elimination of the tax will relieve the American Railway Express Company of an immense amount of labor which has been involved in calculating, entering on way bills and collection of tax, not to mention the expense of checking and accounting entailed.

"The treasury department has requested express carriers to advise all claimants who have claims pending for overcharges or who file such claims after December 31st, 1921, that claim for refund of tax should be filed on treasury department form No. 46, with the commissioner of internal revenue, within four years from the time tax was paid, claim being barred by statute of limitations if received after such time."

Mr. Taylor points out that as the revenue act becomes effective January 1st, 1922, the tax on all shipments forwarded "prepaid" on or before December 31st, will be collected. On shipments forwarded "collect" and arriving on or after January 1st, the tax will not be assessed.—Educational Service Bureau, American Railway Express Co.

FROM BEER TO ICE CREAM.

Pittsburgh Brewing Co., Which Showed Deficit in 1921, Has Formed Tech Food Products Co.

Boston.—When the Eighteenth Amendment was added to the Constitution and the Volstead Act created for its enforcement, a great deal of real estate and machinery was doomed to idleness and the scrap heap except in instances where new lines of business were undertaken. In such a plight was the Pittsburgh Brewing Co.

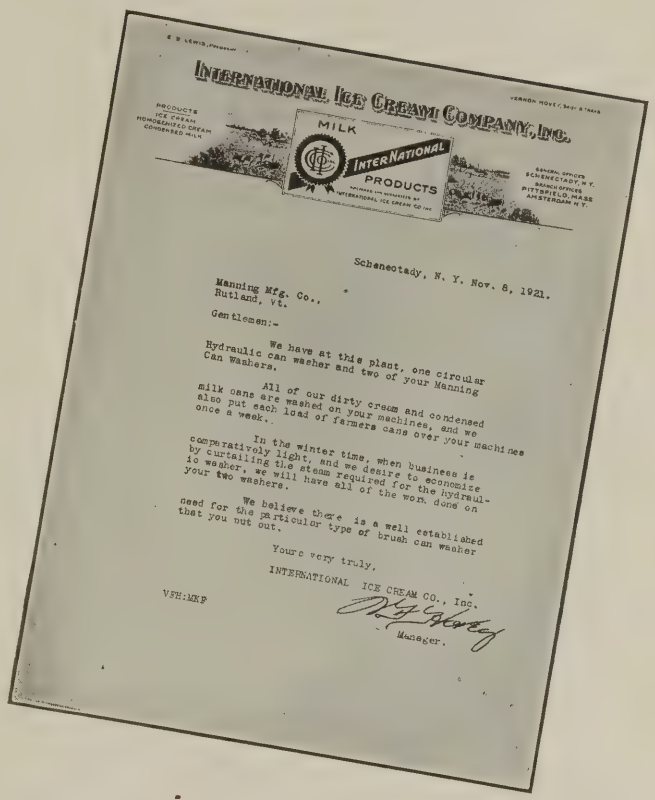
For the year ending October 31 the company suffered a loss of $667,164 following a $595,317 deficit in the preceding fiscal period.

The company now turns from beer to ice cream. It has formed the Tech Food Products Co., which has leased two Pittsburgh Brewing Co.'s plants, one to manufacture ice cream in volume and the other to be a cold storage plant.

In the seven months in which the new concern has been operating its sales of ice cream and revenue from cold storage, operation amounted to $807,000, on which here was a net profit of $96,800 after operating expenses and depreciation.—Wall Street Journal.

Tell us what you want, or what you have that you don't want, and we'll fix up a little Ad for you and insert it in the next issue of The Ice Cream Review.

"A Well Established Need"



INTERNATIONAL ICE CREAM COMPANY, INC.

MILK — INTERNATIONAL PRODUCTS

Schenectady, N. Y. Nov. 8, 1921.

Manning Mfg. Co.,
Rutland, Vt.

Gentlemen:-

We have at this plant, one circular Hydraulic can washer and two of your Manning Can Washers.

All of our dirty cream and condensed milk cans are washed on your machines, and we also put each load of farmers cans over your machines once a week.

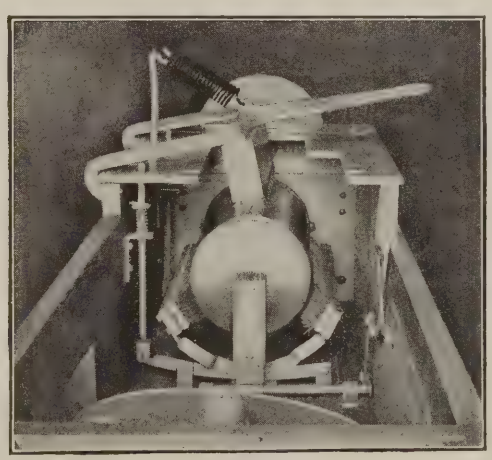
In the winter time, when business is comparatively light, and we desire to economize by curtailing the steam required for the hydraulic washer, we will have all of the work done on your two washers.

We believe there is a well established need for the particular type of brush can washer that you put out.

Yours very truly,
INTERNATIONAL ICE CREAM CO., Inc.
VSH:MKP
Manager.

We want you to know how Manning users like the Manning Can Washer. The above letter is a fair sample. Next month we will publish a letter from a prominent Wisconsin ice cream man. Look for this advertisement—and others to come!

The Washer That Grips The Can



MANNING
MANUFACTURING COMPANY
RUTLAND, VERMONT

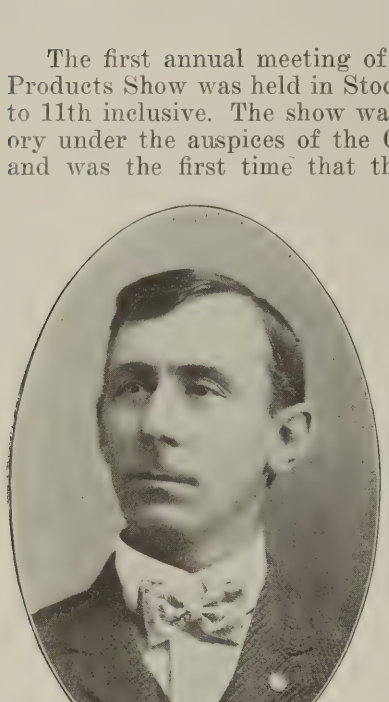
MANNING EQUIPMENT

Pacific Slope Dairy Products Show

Wonderful Exhibition Held at Stockton California, December, 5-10, 1921

By F. B. FULMER

The first annual meeting of the Pacific Slope Dairy Products Show was held in Stockton, Calif., on Dec. 5th to 11th inclusive. The show was held in the State Armory under the auspices of the California Dairy Council and was the first time that the allied dairy interests had been grouped together.



F. B. FULMER

There were 36 exhibits of butter, 14 of cheese and 24 of ice cream, and various exhibits of creamery and dairy apparatus and a large number dealing with one or more phases of agriculture and food products.

The following organizations held convention sessions during the week:

California and Southwestern States Ice Cream Manufacturers' Association, State of California Milk Distributors' Association, California Dairy Council, California Creamery Operators' Association, California Butter, Cheese and Ice Cream Makers' Association.

The California and Southwestern States Ice Cream Manufacturers' convention was held in the Hotel Stockton while the other organization held their convention sessions in the lecture hall of the Armory.

The show was a success from every standpoint and the attendance was all that could be hoped for. The Armory floor space proved to be too small to allow exhibitors to occupy all the room they desired.

A movement was started to have each organization appoint a committee of three to hold a joint meeting when plans will be formulated for the next show.

While the Ice Cream Manufacturers opened their convention on Monday, Dec. 5th, the dairy show was not formally opened until Tuesday evening in the State Armory. The address of welcome was delivered by Commissioner D. J. Mathews, the mayor, D. P. Eicke, being absent. Mr. Mathews paid a tribute to the dairymen for the excellence of the show and its educational value, and expressed the hope that word of its attractive features would be spread broadcast so that the Armory would be thronged the remainder of the week. He also expressed the hope that the dairy show would be held in Stockton again and that the civic auditorium would be completed and available for such events.

Brief remarks were made by Fred W. Wurster, assistant manager of the Bank of Italy and Jim Thorp, prominent cattle breeder of San Joaquin county. Mrs. Shirley R. Shaw, accompanied by Mrs. J. V. Bird, and Master Aronson entertained with vocal solos and an orchestra of eight pieces played selections throughout the evening and added life and spirit to the program.

President David P. Barron, of the University of California, was unable to be present and Joel H. Hilderbrand, professor of chemistry and a close friend of President Barrows, spoke in the absence of the latter on the "Relationship of the University to Dairying."

Professor Hilderbrand in speaking of the absence of President Barrows said that he felt like a piece of oleomargarine in coming to the dairymen's convention as a substitute for the college president. However, he said that his family recognized the food value of milk and were using five quarts daily, this amounting to nearly half of their monthly allowance for food. He also said that he had once lived in Philadelphia, "the home of ice cream," that he had been reared on it and felt qualified to speak at such a gathering.

"It is interesting," he said, "to see the efforts of a group of men to make out of their business a profession. The efforts that the dairymen have put in have fruit in the movement to make their business a profession. There are different kinds of people in the world; some who work during eight hours to make money to spend after the whistle blows, while others take a pride in turning out a work of art.

"Some of you know of the immediate work that the university is doing for dairying and other farming interests through its agricultural department, but you should realize that there is another kind of connection between the university and these more practical things.

"The university stands for the discovery of truth. The work that Pasteur did was not fully appreciated at the time he was making his investigations, but we know that the work he did is very essential to the dairy industry at the present time. For a long time no one knew

LIST OF

Ice Tools

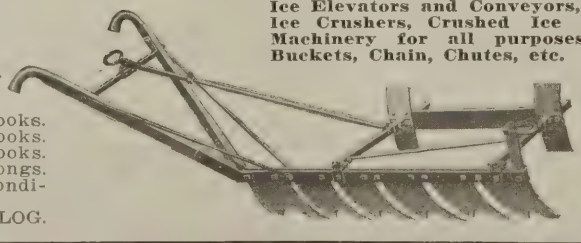
Suitable for Harvesting 500 Tons of Ice

1 No. 315 8-in. Ice King Plow.
1 No. 412 Plow Rope.
1 No. 422 5-ft. Ice Saw.
2 No. 444 Splitting Forks.
1 No. 457 Calking Bar.
1 No. 458 Bar Chisel.
1 No. 470 Floor Shaver.
1 No. 476 Ring Splitting Chisel.
1 No. 500 Line Marker.
1 No. 505 Scoop Net.
1/4 doz. No. 520 4½ ft. Ice Hooks.
1/12 doz. No. 520 6-ft. Ice Hooks.
1/12 doz. No. 520 12-ft. Ice Hooks.
1/12 doz. No. 540 24-in. Boston Tongs.
This list may be added to if conditions demand.
SEND FOR COMPLETE CATALOG.

Ice Tools Suitable for Harvesting 500 Tons of Ice

The Ice Cream, Soda Fountain and Confectionery Trade appreciate the value of a good cold storage and plenty of Ice during the summer. The set of tools suggested here are suitable for harvesting 100 to 500 tons of Ice.—Everyone gathering Ice can afford his own outfit.
Place your order early.

WE MANUFACTURE
Ice Elevators and Conveyors, Ice Tools, Hoists, Ice Crushers, Crushed Ice Carts, Conveying, Machinery for all purposes, Wagon Leaders, Buckets, Chain, Chutes, etc.



Gifford-Wood Co.

Hudson, N. Y.
New York Chicago
Buffalo Boston

FLAVOR YOUR ICE CREAM WITH

Cremilla

"CREMILLA" is better, smoother, creamier and of richer flavor than the finest grade of pure vanilla; and it's more economical.

"CREMILLA" is so concentrated as to make it the best flavor to use with homogenized cream; one-third to one-half oz. flavors perfectly 10 gallons of cream (one to one and a half pints for 500 gallons.)

Trial gallon by express on request. After fair trial, if you don't like it, send back what's left and pay us nothing.

National Fruit Flavor Co.
NEW ORLEANS, U. S. A.

the use of argon, but now the better class of electric globes have this gas in them, instead of using a vacuum, and a better and more serviceable light results. Similarly the uiscovery of vitamines has made us realize the value of dairy products because of the value of the vitamines they contain.

"The university is interested in everyday problems. It shows its interest in trying to discover new truths, in making people more comfortable, happier and giving a richer life. Private enterprise cannot take time or money to devote to this research the way the university does, so the people recognizing its value founds a university, endows it liberally with funds in order that it may carry on this work."

Prof. Hilderbrand, who did notable work in France during the world war, spent considerable time with gas problems.

Sam H. Green, secretary-manager of the State Dairy Council, spoke about the importance of the dairy industry to California, stated that the annual products amounted to $100,000,000. He told of the advantage of holding a "Dairy Show" and said that this was the first one ever held west of the Missouri river. In choosing Stockton as the birthplace of the show, the thought was that the exhibit "should be where the cows get their living" and that in Stockton "we would get the sympathy and co-operation of the people."

The Exhibits.

The first booth to the right of the main entrance was occupied by the J. B. Ford Co., representing the well known Wyandotte cleaner and cleanser.

Following around the outside of the building the next exhibit was that of the Pacific Coast Glass Works, San Francisco, showing various sizes of milk bottles and screw top glass sample jars.

The Pfandler Co., Rochester, N. Y., exhibited one of their new sanitary outlet valves for their glass-lined tanks.

The Primrose separator was displayed in the International Harvester Co. booth. There were three sizes of hand separators and one gasoline engine shown.

The Premier Machinery Co., Oakland, exhibited one U. S. ice cream freezer, a small size Elyria glass-lined tank and several of the Taylor recording thermometers and a full line of temperature instruments.

The Pacific Dairy Machinery Co., San Francisco, was combined with the Solar Sturges Manufacturing Co. exhibit and they had a line of various sized hand separators, milk cans, ice cream cans, tin ware, bottle washers, hand churn, milk bottles and other creamery appliances.

The Fresno County Chamber of Commerce had the next booth and displayed cartons representing ice cream from the Sierra and Benhams' plants and the Danish Creamery's butter, all of which are manufactured in Fresno.

The Milk Producers' Association of Central California, with headquarters and main plant located in Modesto, had an elaborate exhibit of bottled milk, butter and various other milk products in powdered form.

The dairy industry division of the University of California had an attractive exhibit of educational charts and display of cheese, showing the exact amount of cheese that was manufactured from a given weight of milk, starting with skimmilk and advancing in each instance 1 per cent fat up to and including 4 per cent milk.

H. F. Watkins Co., San Francisco, had a one-ton Armstrong ammonia compressor in operation and handed out literature dealing with refrigeration and dairy apparatus.

Sonoma and Marion counties had an assortment of dairy views and Stanislaus county displayed views representing the dairy industry as manifested by various concerns that are manufacturing milk products within its confines.

Kings county had a miniature reproduction of its large creameries. Nineteen years ago there were no creameries located in the county and now there are nine with an output of four and a half million pounds of butter the past year.

The California Dairy Council had a booth filled with charts, illustrations and photographs all dealing with the general theme of nutrition.

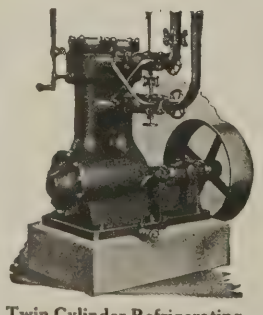
The State Department of Agriculture, Sacramento, had a large exhibit. There was a demonstration of calibrating testing glassware, illustrations of barns, silos and well kept premises as well as poorly kept ones. Petri plates showing contaminations, recording thermometers and abuses of same, and demonstrations of attempted repairs that destroyed their usefulness. The main lesson to be drawn from the exhibit was sanitation and care.

The De Laval Pacific Co., San Francisco, had a milking machine and its action was illustrated by colored electric lights that flashed on and off, cream separators, milk clarifiers and other dairy apparatus.

The Crescent Creamery Co., Los Angeles, had an automatic ice cream vending machine on display. A dime in the slot, a push on the lever and a package of ice cream with a sanitary spoon was delivered to the bystander.

California Tin Plating Works, San Francisco, had a milk can cut nearly through and opened out to show

THE VILTER MFG. CO.



Twin Cylinder Refrigerating Machine.

830 Clinton Street
MILWAUKEE, -- WISCONSIN

If this small Refrigerating Machine is not large enough to handle your Ice Cream Trade, **Remember** we build

Refrigerating Machinery

of any capacity desired.

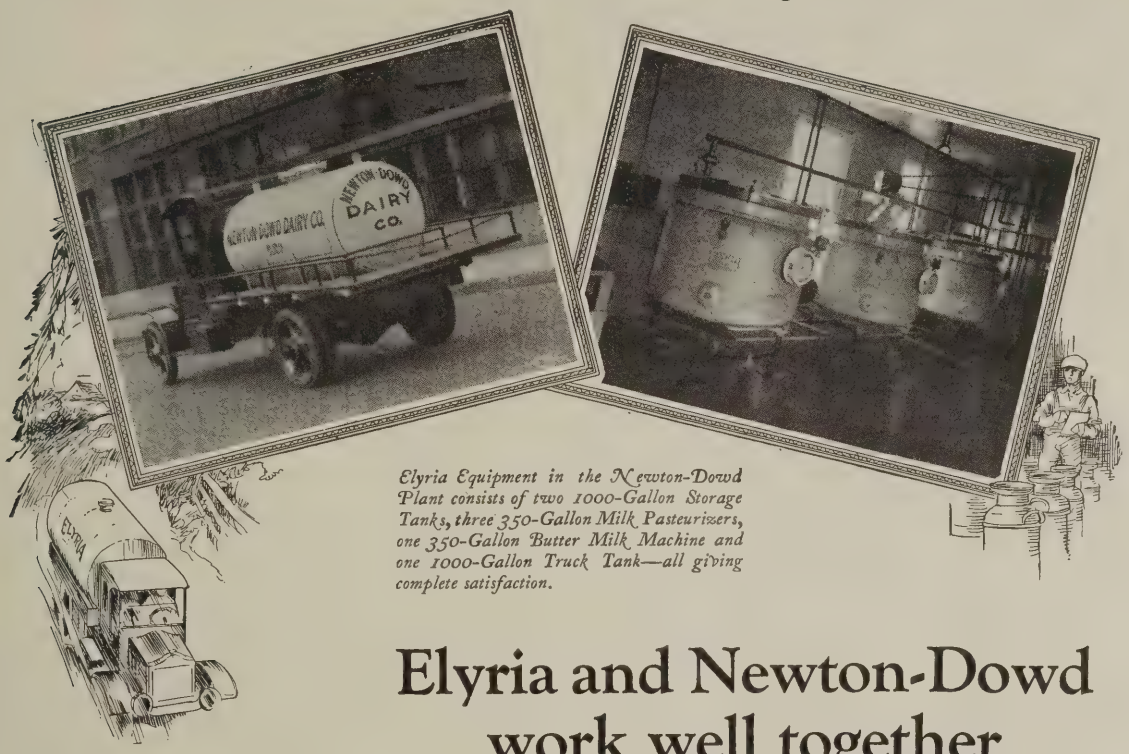
"Crescent"
Ice Cream Packing Tubs

Made right
Keep tight

Write For Prices

Crescent Tub Manufacturing Co.
Johnson City, Tenn.

SERVICE—NOT JUST EQUIPMENT



Elyria Equipment in the Newton-Dowd Plant consists of two 1000-Gallon Storage Tanks, three 350-Gallon Milk Pasteurizers, one 350-Gallon Butter Milk Machine and one 1000-Gallon Truck Tank—all giving complete satisfaction.

Elyria and Newton-Dowd work well together

This proves it

"It affords me much pleasure to say to you upon the completion of installation of Glass Equipment at our plant that your representatives as a whole have been on the job, anxious and ready at all times to rush the work; to do it right and satisfy all concerned."

Newton-Dowd Company
J. W. DOWD, PRESIDENT

WHEN old methods are to be scrapped—when new equipment is to be installed—what is the best method of procedure? Call in an equipment expert [as Newton-Dowd called in Elyria] and let him work *with you* in solving your individual problem. The Newton-Dowd Dairy Company of Chicago use seven Elyria Tanks to handle complete operations from the receiving and collection of milk at the country stations to the storage and pasteurization at the city plant. A complete survey of the installation, showing the plan of operation and the benefits realized, proves —*beyond doubt*—that Elyria Equipment saves money for Newton-Dowd as well as it does for every other plant that uses it.

Every Milk and Ice Cream plant has an equipment problem of its own. To solve this problem—to install the equipment and to lay out the plan of operation best suited to save money and increase plant capacity is the job of Elyria Engineers. Write for proof of Elyria superiority. It means money for you.

ELYRIA ENAMELED PRODUCTS COMPANY, ELYRIA, OHIO
Pittsburgh New York Chicago San Francisco Los Angeles Canadian Milk Products Limited, Toronto

ELYRIA GLASS ENAMELED STEEL EQUIPMENT

the interior condition of half of it that had been retinned, while the other half was rusty.

The Abbott Laboratories, Chicago, had a display of livestock remedies and disinfectants.

The Jensen Creamery Machinery Co., Oakland, exhibited the Schroeder homogenizer, ice cream cans, milk cans, etc.

Davis Watkins Dairymen's Supply Co. had one of the 100-quart Progress horizontal ice cream freezers.

The Creamery Package Manufacturing Co. exhibited one of their 100-quart Fort Atkinson ice cream freezers.

C. E. Kimball, San Francisco, had a display of cement stove silos located to the left of the main entrance.

In the center section, opposite the main entrance, was a booth occupied by the Stockton realty board, which was maintained in conjunction with the Chamber of Commerce. Literature of the county was handed out and a general information bureau was conducted.

George W. Prising Co., San Francisco, had a 400-gallon Cherry pasteurizer, Simplex separator, ice cream cans and tubs and milk cans on display.

Tell-Greefkenes Co., San Francisco, had a nice line of extracts, flavors, cocoa and dried milk in their booth.

The Associated Milk Producers, Halt, exhibited five varieties of cheese, canned skimmilk, candy made from skimmilk, bread and pastry made with skimmilk and a balanced chicken feed made from skimmilk that was evaporated and combined with alfalfa leaves.

The California Central Creameries exhibited Swiss and American cheese, Golden State butter, three varieties of condensed milk, dried milk in various forms. "Kayso," a preparation of casin to spray on fruit trees, poultry and hog feed and other milk products.

They served liberal Swiss cheese sandwiches which appeared to be very much appreciated by the throngs of people who passed their booth.

The San Joaquin county exhibit showed a list of the dairy manufacturing plants and their products along with the dairy feeds made in Stockton by the Sperry Flour Company and the Peerless Milling Co.

The Hughson Condensed Milk Co. exhibited Poppy skimmilk in dry form, sweetened condensed milk and condensed buttermilk.

The Gloria Ice Cream Co., Stockton, had an ice cream sandwich machine made by the Sanisco Company, Milwaukee, Wis., and served ice cream in that form.

Last and largest came the wonderful exhibit of the U. S. department of agriculture, covering nearly 1,000 square feet of floor space. Illustrations showing well kept versus poorly kept dairy farms were very impressive. Figures showing the increased production of cows following the use of purebred bulls were shown. Diseases of cattle and how to combat them, the story of clean milk and progressive methods were very interesting. A striking comparison of production was shown, the U. S. cow giving an annual average of 3,627 pounds of milk while the Holland cow produced 7,585 pounds.

Several concerns had representatives present at the show, but owing to lack of space they did not have exhibits.

In the lecture room adjoining the exhibit hall, educational motion pictures were shown each evening.

The show formally closed on Saturday evening, Dec. 10th, and was pronounced by the officials in charge as being a complete success.



IOWA DAIRY SHORT COURSE.

The annual short course for experienced operators is offered during the period of February 8 to 18, 1922. This course is divided into six distinct courses, the ice cream course being as follows:

II. Ten Day Course for Ice Cream Makers.

1. Laboratory Practice.

Standardization of Cream and Mix.
Homogenization.
Preparation of Special Ice Creams.
Brick Ice Cream and Fancy Molds.
Decoration of Ice Cream.
Testing and Analysis.

2. Lectures.

Afternoons will be devoted to lectures on the following subjects: Standardization, Pasteurization and Homogenization of Cream, Standardization of the Ice Cream Mix, Manufacture of Various Kinds of Frozen Products, Marketing of Ice Cream, Daily Records, Losses in the Ice Cream Plant, Ice Cream Factory Refrigeration, Bacteria in Relation to the Ice Cream Industry, Fermented Milk, Soft Cheese Making, Testing of Milk, Cream and Ice Cream.

IV. Ten Day Course in Dairy Bacteriology.

A laboratory course will be offered in the methods of determining the numbers of bacteria in milk, cream and ice cream and the numbers of yeasts and molds in butter. The dairy bacteriological laboratory will be open during the forenoons nad those interested can spend as much time there as they desire, and then attend the lectures in the other courses that may interest them in the afternoon.

V. Ten Day Course in Testing and Analysis of Dairy Products.

Work in this course will be divided between two laboratories. One laboratory is equipped for general work in milk and cream testing, and the other for special work in butter and ice cream analysis, etc. Students taking this work can attend any of the lectures given in the afternoon.

A laboratory fee of $5.00 is charged for all courses

For further information, address Dairy Department, Iowa State College, Ames, Iowa.

PURE VANILLA EXTRACT

ATLANTIC IMPORTING CO.
617-623 Eleventh Ave., New York City

B4

ESSEX

INCORPORATED 1905

"His Standard Measure"

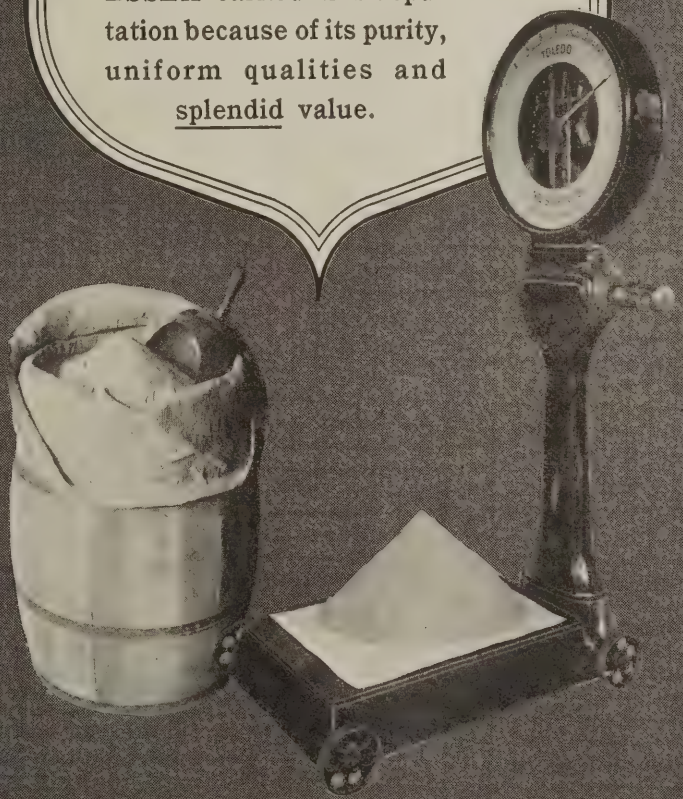
"When buying gelatine each year we still use the ESSEX product as our Yard Stick."

This is the expressed opinion of a large and nationally known ice-cream manufacturer.

ESSEX earned this reputation because of its purity, uniform qualities and splendid value.

ONE

YARD



ESSEX GELATINE COMPANY

BOSTON *Manufacturers* MASSACHUSETTS

Warehouses for Service

NEW YORK PHILADELPHIA CHICAGO ST. LOUIS SAN FRANCISCO

THE ASSOCIATION OF ICE CREAM SUPPLY MEN MEMBER

MODESTO MILK COMPANY HAS MODERN PLANT.

The Modesto Milk Co., of Modesto, Calif., maintains a modern, up-to-date ice cream department in their large plant. Perfection ice cream is manufactured here, and the number of trucks used in their service delivery are operated with a quickness which insures fresh supplies constantly. The territory covered is a wide one, and it is easily seen that to cover all this space an efficient organization must be maintained.

The local plant is capable of making one thousand gallons of ice cream daily. Many days this summer this capacity has been the output, and even on the coolest days, no less than five hundred gallons were made.

Perfection ice cream is manufactured in an ideal spot and gets the pick of the richest creams from the best dairies.

John A. Wenger is sales manager, and H. Nyborg is superintendent of production. Sales Manager Wenger spoke of the ice cream situation as follows: "We feel very encouraged over the future prospects of the ice cream business. People have taken ice cream out of the luxury class and have placed it where it belongs, in the nourishing, healthful food class."



Part of a Fleet of Trucks Which Are Used by the Modesto Milk Company to Distribute Perfection Ice Cream.

A NEWSPAPER WRITER FINDS OUT HOW ICE CREAM IS MADE.

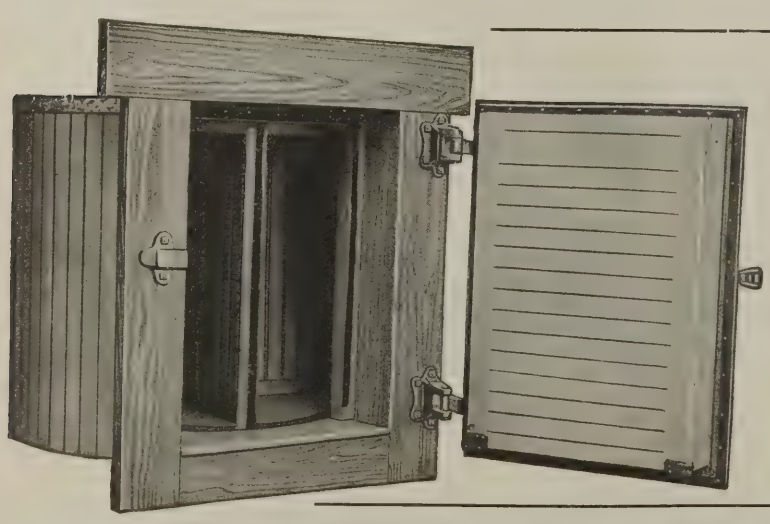
The following interesting clipping came to our attention and is a story of a visit of a newspaper writer to an ice cream plant to find out just how ice cream is made, and although the article is a little "off date" we found it interesting enough to pass on to our readers.

By Flora McDairmid, Article No. 6 of a Series in Stockton, Calif., Newspaper.

"Good, honest beads of sweat upon his brow while making ICE! Imagine it, can you? For they make their own ice over at the Gloria Ice Cream Company, and the man was hard at freezing at the time.

"I chose the manufacture of ice cream this week for a distinct reason: I knew it would be intensely interesting.

"There are three large vats upstairs with large ammonia coils running through them. These are not really made of ammonia but a solution of the stuff is kept circulating inside the coils to keep the temperature down. Then cream and sugar and gelatine and a few more things (they didn't give me the exact recipe) are mixed



JAMISONS'

"NOEQUAL" REVOLVING DOOR

is making can-passing easier in Ice Cream Plants and Creameries everywhere.

It passes Ice Cream and Milk Cans back and forth without loss of temperature—and requires but one person to operate when fitted with unloading device.

Standard 5-Gallon sizes in stock.

Send for Catalog No. 10 and Prices

Jamison Cold Storage Door Co.

Formerly
Jones Cold Store Door Co.

HAGERSTOWN MARYLAND, U. S. A.

Packing Tubs That Will Last



Tubs of Washington Fir are recognized to be absolutely the best for ice cream packing use. Fir is used exclusively by the Government for tanks, flumes and all other purposes where water comes in contact with wood construction. It will not deteriorate under moisture. Experienced shippers are showing preference for these tubs that will give the longest service.

"ECONOMY" PACKING TUBS

are fast replacing the less durable makes. They are built from carefully selected, clear staves, with strongly constructed bottoms, and are strongly hooped. Stock tubs are green, but can be furnished in any color, stenciled and branded as desired.

"ECONOMY" ICE CREAM CABINETS



can be had in any style, Metal Lined, Tub, or Brick. All linings, cylinders and brick containers are made of galvanized Armco Ingot Iron. They are strongly built, well insulated, and highly finished, in mahogany.

Write or wire for complete catalog and prices.

Tell us your needs and let us advise you.

Homer Manufacturing Company

Homer City **Penna.**

up and pumped into these so-called vats, where such mixture can remain for over two weeks before made into ice cream. Great Scott and little catfishes, I had no idea in the world that cream would keep that long without souring, but I am assured that it will not only keep, but is really much better after having stood that long.

"For about every half hour in every twenty-four a little engine is started which makes the coils go — I haven't found out the principle by which they work, yet, but they seem to keep turning and winding and when they get to the end they just kind of drop off—the same idea as a barber pole.

"What a pity, I thought, if anyone should fall into the mixture, for there is $700 worth of embryonic ice cream in one vat. It, the goo, looks like white velvet, draped like you had a lot of it.

"Connecting from the container are pipes which run downstairs to the freezers, so we have to go to the end of the room and downstairs. There is a huge swimming tank on the second floor—or this was my impression, but I was told it contained simply "surplus" water—I have no idea why this would be objectionable for swimming purposes?

"The freezer man downstairs turns on a little faucet or the pipe that the mixture comes through and this runs into a freezer, an odd, cylindrically-shaped thing which turns inside and which does the freezing in approximately 13 minutes. Forty-eight hundred gallons a day are made in these freezers. When the 13 minutes have passed into the great beyond, another faucet at the base of the freezer is opened and out pours the most wonderful looking no-name-to-express-it stuff you ever saw. The ice cream being made was strawberry, and it just seemed like pretty pink waterfalls to watch it coming out.

"The officiant of these ceremonies certainly has to be on the que vive, for he just puts one freezer under to catch the heavenly goo, when that fills up and he rushes in another. Say! It's enough to give you nervous prostration watching him, wondering if the next can is going to arrive in time—and it always does.

"After it is put in the freezers, or on like cake plates (for the ice cream bricks) it, the ice cream, goes to the hardening room where it stays until it is shipped out. And if you ever want to acquire a stony countenance, go to the hardening room. There are curtains hanging here and there, with little doors opening and exiting on all sides, and I learned to stay away from the curtains, and if possible, ditch the doors, because behind each of them was colder air than the air before. The first compartment was colder than anything I ever witnessed—but I didn't brag of that long.

"Come in here—see these are the bricks!" And in I went; well, I felt my fingernails going blue, and I kind of stuttered to 'Let's go in there,' pointing to another door. 'Well, this is much the same thing,' I was told as I gently forced through the door, 'only a few degrees colder!' I knew I couldn't last long there so I pointed out another door, and do you know that in that awful maze each door I picked out had a little more cold air behind it than the one before. Giddily my thought wandered to those wonderful verses of Longfellow, from the 'Wreck of the Hesperus,' and that line which says, 'The captain answered never a word; a frozen corpse was he!'

"Then, by some strange coincidence, the superintendent suggested that we get out, and I seconded, thirded and fourthed the suggestion. When we got to the first compartment, the one you remember which I likened unto the North Pole, or something, he had almost to drag me out, for I insisted upon staying and getting warm!

"The manufacture of ice cream is a wonderful industry; ice cream enough for about 200,000 cones being made daily. In the making of brick, I forgot to say, one layer is poured onto the tray, after that has hardened, a second color is put on and, if that kind of a brick, a third, still later on.

"The flavoring room is one of the most wonderful smelling rooms in which I have ever been, and the strawberry is the most wonderful tasting taste which has ever been in me. I had a dish full of pink ice cream, and ate it with one of those little teeny spoons, too, and the ice cream was mighty good."

VAN-MUL

The King of Ice Cream Vanilla Flavors

Made of **Mexican Beans** and Fortified

Will Not Freeze or Cook Out.

¼ Oz., 7c. Flavors, 5½ Gal. Mix of Ice Cream
3 Drams, 10c. Flavors, 100 Pounds of Candy

Many Satisfied Users

Packed	Price Per Pint
1 Pint Bottle	$5.00
5 Pint Bottles	4.50

ORDER NOW

Guaranteed to please or money back

Downey-Turnquist & Co.

Manufacturing Chemists and Importers

Makers True Fruit Extracts
SODA WATER FLAVORS

537 N. Dearborn St. CHICAGO, ILL.

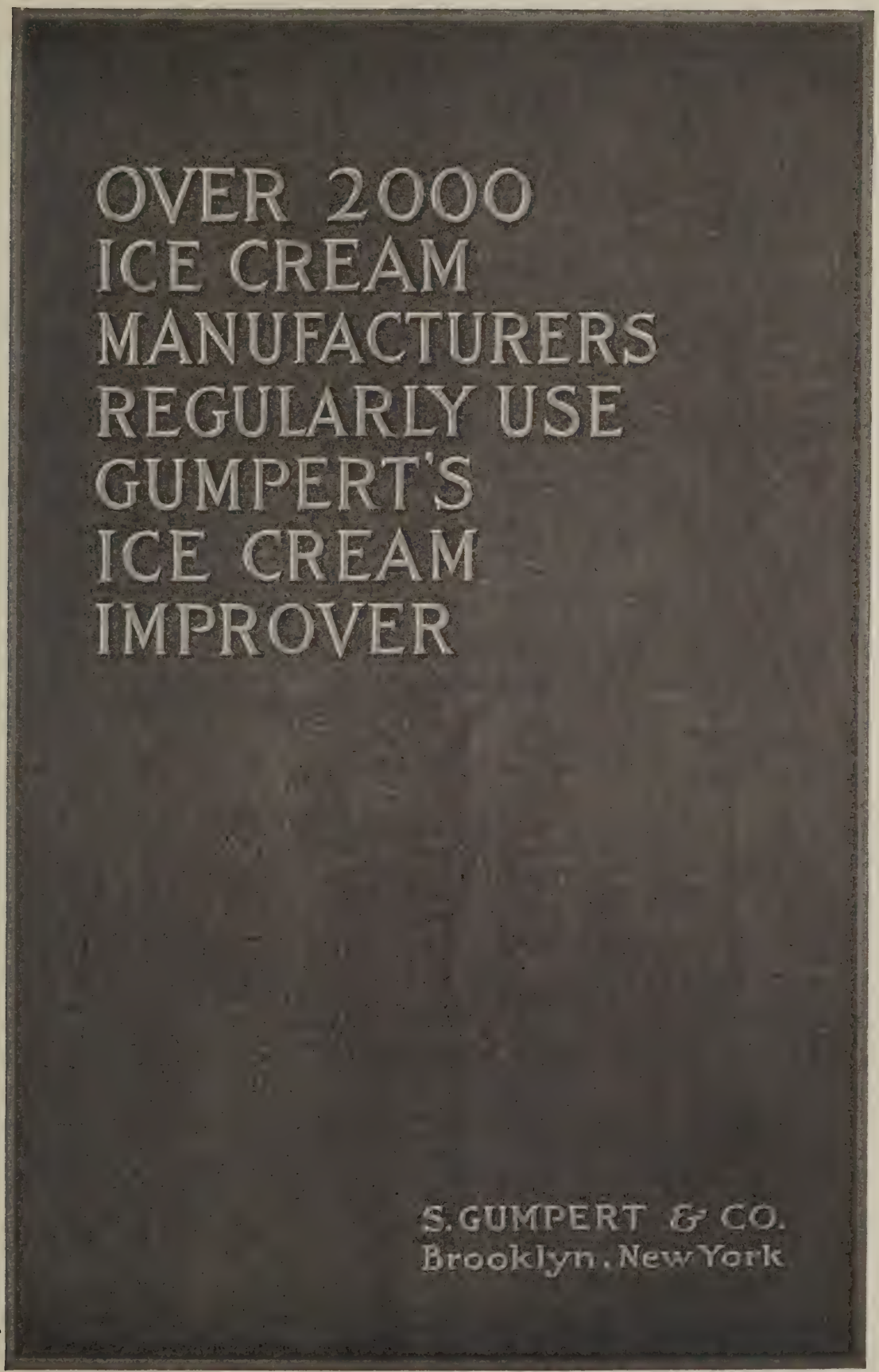
EVEN IF——

The loving husband was about to start on a long journey. His young wife, a very modern type, stood disconsolately on the platform. The whistle blew. He gave her a last kiss.

"I'll write to you," he said, "from every place we stop at on the way."

"Yes, do," she said, "do, darling, even if it's only a check."—Exchange.

If you want a Manager, Superintendent, Expert, Chemist, Bacteriologist, Operator, Pasteurizer man or help of any kind, "**The Ice Cream Review**" can help you find the best available man. If you want a position, "**The Ice Cream Review**" can help you as it has helped hundreds of others to secure a good position.


OVER 2000
ICE CREAM
MANUFACTURERS
REGULARLY USE
GUMPERT'S
ICE CREAM
IMPROVER
S. GUMPERT & CO.
Brooklyn, New York

Indiana Ice Cream Manufacturers' Annual Meet

Lively Meeting held in Claypool Hotel, Indianapolis, December 14, 1921

The Indiana Manufacturers of Dairy Products opened their annual session on December 14th with a noon luncheon given at the Claypool hotel, Indianapolis, where Mayor Chas. W. Jewett welcomed over one hundred members of the association to his city.

He also appealed to those present to lend their assistance in securing the next National Dairy Show for Indianapolis, not alone for the good of the city but more so for the entire state of Indiana. Judging from the words and mental picture presented by the mayor, one would easily form the opinion that Indianapolis would be the logical place to hold the Dairy Show.

After the luncheon the members adjourned to the convention hall where the Indiana Ice Cream Manufacturers' Division annual meeting was properly called to order by Bert G. Moore, general president of the allied association. He informed the members that Chairman J. C. Kreusch of the ice cream manufacturers' division, on account of sickness, was unable to be present. Therefore A. P. Holly was chosen as temporary chairman. The hall was well filled and the attendance was reported as being larger than any preceding meetings. This speaks well for Mr. Holly, who is general secretary.

Unlike other state associations, with the exception of Iowa and Michigan, the Indiana Allied Association emplays a paid secretary, who devotes his entire time to the association's work. Nineteen hundred and twenty-one was Mr. Holly's first year as general secretary, and it must have been very gratifying to him to stand before such a large gathering, which, in words and otherwise, placed the stamp of approval on his work during the past year. Much success to Mr. A. P. Holly for 1922 from The Ice Cream Review.

One of the speakers on the program was Timothy Mojonnier, of the Mojonnier Bros. Co., Chicago, Ill., who spoke on "Packaging Ice Cream Directly From the Freezer Into the Carton." The following is the address:

Packaging Ice Cream Directly From the Freezer Into the Carton.

By Timothy Mojonnier, Chicago.

It is a pleasure to be able to discuss at this time a subject in which all the members of this influential association are keenly interested. The success of the ice cream industry is due in a large measure to the fact that in the past, new inventions of merit have been put into practice by the manufacturers as fast as their advantages were proved. This is the spirit that will continue to make the ice cream industry a great industry.

Ice Cream Packaging Machine.

The new era in packaging ice cream is made possible by the invention of the ice cream packaging machine, which has been placed upon the market during the current year. This machine is the result of years of costly research and experimentation. The pioneer in this new art was Mr. E. J. Retzbach of St. Louis, who spent many years, and the savings of a lifetime in the development of this idea, and to him was granted basic patents for packaging ice cream directly into the cartons.

This new machine receives the ice cream just as it comes from the freezer, and while it is still in the plastic condition—packages it directly into the carton, one, two or three flavors at a time. The filled cartons are then transferred to the hardening room, and the ice cream is hardened in the carton, ready for delivery to the trade.

This machine operates entirely automatically. It can be located so that the contents of the freezers can be discharged directly into the three compartment hopper which is refrigerated and insulated, or the contents of the freezers can be discharged into suitable cans, and in turn, the cans can be dumped into the respective compartments of the hopper.

From the hopper, the ice cream passes through the machine, and into the cartons, in exact predetermined, measured amounts, of each flavor. The standard tuck-end type of carton is used. This is the type of carton now most commonly used, and it is the type that possesses the most advantages over all other types, both from the standpoint of the manufacturer and of the consumer. A parchment bag or a parchment liner is inserted into the cartons before feeding the cartons into the machine. By experimentation and by consultation, with a large number of manufacturers, we found that the use of the parchment bag was greatly desired. The majority of the manufacturers consulted favored its use since this paralleled their present method of wrapping the hardened bricks in parchment liners. It helps to prevent leakage both at the time of filling, and at the time of removing the ice cream from the carton. There is less slop and waste of ice cream, and but little muss upon the part of the consumer when cutting the brick. However, any manufacturer who wants to fill his ice cream into the carton without using a liner, can accomplish this result by using a properly designed five panel carton made of the proper stock and properly paraffned.

After being filled by the packaging machine, the car-



THE TEXAS BARREL COMPANY manufactures the most durable Ice Cream Tub on the market. Sizes in half gallon and up.

Our 29 inch five gallon tub prevents cream from melting at the top. A cream saver.

Specially prepared bottom so constructed as to withstand extremely rough treatment.

CABINET TUBS SPECIALTY

Can make immediate delivery—Write for prices

Texas Barrel Company

HOUSTON, TEXAS


ICE CREAM
ICE CREAM
ICE CREAM
The "Perfection" Imprint on Your
Ice Cream Cartons, Can Liners
and Butter Cartons
is your assurance that the Buying Public is going to get the correct impression of the quality of goods that you have put in your package. INSIST on the best, it COSTS NO MORE
Write for Booklet
CHICAGO CARTON COMPANY
4433 Ogden Ave., Chicago
NEW YORK, 516 5th Avenue
CINCINNATI, Gwynne Bldg.
CHICAGO CARTON COMPANY
DALLAS, 601 Elm Street
DENVER, 1526 Blake Street
SALT LAKE CITY, 355 Pierpont Ave

tons are removed, inspected, sealed, transferred to the carry-out tray, and the tray removed to the hardening room. If so desired, the cartons can be passed through a tying machine after being filled. The best results are being obtained by using a galvanized pan to receive the filled cartons at the machine. This pan has capacity to hold 24 quarts upon the ends. In this pan the sides of the cartons are well pressed in, and the bricks completely retain their square form while hardening. The bricks remain in the pan in their hardening room until they are delivered to the wagons.

This machine will fill either pint or quart size cartons of the common brick type. By making a slight change, it can be made to fill half pint, pint or quart size carry home pails. Likewise it can be modified to fill round cartons of various sizes.

One model is geared to deliver twenty quarts per minute, or 1200 per hour. Another model is geared to deliver 900 quarts per hour. Its limit is governed by the ability of the operator to feed in the cartons, or the output desired.

The standard model of this machine will fill any flavors of ice cream that have passed through the freezers. For example, strawberry, cherry, each or any of the other common fruits ordinarily used to flavor ice cream, if whipped in the freezer with the ice cream, can in turn be filled with the packaging machine. Likewise, it will fill with fine results, sherbets of the proper composition and overrun, along with ice cream.

Advantages From a Manufacturing Standpoint.

We have considered what the machine is, how it operates, and what it does. Let us now consider some of its advantages to the manufacturer. Under the old methods, at least twelve operations are necessary in order to produce brick ice cream. Each operation requires labor, or as the engineer would state it, the expenditure of a given number of motions. The manufacturer pays for each of these motions.

By means of the packaging machine, the total number of operations is reduced from twelve to seven. The exact saving in labor that is effected by the new method, will vary with the output of the plant, and the manner in which the work is organized. In any plant, whether large or small, the eight following labor operations are dispensed with, under the new method: (1) Labor of pouring the ice cream into the molds. (2) Transferring the molds to the hardening room. (3) Removing the molds from the hardening room to the cutting room. (4) Dipping the molds in a hot water tank. (5) Removing the ice cream from the molds. (6) Cutting the slabs into bricks. (7) Wrapping the brick in the parchment liner. (8) Inserting the hardened brick into the carton.

The packaging machine makes it possible to route the brick ice cream through the plant, by the shortest and most direct lines, thus saving both time and labor.

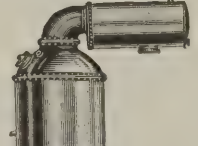
Another advantage from a manufacturing standpoint is the saving in ice cream that is effected by the new method. Under the old method, there is usually a loss of ice cream while transferring from the freezer to the molds, due to slopping. There is a loss due to the fact that the molds are frequently oversize, to allow for cutting. There is a loss in cutting the slabs. Conceding upon a most conservative basis, the total loss to be five per cent, upon an output of 25,000 gallons of brick ice cream per year, this means an aggregate of 1,250 gallons of ice cream. It is therefore evident that one of the greatest possibilities by the new method from a manufacturing standpoint is the savings in ice cream that it is possible to make. A saving, which under the old method, resolves itself into a sheer loss.

Several other manufacturing advantages could be enumerated. There is a considerable saving in floor space, as against the old method. The new machine occupies about the same room as one 80-quart freezer. It will gradually replace other equipment now used for making bricks, such as molds with covers, tables for filling the molds, dipping and cutting equipment, and tables for wrapping and packing the bricks. It saves nearly half the space now used in the hardening room for making bricks, since the space now used for hardening the ice cream in the molds can be utilized for hardening the ice cream in the cartons. At the same time, there is a saving in the expense of refrigeration. What this amounts to has not been accurately determined, but it is bound to be a considerable loss. The refrigeration now required to cool the molds, and the mold covers can all be saved. The loss of refrigeration that results when the molds are transferred into the hardening room can all be saved. There is a loss in refrigeration every time the doors leading to the hardening room are opened; with the new method, the loss of refrigeration from this cause is easily cut in two. Where the practice is followed of hardening the successive layers of ice cream in the mold, the loss is directly proportional to the numbers of times that the molds are put in, and taken out of the hardening room.

In removing the ice cream from the molds, the layer next to the mold usually melts to a considerable extent. When the brick has been returned to the carton after cutting, this softened layer must be hardened again, and this is done at the expense of refrigeration. The manufacturer can double his brick business in the space required under the old method, or he can do the same

Condensary and Dairy Equipment Manufacturers Since 1878

Vacuum Pans any Size to meet your requirements.



Jacketed and Plain Hot Wells

Jacketed and Plain Kettles.

Rusted Milk and Ice Cream Cans retinned and repaired. Can life renewed with a heavy plating of Straits Tin.

All Types of Ice Cream Freezers Repaired.

Our Steel Department fabricates specially designed or standard Tanks, Truck Bodies and Tanks and Smoke Stacks any size.

Inquiries invited

ALOIS AUFRICHTIG COPPER & SHEET IRON MFG. CO.

Service—Efficiency—Economy

Third & Lombard Sts. St. Louis, Mo.

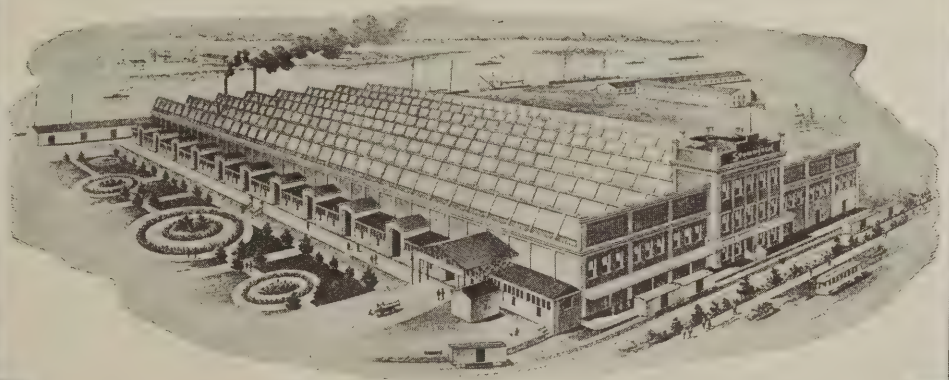
STOLLWERCK

COCOA POWDER

Quality, Flavor and Color unsurpassed. Best results in ice cream making can be obtained by the use of Stollwerck Cocoa Powder.

Prices and samples upon request

Packed in 25 and 50 lb. drums Also barrels and cases



PLANT OF THE STOLLWERCK CHOCOLATE CO.
STAMFORD, CONN.

BRANCHES:
NEW YORK BOSTON CHICAGO KANSAS CITY
SAN FRANCISCO SALT LAKE CITY SEATTLE PORTLAND, ORE.

volume of business in half the space. A large saving in refrigeration is effected in either case.

Advantages From a Sales Standpoint.

We will not consider the advantages of the new method from the standpoint of its effect upon the sales of ice cream. The question in your mind is: What is the effect upon the quality of ice cream to package it by this new way? The new machine operates best when the ice cream is of heavy viscosity when fed into the hopper. As every observing manufacturer knows, this is the condition that will produce the best ice cream—a product free from large water crystals, and therefore smooth to the taste.

Under the old method, the layer of softened ice cream next to the mold surface, usually hardens into a coarse, icy or grainy crust, causing the defect commonly known as icy bricks. This is caused by the fact that no air can be incorporated into the water drops while the bricks are being hardened. Under the new method, this difficulty is entirely eliminated. The water crystals are all of uniform size throughout the brick. The product is most pleasing to the taste. The texture and smoothness of the product is unexcelled when the ice cream is filled directly into the carton, by means of the packaging machine, and besides, this result is accomplished without any shrinkage in the volume of the brick.

By the new way, the exposure to the air of the ice cream is reduced to a minimum. Its contact with the hot water is entirely eliminated. The ice cream is not touched by human hands, and its possible contamination by contact with the tables, and other equipment, is entirely avoided. The good flavors are all sealed in. The possible bad flavors are all sealed out. These are all arguments upon which the manufacturer can capitalize in his advertising, and in his sales promotion.

Packaging Bulk Ice Cream.

Another advantage is the large possibility that the new method offers to package bulk ice cream for the dealer. You are all familiar with the present method of handling bulk ice cream by the dealer.

We made a canvass among all the leading dealers of Oak Park, Ill., and also among a considerable number of ice cream manufacturers, in order to get the viewpoint of all concerned, in this problem. This investigation disclosed the following facts:

(1). The consumer buys bulk ice cream in preference to brick ice cream for two principal reasons. First, he believes that bulk ice cream has better flavor and better texture than brick ice cream, and in many cases, the single flavors are preferred, and the same are not always available in brick form. I believe that you will agree with me that this view is largely a matter of prejudice or of opinion, granting that the brick ice cream is made with the same care as is used in the preparation of the bulk goods. Second, the consumer believes that in buying bulk ice cream, he receives more for his money even if he pays a premium of from 30 per cent to 40 per cent for the same volume of ice cream. This view is not always correct. When the ice cream in the can is frozen very hard, it is difficult to avoid air pockets when filling the pail, so that in this case the consumer may get considerable less than the amount that he bought. The quantity in the carton is under the control of the clerk who dishes out the ice cream. One clerk may serve more, another less than the given volume. When the ice cream in the can if soft, the consumer benefits, but this is done at the loss, and at the expense of the dealer. The ice cream in this condition is seldom entirely satisfactory to the consumer.

The average consumer expects only the volume, or the weight of any products which he may be buying. The satisfied consumer is the one who receives uniform quality—that is flavor, texture, body, food value and uniform weight or measure. In other words, equal value for his money at every purchase.

(2) The dealer sells bulk ice cream from necessity rather than from choice. He discourages its sale by placing a price of from 15 cents to 20 cents per quart over the price of brick. He states that even at the increased price, his bulk business shows him a loss. One large dealer reported a cash loss of $3.50 in the sale of 70 gallons of bulk ice cream in one day. This did not take into consideration the loss in wages and in overhead. Had this been packaged at the factory, and sold at 10 cents a quart profit, he would have realized a profit of $28.00 for the day. Sales are lost during the time consumed in filling the cartons. An expensive clerk, or the owner himself have to give their valuable time to this menial operation.

The dealers interviewed were unanimously of the opinion that the logical place to package bulk ice cream is in the ice cream factory. One large dealer in Oak Park even now has his bulk ice cream put up by hand at the factory, and he stated he would buy his ice cream only from a factory that would package his bulk cream. The majority of them believed that if they sold only bulk ice cream packaged at the factory, that the consumer would accept it, and be satisfied. It might take advertising and some educational effort to bring the consumer to this viewpoint.

Every dealer interviewed recognized that bulk ice cream packaged at the factory meant to him an assured profit per package, and more time to devote to sales.

DULUTH
C. C. Shipping Tubs
Are Cream Savers

Our Eastern Style Tubs, 29 in. high, give plenty of packing room for your long shipments.

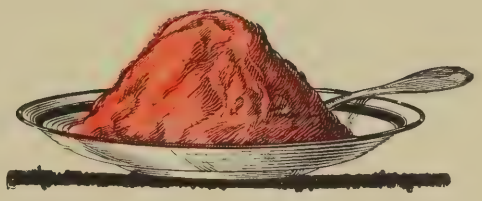


Features which insure durability are:

1. Standard width staves, 1 3/16 in. thick, of select Washington Fir.
2. Top and bottom hoops of 1½-in. 16-gauge galvanized iron.
3. Heavy bottom construction, beer keg type, which insures added strength.
4. Beehler 4½-in. heavy galvanized handles.

Write for our special terms for early delivery

DULUTH COOPERAGE CO.
DULUTH MINNESOTA



Greater Gallonage for 1922

Plan for it NOW

Winter-time is a good time to start making Orange-Crush, Lemon-Crush and Lime-Crush Ice Creams and Sherbets. If you can obtain exclusive rights on these quality flavors you can put new life into your winter business, increase your prestige, and gain greater gallonage all through the year.

Oranges and lemons are the most popular year-round fruits. Orange-Crush, Lemon-Crush and Lime-Crush are the fastest selling fruit drinks in the world. These same flavors in ice creams and sherbets are rapidly becoming as popular as are the famous drinks.

More than 500 leading ice cream manufacturers now use the "Crushes." Steady growth in daily sales proves that ice cream buyers **want** these delightful citrus flavors and continue to buy them in ever-growing volume.

Big Hit at the Convention

At both the Buffalo and Atlanta Conventions the Orange-Crush Special Brick was a big winning feature. Its extra deliciousness caught the fancy of the crowds. **Your** customers will be delighted with this Special. You should have the formula. It is a real trade-getter.

Our folder of Suggestions for Week-End Business will be sent you free on request. Write for it today.

ORANGE-CRUSH ice cream

"We like them and so does the trade," writes M. F. Stuart of Springfield, Illinois. "We have had wonderful success with your Orange-Crush, Lemon-Crush and Lime-Crush," writes The Weber Ice Cream Company of Jefferson City, Mo. Similar praise words come from manufacturers in every section. Let us send you proofs. They are convincing.

The "Crush" Compounds make a product of surpassing quality—with color, fragrance and flavor so pleasing that repeat orders are sure. They are genuine fruit flavors; they will not freeze out; they are uniform, giving you control of flavor and color; no additional color is necessary.

Quality, extensive advertising and selling co-operation will win for these ice creams and sherbets just as they did for the drinks.

Learn about exclusive rights
Send this coupon today

Your territory may still be open. Write us for full particulars about exclusive manufacturing rights. They are valuable—and each year their value will grow.

ORANGE-CRUSH CO., Plant and Laboratory, CHICAGO

English Address, 47 Gt. Tower St., London, E. C. 3.
In Canada: Orange-Crush Company, Ltd., Winnipeg.

Sign and send this
COUPON

ORANGE-CRUSH COMPANY,
314 W. Superior St., Chicago.

Send us without obligation, details regarding exclusive rights in our territory on Ward's Orange-Crush, Lemon-Crush and Lime-Crush Compounds for flavoring Ice Cream and Sherbets.

Name .....

Street and No. .....

Town .....

State .....

I.C.R Jan.



MOST MODERN CHOCOLATE AND COCOA PLANT IN THE WORLD

Your Troubles Are Over When You Use "Eline's"

I. C. Coating

In Manufacturing

Eskimo Pie

I. C. Coating is a Blend of Pure Whole Milk and the Finest Imported Cocoa Beans milled to the right consistency to dip properly on Ice Cream.

USE ELINE'S I. C. COATING AND KEEP UP A HIGH STANDARD OF QUALITY

MILWAUKEE **ELINE'S, Inc.** WISCONSIN

Ice cream is a product that represents a quick turnover. As a rule, the dealer receives the cash for the ice cream before he has to pay the manufacturer's bill. He can therefore sell it upon a close margin, and still make a very satisfactory earning. By handling bulk ice cream packaged at the factory, he can make more sales in a given time, and thus reduce his help and increase his profits.

(3). The manufacturers interviewed were somewhat divided in their opinions. One group assumed the attitude: "What do we care if the dealer loses by giving over measure? This means more gallons for us." Upon close analysis, I believe that the majority of you will agree with me that this viewpoint may lead to an erroneous conclusion. The whole fabric of commerce, and of human endeavor in its many branches is predicted upon the little word "profit." If the dealer cannot make a profit in selling bulk ice cream, eventually the manufacturers will feel the effects of it. The fact that the dealer is even now charging from 30 per cent to 40 per cent more for bulk than for brick ice cream must reduce the sale of the brick. Increase the price and decrease the demand, or decrease the price and increase the demand, are the economic rules that govern the world over.

The second group which included the majority of the manufacturers interviewed recognized the great possibilities in packaging the bulk ice cream for their dealers. Their bulk ice cream like their brick ice cream would reach the consumer under their label. By means of the packaging machine the bulk ice cream could be packaged at but little if any additional expense over the cost of handling bulk ice cream in cans. The wear and tear upon the cans, the handling and washing of the same would largely affect the carton cost. Increasing the sale of packaged goods would decrease the unit cost thereof. By constructive advertising the consumer would soon learn that bulk ice cream packaged at the factory has the same quality as bulk ice cream from the dealer's cans. Advertising packaged bulk ice cream to sell at the same price as brick ice cream would be bound to increase the consumer's demand. To realize the best possibilities would require close co-operation between dealer and manufacturer. The dealer would have to be provided with a good brick cabinet, and the manufacturer would have to keep the dealer supplied with fresh stocks. But this would pay, and it would lead to greater ice cream sales.

The same problem has been encountered in nearly all other food industries. It seems but a few years since packaged oatmeal, packaged soda crackers, packaged nearly everything else were unknown. Likewise with nearly all kinds of dairy products. Selling to the consumer in package or containers is now the rule. The old order has been reversed. The new era is offering equal opportunities to the ice cream manufacturers.

So in concluding let me repeat that this new invention offers great possibilities to the ice cream manufacturer, to effect large economies in manufacturing, and at the same time to greatly increase his sales.

* * *

A cordial invitation was extended by Bessire & Company to attend a demonstration of the Rogers Automatic Ice Cream Brick Maker at the Furnas Ice Cream Co.



Indiana Manufacturers, Claypool Hotel, Indianapolis.

Discussions noted below followed the address of Mr. Timothy Mojonnier:

Mr. Edward, Marion, Ind.: How much more money can the manufacturer get from the dealer in packaging ice cream in pints and quarts, using the carry home pails?

Mr. Mojonnier: I might answer this question somewhat indirectly. We figured under many different conditions that the additional cost of packaging ice cream in carry home pails as against putting it in cans amounts to about six cents a gallon. If the manufacturer would charge the dealer ten cents per gallon more, he would get more than under the old method. Under some conditions, the dealer might want to charge either more or less than ten cents per gallon.

Mr. Atkinson: In figuring this cost, how many gallons do you figure per day?

Answer: This varies under a good many different conditions. I would say ten cents would be the outside limit, even upon as small a gallonage as a few hundred packages per run. Obviously the larger the run the lower the unit cost will be.

Mr. Atkinson: What amount do you base this six cents on?

Answer: Up to 100,000 quarts per year. The outside limit would probably be about ten cents for a small concern.

(Continued on page 117)

MICHIGAN DAIRY BOOSTERS.

(Continued from page 54)

also have installed one 30 horsepower Jas. Leffel & Company boiler, one 15-ton creamery package refrigerating machine, with cold storage room capacity for 2,000 gallons of ice cream. They also have a 1,000-pound churn, electric drive and a bottle washer and sterilizer, electric drive. They now have one of the finest, up-to-date, modern and sanitary plants in Ohio for a city of its size and they are proud of same. The company gave an opening for the public recently.

* * *

The following is a list of exhibit space holders to date (December 21, 1921) for the Michigan convention at Saginaw, February 14-15-16-17:

Solar-Sturgis Manufacturing Co., Congress and Green streets, Chicago, Ill.
Diamond Crystal Salt Co., 551 Weadock street, Saginaw, Mich.
Colonial Salt Co., 4 Allen Park, N. E., Grand Rapids, Mich.
Menasha Printing & Carton Co., Menasha, Wis.
De Laval Separator Co., 165 Broadway, New York, N. Y.
Emery Thompson Machine Supply Co., 271 Rider Ave., New York, N. Y.
J. B. Ford Co., Wyandotte, Mich.
Harold Sinclair, 160 Broadway, New York, N. Y.
Toledo Scale Co., Toledo, O.
Abbot Laboratories, 4753 Ravenswood Ave., Chicago, Illinois.
Menasha Wooden Ware Co., Menasha, Wis.
Massey & Massey Co., 1214 Webster Ave., Chicago, Ill.
National Paint & Varnish Co., Cleveland, O.
Grand Rapids Manufacturing Co., 432 Bond Ave., Grand Rapids, Mich.
Creamery Package Manufacturing Co., 61 W. Kinzie St., Chicago, Ill.
The Widlar Co., Bolivar Road, Cleveland, O.
Rex Extract Co., 257 Pacific St., Brooklyn, N. Y.
Louden Machinery Co., Chicago, Ill.
Stout Crate Co., 373 Broadway, Milwaukee, Wis.
Thatcher Manufacturing Co., Book Building, Detroit, Mich.
A. H. Barber Creamery Supply Co., 300 W. Austin Ave., Chicago, Ill.
United States Gelatine Co., Milwaukee, Wis.
Wm. Finch Co., Inc., 45 Division Ave., South, Grand Rapids, Mich.
The Cream Production Co., 325 Court St., Port Huron, Mich.
Manitowoc Plating Works, Manitowoc, Wis.
Elyria Enameled Products Co., Elyria, O.
A. H. Arnold & Bros., 308 So. Canal St., Chicago, Ill.
Beatrice Creamery Co., 2032 Howard St., Detroit, Mich.
A. Daigger & Co., 859 No. Franklin St., Chicago, Ill.
John W. Ladd Co., Detroit, Mich.
Sanitary Tinning Co., 3757 East 93rd St., Cleveland, O.

* * *

SEVEN YEARS AGO.

The picture below was taken at a Michigan convention of dairy and ice cream manufacturers held in Flint, Mich., in year of 1915, no doubt it will bring back memories of the past and many of those who attended it. They can call the pleasant time they had there and R. E. McFarland, the big boy who sells Essex Gelatine, can have another hearty laugh when he sees this picture for it will tell him of his experience with the school children on that Friday night, for they surely liked him so much that they done their best to carry the booth and all away and no doubt would have taken Mac along with them. He stood there laughing his sides sore and he thought it a good time to have some fun while he was staying in the booth during C. J. Yuncker's absence for a few minutes. This booth was a popular one during the convention and was well lighted with electric signs advertising the popular flavor, "CARAMALA," manufactured by Rex Extract Company, Brooklyn, N. Y., and was headquarters for many who attended the convention. Yuncker will have a booth at Saginaw convention for the Rex Extract Co., where orders for "CARAMALA" and "MEXOCINE" will be taken. Yuncker invites all to call at the booth and make it their headquarters while attending the Saginaw convention in February 14 to 17, 1922.



Flint, Michigan Show, 1915.

* * *

LOOKING 500 YEARS AHEAD.

The Ice Cream Review:

I have your letter in which you ask that I write a letter to boost the Michigan convention. Now, if any letter that I could write would boost the convention I



THE SEAL OF SAFETY

NOT a line drawing
NOT a red waxed sticker
NOT a lithographed poster
NOT a cardboard cut-out

But a manifest of protection offered, service rendered—a symbol of association for an industry's advancement.

The Fair Practices Code
PROTECTS The Buyer

THE ASSOCIATION OF ICE CREAM SUPPLY MEN
1328 BROADWAY NEW YORK

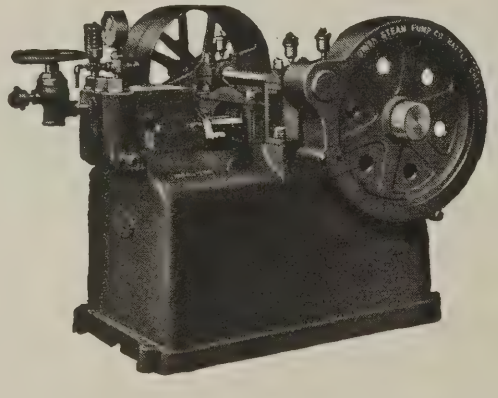
You Can Now Buy

The Viscolizer

For as Low as $850.00

The men behind the *Viscolizer* constantly anticipated the demand for a capable machine for increasing viscosity and have built the *Viscolizer* of such quality and in such quantities, and distributed it in a manner so thorough, as to bring the price of this machine down within the purse range of all.

Number	Capacity Per Hour Gals.	Standard Machine Belt Drive	Motor Size H. P.	With Motor Mounted
100	100	$ 850	5	
200	200	1000	7½	Prices
300	300	1250	10	upon
450	450	1500	15	request
800	800	2000	25	



Great economy—very small repair costs—day after day reliability—long life—increased production and individual excellence of all products viscolized, are factors that make the *Viscolizer* supreme in its field.

"There is a Viscolizer Jobber Near You"

John W. Ladd Company
Detroit Cleveland

Cherry-Bassett Company
Baltimore Philadelphia

certainly would be willing to write thousands of them.

I note your request for some little story or joke on some of our fellow boosters here in Michigan. To tell the truth, these Michigan Dairy Boosters are so hard to get anything on that it is rather difficult for any one to get a joke on them.

I was just wondering if some of these up-to-date ice cream manufacturers ever stop to think how the old place is going to look 500 years from now. Will the K. & K. Ice Cream Company still be turning out the best ice cream in the world? Will the future manager when he comes into his office for his five-minutes daily work look up at your picture, perhaps feeling a bit sorry for you and your crude methods, or will he regard you as one of the greatest old boys that ever lived?

Did you ever think what the future historian might say about you? It will read something like this, "It appears what is now our principal food was discovered sometime during the nineteenth century, but did not come into very general use until the latter part of the twentieth cenury. Although it appears that as early as 1922 the ice cream industry was fairly well organized, copies of a trade journal published in Milwaukee, Wis., called The Ice Cream Review, now on file in the public museum, will convince the most skeptical that ice cream was made and eaten during the first quarter of the twentieth century. It appears that about the middle of that century some of the factories who were turning out that product, sacrificed quality for profit and were soon swallowed up by their more far-sighted competitors.

Our friend, Harry Geer, of Cadillac, Michigan, says, "A future historian will never write that about my factory, for years after I smoked my last cigar, taken my last drink, eaten my last meal, and the Elks have said all the good things they could about me and carefully hid all the bad things, for years after my tombstone has crumbled into dust, people will still be eating Cadillac ice cream."

We hope so, Harry.

W. G. FINCH.

OKLAHOMA ASSOCIATION OF ICE CREAM MANUFACTURERS.

(Continued from page 22)

ment of four freezers so that the mix would remain in each freezer but three minutes and then flow into the one below it thus saving three-fourths of the time in freezing. The display of packaging machines, which were shown in actual operation, attracted great interest, especially after the discussion on brick ice cream. The machines would do all that was claimed for them but seemed too large an investment for the volume of business in brick ice cream in the average factory, and the same was true of the wrapping and tieing machines. In the way of containers several new ideas were shown especially as to iceless or insulated containers. Some of those shown appear practical and will no doubt be tried out.

Much effort was made to enlighten the manufacturer in regard to refrigerated delivery equipment but the subject is of little interest here.

The convention was held at Hotel Radisson, Minneapolis, and the dairy show at fair grounds, midway between Minneapolis and St. Paul. Every courtesy was shown visitors by resident manufacturers of both cities and a good impression was created. The climate was equally delightful as Oklahoma at that time and pastures as green as June in this state. Great herds of Holstein cattle were in sight on nearly every farm and it was easily seen that Oklahoma will require a long time

CHERRY BASSETT COMPANY

Bessire and Company
Gowing Dietrich Company
Wright-Ziegler Company
Dairymen's Supply & Construction Company
Oakes & Burger Company
R. G. Wright & Company
Alberta Dairy Supply Company
De Laval Company
W. A. Drummond Company
Baker, Hamilton & Pacific Company
A. H. Barber Creamery Supply Company
Beatrice Creamery Company
Blanke Mfg. & Supply Company
J. G. Cherry Company
Dairy Machinery Company, Inc.
Enterprise Dairy & Creamery Sup. Co.
Huey & Philp Hdwe. Company
Kennedy & Parsons Company
N. A. Kennedy Supply Company
Meyer Dairy Equipment Company
Mojonnier Bros. Company
Monroe & Crissell
C. E. Rogers
O. J. Weber Company

JOHN W. LADD COMPANY

WE CONSIDER IT A REAL PRIVILEGE TO ONCE MORE REMIND YOU OF THE REPRESENTATION WE ENJOY IN THIS ASSOCIATION OF PUMP AND VISCOLIZER DISTRIBUTORS



UNION STEAM PUMP COMPANY

BATTLE CREEK, MICHIGAN

to gain a standing in the dairy industry. The attendance from the southern states was very light, but one representative, I think, each, from Arkansas, Kentucky, Louisiana, Texas, and Oklahoma.

It was admitted by practically all the larger manufacturers that gallonage would be rather less than the 1920 season and it would seem from certain developments as to distributing the product that the industry is facing a condition which may mean some radical changes in present methods. However, it is thought by many that some changes which will no doubt come about before another season will increase the amount consumed. Probably the most important change will be elimination of luxury tax and next will be a more nearly, popular price by the dealers, while it is hoped and expected financial matters will be in better condition and the public more able to gratify their desires.

While no lack of confidence in the future of the business was expressed, still it was readily seen the manufacturers longest in the business recognize the changes taking place, so it behooves every manufacturer to study his business diligently and improve his methods and service wherever possible.

Report of Delegate to Farm Congress—Mr. J. W. Parker, Enid, Okla., Chairman: Letter from Mr. Parker was read advising that account of sickness he was unable to be present. Consequently no report.

Tuesday, December 13th, 1921.

Meeting called to order by President Porter at 10:30 A. M. He called attention to the fact that Prof. A. C. Baer, of Stillwater, Okla., had honored us for the past three or four years with an address and in each instance he had a message of great importance to the industry and that he was sure that he had a great message for us in his address on "Preparation of Ice Cream Mixes." He then introduced Prof. Baer, whose address will be printed in a later issue of The Ice Cream Review.

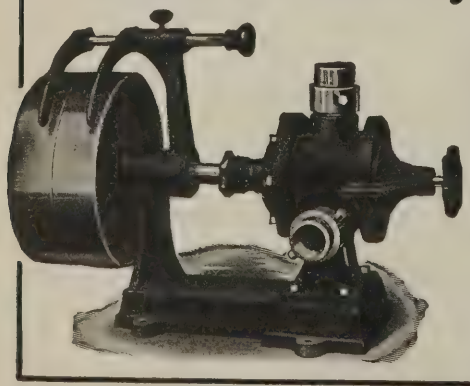
Mr. J. W. Ridgway of the dairy development department of the Mistletoe Creameries, Ft. Worth, Texas, gave a short talk along dairy development lines.

DAIRY DEVELOPMENT.

By Prof. J. W. Ridgway, Ft. Worth, Tex.

I feel my inability to address an organization of this character because from the manufacturing side of ice cream I have had very little experience, and know very little about that particular subject. I want to assure you of my appreciation to the various discussions, and say that I have gotten a great deal out of them and feel amply repaid for my visit at this time.

Taber Creamery Pumps



are the most sanitary because they are entirely dissectable. Demand a Taber Pump from your jobber. If he cannot supply you we will sell you direct. Address:

Taber Pump Company
297 Elm Street
BUFFALO, N. Y.

I did not come to your city with the expectation of attending your convention,—did not know it was in progress until last night, and heard that coming out of Fort Worth. I was coming up here for a special business engagement I have this afternoon and tonight.

The interests of Texas and Oklahoma are quite identical and I bring greetings to you this morning from Texas. In fact our interests are so identical at times our boundary lines become confused, and we have to resort to the courts to know where Oklahoma commences and Texas leaves off.

I am devoting my time to dairy production, and as usual, they are with me this morning. I will speak to you briefly along this line.

I was connected with the A. & M. College for ten years as head of the dairy department, but largely along the lines of production.

The interests of the producer are identical with your interests,—things that make for prosperity on the part of the producer, and we are passing through at this time a rather peculiar and critical condition. Produce, as you know, is much higher than under pre-war conditions and consequently if we have to depend on industry as it should be developed, we should give attention to this particular point so that the manufacturers will get their share of the income from dairy products. I cannot give you off-hand the figures that a dairy man can. He has to spend two and one-half gallons of milk with one bushel of corn so that we, as manufacturers, must give certain attention to rectify those conditions.

We must give consideration to the reduction in cost of manufacture to the cost of distributing. Our own organization during the past twelve months, with all brother manufacturers have given much time to this matter, both in our manufacturing and sales divisions. I cannot see any great improvement in the next two years. The purchasing power of the farmer today is probably less than two years ago. Now, until that purchasing power, which represents from 50 per cent to 70 per cent of our nation, we cannot have any great improvement in our manufacturing improvements whether in ice cream or otherwise.

The cost of manufacturing must be reduced. I would call your attention to that important item again.

Other things you should direct attention to is in rendering the samples to the producer so he can cut down the price. You might think it is a far-fetched idea on the part of a commercial organization to bring about improvement in the costs of production, but it is most vital, the raising or increase of the production of the individual company, which can come only through better companies and better methods and management.

And we are also interesting the boys and girls of our state in doing some work in your own state in this improvement of live stock. Last year our organization sent four boys to the A. & M. College, and next year we will send half a dozen between the ages of 14 and 18. We are co-operating with both states.

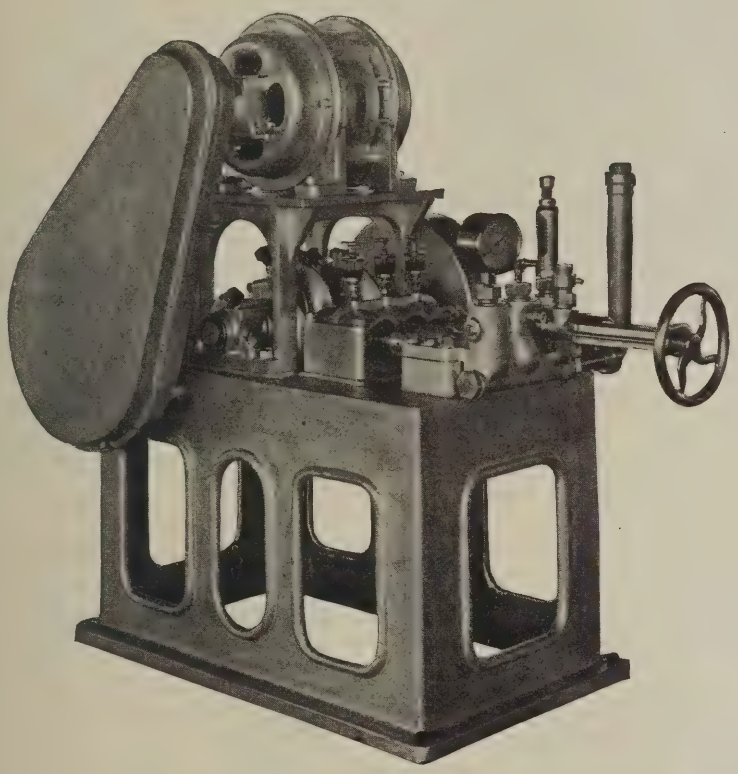
I understand an Oklahoma county agent is selecting 30 dairy companies to come out of Texas to Oklahoma.

I am glad to have the privilege of coming up here and meeting you gentlemen, and I hope, too, that some time you will come to Texas.

I will use my best efforts to get Prof. Baer to talk to the manufacturers next year. I am very grateful for the privilege of having this small space on your program and hope to become better acquainted with you, and thank you for your attention.

(Continued on page 141)

Money Can't Buy a Better Machine Than the Gaulin Homogenizer



THE owner of a Gaulin Homogenizer is assured that regardless of what he spends, he cannot purchase a finer built or more efficient Homogenizer.

The Original

The Gaulin was the original machine in America designed for making products homogeneous or viscous. Although its wonderful efficiency attracted a number of competitors, it has been as impossible for the imitator to equal the performance of the Gaulin as it is for an imitation diamond to equal the brilliancy of the genuine.

Made with Painstaking Care

The working parts of the Gaulin are made with the same painstaking care as those of the finest custom built automobile and of as fine selected materials. Its excellent construction is reflected in the long life of the machine, many of them having been in use ten years or more.

The Gaulin Spring Homogenizing Valve

The Gaulin Homogenizer is the only machine equipped with the Gaulin Spring Homogenizing Head which homogenizes all parts uniformly fine. Furthermore, this is the only machine by which the whole mix can be homogenized at a pressure of 4,000 lbs. and the pressure maintained without the constant attention of an operator.

Write for interesting booklet entitled "The Story of the Homogenizer."

Manufactured by

THE MANTON-GAULIN MFG. CO., 11 Elkins St., Boston, Mass.

Distributed by

THE CREAMERY PACKAGE MFG. COMPANY

CREAMERY MACHINERY
MILK AND CREAM HANDLING MACHINERY
CHEESE MAKING MACHINERY

SALES BRANCHES—(Write to nearest one)

Chicago, 61-67 W. Kinzie Street
Buffalo, N. Y., 133-137 E. Swan Street
Kansas City, Mo., 1408-10 W. 12th St.
Minneapolis, 318-20 Third St. N.
Omaha, 113-15-17 S. Tenth Street
Philadelphia, 1907 Market Street
Portland, Ore., 6-8 N. Front St.
San Francisco, 699 Battery Street
Toledo, Ohio, 119 St. Clair Street
Waterloo, Ia., 406-8 Sycamore St.

ICE CREAM MAKING MACHINERY
REFRIGERATING SYSTEMS
DAIRY MACHINERY AND SUPPLIES

Southward the Course of Dairying Takes its Way

By JAS. J. HARVEY, Manager Dairy and Ice Cream Department, Bessire & Co., Inc.

The above paraphrase on the westward course of civilization is very apropos of the present southward tendency of the dairy industry.

Not many people of the southland and particularly no northerners, unless their business relations are closely associated with the present status of the dairying throughout the southern states, know of the rapid development that is taking place in dairying south of the Mason and Dixon line, and particularly in the states of Alabama, Georgia, Florida and South Carolina.



JAS. J. HARVEY

Dairying in the South has always been carried on in an oscillating way, due to the general apathy of the southern farmer for raising his own dairy feed and also to the lack of an all-year-round market for his milk and cream. His mind has been running in a single furrow and his thoughts of farming have always reverted to the one-crop system—that of cotton.

The dairy cow and prosperity have always marched hand in hand in all climes, and I believe it no wild conclusion to draw that as dairying properly develops in the south, prosperity will increase. Prosperity in financial returns is not all the benefit that will accrue. Better nourishment and better health and finally greater achievements will follow in the wake of increased dairying.

Dr. E. V. McCollum of the School of Hygiene and Public Health of the Johns Hopkins University of Baltimore, who, through his investigations, has done more than any man living to encourage the use of milk and dairy products in the human diet, says, "The nations that have used large amounts of dairy products in the diet are the most efficient and highly developed races on the earth," and "The keeping of dairy animals was the greatest factor in the history of the development of man from a state of barbarism." So from a health standpoint as well as from all other angles, dairying should be extended.

Now to go back to the theme of this article—Dairy Development in the South. I recently had a letter from the owner of a large dairy plant in the north, inquiring for causes of his inability to sell his product in Florida and the south. He stated that when recently he quoted his former customers the lowest possible price on his product, delivered, they had told him that his prices were entirely out of line, and that they had been offered the same quality product at much lower figures. He stated further that he knew of only two points that were competitors of his, New York and a large dairy product plant in southern Alabama.

It was necessary for me to inform this owner that he was not abreast of the present dairying conditions in the south. I told him that business he had formerly enjoyed in Florida during the tourist season was gone from him, never to return, and that the south was taking care of its own.

I then cited some of the recent strides in dairying in Georgia. The first milk condensary in Georgia had just been completed in Moultrie, where all kinds of condensed milk are now being made. Sweet cream and milk are being shipped into Florida from several points in this state, which is a new development from last year.

By far the greatest factor in development of dairying in Georgia is the growth of the sour cream movement. Six months ago there was not a sour cream station in Georgia. Today there are more than a score and they are increasing daily. The cause of this increase is the establishing of churning creameries for this sour cream.

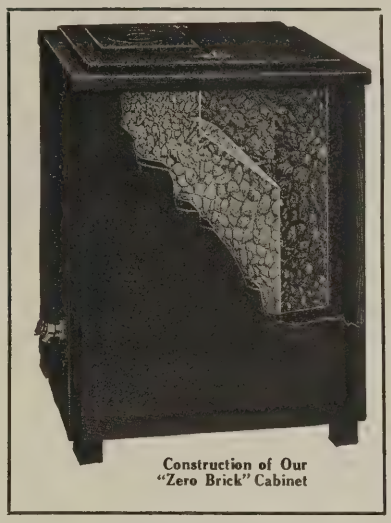
Several creameries are now in operation. The last one and probably one of the most complete in the state is that of the Belmont Dairy Company of Atlanta. Electrically driven machinery for the conversion of all grades of cream into finished butter is now in operation in the Belmont plant. Sour cream for churning purposes is arriving daily from all over the Atlanta section of the state. Mr. Zimmer, the owner, states that he has no trouble in disposing of his entire make to the local trade. Atlanta hotels are advertising the fact that they serve "Atlanta Maid" creamery butter. We predict that in two years Georgia will be producing all the butter she consumes.

Thus the rapid increase that has been made in the last six months in Georgia indicates the southward trend of dairying.

PURE — HIGH GRADE
GELATINE
AND
Quick Action Ice Cream Powder
Special Double Strength Ice Cream Powder
Pure Powdered Gum
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DAIRY SUPPLY HOUSES
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ICE CREAM CABINET OF QUALITY


Construction of Our "Zero Brick" Cabinet


STYLE No. 5


STYLE No. 4

An Important Part of Your Equipment

IT is to the advantage of any manufacturer to recognize the true importance of the ice cream cabinet and the necessity for employing only the kind which will afford perfect preservation of his product on an economical basis.

For many years, Grand Rapids Ice Cream Cabinets have demonstrated in actual service that they are the answer to the ice cream cabinet question. They are constructed with a thorough understanding of the qualities which a cabinet must have in order to effect ice conservation and withstand the action of the refrigerating agents.

Standardizing on Grand Rapids Ice Cream Cabinets is a step which leads to saving expense and promoting all around satisfaction.

GRAND RAPIDS CABINET COMPANY

Successors to CHOCOLATE COOLER COMPANY

55-59 Alabama Avenue N.W. GRAND RAPIDS, MICH.

New England Sales Office and Warehouse, MERROW BROS., Inc., 44 N. Market St., BOSTON, MASS.
South Eastern Sales Office and Warehouse, CHERRY-BASSETT CO. { 33 So. Charles St., BALTIMORE, MD. / 1106 Arch Street, PHILADELPHIA, PA.
North Western Sales Office and Warehouse, A. C. BLACK, 515 Lumber Exchange, MINNEAPOLIS, MINN.

Get Ready for the Minnesota Ice Cream Convention

The 1922 convention of the Minnesota State Association of Ice Cream Manufacturers will be held in the Hotel St. Paul, St. Paul, Minn., on January 20th, and it promises to be one of the biggest and best in the history of the state meetings. A record attendance is expected and every ice cream manufacturer in the state is invited, whether he belongs to the state association or not—we want him to come and get acquainted—we want him to enjoy also the benefits reaped by others who belong to the association. Let's get together and air our difficulties and problems, some other fellow can help us out; and let us tell the other fellow of some method whereby we have achieved success, and let him benefit by our suggestion. Success means co-operation and this is the place to exchange ideas and suggestions.

The Hotel St. Paul, which is to be the convention headquarters, is a beautiful new hotel of the most modern kind. Visitors will find quarters very comfortable and elegant there. Service is the watchword; the cuisine is excellent. Come out from the home town environment for a day in the big city and enjoy yourself—you will find the trip both profitable and pleasureable. The association is doing its utmost in planning entertainment for the many visitors and to make it a convention long to be remembered. So don't disappoint them by not coming—pack the old kit bag and show them you appreciate how they are trying to help you. Minnesota has always been deeply interested in all matters pertaining to this important industry of the manufacture of ice cream, and the conventions heretofore have always been loyally represented, thus showing appreciation for the efforts which a convention entails. We hope that this year the representatives will be equally as loyal and show it by their full attendance. The headquarters for the ice cream convention is but a short distance from the depot and from tne heart of the shopping district—bring the ladies along and they will find it enjoyable, too.

Visitors will find St. Paul a congenial city. It is the Capitol City of Minnesota with a population of 250,000. It is called the "Gateway to the Northwest;" nine railroad systems enter the city and its location on ten automobile highways marks it headquarters for travelers. It is the home of the State Agricultural College. It is the chief distributor of merchandise consumed in its trade territory comprising the states of Minnesota, North Dakota, South Dakota, and portions of Wisconsin, Iowa, Nebraska and Upper Michigan. It is the manufacturing center of the northwest. The total value of manufactured products yearly is estimated at $215,000,000. St. Paul is pre-eminent along educational lines. Don't you think these facts are an inducement for you to come to the city to visit once in awhile? Now is the time—CONVENTION TIME—and any manufacturer who fails to join in the convention doings is negligent in protecting his own interests for we believe that these meetings should not be passed up as they are both entertaining and educational.

Every ice cream manufacturer in the state, no matter whether his business is done on a small or large scale, should join the state association, as through this association the manufacturer's profitable future can be safeguarded. Co come to St. Paul and get acquainted with the organization and if you do not already belong, JOIN and you will be warmly welcomed and benefited by this association.

Visit the State Capitol in St. Paul. You will find it interesting and worth-while. The building rises majestically on a height of land on the north edge of the city overlooking the down town business district. Cass Gilbert, the famous architect, supervised the building which was erected at an expense of $4,500,000. Guides conduct parties through the building at regular intervals. Mural paintings throughout the building make the trip worth while. The Minnesota Historical Society building is located opposite the State Capitol.

Fellow members, and others ,we want each and every one of you to realize the value of this annual convention for your own progress and the progress of the industry of ice cream making. The better you serve the more you will profit and the only way to learn how to serve better ice cream is by attending the conventions regularly and keeping up with the times. Do not remain home and keep your ideas and difficulties to yourself—come to the conventions and give the other fellow the benefit of your ideas and air your difficulties as well and as a reward for your co-operation, you will be benefited. These conventions are absolutely vital and necessary to your progress; your business needs your attendance at the convention and at the same time you can benefit by getting away from the routine life at home and make a little vacation of the trip. This is the best time of the year to get a new lease on life and start out right—so don't disappoint us, we shall look for YOU.



The new way—a child's play

Adds Years to Life of Your Condensers

Braun Condenser Paint is sold only in original trade-marked packages with labels attached. It is a PERFECT SCALE REMOVER.

5 and 10 Gal. Cans, $2.50 per gal.
Bbls. and Half Bbls., $2.25 per gal.
Put up in 5 and 10 gallon cans, barrels and half barrels.

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The American Paint & Button Company
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Chas. Zoller Co., 205 Prince St., New York City The Doermann-Roehrer Co., 318 E. 3rd St., Cincinnati, Ohio.



"READY" BRICK BOXES

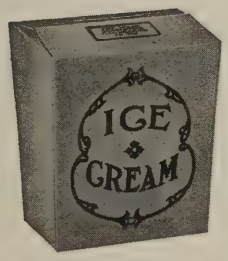
are specially treated two-piece boxes, which eliminates handling and wrapping. No parchment bags necessary with the Cardy "READY" Brick Box. Box needs no folding or tucking in of ends. Boxes come nested, and ready to use—saving space and freight.

Filled directly from Freezer by hand or with Rogers or Mojonnier Machines.

The *Cardy "READY" Brick Box is the only brick box on the market that can be packed in salt and ice without injury — water-proof, moisture-proof, and will not soak up and become soft.*

Let us tell you more about the advantages of this new "Ready" Brick Box.



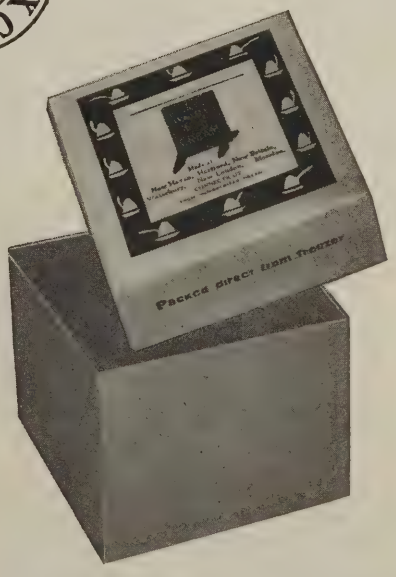


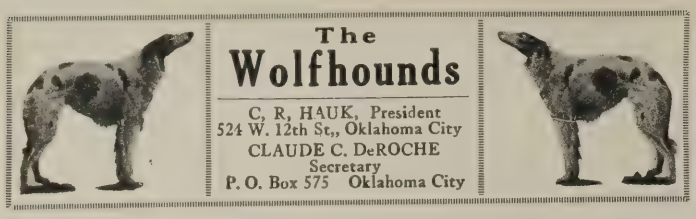
CARDY ICE CREAM BOX CO.
CHELSEA
MASS
U.S.A.



Ice Cream Pails in New and Attractive Design

Our Ice Cream Pails are made from the very best stock obtainable, highly sanitary, and printed with new and snappy designs in one or two colors.





THE WOLF HOUNDS DO THEMSELVES PROUD.

Visitors to the Oklahoma City convention of the Oklahoma Association of Ice Cream Manufacturers were loud in their praises for the entertainment provided by the Wolf Hounds. There was something doing all the time to enliven the proceedings from Monday morning until Wednesday noon. They didn't stop at giving the ice cream manufacturers one entertainment. They gave a series of entertainments and they didn't forget the ladies.

On Monday they provided a luncheon and matinee theater party for the ladies and in the evening both ladies and gentlemen were invited to another theater party. On Tuesday the ladies were entertained by a luncheon and banquet and an auto ride. In the evening they were invited to join the men for an entertainment after the latter had enjoyed a "dutch lunch." Following the entertainment all concerned tripped the light fantastic toe until the wee' sma' hours.

On Wednesday the ladies were conducted on a shopping tour and at noon all joined for a banquet luncheon.

The entertainment program on Tuesday evening, following the "dutch lunch for men only" deserves special mention. The numbers were all good, but the real "hits" were the Metropolitan Quartet and Miss Dainty Dorothy Adrian with her dancing and singing. The quartet, consisting of Mrs. Nellie Gothold, soprano; Mrs. Helen Heed Brown, contralto; Mr. Horato Reuch, tenor, and Mr. Clark Snell, baritone, accompanied by Miss Lillian Deehman, pianist, delighted the audience with their songs and were called back again and again before allowed to quit. Their rendition of an arrangement from "Sextet From Lucia" stamped them as real artists.

Little Miss Dainty Dorothy Adrian was sweet enough to chew. Now don't get excited, we are merely reporting a unanimous verdict instead of registering our personal opinion. She is but 10 years old and pretty as a picture. She danced with the grace and finish of a professional yet with the sweetness of a child. Her singing adds to her charm and she, too, was kept real busy responding to encores. She was accompanied by her mother, Mrs. Clara Adrian, of Los Angeles, who is Miss Dorothy's manager in all things.

The dance following the entertainment was a most enjoyable affair and everybody went to bed feeling that it was the end of a perfect day.

Mr. C. R. Hank, who served as president of the Wolf Hounds in 1921, was also chairman of the entertainment committee and is entitled to a lot of the credit for the success of the entertainment features. He worked his head nearly off, but he can enjoy the satisfaction of a duty well performed.

At the annual meeting held on Wednesday the following officers for 1922 were elected:

President—J. Will Carpenter, care Haines-Carpenter Dairy Products Co., St. Louis, Mo.

Vice-President—C. H. De Roche, Liquid Carbonate Co., Dallas, Texas.

Secretary-Treasurer—Otis B. Witte, N. A. Kennedy Supply Co., Oklahoma City, Okla.

Kennel Keeper—Carl R. Zimmer, Menasha Printing & Carton Company, Kansas City, Mo.

It will be noted that the members rewarded their efficient secretary, Mr. C. H. De Roche, by electing him vice-president, and they probably have other honors in view for him. The Wolf Hounds are well started for 1922.

* * *

FROM THE PRESIDENT.

Oklahoma City, Jan. 5, 1922.

Editor Ice Cream Review:

I want to take this opportunity to thank all the boys who helped make the Oklahoma City meeting such a big success. The Wolf Hounds have a big reputation to line up to and it is a big job to entertain those wide awake ice cream men in the way they are used to. As chairman of the Wolf Hounds' entertainment committee I had **some job,** but now that it is all over and I have caught up on sleep, I realize more than ever what a task I had. I never could have lived through it except for the wonderful support I got from the whole pack of Wolf Hounds.

They are the best in the world and I hope that each one had the best Christmas he ever had. I also hope that he will do more business in 1922 than he is looking for, and I realize that will be going some. Now let us all get behind the new president of the Wolf Hounds and help him put things over big. Mr. President, we are with you to a man. Let's go!

C. R. HAUK, Ex-President,
Oklahoma Wolf Hounds.



Tell us what you want, or what you have that you don't want, and we'll fix up a little Ad for you and insert it in the next issue of The Ice Cream Review.

CLARKSON BRAND
TRADE MARK
GUARANTEED

CHICAGO
NEW YORK
PHILADELPHIA
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LOS ANGELES
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Clarkson Gelatine Works

Manufacturers of

FOOD GELATINES

Write Us Regarding Our Supreme Pure Food Gelatine
No Better Stabilizer

Superior in Purity *Odorless and Tasteless*
Economical in Price *Uniformity Always*

WE GUARANTEE TO SHOW YOU A SAVING

FOR OVER 20 YEARS

We have ***specialized*** on
Vanilla Extracts
and **Vanilla Compounds.**

We guarantee to improve your Flavor with a saving in cost

Proprietors of "VANOLEUM." The *Original Concentrated Vanilla Flavor.* We warn the trade against worthless imitations having similar sounding names claiming to be "the same as *Vanoleum.*"

MEMBER

Corrizo Extract Company

211-215 West 20th Street **NEW YORK, N. Y.**

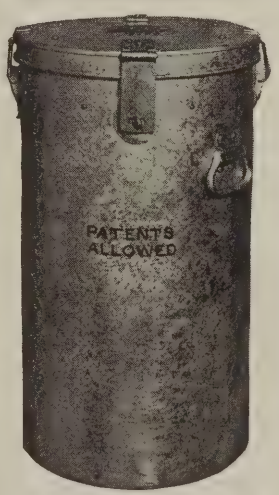
EXPANDING CONSUMPTION.

From an elaborate study of the sugar situation the Trade Service of the Standard Statistics Company reaches the conclusion that an extended period of activity and prosperity lies immediately ahead of the sugar industry, states Facts About Sugar. This conclusion is based upon a number of observations, but chiefly upon the fact, which the investigator finds to be demonstrated by a study of sugar market history, that "the demand for sugar is highly responsive to changes in prices and capable of great increase in the quantity demanded, both extensively and intensively, if the price be moderate." Foreseeing a very moderate price level for sugar during the next few years the report anticipates a heavy growth in consumption.

Above a certain price sugar, except in very limited quantities, is regarded as a luxury and is purchased sparingly by a large part of the populace. With every decrease in price they indulge themselves more and more liberally. Consumption is encouraged much more by a decline from six to five cents a pound than it is, for example, by a fall from twenty to fifteen cents. In the opinion of the trade expert referred to sugar is now in a price zone which will lead to a much larger consumption.

A VERY PRACTICAL CALENDAR.

We acknowledge receipt of a very practical calendar from The Hudson Manufacturing Co., 119-121 North Union Ave., Chicago, importers and manufacturers of vanilla products, essential oils, etc. It is not one of those little stingy affairs. It is as big as the wife's Christmas shopping list and with figures that even a weary editor can see clear across the office. It is our idea of a serviceable calendar.



Saves 10c a Gallon

That is the saving a shipper just reports who uses the

D-C IceLess Express Container

Well hardened ice cream will keep in perfect condition in these containers for 12 hours. We guarantee that, and on the basis of the most trying conditions. In a fairly cool place, 24 hours without ice and still in perfect condition, is nothing extraordinary for ice cream in the D-C Icless Express Container.

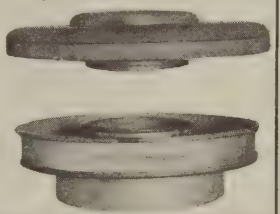
What Would it Save for You?

Their light weight gains a remarkable reduction in express charges. Saves ice, salt, tubs and the labor of packing.

D-C Refrigerating Cover { Converts D-C Shipping container into a cabinet. A practical, inexpensive device that serves a good many opportunities for savings and extending business.

Let us send you prices on these containers. We will also show you some practical way in which they help to develop business.

Decy IceLess Express Container Co., Inc.



MEMBER

TIMES BUILDING
Room 1001
NEW YORK, N. Y.

WASHINGTON — MAINE

News From Far and Near

CALIFORNIA — FLORIDA

Glendale, Cal.—The Glendale Ice Cream Co. has incorporated for $25,000. W. S., E. G. and Edw. L. Herring are interested parties.

Los Angeles, Cal.—An ice cream manufacturing concern to erect a model plant has been organized. It has been announced by the president, Will E. Keller, head of the Globe Grain and Milling Company. The name will be the Globe Ice Cream Company. A $400,000 plant will be erected, with a 12,000 daily capacity. The vice-president and general manager is Mr. Comey; the treasurer, Mr. Hellman, and the secretary is J. M. O'Brien. Directors of the company are W. E. Keller, A. A. Comey, Marco H. Hellman, C. A. Fellows and Carl Leonardt.

Santa Barbara, Cal.—The Danish Creamery and Ice Cream Co. filed a certificate for partnership. Alfred Jensen and Peter Peterson are the proprietors.

New Haven, Conn.—M. Pucklin, Morris Tanenbaum, G. B. Hall, I. Goldblatt, A. Linkenbach, M. B. Hubbel, J. Johnson, Jos. and M. Tannenbaum are forming a new company, called the Manor Farm Ice Cream Company. They have incorporated for $25,000.

Dover, Del.—The New Era Ice Cream Process Corporation has been formed for $250,000.

Augusta, Ga.—The American Ice Cream Co. has been purchased by the Georgia-Carolina Ice Cream Co.

Moultrie, Ga.—The Moultrie Ice and Cold Storage Company will build a large ice cream plant,

Creston, Ia.—The Bloomer Cold Storage Co. purchased the Douglas Ice Cream Co.

Independence, Ia.—The Sanitary Ice Cream Co. is to erect a $40,000 plant.

Keokuk, Ia.—The Keokuk Ice Cream Company has incorporated. J. W. Peter is president; B. K. Peter is vice-president; M. M. Richardson is second vice-president; H. R. Elting is secretary, and F. E. Elting is treasurer and general manager of the new company.

Oxford Junction, Ia.—The Hutchinson Ice Cream Company of Cedar Rapids, Ia., has purchased the Iowa Creamery of Oxford Junction. Under the new management ice cream only will be manufactured, butter manufacturing will be discontinued. E. T. Barker, the former manager, has been retained.

Oxford Junction, Ia.—The Iowa Creamery Company will no longer manufacture butter; the plant has been sold to the Hutchison Ice Cream Company of Cedar Rapids, Ia. Nothing but ice cream will be manufactured in the plant hereafter.

Waterloo, Ia.—The Crowell Company has incorporated; it is successor to the Waterloo Ice Cream Company formed about nine years ago and which has had a rapid growth in business. The capitalization is $200,000 and business will be started when $50,000 has been subscribed. The officers are Roger I. Crowell, president; D. I. Glasson, vice-president; and E. C. Glasson, secretary-treasurer.

Chicago, Ill.—The Republic Power Co. has been formed in Dallas, Texas, for $10,000,000. They will operate ice cream plants. A plant is now being established in Chicago.

Chicago, Ill.—The Lamprake Ice Cream Company has incorporated for $50,000. Ice Cream will be manufactured. Donald R. Bryant, Thos. Lamprake and Jas. Perrie are interested parties.

Rockford, Ill.—The Allen Ice Cream Company is increasing the capacity of its plant. A two-story building is being erected.

Rockford, Ill.—The Cherry Valley Creamery Co. is preparing to manufacture ice cream. Operations will be begun next spring.

Streator, Ill.—There will be a new ice cream factory in Streator, M. C. Coppins, who is in the ice cream business at Wenona, Ill., will be the proprietor.

Marion, Ind.—The Amboy Creamery Company will replenish its line of extracts, gelatines and fruits.

New Castle, Ind.—A power milk bottle washer will soon be added to the Jersey Creamery Company's equipment.

Kansas City, Kan.—Atwood Ice Cream Company will erect a factory building at the cost of $8,000.

Manhattan, Kansas.—W. H. Chappel, who has purchased the equipment of the O-Keh Creamery Company is having a new ice cream factory erected.

Pittsburg, Kans.—The Pittsburg Candy Company is contemplating adding an ice cream department to the candy factory.

Conneaut, O.—Delivery equipment is very likely to be added to the Conneaut Dairy Company.

Galion, Ohio.—E. H. Weed will operate an ice cream plant.

Hamilton, O.—A new ice cream plant is being built by the Frechtling Dairy Company. New equipment will be purchased.

Salem, O.—The Salem Sanitary Milk Company will have a new plant in the spring.

Zanesville, O.—The Crane-Ohio Ice Cream Company has begun work on its new factory.

Anadarko, Okla.—The former owner of the Jersey Ice Cream Company, T. L. Whittaker of Birmingham, Ala., will open an ice cream plant in Anadarko and a full line of equipment will be purchased.

Okmulgee, Okla.—E. L. Lindsey will build an ice cream factory.

Brooklyn, N. Y.—The Philadelphia Ice Cream Company has incorporated for $10,000. Geo. Fust, Edw. J. Reidel, and Lina Kruse are interested in the project.

Newark, N. J.—The Robbins Ice Cream Co. expect to have their new plant in operation by the middle of January.

Boston, Mass.—Paul Baer, proprietor of the Polar Bear Ice Cream Co., will improve and enlarge his plant.

North Adams, Mass.—The Country Maid Ice Cream Company will erect a new plant. C. H. Mausert & Son are the owners.

Hagerstown, Md.—The Sine Ice Cream Company, capitalized at $500,000 with factory and headquarters in Hagerstown, has sold out to the Imperial Ice Cream Company, capitalized at $2,000,000, operating seventeen plants in Maryland, Pennsylvania, Virginia, West Virginia, Ohio and Kentucky.

Detroit, Mich.—The Freeman Dairy Company broke ground for the erection of an ice cream plant. Building and equipment will cost $25,000.

Sauk Center, Minn.—The Pioneer Ice Cream Company has been incorporated by four persons at $10,000.

Neosho, Mo.—A new ice cream plant will be established here at once. Negotiations between the milk and cream producers of Neosho and the Quality Ice Cream Company of Tulsa, Okla., have been successful. W. G. Russell is interested.

Bradford, Pa.—A new industry will soon be added to Bradford; it is to be the Bradford Ice Cream Company, and

SOUTHERN TINNING COMPANY
Johnson City — Tennessee
RETINNERS

We solicit your correspondence and business on the basis of PROMPT SERVICE, BEST OF WORKMANSHIP AND MATERIAL, REASONABLE CHARGES AND THE SAVING WE CAN MAKE FOR YOU. We will gladly retin a sample can for you, free.

"WE MAKE NEW ONES OUT OF OLD ONES"

the plant will be large and modern, 84x47 ft. and one and one-half story in height. Daniel L. Gaffney, of Pittsburgh, treasurer, is in general charge of arrangements for the new plant. They expect to be in operation about March 15th, with a complete equipment of modern machinery. R. C. Hutchison, Pittsburgh, is president; Fred C. Klussman, Pittsburgh, is vice-president; A. J. Lyon, of Angola, Ind., is secretary; and Daniel L. Gaffney, of Pittsburgh, is treasurer and manager.

Brookville, Pa.—The Brookville Ice Co. is building a large ice cream plant.

Erie, Pa.—Refrigerator truck bodies will be purchased for the Erie Pure Milk Company by Mr. Gordon Spencer.

Hazelton, Pa.—The Wilkes Barre and Scranton firm of Smith & Clark will erect another ice cream factory, to be located in Hazelton.

Kingston, Pa.—A new ice cream plant has just been completed by M. F. Fadden and Sons.

Waynesboro, Pa.—L. M. Greenwalt will build an ice cream factory.

Corsicana, Tex.—The Frick ice Cream Company has increased the capital stock from $15,000 to $40,000.

Chattanooga, Tenn.—The Clover Leaf Company has sold its ice cream plant to the Wise Creamery Company. They are enlarging the plant.

Dallas, Tex.—The Sunbeam Ice Cream Company is now in operation. A. Marshall is president.

Lubbock, Tex.—The Texas Utilities Company, of Plainview, will erect a $30,000 ice cream plant in Lubbock and will also enlarge their Plainview building. J. B. Scott is the manager of the company.

Covington, Va.—The Clifton Forge Ice & Bottling Works will erect a building for an ice cream factory.

Staunton, Va.—The Imperial Ice Cream Co. will build a branch plant in Staunton. The main plant is in Clarksburg, W. Va. The company is also building a plant in Winchester, Virginia.

Clarksburg, W. Va.—The Ken-Kone Company has incorporated for $10,000. Incorporators are Frank Mantell, John J. Brady, Frank Sweeken, and Geo. May, all of Connellsville, Pa., and Rollo J. Conley, of Fairmont.

Morgantown, W. Va.—The Morgantown Ice Company has obtained a permit for the construction of a large ice cream manufacturing plant which will be leased to a manufacturer.

Beaver Dam, Wis.—Bartelt Bros., proprietors of the Beaver Ice Cream Company, located at Beaver Dam Junction, have purchased ground in Beaver Dam and will erect a new ice cream plant. Messrs. E. and A. Bartelt are the proprietors.

Burlington, Wis.—The Kellogg Ice Cream Company are building an addition to its factory which will give the plant an output of 2500 gallons a day. It will be two stories high and the new portion will be for hardening and storage. A 20-ton compressor will be installed.

Seattle, Wash.—The Velvet Ice Cream Company has incorporated for $150,000.

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CALIFORNIA AND SOUTHWESTERN STATES ASSOCIATION ELECTS OFFICERS.

At the seventh annual meeting of the California and Southwestern States Ice Cream Manufacturers' Association, held at Stockton, California, December 5-6, the following directors and officers were elected:

Officers: President, L. W. Wilson, Benham Ice Cream Company, Fresno, Cal.; Vice-President, C. J. Alfred, of Alfred's Pure Ice Cream Co., Los Angeles, Cal.; Secretary-Treasurer, Robt. J. Dryden, of the Kream of Kream Ice Cream Co., Oakland, Cal.

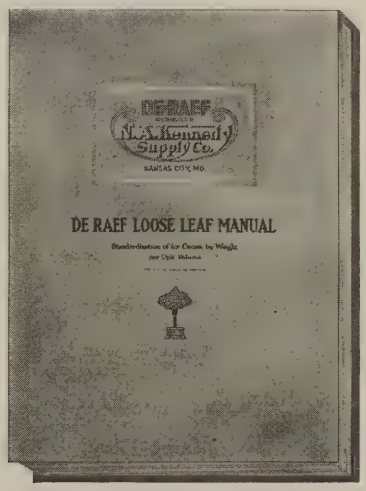
Directors: The officers and Harry Peacock, Bakersfield, Cal.; S. A. W. Carver, Los Angeles, Cal.; Mr. Alsop, Phoenix, Arizona; I. J. Trainor, Sacramento, Cal.; L. J. Christopher, Los Angeles, Cal.; F. H. Ames, San Francisco, Cal.; E. W. Chism, Reno, Nevada, and Geo. H. Platt, of Los Angeles, Cal.

⚜

When you see a doctor and an undertaker shaking hands and slapping one another on the shoulder things look dark for the ultimate consumer.

DE-RAEF LOOSE LEAF MANUAL
FOR THE PRACTICAL
ICE CREAM MANUFACTURER

the only Manual of its kind published to date, one hundred fifty pages devoted to the MILK PRODUCT MANUFACTURE, and STANDARDIZATION OF ICE CREAM BY WEIGHT PER UNIT VOLUME.



New Editions will be published from time to time and furnished to owners of these Loose Leaf Manuals to be inserted, keeping these Manuals up to date at all times.

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KANSAS CITY MISSOURI

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CEDAR RAPIDS TINNING AND GALVANIZING CO.
CEDAR RAPIDS IOWA

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It does away with DRIP and WASTE

DOES NOT CONTAIN GRAPHITE — CHAINOLENE LUBRICANT

Will add life to your **Roller** and **Link Belt Chains** and **Gears.**

IT'S SOMETHING DIFFERENT
Sold on Trial

CHAINOLENE MFG. COMPANY
564 W. Randolph St. Chicago, Ill.

WHIRLWIND AUTOMATIC BRICK MAKER.

The C. E. Rogers Manufacturing Company, of Detroit, Mich., are putting out a whirlwind ice cream brick machine which makes 1,200 perfect bricks per hour.

The machine was demonstrated each morning during the Buffalo, N. Y., show and drew interested crowds of as high as 200 spectators in one running at the Wheat's Ice Cream Company plant. At the Minneapolis convention of the National Association of Ice Cream Manufacturers and at the Seattle convention of the Pacific Ice Cream Manufacturers' Association, this Rogers rotary brick machine attracted its share of attention.



Rogers' Automatic Ice Cream Brick Maker at Work in Seattle, Wash.

The accompanying illustration shows a demonstration of the ice cream brick maker at the plant of the Seattle Ice Cream Company and the manufacturers present had an opportunity to observe the efficiency of the whirlwind machine which turned out the perfect bricks at the rate of 1,200 per hour. The machine was marvelled at for its simplicity and efficiency. The brick maker fills brick cartons in one, two or three colors in quarts, pints or in quarts divided into eight individual packages, at the rate of four gallons per minute. The cartons are fed into one end of the machine and the ice cream at the top, and the bricks come out perfectly filled, with their colors accurately laid and ready for the hardening room. The capacity of the machine is from 1,200 to 1,800 Neapolitan or solid-flavor bricks per hour. The Neapolitan bricks are mechanically and accurately proportioned, the dividing lines between flavors being sharp and straight. With a special conveyor the filled boxes are carried directly to the hardening rooms at the same speed of the machine. The amount of labor saved is remarkable. Two people can operate the machine. One feeds the empty boxes into the machine and another closes them as they pass by on the way to the hardening rooms. Paraffined cartons do away with extra wrapping. The cartons carry the brand name and other printed matter and when the package is opened by the consumer the cover is removed, the ends are detached and all sides are turned down, leaving a perfect brick, ready for cutting.

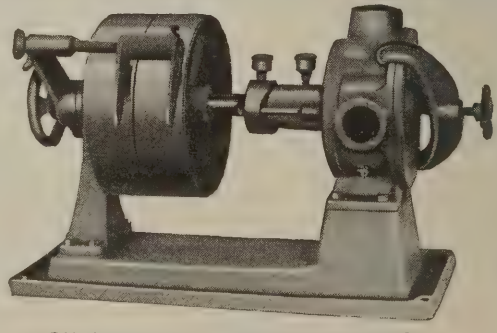
Mr. Don Rogers of the Rogers Manufacturing Company, and Mr. Forrest Harwood of the John W. Ladd Company, Detroit, Mich., were in charge of the Seattle exhibit.



A BEAUTIFUL SOUVENIR.

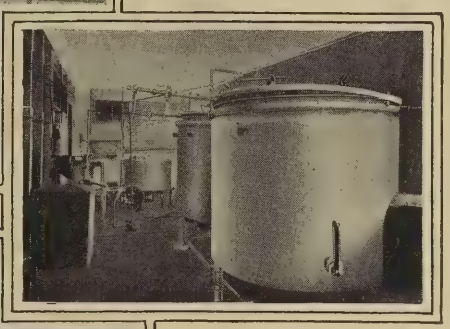
One of the nicest and most practical holiday souvenirs that have come to our desk is the one issued by the Purity Ice Cream Co., Russellville, Arkansas. It is a document for filing valuable papers, carrying the name and address of the recipient and with the "compliments of" the donor. It is a very attractive, useful article for the office man or for the traveler.

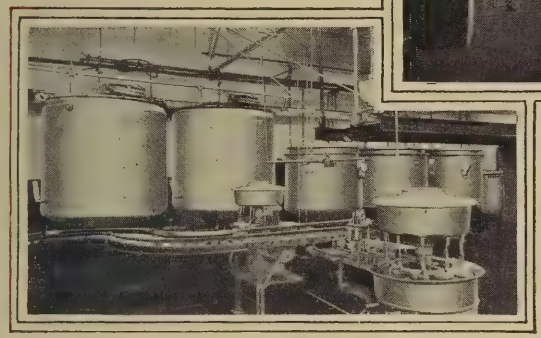
Diamond-F
Protective Papers
For Ice Cream and Candy Makers
Glassine — Greaseproof
Vegetable Parchment — Parchmoid
Made by
Diamond State Fibre Company
BRIDGEPORT (near Philadelphia) PENNA.

For CREAM

For BRINE
2" SANITARY VIKING PUMP
THE UNIVERSAL PUMP
For Milk, Brine, Water or Foods
VIKING PUMP COMPANY, Cedar Falls, Ia.









Upper left—Sanitary Milk Products Company, Indianapolis, Ind.

Upper right—Grocer's Dairy Products Company, Kokomo, Ind.

Center—Sanitary Milk & Ice Cream Company, Peru, Ind.

Lower—Union Dairy Co., Chicago

PASTEURIZE IN GLASS.

We have issued two new booklets which we want to send to you. One describes our ice cream mixer, pasteurizer, aging tank, etc. the other, our milk and cream pasteurizers. Mark the one desired on coupon, and mail.

In 1900 there was practically no pasteurization of milk, cream, ice cream mix, etc., as we know it. Today ninety-one per cent of the milk and a large percentage of other dairy products in America are pasteurized. This is a distinct step forward.

Within the last few years many dairy and ice cream concerns have adopted the **Pfaudler** system of pasteurization in glass,—which is the modern method.

Our ice cream pasteurizer and mixer does double duty, the one tank being used both for pasteurizing and mixing. May we tell you about it?

Pasteurize in Glass!

Pfaudler

The PFAUDLER CO.

The World's Largest Makers of Glass Lined Steel Equipment

ROCHESTER, N. Y.

NEW YORK CITY CHICAGO SAN FRANCISCO
LONDON, England SYDNEY, Australia

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..... 1922.

The Pfaudler Co., Rochester, N. Y.
Gentlemen:

Send booklet "Ice Cream Equipment" ..... ☐

Send booklet "Pasteurization" ..... ☐

Send your representative..... ☐

No obligation.

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I-C-R-1 .....

Back of the Best Ice Cream, Toppings and Marshmallows

Good ingredients mean good products. Good products mean big sales. Among gelatines there is none purer or superior to

Ucopco Pure Food Gelatine

In ice creams, it efficiently and uniformly distributes both moisture and flavor, insuring smooth, velvety texture, free from ice and milk-sugar crystals.

In marshmallow work, its uniformity and high quality insures a product unexcelled for fluffy tenderness and long retention of flavor.

There's a grade for every purpose. Ask for details.

THE UNITED CHEMICAL & ORGANIC PRODUCTS CO.

4200 S. Marshfield Avenue
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401 E. 45th Street
NEW YORK CITY

"UCOPCO" Comes Sealed in Red Drums



THE NORTH CAROLINA LOVING CUP.

The above cup was presented by the North Carolina Ice Cream Manufacturers' Association to the state having the largest delegation at the Southern Ice Cream Manufacturers' Convention, held at Atlanta, Georgia.

It was a great masterpiece of workmanship and required the physical strength of Messrs. Mulligan and Abel, a well chosen team of the Dixie Flyers, to hold this masterpiece between themselves at heads height while Mr. George L. H. White, president of the North



Admirers of the Loving Cup.

Carolina Ice Cream Manufacturers' Association gave the following presentation speech:

"Realizing my inability to make a lengthy speech and knowing that actions speak louder than words, I am simply going to present this cup in behalf of the North Carolina delegation.

"You will notice from its size that this cup is large enough to speak for itself and were it gifted with the power of speech, it would say, 'I Scream' (Ice Cream) in a loud voice the most cordial greetings from the old North State.

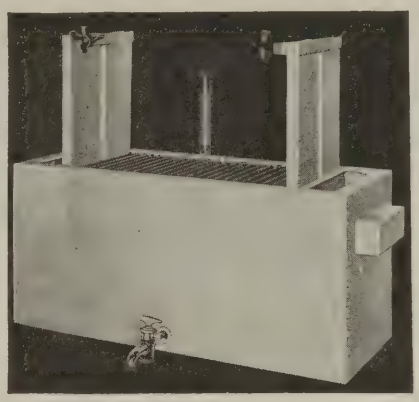
"Most of you have heard of that memorable conversation that took place between the governor of North Carolina and the governor of South Carolina away back yonder in the days of the old South, that expression of good fellowship, 'It's a long time between drinks' has been echoed around the world. Of course, the sentiment conveyed by that expression was 'It's a long time between visits' and if this cup could speak it would say in behalf of the North Carolina delegation, 'We hope it will not be long before the old North State will have the pleasure of entertaining this convention.'"

"It therefore gives me very great pleasure to present this cup to the State of Tennessee, for having the largest delegation at this convention, and if this cup were to give a toast, it would say,

'Here's to the land of the Long Leaf Pine,
The summer land where the sun doth shine,
Where the weak grow strong and the strong grow great,
Here's to Down Home in the Old North State.'"

Mr. White then with apparent ease presented this wonderful token to the Tennessee delegation as this state proved to have the largest attendance at the convention, and therefore, the lucky winner.

Mr. Sidebottom, of Tennessee, with a well chosen remark accepted the cup as a token and great honor and assured the North Carolina delegation as well as all ice cream manufacturers and all present that he and the Tennessee members would see to it that the cup will be well housed and properly used whenever the Tennessee members had the honor of entertaining the Southern Ice Cream Manufacturers' Convention in the state of Tennessee.



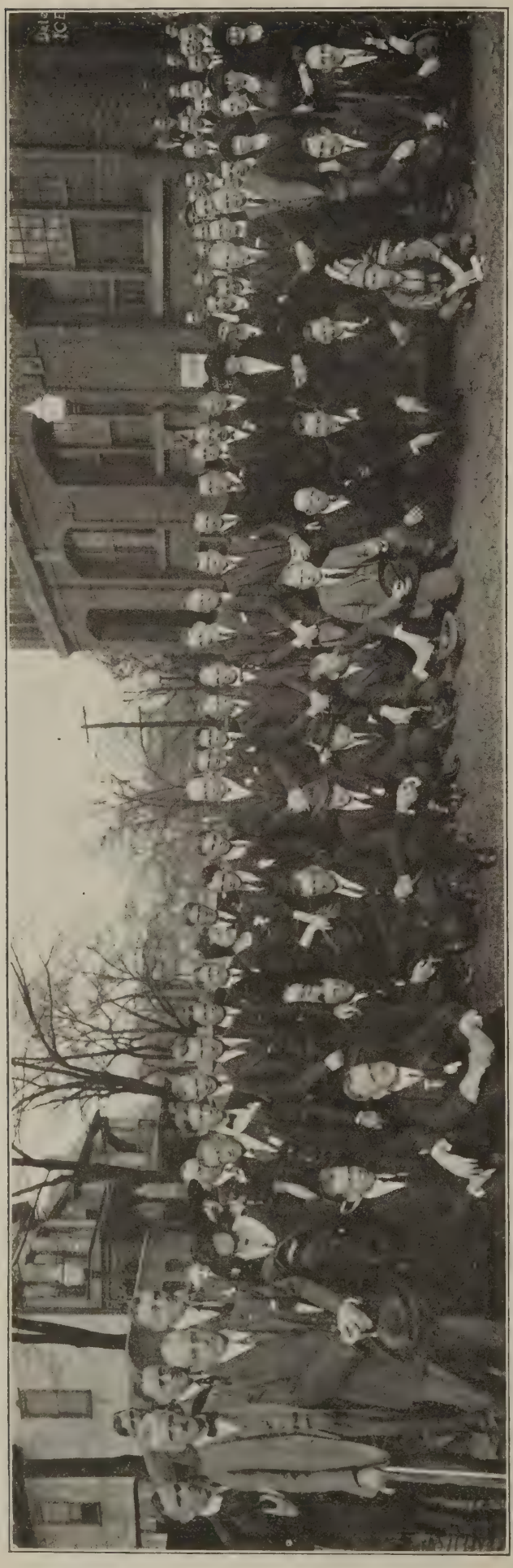
Reduce Your Sterilizing Costs the

Electro Chemical Way

WITH only salt, water, and electricity, the above cell will produce sodium hypochlorite in five minutes time, at a cost of a fraction of a cent per gallon at working strength. No cheaper or more effective disinfectant known. In diluted form it has reduced bacterial count from 7,000,000 to 800 in five minutes.

Let Us Tell You How

The
Electro Chemical Co.
Dayton, Ohio




Delegates & Exhibitors at Southern
ICE CREAM SHOW
Atlanta, Ga. Nov 28th-Dec 2nd 1922

1922

May the coming year exceed in Happiness and Prosperity the most sanguine expectations of every reader of these lines.

H. KOHNSTAMM & CO.

Is your package easy to remember?

"Putting the name across" is never an easy job. People do not make it a point to remember your name when they see it. But if the package is so designed that it will arrest their attention, if it is striking—"different"—they will begin to remember it after seeing it the second or third time. And they will associate your name with your product.

Then, too, your package must deliver its contents in good condition. And only a house that has learned, through long experience how to build the best boxes can do both jobs well.

We have designed and made boxes for exacting organizations in every branch of business. For more than 20 years we have been improving the packing methods of business houses thruout the country.

Our service department will be glad to send samples and quote prices.

The Peerless Paper Box Mfg. Co.
1137 West 6th Street : Cleveland, Ohio

Any kind of folding box for every kind of business



Ice Cream Output for 1921

By L. O. THAYER

	1921	1920	Decrease
Total output, U. S.—Gallons	216,569,212	257,820,490	41,251,278
Total wholesale factories	189,261,212	212,960,382	23,699,170
Total retail make	27,308,000	41,991,709	14,683,709
Wholesale price @ $1.14 a gallon	$215,757,781	*$278,716,101	$62,958,320
Retail value of total @ $2.24 a gallon	485,115,034	†638,384,815	153,269,781
Value, wholesale plants	192,714,375	164,578,000	‡28,136,375
Wages and salaries, wholesale	158,816,460	172,224,000	13,407,540

Total per cent decrease in output for 1921 compared with 1920—16.

*1920 price, $1.31 a gallon. †1920 retail price, $2.48 a gallon. ‡Increase.

There will be peculiar interest in this estimate of ice cream consumption for 1921 because of the fact that many wild and totally false guesses have been made by several speakers in recent conventions, and many concerns interested in selling supplies to the manufacturers have dwelt on the "wonderful" business done during the year with the evident idea of appearing optimistic. There can be no fault found with the optimistic, for we are all in that class. This estimate is designed to be one of cold, hard facts, and the figures this year have been as carefully collected and collated as has been the case for the last ten years. In fact, unusual care has been exercised in the gathering of statistics, for the writer knew it had been an unusual year.



L. O. THAYER

The country has been covered even more thoroughly than before, and the number of plants has been almost doubled for data which would check the usual representative plants which always have entered into the final calculations. It was thought wise to do this because of the effort on the part of many as far back as last September to make it appear that the year 1921 had been a record year for sales. Of course that month was far too early to gain any true statistics of the business for the twelve months. Even at that date the wild guesses were far wrong of the actual business done up to that time.

It is no easy task to cover the country, with its 4,700 plants which do a wholesale business, and get a true line on the output. For this estimate almost a quarter of the plants have reported, and as they were picked for their representativeness it is clear that the final estimate comes nearer being the true situation than any hit or miss generalization covering a portion of any one state.

There are certain representative men connected with associations who have a general idea pretty close to being accurate of the conditions in their section, and the word of these men goes a long ways toward checking up on the individual reports in their section. In this way large sections can be covered with more or less of authority. In some years these men have qualified their statements because of uncertainty in their information. Not so, for this review. Never have they been more positive in their assertions. It is true, also, that the individual reports have been clear and positive. They have in 80 per cent of the cases agreed with the general summary of the section reporting by key men.

No man of wide and general information has stated that 1921 saw as much ice cream put out as in 1920. The individual reports of a 100 per cent output have been cut down to about 5 per cent, and in these cases many have given an explanation in order that their statements could be believed. It was clear that there was some special reason why their output was as large as that of 1920. More manufacturers have been frank in their statements of loss of volume, and many have given the reasons for the loss. Their excuses have made their reports all the more believable.

There are several reasons for the loss of sales. First, and foremost is the holding up of retail prices long after the public refused to buy at the war figures. Nearly everywhere the retailers kept the same prices as in 1920, when everything was at the peak and the public had so much money it went crazy trying to spend it. The first break that presaged hard times came in October in New York. Within two months the public drew in its purse strings, and began to buy more carefully and to deny

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THE HYGIENIC CLEANSER

NOT only loosens dirt, fatty films and grease,—but softens the hardest water—dissolving the particles quickly, rinses perfectly and leaves everything sweet and clean with little effort and at small cost.

Write for prices and free trial offer

PYRAMID OIL COMPANY
ENDURING LUBRICANTS
MINNEAPOLIS MINN., U. S. A.

It is urgent that you install

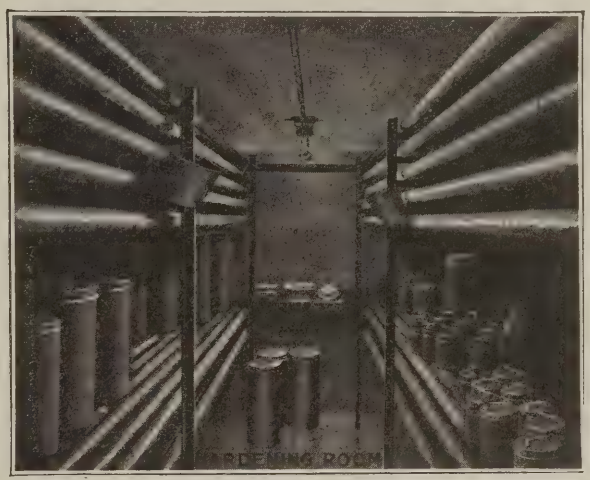
"STERLING"

Refrigerating Machinery right now so you will be prepared for the business that will be yours in 1922.

Think how badly you needed this equipment last year—

You will need it more this year.

Capable Engineering—
included in our service—available for your particular need.



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Exchange Bank Bldg.
ST. PAUL, MINN.

415 No. Howard St.,
BALTIMORE, MD.

1539 Sixteenth St.,
DENVER, COLO.

402 Andrews Bldg.,
DALLAS, TEXAS.

415 Gravier St.,
NEW ORLEANS, LA.

612 Mayo Bldg.,
TULSA, OKLA.

513 United Bank Bldg.
SIOUX CITY, IA.

Hoosier Ice Machine Works,
EVANSVILLE, IND.

KEYSTONE wishes you A Happy New Year!

You'll Need Keystone Products In Fancy Ice Creams

For Washington's Birthday

Cherry Ice Cream or Custard made with Whole, Whole and Broken or Crushed Cherries

For St. Patrick's Day

Green Creme de Menthe Pineapple
Green Cherries
Whole, Whole and Broken, or Crushed.

By the inimitable Keystone process the rich, delicious flavor of the fruit is retained so as to give your ice creams that "we want more" appeal. Processed in our own plant by men trained to the wonderful Keystone standards of quality.

The undeviating KEYSTONE quality at attractive prices enables you to produce the highest grade creams at comfortable margins of profit.

Our enormous capacity enables us to fill all orders—large or small—promptly. Better order now to avoid the "last minute rush."

HAVE YOU TRIED OUR ORANGE PINEAPPLE?

DEPT. IC—2

Keystone Fruit Products Co., Cincinnati, Ohio

itself luxuries. In spite of the fact that ice cream is a food, and in spite of the fact that manufacturers have been harping on this line for two years, the public in general has not yet fully agreed. It still classes ice cream with candy and soft drinks.

When the break came, and the far-seeing ones were expecting hard times, ice cream was being sold, as a rule, at from 75 and 90 cents a quart over a wide area of the land. A small dish and a sundae was 22 to 28 cents, with the tax. A soda was 17 cents and no cones were sold less than 11 cents. The writer saw the trend as early as November and waited for the new year to turn, to see if the retailers would take notice and follow the wholesalers in reducing. They did not, and in February a campaign was started to show the retailers that they could hold up sales and make more money if they would reduce prices.

The wholesalers saw the light and reductions were made all over the land, some of them as much as 15 to 20 per cent. It was expected that the retailers would pass this reduction on to the customers. When it was found that the profiteers would not listen to reason various methods were tried to make them change their policy. Some succeeded, but most of them did not. It was not until July that many retailers were compelled to come down, and then only because the newspapers began to show them up. By late July prices had come down to a fitting figure.

With the spring weather starting early, and with good prospects for a good early trade, the wholesalers were congratulating themselves. But they saw dwindling sales, and month after month they ran behind the volume of the previous year. Nearly all over the east and middle west the weather was favorable until August. But the retailers had done their damage, and the public had gotten out of the habit of buying. The weather was unfavorable as a year only on the Pacific coast, which ran behind sales as an average fully 30 per cent. This with the high retail prices is responsible for the sad showing there. There were the usual spotty places where the weather took its toll, but until August the conditions were average favorable. August was a tough month over a wide area of the choice ice cream section. One manufacturer, whose output runs around 2,000,000 gallons, said he had actually lost money in August, and he was getting $1.50 a gallon at that.

Of course, another great reason for the loss of volume was the hard times, which rolled clear across the country. With so many out of work and with uncertainty, families by the million had to figure ahead on buying, and ice cream was one of the things that could be dispensed with. The high prices had made the consumers ugly and it is figured that this spite alone is responsible for the 16 per cent loss that is recorded. In spite of the hard times, had retail prices been as they were in September, this would have been a record estimate.

A careful analysis of costs in every section of the land proved that the wholesale prices, ranging from $1.00 to $1.30 a gallon were reasonable and fair. In some sections the $1.40 price was not out of reason. Those who stuck to a higher price than this were not fair, and they suffered for their greed. The retail prices to meet these figures should not have been more than 45 to 60 cents a quart. Where bricks were sold these retail prices would provide more than a good profit; where bulk was sold they would have been ample.

Reports from sections proved interesting. New England averaged 78 per cent of 1920; the Atlantic coast states as far as Virginia went to 88; from there to Florida, 68; from Florida to the Mississippi, 69; the northern part of the south, 72; the middle west, east of the Mississippi, 92; the southwest, 70; the prairie states, 72; the mountain states, 70; Pacific coast, 70.

Had not the great ice cream section from the Atlantic to the Mississippi and north of the Mason & Dixon line, done as well as it did, the report would be sad indeed. The middle west really carried off the banner for 1921. As two-thirds of all the ice cream eaten is in the section mentioned it brought up the average.

Everywhere the retailers that make their own ice cream were hard hit in volume; they probably made a good thing at their prices, but just the same they have learned a good lesson. What wouldn't they have made if they had kept up the volume at 15 per cent less price? Of course, the item of retail make does not take into account the hotels, restaurants and the like, for no one can estimate this make. The item means those retail stores that sell their own make over the counter. There is 2,000,000 gallons of this in and around New York City, and the output should have been twice that.

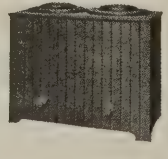
Canada probably did almost as well last year as the preceding one. Ontario and Quebec had three wonderful months, the hottest long stretch known in history. Those who think they know say that Canada probably turned out about 38,000,000 gallons of U. S. size.

After all it is not the gallonage that counts; it's the net profit. Even at the wholesale prices the wholesalers faced favorable conditions except as to overhead charges. This applies only to the big ice cream section. Those unfortunates in the south, as a whole, the mountain and northern section of the Pacific coast had more obstacles with which to contend. They faced bad weather, or lack of spenders, or bad accounts. In spite of the set-back, these boys are not discouraged and are hardly blue over the result. If there is any discouragement it is



Schroeder Perfection Cabinets

Success in 1922 depends on efficient and economical operation.



"Insulation is the thing"

JOHN SCHROEDER LUMBER CO.

"A Dozen Cabinets or a Dozen Carloads"

WALNUT ST. -•- MILWAUKEE, WIS.

For Lasting Service—

Buy { Ice Cream Tubs
Ice Cream Cabinets
Ice Cream Delivery Pails

Built by

DAVIS COOPERAGE CO.

MARTINSVILLE, INDIANA

Business Established 1869

DELFT

The World's Best Food Gelatine

HAROLD A. SINCLAIR 160 Broadway NEW YORK

Some of the
REASONS WHY
you will want
DELFT GELATINES

Bacteria	**GONE**
Odor	**GONE**
Chemicals	**GONE**
Sandiness	**GONE**
Shrinkage	**GONE**
Troubles	**GONE**
Uniformity	**HERE**

"Price is a relative term—quality always a concrete fact."

A large and critical manufacturer, operating a laboratory and understanding gelatine value, recently said:

"At first I was skeptical of your statement regarding freedom from liquefying bacteria, but after using the goods all summer, I wish to compliment you upon the achievement and to tell you Delft is the finest gelatine I have ever used or analyzed, and am using 34 pounds as against 42 pounds before."

This man made a saving of 20% by using Delft, and, of more importance, greatly improved the quality of his product. Why not do likewise?

Write us for samples and prices.

Middle-Western Distributors
ROCKHILL & VIETOR
FRANK Z. WOODS, Manager.
180 N. Market St., Chicago, Ill.

South-Western Distributors
BLANKE MANUFACTURING & SUPPLY CO.
St. Louis, Mo.

in the south, where conditions are sad indeed. Probably less than 50 laid by much money; perhaps 100 made a little, and 150 just got by. Several hundred are up against it. It was said at the Atlanta exhibit that as a whole the south never was so hard hit.

The year has taught a good lesson to all ice cream men. They will be more careful in buying in the future; they will seek to lower the overhead more than ever before; and they will spend as little for improvements as they possibly can. Those who have investigated say that those companies which are strong will seek to strengthen their position; that many small fellows will drop out, or sell out; that the monied concerns will add to their chains to advantage, and that there will not be a great amount of building, as we have been accustomed to see each winter.

There were a few bright spots in the business. The prices of ingredients were low and labor was much cheaper and a little more efficient. Delivery expense was cheaper, and the shipping radius was shortened, thus giving the little fellows a better chance than they have had for years. The high express rates and the shortening of truck delivery has caused many of the big concerns to work their own cities more intensively and let the country districts go hang. The valuation of plants increased, not because of added investment so much as added tax valuations. Taxes are still at the peak, which is bad all around. The little relief in war taxes will help this year. The rescinding of luxury taxes for this year will help some. The cone business ought to come back.

In spite of all the adverse conditions and a year that was not bright, it is noticed that many big concerns are going ahead with plans to enlarge their business. To get around the high cost of shipping branch plants are being put in to more closely cover their territory.

As a rule the larger concerns were fairly well satisfied with the profits for the year. Of course there were few such profits as marked the last two years, but most concerns were satisfied with fair profits and not so large that they will have to pay big super-income taxes. Large sums for new equipment, especially delivery, were spent in 1919 and 1920 to reduce the super tax. For 1921 the sums were smaller.

The wise ones are watching the trend of business. It is realized that in most big cities there is getting to be a jam; competition is at its peak. In some places the number of plants is too large for all to make a living, and the old-timers are tightening up to face the coming struggle. Many a city can be named where the fight will be fierce, and someone must give way. The plethora of plants makes competition so keen that unfair practices are creeping in and the old-timed bitterness is showing itself after an absence of many years. This is a bad feature that will mark this year.

It is getting to be a problem for a new comer to find a spot that is not covered all too well with ice cream plants. The coming struggle will be a battle of money and brains. The great influx of outside capital has not been calculated to steady the industry. In many cases these outsiders have had a hard row to hoe. Some are just hanging on to see what 1922 will bring forth; many are ready to quit. Those who are old established are watching for an opportunity to pick off the weak concerns and reduce competition. The states of New York,



At the Southern Exhibition in Atlanta.

Some Questions Worth Considering

Will you make all the ice you need for next summer, or are you going to have to buy ice in the rush season at top prices?

Is your power plant in shape to handle the work you expect to do?

Is your refrigerating equipment prepared to turn out next summer's production?

We advise with you on increasing the efficiency of your present plant, or will lay out a new and modern one for you.

Possibly you don't need a new plant—maybe we can make the old one do. Let us hear from you if you want to do better next season.

FRANK D. CHASE, Inc., *Engineers*

645 North Michigan Avenue, Chicago, Ill.

Will Not Freeze Out *No Alcohol*

Vanilla Exquinta

TRADE-MARK

FINER, STRONGER AND BETTER THAN VANILLA EXTRACT

Economical *Pure*

Write today for prices and particulars

CROWN FRUIT & EXTRACT CO., Inc.

418-420 WEST BROADWAY

New York City, N. Y.

Pennsylvania, Ohio and Illinois, which sell half the ice cream of the country, are covered in every conceivable spot with ice cream plants and it is a gamble for anyone to start up in any spot.

For 1921 there was not so much money spent for candy and soft drinks as in the year before, and this fact worked out to the good of the ice cream business. Whether these more or less competitive articles will come back is a question to be answered after another twelve months have rolled around.

In all this keen competition one noteworthy has shone forth. The quality of ice cream made has been improved wonderfully. Never has as much really high grade ice cream been turned out as in last year. To increase sales money has been spent on the mix and more intensive sales work. The business is becoming more scientific every year in the older sections. It is realized that the pennies must be watched now where it used to be dollars. A difference of a quarter cent a gallon now represents a profit oftimes. Everyone is now thinking of going after business in the dull months, and there has been much discussion of how to make the plant pay for 8 to 10 months where several years ago no one expected it to make a profit for more than six months.

While many people declare that ice cream is in its infancy—more or less true to a certain degree—the bald fact faces the industry that the point of ice cream absorption by the public is being reached rapidly. For the past 8 years the increase in gallonage has been below 10 per cent yearly; where before that was almost a common experience. The greatly enlarged number of plants has not produced sales in proportion to their number. In fact, 10 years ago, 3,000 plants did within 25 per cent of the business that 4,700 did last year. In other words, an increase of 58 per cent in number did only 25 more gallonage.

To increase sales to the old percentage more intensive work will have to be done; families will have to be interested to use ice cream more for desserts; the fancy of the public will have to be attracted; schools must be covered better so that the daily diet will include this rare food. There is much to think over by the manufacturers this winter, and upon the result of this thinking depends the success of 1922.



ELYRIA ICE CREAM MEN DO BIG BUSINESS.

According to Elyria, Ohio, ice cream and soft drink dealers, last summer was the best in the history of the city. Two reasons are attributed to the big business: the unusually warm weather and prohibition.

There was more buttermilk drank last summer than any corresponding period before.

"Prohibition has stimulated the soft drink business to a marked extent," said an Elyria dispenser and it has also increased the sale of candy," he continued.

"I have been in business here a great many years, and before the event of prohibition some men never entered my ice cream establishment but now scores of those who for years rested their feet upon the brass foot-rail now occupy a stool in front of the fountain or a chair in a booth in quenching their thirst with ice cream or one of the many kickless drinks we serve.

"We also have many men customers who were prone in the days gone by to eat sweets now buy candy regularly while some sip coffee as they did the cool steins when old J. Bar Lee Corn was most active through the land. As the country became dryer our business increases. 'It's an ill wind that blows no good,'" continued the dispenser of drinks without "sing" or "kick."

An Unusual Service

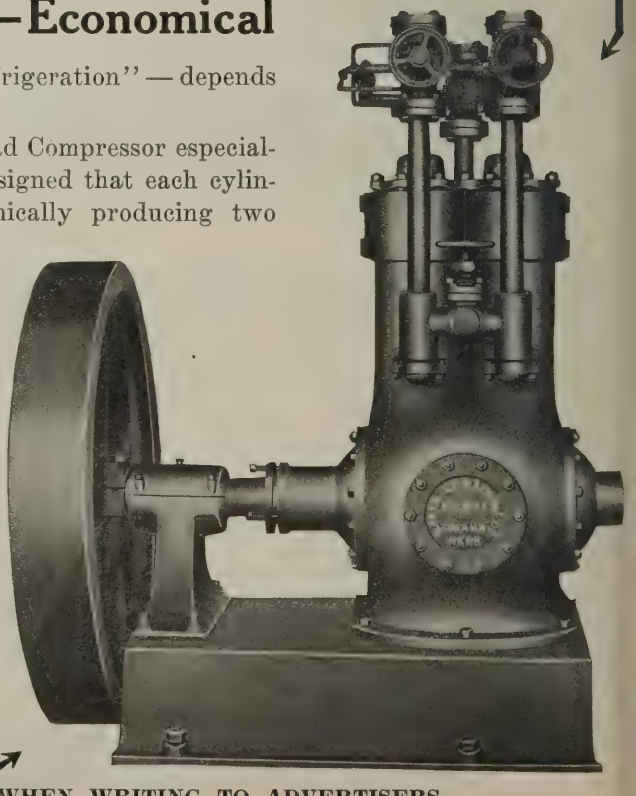
Efficient—Dependable—Economical

Upon the compressor—the "Heart of Mechanical Refrigeration"—depends the efficiency and economical operation of your plant.

The Baker Two Cylinder Special Double Suction Head Compressor especially meets the needs of the ice cream manufacturer. So designed that each cylinder can be operated at a different pressure, thus economically producing two temperatures with one machine.

The extremely cold temperatures of the hardening room is produced by one cylinder working at low pressure, while the more moderate temperatures are obtained with the other cylinder at higher pressure.

Baker refrigerating engineers have made an exhaustive study of the needs of the ice cream manufacturers. We can help solve your problem. Write us today.



BAKER ICE MACHINE CO.,
Omaha, Neb.

Gentlemen:—
Please send me without obligations copy of bulletin 65-D. We make ..... gallons of ice cream per day.

Name .....
Town .....
State .....
65-D

Baker Ice Machine Co., Inc.

Omaha, Neb.



"People not only drink more soft drinks now than in the days when Uncle Sam's domain was wet but they eat more often and consequently about the same amount of money is kept in circulation that was put into the coffers of the saloons. The day is coming when men will congregate in soft drink places as they did in saloons, when the latter was termed by the alleged liberal element as the poor man's club room."—Elyria (Ohio) Telegram.

Is this condition prevalent in your home town, too?

⚜

ICE CREAM DEALERS IN SESSION AT WILKES BARRE.

The improvement in ice cream manufacturing conditions during the last few years was discussed by Prof. Fisk, of Cornell University, who was the principal speaker at the conference of the Central-East Ice Cream Association held in Wilkes Barre, Pa. Prof. Fisk also gave a detailed account of the manufacture of ice cream today compared with the methods in use before the recent inventions.

What scientific research has done towards the removal of crystals in ice cream was the subject discussed by Thomas Hall, vice-president of the Russ Ice Cream Company. He said that wonderful progress had been made and that within a short time, the manufacture of ice cream entirely free from these rough spots would be possible.

At the brief business session preceding the addresses, officers were nominated. The next conference of the association will be held at York.

On the previous evening the manufacturers and their wives enjoyed a banquet in the Sterling.—Wilkes Barre (Pa.) News.



ONE of the Nordhem "Big 6" ice cream posters.—full-color miniatures of the entire series will be sent on your request.

IVAN · B · NORDHEM COMPANY

Advertising and Selling Service for Ice Cream Manufacturers

8 West 40th Street New York City

Common Sense in Ice Cream Advertising

Address of A. R. FERNALD, of the Fredrick C. Mathews Co., Detroit, before the Sixth Annual Convention of Pacific Ice Cream Manufacturers' Association, Nov. 14-16, 1921

I do not believe that you gentlemen are here to make a general study of advertising nor that you will be interested in a discussion of advertising if it is to cover merely fundamental principles generally applied and consisting of generalities.



A. R. FERNALD

For this reason I prefer to take up the specific application of advertising to your own business and problems. I will mention the faults where I see them and I believe you gentlemen are big enough and broad minded enough to apply only those things which apply in your particular case and if you can make use of them we shall feel well repaid.

First let me say that it is high time some ice cream manufacturers ceased looking upon advertising merely as something you are expected to do and from which the results are uncertain and impossible to definitely trace.

Weak advertising in all lines of trade has for time immemorial fallen back on the excuse that advertising is so general in character that results cannot be checked.. If this **were** true, the only assurance you have that you are wisely investing your money is that certain forms of advertising are recognized as good mediums of expression and must consequently be right. I contend that there are certain forms of advertising the results of which are so definitely traceable that there is no necessity for taking this chance.

If I were asked to criticize the outstanding fault in ice cream advertising the country over I would say that your greatest fault is lack of plan.

Fundamentally, plan in any advertising movement is of basic importance and plan should be given at least an even break, and in the majority of your businesses I don't think you have done that.

There are seven things, any or all of which have a chance to lessen or defeat the effectiveness of your advertising.

These seven are:

(a) Lack of Order in Fixing Appropriation: The average advertising appropriation is not an appropriation at all but rather consists of sums of money wrenched from the business at irregular intervals, dependent very often on the whim of the owner or owners rather than an analysis of the need.

Oddly enough it is also true that this money is usually easiest to get when business is good and the advertising is least needed. Such a program makes a **plan** of expenditure impossible, promotes waste and brings about hurried decisions resulting in many errors of judgment.

(b) Lack of Continuity in Plan and Materials: The "catch as catch can" method of appropriation results not only in a lack of plan but also in a lack of continuity in the materials or advertising text used to carry out a campaign.

Miscellaneous material is purchased, expenditures are made in things that have no general connection with your campaign.

Under these circumstances it is rarely possible to get full value from the yearly expenditures.

(c) Lack of Regularity in Plan and Use: Perhaps the greatest drawback in irregularity of plan is the fact that your advertising is almost always intermittent. Instead of the long pull, the secret of most successful advertising, you advertise jerkily. Your heaviest expenditure invariably falls in the Summer season, and the Fall and Winter season, when gallonage is most needed, is neglected and has no opportunity for development.

(d) Neglect of Opportunities Offered in Use of Properly Prepared Mailing List: It is only in the past year or two that some of you have been awakened to the fact that your most fertile field for advertising lies in intensive mailing lists in which groups of consumers can be influenced to regard your product most favorably and through reminders, educated to use it more frequently than has been their custom. The advantage of being able to direct an advertising force to concentrate on one group or section is so obvious that it requires no defense. I have personally studied and practiced the principles of direct advertising for the past fifteen years and am thoroughly sold on it both because of its flexibility, the privacy of the method, and the fact that you can actually check the results. Now the first question you are apt to raise is, "Will it work in the ice cream business?" I am here to say that it will and does. To the end that I could bring you proof of this in connection with the development of winter gallonage I sent out telegrams about two weeks ago to makers who were using direct advertising methods in cities varying in size from the second largest in the country to towns of twenty-five, fifty and one hundred thousand population.

Here are a few samples of their replies:

"We think the direct by mail plan of advertising ice cream in the winter months is one of the best methods of stimulating business for this season of the year."

"Regarding winter mail campaigns used last winter. Well pleased with results. Many requests for additional copies from friends of those to whom campaign was mailed. Believe campaign creates interest during winter months and holds business up where ordinarily drops off. Well worth cost. We stand back of our belief by re-ordering."

"Mail campaign is winner; one of strongest connecting links possible in advertising and sale of ice cream. Results entirely satisfactory."

"Consider direct method best means influencing housewife to use ice cream in home. Well pleased and will continue this year."

"Without a doubt best medium to reach housewife. Wonderful results last season. Increased fully 50 per cent and will use again this season. Certain of results."

"Have used campaign and would advise any one interested to get busy on mail plans. Figure have increased our business 100 per cent."

I am not quoting these as a boost for our own business but to bring forcefully to your attention a heretofore neglected field of ice cream advertising that holds vision and forethought to use it.

(e) Waste in Distribution of Advertising Matter: A great deal has been said about waste on advertising

Custards *Flavors*

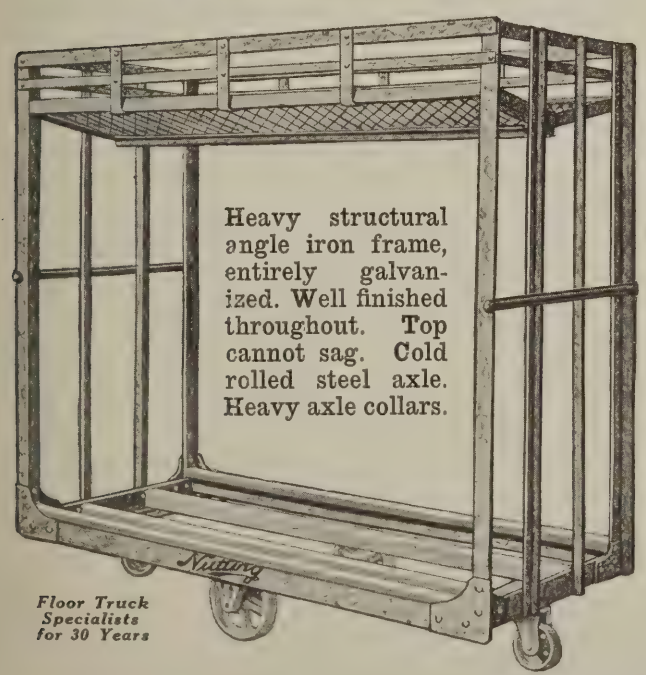
Maraschino Cherry Custard
Mothers Egg Custard

"Acme" Custards	An exact reproduction of the EGG or CHERRY.
Egg or Cherry	Contains all of Nature's delicate FLAVORS and BLENDED COLORS. A delicious Ice Cream of quality distinction. Working sample for 40-qt. freeze, 36 cents.
Bisque Ice Cream	An imitation of the real Walnut or Shelbark with a nutty flavor. Served to social and banquets as a special. Working sample for 40-qt. freeze, 60 cents.
Perfecto *(Trade-Mark)*	A tested smoother of special value in the making of smoothe and tough Ice Cream. Never fails to give satisfaction.
Concretes	Orange and Lemon Concretes are made from the finest fruits that grow in Northern Sicily.
Extracts *(Non-Alcoholic)*	36 different kinds of fruit extracts. Special blends of Vanilla.
Colors	Certified colors of all shades, highly concentrated.

ACME EXTRACT & CHEMICAL WORKS

Extracts HANOVER, PENNA. *Colors*

How to Lower Your Costs of Handling Ice Cream Cans



Floor Truck Specialists for 30 Years

DIRTY cans are piled with open end out, which slants them upward and prevents slop from spilling. After washing they are piled up with open end in to drain quickly. All the covers are put on top, held in by the rail.
With this specially designed truck your moving, storing and counting of cans is reduced to a simple, easy job.

Nutting

Ice Cream Can Trucks

Ball bearing swivel casters and wide, 8¼ inch main wheels insure easy rolling with the heaviest loads.

Ask us for complete details or ask your jobber

Nutting Truck Co.

1143 Division St., W., Faribault, Minn.

Holding Temperature!

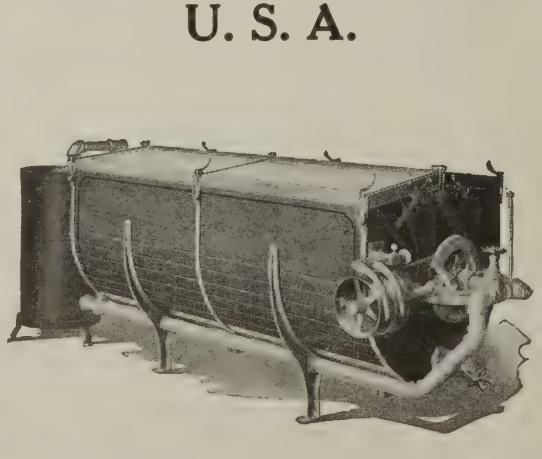
Many users of the Manning Batch Mixer have commented on the fact that the Manning has great holding properties. There's a reason for this. The entire body, including the covers, is insulated with 1-inch lino-felt. Between the lino-felt and the inside copper pan a single thickness of waterproof paper adds greatly to the insulation and completely prevents sweating.

Careful attention to similar details makes the Manning the most perfectly built vat on the market today.

MANNING EQUIPMENT

MANNING MANUFACTURING COMPANY

Rutland Vermont U. S. A.



Perfect In Workmanship!

materials and no doubt much of what has been said is true.

After all, if you will regard the matter reasonably, have you ever considered that this is largely your own fault?

These abuses have been brought about by your own carelessness and neglect and you are reaping a perfectly natural result. If you have no plan for distribution, you can depend upon it there will always be waste and plenty of it.

Another point I want you to consider is the fact that there are certain limits to the life of any piece of advertising display material and you are perhaps expecting too much in the way of continuous display from it. Suppose I were to pay eight or nine thousand dollars for a single page of advertisement in a certain popular weekly magazine. Would I expect every one who secured a copy to carry it about in their coat pocket month after month simply because my advertisement was in it? I couldn't expect that.

(f) Lack of Interest in Developing Dealers: I believe too little interest is taken in the development of your present dealers. You cannot extend this interest if you know the dealer only as a name. If I were an ice cream manufacturer I should have a complete record of my customers as a part of my permanent files. I would kno whow many had fountains, those that were open to that development; the extent of their bulk or carrying trade; what advertising was suited to the individual dealer and all of the things that would give me a clear office picture of my field.

Most of the largest operators have the information, but you should **all** have it summed up in a clear, logical manner, and it is just as important for the smaller operator whose business is to grow as it is for the larger ones.

(g) Lack of Interest on the Part of Your Wholesale Men: I do not know just how much you expect from your wholesale men but I do know that if it were my business and my wholesale man was not a man with a vision of the possibilities of the business, I should fire him and get a new one.

On the other hand, I think that lack of development on the part of the wholesale man is often the fault of an employer who lacks vision himself.

I have seen some fine material in wholesale men whose lack of development rested entirely on either the lack of energy or enthusiasm on the part of the employer himself.

Another point—see that your wholesale man not only understands your advertising plan, but that he is thoroughly sold on it himself. Make him a part of it because it is one of the things he has to sell and his enthusiasm and belief in it will contribute largely to its success and economical use.

Now let us check these one at a time, take them apart and examine them and see whether they are curable and if you agree that they are, let's go ahead and cure them.

Now let us substitute seven new cardinal points for constructive building to influence our new policy.

I should say that to be successful in your advertising and sales effort you should:

First—Fix the appropriation in relation to your gross business.

Second—Lay out a definite plan.

Third—Make a single office analysis of your dealers' situation.

Fourth—Make an accurate study of your competitor's field.

Fifth—Educate your wholesale man to merchandising possibilities.

Sixth—Compile strong mailing lists, for mail helps.

Seventh—Properly select and distribute your advertising material.

(a) Fixing the Appropriation in Relation to Your Gross Business: Out of the millions of dollars that are being spent annually to advertise the ice cream business there are bound to come definite figures as to the proper amount that should be invested by you to assure a continuance of your present trade, as well as developing new markets.

There are occasional conditions that either raise or lower the volume of expenditure, such as chronically good or bad seasons, the absence or the presence of spirited competition and these must of course be dealt with individually just as one would deal separately with a business that was new and that might as a result expect to double its gallonage each year for the first few years until it had established its field.

In the main it is safe to base the ice cream manufacturers' appropriation on three to five per cent of the gross turnover.

(b) Laying Out a Definite Plan: Having determined the appropriation it is now up to you to give thought to a plan that will give you the best showing possible for the money expended.

Perhaps the most important part of such a plan is to see that your expenditures are so proportioned that you will be spending the proper proportion of your money in the months or seasons when the advertising is most needed. Do not have any lean months, for you will find almost invariably that they will have an exasperating way of bobbing up just when you have need of added effort.

The next point about your plan is to lay it out with a definiteness of purpose.

Know what you are going to say and say it steadily through the year. Associate some definite phrase to your advertising and have it a good one, for the public, through your continued advertising, is bound eventually to believe and recognize it. Adopt a style for your advertising. Have your advertising, your shipping packages, your stationery, follow this style without a break. That is why great care and thought should be given to the original of your style, because you are adopting it not for a season, but for the life of your business and you can afford to have it the best.

Every point of contact you have with your customers and with the public should express your individuality. Having selected a plan and being satisfied with the wisdom of your selection, do not depart from it.

Souvenir programs, novelties, special editions of newspapers and all their kindred are too often the "catch all" that greatly adds to your advertising cost without adding proportionately to your volume.

(c) Making a Simple Office Analysis of Your Dealer Situation: As I pointed out to you, it is important that this should not be merely a matter of knowledge on your part, but a matter of record, for it is only by putting it down in black and white with an accurate accounting of probable needs that the possibility of expansion and development can be gauged with any degree of accuracy. It is important, too, that this list be cultivated by mail as well as through salesman contact.

(d) An Accurate Study of Competitive Fields: While no doubt every manufacturer has a broad general idea of their competitive field again very little effort is made to get an accurate picture record of the extent of this field, where it can be wisely and economically cultivated, and the economic limits of ship-



STANDARD TUBS AND CABINETS

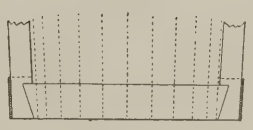
have built into them 44 years of cooperage experience. They are the result of as many years investigation into what enables a tub or cabinet to stand long wear and yet be economical in price.



Constructed for Service

Extra heavy and wide galvanized bottom hoop on all tubs of this construction.

Note the wedge-shaped construction which prevents the bottom being forced out. The greater the weight inside, the tighter the bottom. The shoulder or offset prevents the bottom from going in.



Our Booklet Illustrates Complete Line with Prices Write for One

GAMBRINUS COOPERAGE WORKS

920-940 Mason St. Louisville, Ky.





Get Them From Your Supplyman

ALLEN'S ONE-PIECE SANITARY CAN LINERS

These Dealers Sell Them:

The Creamery Package Mfg. Co., Chicago, Ill., and Branches.
The Schmitz Supply Co. - - - St. Paul, Minn.
A. H. Arnold & Bro. - - - - Chicago, Ill.
N. A. Kennedy Supply Co, Kansas City, Oklahoma City
J. G. Cherry Co., Cedar Rapids, Ia., and Branches
A. H. Barber Creamery Supply Co. - Chicago, Ill.
The Dairy Supply Co. - - - Minneapolis, Minn
Peaslee-Gaulbert Co. - - - Louisville, Ky.
J. W. Allen & Co. - - - - - Chicago, Ill.
Spurbeck Lambert Co. - - - - Algona, Iowa
The Maas, Keefe Co. - - - - - St. Paul. Minn.
The Crandall Pettee Co. - - - New York, N. Y.
Dairymen's Supply & Construction Co., Pittsburgh, Pa.
Owatonna Creamery Supply Co. - Owatonna, Minn.
Davis Watkins Dairymen's Mfg. Co., No. Chicago, Ill. and Branches.
Meyer Dairy Equipment Co. - - St. Louis, Mo.
Liebers Farm Equipment Co. - - Lincoln, Nebr.
Dairy Machinery Co. - - - - Seattle, Wash.
Consumers' Gelatine Co. - - - St. Louis, Mo.
The Crane Co. - - - - - - - Chicago, Ill.
Cherry-Bassett Co. - - - - - Baltimore, Md.
The Hurley Co. - - - - - - Denver, Colo.
Hawkeye Supply Co. - - - Mason City, Iowa
The Hudson Mfg. Co. - - - - Chicago, Ill.
Chapman & Smith Co. - - - - Chicago, Ill.
Kennedy & Parsons Co. - - Sioux City, Iowa and Omaha, Nebr.
E. B. Adams Co. - - - - - Washington, D. C.
Monroe & Crisell - - - - - Portland, Oregon
El Paso Butcher & Dairy Supply Co., El Paso, Tex.
Gowing Dietrich Co. - - - - - Syracuse, N. Y.
H. C. Schranck Co. - - - - - Milwaukee, Wis.
Northwestern Bakers & Conf. Co., Minneapolis, Minn.
Dairymen's Mfg. & Supply Co. - - - St. Louis, Mo.

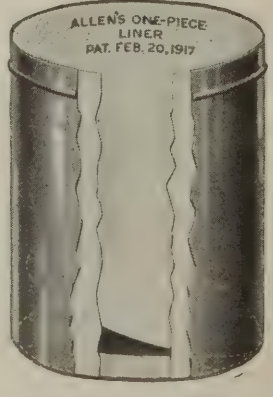
Made by

THE ALLEN CANDY CO.

Sole Manufacturers

PONTIAC ILLINOIS

Samples and Prices on Request



ping and service. This should be painstakingly done in every growing business.

(e) Educating Wholesale Men to Merchandising Possibilities: No wholesale man should work without a definite plan of increase based, not on haphazard solicitation, but on **studied** solicitation that will give the best return for time expended.

His interest in your advertising should go beyond the mere delivery of display material to the dealer and he can save you hundreds of dollars in educating the dealer to make such use of it as will make it mutually profitable. The right sort of a house organ mailed each month to the dealers will help keep up interest between calls and aid him in the contact work.

(f) Formation of Strong Mailing Lists: As you grow to use direct advertising methods, the success of your plan will be measured largely by the proper selection of names for your mailing list.

To create trade and prestige for your dealers you must reach two classes and a name must either fall within one class or the other to be useful to you. The first class consists of people who are themselves consumers of cream to a fair amount and thus open to cultivation and development. The other class are those who, through contact with a large number of other people, are able to do you a great deal of good in unconscious "word of mouth" advertising. Thus a good mailing list would contain the names of the officers of all clubs and lodges, school teachers, ministers and priests, doctors who would be interested in the purity of your product, domestic science instructors, trained nurses—all of whom are people who have contact with many others and whose good opinion counts in moulding your local reputation.

In securing the names of consumers—blue books, social directories, membership lists of the better clubs, and home addresses of women secured through co-operation with those dealers whom you wish especially to build up, are your best sources. The wives of members of Rotary, Kiwanis and other business lunch clubs form excellent lists and you have the added opportunity of distributing an initial piece of advertising at lunch to start the ball rolling.

(g) Proper Selection and Distribution of Advertising Material: In selecting the material for your plan proper card records on dealers will give you an accurate guide as to the quantity required. There is no need to supply a five dollar window display to a store handling bulk and cones only.

Window displays in the larger stores should, wherever possible, be put up by your own people, and hanging cards or counter signs either cleaned or changed frequently enough to keep them fresh and attractive.

The materials you select should show continuity. Avoid pretty pictures that are general in character and too often distract attention from your product instead of attracting attention to it.

Use color wherever it is possible and let your illustrations run largely to reproductions of the cream itself, attractively served, delicious and inviting and occupying the foreground of the picture to the exclusion of everything else. Backgrounds should be unobtrusive and in soften tones, carrying out just enough detail to give an atmosphere of class and quality.

Sidewalk signs where they are allowed by city ordinance are good.

Billboards are used too often in cases where they do little if any definite good, but they appeal to the vanity of the user, who likes to see his name in big print, consequently they are bound to be used. In spite of anything that may be said to the contrary, the fact remains that people have not yet been taught to ask for ice


MENASHA PRINTING & CARTON CO.
MENASHA, WIS.


Ice Cream
Modern Ice Cream
Castles Ice Cream
Alamo
Bakers
Imperial Special Brick Ice Cream
Robin
Ice Cream
Ice Cream
Ice Cream

cream by brand and ice cream is seldom asked for by brand. The best place for advertising display is outside the store, in the windows and on walls and counters. Here the display of your signs informs the public that your cream is on sale and, prompted by the reputation for quality you have created, people feel free to purchase because they are on the spot and it is convenient for them to do so.

To jog their memory outside the store and cause them to go from store to store seeking your goods and refusing all others is quite a different matter. That is why direct mailing lists should be built up in sections and neighborhoods where you are prepared to supply the demand and where your co-ordinated advertising completes the circle and through continuity of expression rounds out the sale.

Before closing I want to touch on two or three other points that are important. First, quality of product. That is your best advertisement. Neither I nor any other advertising man can offer you anything better, and it is a fact that no advertising, no matter how clever, can continue year after year to sell an inferior product. Advertising will bring people to a trade but it will not hold them if the product does not satisfy and please them. No one can afford the drain of continually advertising to a new audience. If your advertising is to be financially profitable your product must hold the trade you gain and make new friends in the bargain.

Another point is that of giving your business a personality, for there is personality in business just as there is in the individual. A man without personality is handicapped and a business without personality is hampered in growth because it takes people longer to hear of it and is less deserving of public interest.

Last and most important of all—get the confidence and respect of your community. Never break that confidence through poor goods, sly dealing, or unfair methods, and don't quarrel among yourselves.

Good clean competition based on the right rules of business and friendship will make business for all concerned because in reaching out for more business, you automatically create new business from the public far in excess of the old business you take from a competitor.

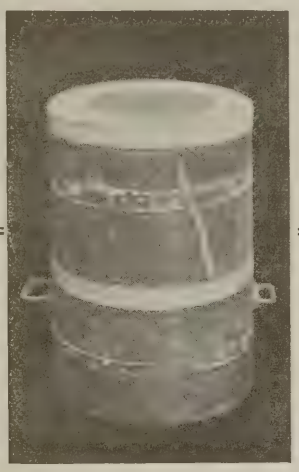
"Knifing" competition, on the other hand, causes you to give your property to the dealer, necessitates advertising expenditure beyond the bounds of good sense, and makes you easy prey for any one who cares to play the one against the other to the detriment of both.

You on the Coast have fewer heritages in the way of old time methods, old plants, and old prejudices. You're off to a fresh start and can build as you will in a business that is growing as rapidly as any good business in America.

Steer straight, have a plan and keep faith with the public by giving them a full measure of value and you will find not only financial demand but the satisfaction of growth through service which, after all, must be at the root of every permanently successful business.

CORRECTION.

In the last issue of The Ice Cream Review, on page 141, in News From Far and Near, we published a small item which read: "The Creamery Package Manufacturing Co., of Chicago, Ill., will build a new factory and warehouse in St. Paul. The cost will be about $120,000." This should not have been published as notice had previously been received direct from the Creamery Package Manufacturing Company that plans for this new factory had been indefinitely postponed.



Have Your Tubs This Protection?

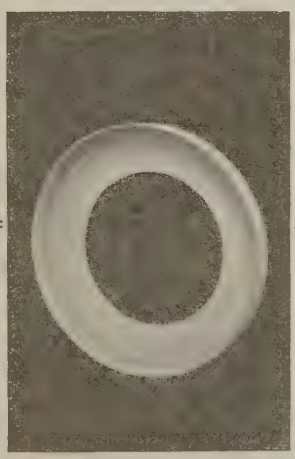
When your packers are dragged along over rough concrete floors—flung around as so much junk by the express companies, and given innumerable severe bumps when unloading from trucks,—what is there to protect the bottom against the "springing" this vicious abuse sooner or later must cause?

The Roman Reinforcing Hoop Ice Cream Tub Protector is ample protection. A substantial metal rim that needs no tools to apply except those illustrated.

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Our Pledge

That each lot of Standard Gelatine we ship you, will be of a uniform, high-grade quality. That this well-known characteristic will, at all times, be so dependable as to further enhance your confidence in us. We regard this confidence too valuable a trade asset to jeopardize at any time.

That we hold true to this pledge is best known by our many satisfied customers who order, "same as last."

Standard Gelatine Co.
130 N. Wells Street CHICAGO

"Doc" says: "Happy New Year to you all. If you want a prosperous one as well, sterilize your



separators, vats, churns, cans, bottles, freezers and other equipment with Germ-X—Dairylands' Greatest Disinfectant. It kills all quality-destroying bacteria. Send for trial gallon. Your credit is good with us."

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The Creamery Package Mfg Company
General Offices: 61-67 W. Kinzie St., CHICAGO
Branches in All Principal Cities
Prepared in Laboratories of
North Star Chemical Works, Lawrence, Mass.



PROF. BAER'S INQUIRY DEPARTMENT

Dear Sir:—I have been using your formula to a great success and want you to give me another and also estimate what it cost me, also what do you figure it costs a gallon where you use a brint freezer and have no hardening room and have to pack your cream with ice.

Here is what I want, a formula for 10 per cent butterfat and 12 per cent butterfat ice cream also. Estimate cost for me. I want to use, sugar, flavor and gelatine, evaporated milk, sweet butter, skimmilk powders.

I. E. P.

Reply: I am glad to know that you have had good success in making ice cream this year. I am, according to your suggestions, giving you below in Table No. 1 and Table No. 2 formulas for both a 10 per cent and 12 per cent ice cream using the ingredients mentioned in your letter.

Table No. 1.

10 Per Cent. Formula.

Ingredients	Fat	Serum Solids	Total Solids
12.0 lbs. sugar	....	....	11.40
1.0 lbs. gel. and flavor	....	....	.75
16.0 lbs. 8% evap. milk	1.08	2.88	3.96
10.6 lbs. 84% butter	8.904	....	8.90
8.4 lbs. skimmilk powder	....	7.98	7.98
52.0 lbs. water	....	....	....
100.0 lbs.	9.984	10.86	32.99

Table No. 2.

12 Per Cent. Formula.

Ingredients	Fat	Serum Solids	Total Solids
12.0 lbs. sugar	....	....	11.40
1.0 lbs. gel. and flavor	....	....	.75
16.0 lbs. evaporated milk	1.08	2.88	3.96
13.0 lbs. 84% butter	10.92	....	10.92
6.3 lbs. skimmilk powder	....	5.97	5.97
51.7 lbs. water	....	....	....
100.0 lbs.	12.00	8.85	33.00

You can very easily figure out the difference in the cost between these two formulas. You will notice that while you use more butter in the second formula you use a little less skimmilk powder. You will probably find that there is very little difference in the cost of these two mixes. You will probably be able to secure a little higher overrun from formula No. 2 than No. 1 which would compensate for a little higher cost.

* * *

Dear Sir:—Am sorry to bother once more, will state fully just how I receive my cream. I get the 30 per cent emulsified cream, 10 gallon cans which weigh 84 lbs. I would rather cut out some of the milk as that will bring my weight down nearer to the 300 lb. batch.

I pasteurize my batch and add the cream after I have cooled it down. I did not think it necessary to pasteurize it as it is emulsified cream, am I right? I would like to make my cream 10½ or 10¾ per cent butterfat so I am in the clear and also I can add my fruits and nuts and still have the 10 per cent.

I will furnish you another mix with not so much milk and will add my gelatine dry, and if you will be so kind to analyze and return to me and if I have added too much powdered milk or not enough please change it. Would like to make my batch so I can have enough butterfat that when I make fruit and nut cream I can add it and still have 10 per cent left. I use 1 quart berries to 10 gallons finished product or 1½ lbs. nuts to 10 gal finished product.

164 lbs. 3 per cent milk, 84 lbs. 30 per cent cream, 36 lbs. sugar, 12 lbs. powder milk, 2.75 lbs. gelatine, 70 lbs. extract or coloring, total 303.45. A. M. & Co.

Reply: I have analyzed the formula which you state you are now using and you will find the analysis below in Table No. 1.

Table No. 1.

Ingredients	Fat	Serum Solids	Total Solids
164.0 lbs. 3% milk	4.92	13.15	18.07
84.0 lbs. 30% cream ...	25.20	5.25	35.45
36.0 lbs. sugar	.....	.....	34.20
12.0 lbs. skimmilk powder.....		11.40	11.40
2.75 lbs. gelatine		.....	2.60
.70 lbs. extract and color....		.....	.10
299.45 lbs. mix	30.12	29.80	96.82
Per cent	10.04	9.93	32.28

Table No. 2.

Ingredients	Fat	Serum Solids	Total Solids
36.0 lbs. sugar		.....	34.20
3.50lbs. gel. flav. & color		.....	2.75
90.0 lbs. 30% cream ...	27.0	5.61	32.61
156.50 3% milk	4.69	13.51	18.20
14.0 lbs. skimmilk powder		13.30	13.30
300.0 lbs. mix	31.69	32.42	101.06
Per cent	10.56	10.80	33.68

You will notice that your present mixture is a little low in butterfat and also in milk solids not fat. With this mix you could not add fruit or nuts and make an ice cream complying with the Kansas state laws. I am suggesting in Table No. 2 how you could improve this mix and have it not only comply with the state laws but have it contain enough butterfat and serum solids so that you could add fruit or nuts and still have it test according to your standards.

I believe that if you will use the mix as indicated in Table No. 2 you will have no difficulty in securing a satisfactory result.

* * *

Dear Sir:—Your courtesy is herein acknowledged and we wish to extend our thanks for your valuable assistance thus far and beg to ask you one or two more questions in connection with which we are returning our original inquiry sheet.

The first item on this sheet is 40 per cent cream which you claim to have a total solids of 45.34 and milk solids of 8.90. Now shouldn't the butterfat and milk solids make the total solids? This being true, the total solids would be 40.00 plus 8.90 or 48.90. Against your figures of 45.34 or a difference of 3.56.

Again shouldn't the milk solids and water balance the total skimmilk? In the example referred to you show milk solids to be 8.90 and water 54.66 making a total of 63.56 against a total skimmilk of 60.00 or a difference of 3.56.

Against the second item "sweet milk" you did not show the amount of water and total solids per gallon.

If you will be so kind as to enlighten us on these points we assure you the same will be appreciated.

M. H. B.

Reply: The figures which I gave you are correct if you understand the calculations. In the first place, when you have a 40 per cent cream, 100 lbs. of cream will contain 40 lbs. butterfat and 60 lbs. skimmilk. In order to get the number of pounds of serum solids in 100 lbs. of cream you multiply 60 by 8.9 per cent which gives 5.34 lbs. serum solids. 8.9 per cent is the figure to use for calculating the percent of solids in skimmilk. You will also readily see if you add 5.34 and 54.66 you will get 60 which is the total weight of skimmilk in 100 lbs. of 40 per cent cream. Under the second item of sweet milk the calculations can be made in the same manner—subtracting 3.5 lbs. from 100 leaves 96.5 lbs.

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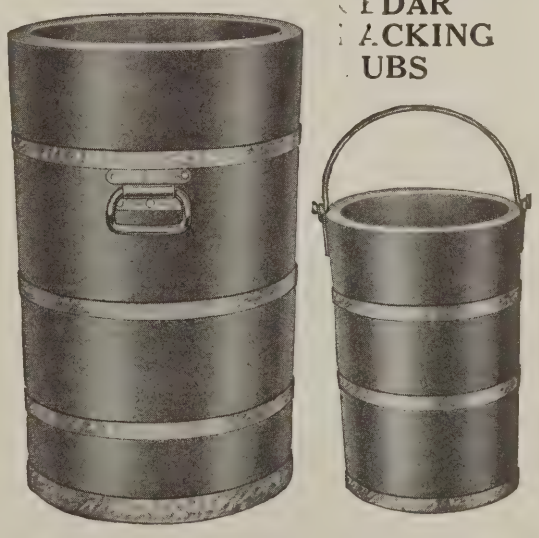
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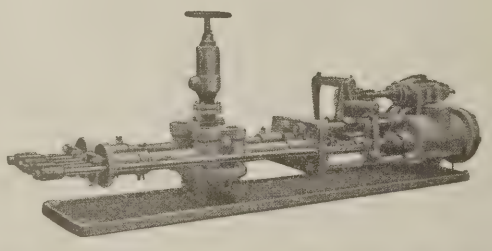
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Dumore Pump

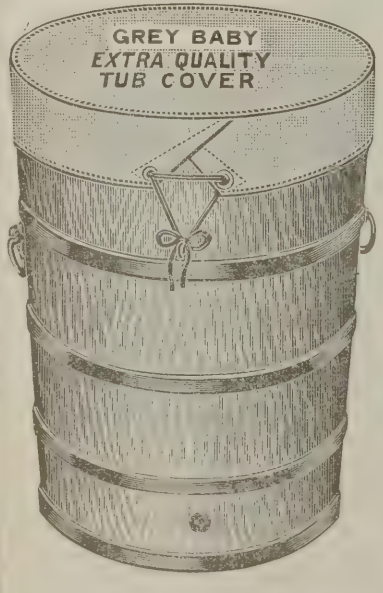
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skimmilk. Multiplying 96.5 by 8.9 per cent equals 8.58 lbs. of solids in the 96.5 lbs. of skimmilk. If the serum solids are to be figured on 100 lbs. of whole milk the percent should be 8.5 instead of 8.9. The total solids of whole milk is 12 per cent, which figure you can arrive at by adding 3.5 and 8.5.

* * *

Dear Sir:—Please give me a formula for commercial ice cream of 8 per cent fat and about 34 per cent solids for using skim powdered milk, sweet butter, gelatine and sugar per 100 pallons. Also formula for using as much 3½ per cent milk and powder, butter and other ingredients per 100 gallons.

Reply: Replying to your inquiry forwarded from Milwaukee, Wis., I am glad to suggest to you below in Tables No. 1 and No. 2 two formulas as requested.

Table No. 1.

Ingredients	Fat	Serum Solids	Total Solids
12.0 lbs. sugar	.....	.....	11.40
1.0 lbs. gelatin and vanilla (12 oz. gelatine)	.....	.....	.75
9.53 lbs. butter 84%	8.005	.....	8.00
14.60 lbs. skimmilk powder	.....	13.85	13.85
62.87 lbs. water	.....	.....	.....
100.0 lbs. mix	8.005	13.85	34.00

For 100 gal. ice cream mix would be five times 100 lbs. mix, or, 60 lbs, sugar, 5 lbs. gelatine and vanilla, 47.6 lbs, butter, 73.0 lbs. powder, 314.4 lbs. water.

Table No. 2.

Ingredients	Fat	Serum Solids	Total Solids
12.00 lbs. sugar	....	.....	11.40
1.0 lbs. gelatine & vanilla	....	.....	.75
7.0 lbs. skimmilk powder	....	6.65	6.65
73.5 lbs. 3½% milk	2.56	6.32	8.88
6.5 lbs. butter	5.46	.....	5.46
100.0 lbs. mix	8.02	12.97	33.14

You will notice that in Table No. 2 I have suggested a formula containing only 33 per cent solids instead of 34 per cent as you requested. I believe you will find that a total solids of 33 per cent is sufficiently high for a satisfactory ice cream.

* * *

Dear Sir:—Will you kindly give us a formula for a one hundred pound mix in which we use sweet butter, milk powder, sugar, gelatine and ice cream powder. We desire the finished product to test twelve per cent butterfat. F. W. K.

Reply: I am glad to give you below in Table No. 1 a suggestion for 100 lbs. of ice cream mix containing 12 per cent butterfat and 33.5 per cent total solids.

Table No. 1.

Ingredients	Fat	Serum Solids	Total Solids
12.0 lbs sugar	.....	.....	11.40
1.0 lb. gel., ice cream pow.	.....	.....	.75
14.3 lbs. 84% sweet butter	12.01	.....	12.01
9.8 lbs. skimmilk pow.	.....	9.34	9.34
62.9 lbs. water	.....	.....	.....
100.0 lbs. mix	12.01	9.34	33.50

I trust that this information will be of help to you and I should like to have a letter from you stating what results you have obtained after using this formula.

* * *

Dear Sir:—In answer to your letter referring to ours regarding a good ice cream mix for points in this state, our state standard calls for 12 per cent butterfat, same having been changed from 14 per cent just this last session of the legislature. We want to use as little as is necessary of 8 per cent condensed milk, containing about 30 per cent of total solids. We do not like to use

any more than is absolutely necessary to bring our standard to 38 per cent in our completed mix, for we find it flavors our cream to use too much of this condensed. We have been using a formula of 192 lbs. of 45 per cent cream and 289 lbs. skim, 126 lbs. of sugar and 4½ lbs. of gelatine. We also tried whole milk evaporated down to the desired consistency, but find this had a more or less burnt taste.

We would greatly appreciate a formula from you giving us a 12.16 per cent butterfat and 38 per cent total solids, using about 120 to 126 lbs. of sugar.

F. C. M. Co.

Reply: I have your letter with further explanation as to just what you desire in the way of a suggestion for your ice cream mix. I am giving you below in Tables No. 1, 2 and 3 suggestions as to how such mixes can be made.

Table No. 1.

Ingredients	Fat	Serum Solids	Total Solids
126.0 lbs. sugar	.....	.....	119.70
4.5 lbs. gelatine	.....	.....	4.27
400.0 lbs. 8% evap. milk.	32.00	88.00	120.00
200.0 lbs. 45% cream....	90.00	9.81	99.81
270.0 lbs. skimmilk	.....	24.02	24.02
1000.0 lbs. mix	122.00	121.84	367.81
Per cent	12.20	12.18	36.78

Table No. 2.

Ingredients	Fat	Serum Solids	Total Solids
140.0 lbs. sugar	.....	.....	133.00
5.0 lbs. gelatine	.....	.....	4.50
200.0 lbs. 8% evap. milk	16.00	44.00	60.00
235.0 lbs. 45% cream..	105.75	11.50	117.25
420.0 lbs. skimmilk	.....	37.38	37.38
1000.0 lbs. mix	121.75	92.88	352.13
Per cent	12.175	9.288	35.21

Table No. 3.

Ingredients	Fat	Serum Solids	Total Solids
140.0 lbs. sugar	.....	.....	133.00
5.0 lbs. gelatine	.....	.....	4.50
400.0 lbs. evap. milk	32.00	88.00	120.00
200.0 lbs. 45% cream	90.00	9.79	99.79
255.0 lbs. skimmilk	.....	22.70	22.70
1000.00 lbs. mix	122.00	120.49	379.99
Per cent	12.2	21.04	37.99

You will notice in Table No. 1 that in order to get above 37 per cent total solids using 126 lbs. sugar it would be necessary to use 40 per cent evaporated milk or 400 lbs. in 1,000 lbs. I readily agree with you that that would be too much evaporated milk and it would impart a flavor to your product.

In Table No. 2 I am suggesting a formula which I believe would be entirely satisfactory. By increasing the amount of sugar to 14 per cent the evaporated milk can be reduced to 200 lbs. This will produce a mix with 37 per cent total solids which in my opinion is plenty of solids for a 10 per cent ice cream. Should you desire a mix with 35 per cent total solids as you suggest, Table No. 3 will give you an idea of such a formula. You will again notice that in this case you would need 400 lbs. of evaporated milk.

* * *

Dear Sir:—I would thank you to analyze our mix, which is as follows: 160 lbs. 3 per cent milk, 60 lbs. sweetened condensed, 43 lbs. 84 per cent sweet butter, 12 lbs. sugar, 9 oz. gelatine, 9 oz. vegetable gum.

Recently we received a barrel of the condensed that was considerably thicker than usual, from this we have had two complaints, one being that it was very hard to keep the cream frozen, second that the cream tasted sandy. It seemed to have some of the undissolved particles that a person finds in the condensed. In making



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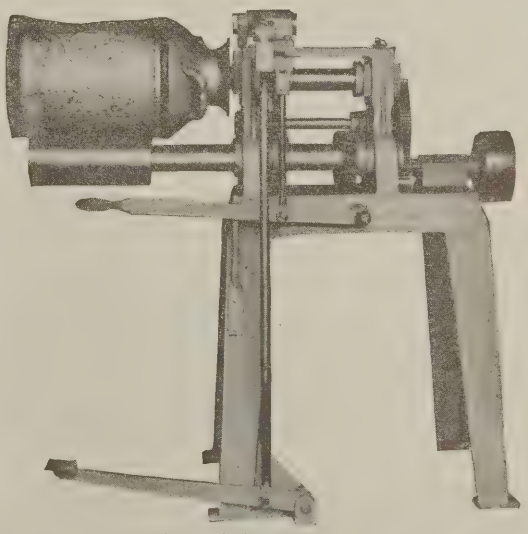
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our mix, we mix accordingly, we put the milk in a batch mixer, which we heat to 145 degrees, and as this is heating we add the butter and sugar, with the vegetable gum mixed in it. After it has reached 145, we cool down to 120 degrees add the gelatin, which has been dissolved in hot water, after being mixed through we put through a No. 0 Viscolizer and over a Chilly King cooler, then place in a cooler for about 24 to 48 hours, then freeze in a Perfection freezer with 10 degree brine. Kindly advise what would cause the above two complaints, and also if you would suggest a different mix than that we are using. H. F. M.

Reply: I have your letter with a request to analyze your ice cream mix. You will find a complete analysis of your mix given below in Table No. 1.

Table No. 1.

Ingredients	Fat	Serum Solids	Total Solids
160.0 lbs. 3% milk	4.80	13.0	17.80
60.0 lbs. sweet cond. milk		16.2	40.20
43.0 lbs. 84% butter....	36.12	....	36.12
12.0 lbs. sugar	.....	....	11.40
1.2 lbs. gelatine & gum	.....	....	1.14
276.2 lbs.	40.92	29.2	106.66
Per cent	14.8	10.5	38.6
Per cent sugar .....13.0 plus			

From the discussion given in your letter it appears that the reason your ice cream tastes sandy at times was because your mix contained too high a percentage of skimmilk solids. This sandy condition is not usually apparent immediately after the ice cream is frozen but begins to become apparent after storage in the hardening room for a number of days. It is due to the recrystalization of the milk sugar in the sweetened condensed milk. If you find that certain lots of condensed milk are considerably thicker than usual I would use a smaller quantity of this condensed milk.

You could very easily reduce the amount of sweetened condensed milk to 40 lbs. and still have plenty of solids in your ice cream due to the apparent large quantity of butterfat. If you do this I am sure you will have no more trouble with sandy ice cream.

* * *

Dear Sir: Having read your comments in The Ice Cream Review, giving your different views and analyses of the different mixes of ice cream batches, I am taking the liberty of addressing you a few lines in regard to ice cream mixes.

We are making a little ice cream, and wish to make more, but owing to our ice cream not being the way it should be we are not pushing the sales.

In making our mix ready we use the following material for ten gallons; finished cream, using the old style tub and can method of freezing, 47 lbs. 12 per cent cream, 2 lbs. skim milk powder, 6 lbs. sugar, 9 oz. Fairy powder, 2 oz. vanilla. The sugar and powder we mix and put in the above mix and let stand for one hour before freezing. Sometimes we include in mix one ounce Washburn's ice cream improver.

We have a Sharples emulsifier and use the following to make 20 per cent cream: 62 lbs. butter, 174 lbs. water, 20 lbs. skimmilk powder. This we let stand 48 hours before using. When we make our mix from the above we reduce the cream to 12 per cent. Now in freezing the emulsified cream and using the formula as stated above, we do not get a nice, smooth cream. It is coarse and rough-like. Can you tell us the trouble and also give us a formula for freezing our cream? It usually takes from 20 to 40 minutes to freeze a batch. L. D. C.

Reply: Your formula or mix is all right in butterfat but is low in solids. I suggest that you increase your

sugar content one pound and increase the skimmilk powder by two pounds.

I do not know just what material your "Fairy powder" is, but I suggest that if you continue to have the trouble with icy and coarse ice cream that you substitute four or five ounces of a good, high grade gelatine in place of the Fairy powder and then make up your mix so that you can age it forty-eight hours before freezing.

I do not see why you should need twenty or forty minutes to freeze a batch in your ice cream freezer for you can easily regulate the temperature of your brine in your freezer by using more salt so that it will freeze faster. It ought not to take longer than twelve to fifteen minutes to freeze a batch satisfactorily. I also suggest that you keep track of the yield as you stated that your cream had a rough and coarse-like appearance. It is possible that you are whipping it too much and get too high an overrun. After trying out some of these suggestions I shall be very glad to have you write again and explain some more of your difficulties in detail and I shall be glad to assist you further.

* * *

Dear Sir: Will you kindly analyze and criticize the following mix: 90 gallons whole milk, not less than 4 per cent butterfat; 90 lbs. skimmilk powder, 60 lbs. sweet creamery butter, 100 lbs. sugar, 6.4 lbs. gelatine. If this mix won't come up to the standard of our state laws, will you kindly figure out one for me? F. G. S.

Reply: You will find a complete analysis of your mix given below in Table No. 1. You will notice that the butterfat figures less than 8 per cent, but your serum solids are very high. I also notice that you are using less than 10 per cent sugar, which in my opinion does not make the product sweet enough. I am suggesting in Table No. 2 a 1,000 lb. mix with 10 per cent butterfat, using a little less milk serum solids. I should like to have you try this out and let me know what results you get.

Table No. 1.

Ingredients	Fat	Serum Solids	Total Solids
90 gal. or 774 lbs. 4% milk	30.9	65.90	96.7
90 lbs. skimmilk powder	....	85.50	85.5
60 lbs. 84% butter	50.4	.....	50.4
100 lbs. sugar	....	.....	95.0
6.4 lbs. gelatine	....	.....	6.08
1026.4 lbs.	81.3	151.40	333.68
Per cent	7.9	14.7	32.5

Per cent sugar, 9.76.

Table No. 2.

Ingredients	Fat	Serum Solids	Total Solids
120 lbs. sugar	....	.....	114.0
6 lbs. gelatine	....	.....	5.4
70 lbs. skimmilk powder	....	66.5	66.5
85 lbs. 84% butter	71.40	.....	71.4
719 lbs. 4% milk	28.76	62.0	90.76
1000 lbs.	100.16	128.5	348.06

* * *

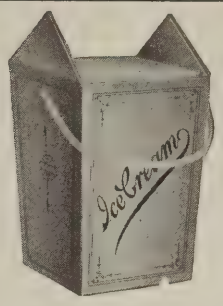
Dear Sir: I wish you would analyze the following mixes for me:

No. 1—130 lbs. 80 per cent butter, 200 lbs. Ace brand sweetened condensed, 205 lbs. sugar, 7 lbs. gelatine, 850 lbs. 3.5 per cent milk.

No. 2—50 lbs. 40 per cent cream, 145 lbs. 80 per cent butter, 1105 lbs. 3.8 per cent milk, 250 lbs. 8 per cent condensed milk, Ace brand; 260 lbs. sugar, 9 lbs. gelatine.

No. 3—170 lbs. 80 per cent butter, 250 lbs. 8 per cent

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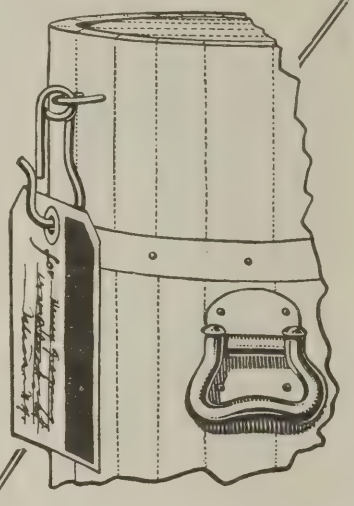
TAG HOOKS
Save Dollars

Why use expensive, untidy, time-losing strings or wires while tagging your tubs or pails of ice cream?

SNAP 'EM ON

and use our rust-proof tag hooks.

SAVE TIME—Figure the cost of strings or wires. Then think of the value of a man's time while tying the tags on your tubs.

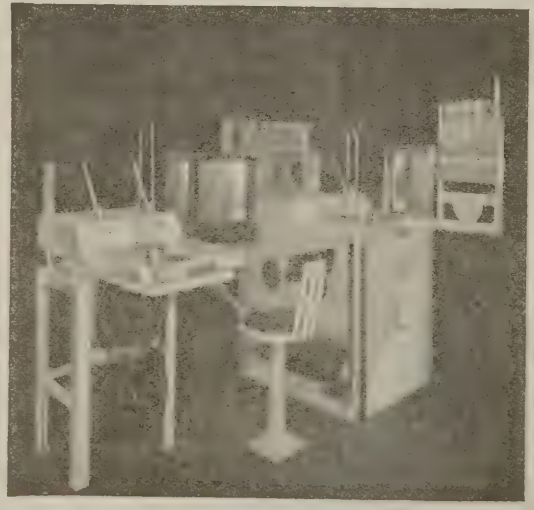


CAN'T RUST

Our new type of hooks are made of SPECIAL SPRING BRASS. They sell at $1.95 per hundred, including staples. Besides a 10 per cent discount in lots of a thousand or more. Samples on request.

DALY BROS.
SCHENECTADY N. Y.

Soon Pays for Itself— then PAYS PROFITS



The MOJONNIER MILK TESTER is now an essential in all ice cream plants.
With it you can standardize your mix accurately —sold direct or through your jobber.
Write for Illustrated Booklet No. 14.

Mojonnier Bros. Co.
MILK ENGINEERS
739 W. Jackson Boul. Chicago

Sales Branches: New York, 17 E. 42nd St., Room 929, Atlanta, 301 Bedford Place
St. Louis, 4931 Margaretta Ave., Seattle, 600A Central Bldg.
Columbus, Ohio, 123 E. Frambes Street

Ace brand condensed sweetened, 1020 lbs. 3.5 per cent milk, 260 lbs. sugar, 11 lbs. gelatine.

I wish you would send me your figures for at least one of these batches. E. L.

Reply: Replying to your letter of recent date requesting that your ice cream mixes be analyzed, I am giving you below in Tables No. 1, 2 and 3, calculations showing the proportions of the ingredients in your mix:

Table No. 1.

Ingredients	Fat	Serum Solids	Total Solids
130 lbs. butter, 80%	104.0	.....	104.00
200 lbs. sweet condensed	.....	54.0	134.00
205 lbs. sugar	.....	.....	195.75
7 lbs. gelatine	.....	.....	6.65
850 lbs. 3.5% milk	29.75	73.0	102.75
1392 lbs.	133.75	127.0	542.15
Per cent	9.6	9.1	38.9

Per cent sugar, 20.4.

Table No. 2.

Ingredients	Fat	Serum Solids	Total Solids
50 lbs. 40% cream	20.00	2.70	22.7
145 lbs. 80% butter	135.00	.....	135.0
1105 lbs. 3.8% milk	41.99	94.61	136.6
250 lbs. 8% cond. milk	20.00	45.00	65.0
9 lbs. gelatine	.....	.....	8.55
260 lbs. sugar	.....	.....	247.0
1819 lbs.	216.99	152.31	614.85
Per cent	11.9	8.3	33.8

Per cent sugar, 14.0.

Table No. 3.

Ingredients	Fat	Serum Solids	Total Solids
170 lbs. 80% butter	136.0	.....	136.00
250 lbs. sweet cond.	.....	67.50	167.50
1020 lbs. 3.5% milk	35.7	87.58	123.28
260 lbs. sugar	.....	.....	247.00
11 lbs. gelatine	.....	.....	10.45
1711 lbs.	171.7	155.08	684.23
Per cent	10.0	9.06	39.9

Per cent sugar, 21.04.

You will notice that in Table No. 1 as well as in Table No. 3 your mix figures out extra high in sugar. This is probably due to the fact that you are using sweetened condensed milk and did not figure the amount of sugar added in this way. The sweetened condensed milk contains 40 per cent sugar, which would in Table No. 1 (where you have used 200 lbs.) amount to 80 lbs. of sugar. You will see that you could materially decrease the amount of sugar to be used and still have about the right amount.

Table No. 2 shows about the results that the right kind of a mix should contain—about 34 per cent total solids and 14 per cent sugar. Both of the mixes represented in Table No. 1 and No. 3 can be made quite satisfactory if you will cut down on the amount of sugar.

ARMSTRONG CORK AND INSULATION COMPANY OPEN MILWAUKEE OFFICE.

The Armstrong Cork and Insulation Company, of Pittsburgh, Pa., has opened a new office in Milwaukee at 1011 Majestic building. This office was opened to give better service to the Wisconsin and upper peninsular territory and will be in charge of Mr. Hugh Krampe.

Mr. Krampe has been with the Armstrong Cork and Insulation Company for the past ten years. He has had a great deal of experience in the sales engineer and in various insulation work. Anyone interested in refrigeration can communicate by addressing him in care of the Armstrong Cork and Insulation Company, 1011 Majestic building, Milwaukee, Wis.

INDIANA ICE CREAM MANUFACTURERS' ANNUAL MEET.

(Continued from page 75)

Mr. Nance: I want to take issue against you on this six cents a gallon proposition. Ordinary good modern containers would cost at least one cent each. I do not figure where you get that in the pints. It is my opinion that it would cost nearer twenty cents than six cents. From experience we find it runs nearer twenty cents.

Answer: Your cost would be very much less when you fill with the packaging machine than with hand filling. That is, one of the big arguments in favor of the packaging machine. The amount named referred to quart containers.

Mr. Holly: Mr. Mojonnier, in this section of the country—the central west and the north—how does the amount of brick sold now compare with five years ago?

Answer: I would not have any exact data to answer that question.

Mr. Holly: Is there a continual increase? In the section through here, is there a general increase?

Answer: I think that your output of brick ice cream in Indiana is probably lower than it is with us in Illinois.

Mr. Fields: Mr. Mojonnier, how about the overrun—how does that hold up?

Answer: There is no loss in the overrun, when using the packaging machine.

Mr. Antrim, Indianapolis: Would there be a loss if you did not run the machine for some time? Suppose you would run 50 or 100 gallons, you would have a loss then, would you not?

Answer: Not necessarily. The hopper is insulated and refrigerated.

Mr. Reeves, Indianapolis: Would it be practical, if it were possible, that your brick machine could be placed on the floor beneath the ice cream freezer?

Answer: There would be no difference in that respect. It would be only a little more convenient.

Mr. Holly: Has there been the trouble this year that there has been in previous years, as far as your observation goes, as to grainy and sandy ice cream?

Answer: I would say that there has been in certain sections of the country.

Mr. Holly: In this section?

Answer: Not so many reports have come to us.

Mr. Holly: There are some here who are puzzled about grainy and sandy ice cream. Are you able to state to us how to avoid grainy or sandy ice cream? I know there are some men here who would like to hear what you have to say on this subject.

Answer: I will be glad to tell you anything I may know about this subject. Manufacturers have come to us from many different parts of the country, who reported this trouble. Years ago there was apparently not very much definitely known about the subject, so we started some experiments in our own laboratory to arrive at the principles involved. The manufacturing conditions prevailing in some localities are responsble for producing sandy ice cream. There is more trolble in certain eastern sections than in all the rest of the United States put together, because as most of you gentlemen know, they make ice cream high in milk solids not fat, and that is the condition under which you will get sandy ice cream more than any other. Sandiness is caused primarily by only a few different factors, and most important of all is the composition of the mix itself. The sandiness is caused from an excess of milk sugar in

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Vanilla Flavors

Concentrated

$24.00 Gallon

Regular Strength

$4.50 Gallon

Discount on Season Contract

Prall-Huff Co., Inc.

Extract Manufacturers

FORT WORTH TEXAS

"STAY-ON"
TUB COVERS

BEST IN EVERY TEST

SOLD BY ALL DEALERS

CANVAS PRODUCTS CORPORATION
FOND DU LAC, WISCONSIN

Why Redwood should be used for Ice Cream Cabinets and Refrigerators

Properties which make Redwood unrivalled for these purposes

ABILITY to keep heat out and cold in, is the test of refrigerator worth. This is directly dependent on the insulating quality of the materials, from which it is made. After experimenting with many kinds of wood, leading manufacturers of ice cream cabinets, refrigerators and cold storage plants have adopted Redwood for the following reasons:

Redwood is a remarkable insulator

The structure of Redwood is distinguished for the regularity in size and shape of its sap cells, and for the uniformity of texture they give. When the sap is dried out, these cells become air pockets—layer on layer of them—which act as almost perfect insulators to heat. With a freezing temperature on one side of a Redwood board, the other side remains at room temperature—does not sweat.

Redwood properly dried is "still" wood

Properly dried Redwood does not warp, swell, or shrink. Redwood "stays put"—joints tight—no bulging or leaking.

Redwood does not rot

Every fibre of Redwood is impregnated with a **natural** preservative which prevents decay from moisture. Acid and alkali solutions, salts and oils do not destroy Redwood. Insects and worms do not attack Redwood.

Redwood is easy to work and can be given any finish desired

With true grain, soft, light in weight and unusually free from knots, splits and other blemishes, Redwood can be manufactured to any dimensions desired with a minimum of labor and a minimum of waste. Its uniform cell structure provides excellent surfaces for holding paint or varnish—enables Redwood to be given any finish desired.

Write our Chicago office for Booklet 3 "Redwood Manufactured Products."

The Pacific Lumber Co.
OF ILLINOIS
REDWOOD
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THE PACIFIC LUMBER CO.
San Francisco, Calif. **Los Angeles, Calif.**

Export Company
A. F. THANE & CO.
40 Rector Street **311 California Street**
New York City **San Francisco**

The largest manufacturers and distributors of California Redwood
Members of the California Redwood Association

your mix, and that of course is obtained from your milk solids not fat.

If you do not exceed a limit of 12 to 12½ per cent of milk solids not fat, you are not liable to have any trouble with sandy ice cream. It would probably be best under certain conditions to remain under that percentage. Say ten per cent might be your limit in the winter months when the ice cream is moving more slowly, and in the summer you can slightly exceed 12 per cent and never have any trouble with sandy ice cream. Another big factor is the length of time the ice cream is kept after it leaves the freezer. You might have certain flavors that are moving rapidly, and you never hear of sandy ice cream in these flavors. Other flavors from the same batch of mix that move slowly may develop sandiness.

Of course the temperature of the hardening room and the temperature of the ice cream in the dealers' cans all enter into the problem, but the two main outstanding factors of the whole case are first, the composition of your mix, and to give you an outside figure, where your ice cream is not kept for any length of time, about 12 per cent, and in the winter time, or during any slow movement about 10 per cent milk solids not fat; the second important factor is the length of time that your ice cream is kept before it goes to the consumer.

Mr. Edward, Marion, Ind.: The matter of solids has been beat into us here in the last three years up to 32 and 35 per cent, and we have all been going to it, and I think we have made less money at it than ever before, and now you come along and tell us 12 per cent solids.

Answer: I referred to milk solids, not fat only. Your reference is to total solids. You should be able to make a high quality of ice cream mix if you keep your total solids within the limits which you named. The various constituents making up your total solids must be in the right proportion one to the other. For example, 9 per cent fat, 11.50 per cent milk solids not fat, 13 per cent sugar, .50 per cent water free gelatine, making 34 per cent total solids, makes a very fine quality of ice cream.

Mr. Edward: I have just heard recently about a process of making ice cream without gelatine. Have you found out anything about that?

Answer: I think that is being tried out. It has been demonstrated by so many years of actual experience that the use of gelatine is helpful in the making of ice cream. It prevents water crystals from becoming large, and thus it helps to produce a smooth ice cream. That is the main function of the gelatine. I would not recommend that you try to get along without gelatine at the present stage of our knowledge of this problem. Possibly this may be done at some future time. * * *

Then followed discussions on general matters as follows:

By Mr. Holly: There are several important things which might be profitably discussed this afternoon, and inasmuch as the only address on the program is the one just given, this opportunity is now open to you.

We have talked about the State Fair of Indiana, and the opportunity which it offers to the ice cream men, as well as others in the dairy industry to profitably advertise their wares. In the state of Illinois last year, I am told—that is this year—that an expenditure of $2,500 was made by the ice cream men in Illinois. Ice cream was manufactured there. The opinion of two or three men I have talked to from Illinois was that it was a decidedly fine advertising medium.

Mr. Henry Schlosser, have you anything to say on the subject of advertising dairy products at our State Fair?

Mr. Schlosser: What I think the manufacturer of dairy products should do is to go before the State Board of Agriculture and tell them that we want a suitable building equipped for housing dairy exhibits, and that we are going to advertise dairy products at our own State Fair.

Purdue has made a number of efforts to have dairy products exhibited, but there has never been any exhibition as far as the state was concerned. I think we should have proper arrangements made with the Board and put under State management.

Mr. Holly: Won't somebody else express an opinion about having ice cream advertised at the State Fair?

Mr. Antrim, Furnas Ice Cream Co.: Why could not that be taken up and worked out through Purdue? They have an exhibit there anyway. It seems to me that would be the thing to think about.

Mr. Reeves: I do not believe Purdue could do anything with it with the present equipment they have.

Mr. Miller: I do not think the Purdue building is located in the right place and does not draw the right crowd in there. The new brick agricultural building is not very suitable, I do not believe. What we need is a suitable building. I do not see where we could make any headway in the present buildings.

Mr. Fields: The time is now to do something if we are ever going to. They are planning new buildings, and if we go before the board at the present time, and tell them that we want the right kind of a building, I think we can get it, but if we wait, it will be too late. If we ever want to do anything in the state of Indiana along this line, we should do it now.

Mr. Holly: The Agricultural Board, as you probably all know, are waiting to complete plans whereby at least one and possibly two new buildings will be erected on the State Fair grounds. Provision would probably be made for this organization in case they see fit to take advantage of it whereby a suitable building would be provided for an exhibit of dairy products. As the grounds are at present, it seems to be the general opinion that no satisfactory display could be made. The Agricultural Board of Indiana, I am safe in saying, would be favorably disposed to entertaining such a proposition from this organization in case you see fit to make it.

Mr. Klepper: Do I understand this would cost in the neighborhood of $2,500?

Mr. Holly: I stated that the state of Illinois spent about that much.

Mr. Klepper: Then there would be a cost to this organization if this would go through?

Mr. Holly: That would depend on what kind of an exhibit you wished to put in.

Mr. Klepper: My personal opinion is that it should be put through Purdue. The territory around Indianapolis would be benefitted by it, but the people from the northern part of the state do not know that there is a State Fair down here. If it could be worked through Purdue, I think it would be the proper way.

Mr. Stucky: I move that we request Purdue University to get a desirable building to make a display and ask them to handle this ice cream proposition for us.

Mr. Holly: In other words, turn the responsibility of advertising ice cream for the state over to Purdue University?

Mr. Stucky: Yes—that is, with our co-operation.

Motion made by Mr. Stucky and seconded by Mr. Klepper that we request Purdue University to get a desirable building for the display of ice cream.

Chair: I wonder if it would not be better to include



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Built for the Freezer Room

Air tight, water tight, steam tight, sensitive working parts entirely enclosed. Ruggedly built to withstand hard usage in the freezer room.

Mojonnier Ice Cream Overrun Tester

accurate and instantaneous method of testing the overrun while the ice cream is still in the freezer, enabling the operator to control his output.

Sold direct or through your jobber.

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IT ALWAYS PAYS To Retin Milk and Ice Cream Cans

There is no need of repeating about the excellence of our work and service.

Twelve years of experience and the best equipped tin-plating plant, assures quality and service.

Write for new price list

Alois Aufrichtig Copper & Sheet Iron Mfg. Co.
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Brick Costs Reduced!

Rogers Automatic Ice Cream Brick Maker

Eliminates all hand work—in most cases 6 to 8 operations.

Neapolitan Bricks with perfect flavor divisions made in a single operation.

Bricks that are sanitary—direct from freezer to table—and never touched by hands.



Then, too, perfect individuals for parties, banquets, theatres, ball games, etc., can only be made at low costs with the Rogers AUTOMATIC BRICK MAKER

Price $1,500

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John W. Ladd Company

"National Approved Distributors Specialties"

DETROIT CLEVELAND

in that motion "dairy products" instead of ice cream?

Moved that the words "ice cream" be changed to "dairy products."

Mr. Risch, Vincennes, Ind.: The object of this discussion, as I understand it, is to produce more sales of dairy products. This last October in Vincennes we had what we called a "fall festival." It was crowded every night. We had a booth in that festival for milk, ice cream and butter (here Mr. Risch spoke of the demonstration made with papier mache figures, manufactured by a firm in Canton, Ohio). What we want to do is to reach the children, and not the old people. We had that machine running around for four men hitting the striker, with the milk man hitting the striker, ringing the bell and making it go the highest. The children all stopped and looked at that. The booth was crowded all the time—day and night.

Advertise with something that is moving. Show what milk does. A booth out there at the Fair Grounds twice as large as the stage would probably cost $1,500 with moving devices, showing the value of milk products. Get these little moving pictures and put in the windows. We want to start with the children, and that is the reason I am so much in favor of his Fair Ground exhibition.

Mr. Holly: There was a meeting at the agricultural office in the State House last Tuesday morning, attended by Governor McCray, Mayor Jewett, one or two Indianapolis bankers and Farm Federation representatives, five or six railroad men, one or two interurban officials, and manufacturers of dairy products—about thirty or thirty-five in all, to entertain Mr. Van Norman, president of the National Dairy Show, and Mr. Skinner, its manager. This meeting was called in a very few hours.

At Chicago a week ago last Thursday, a formal invitation from the Agricultural Board of Indiana was presented to the executive board of the National Dairy Association to hold the show in Indianapolis at the State Fair Grounds. As a member of our organization, I encouraged this. There has been a considerable amount of enthusiasm worked up in a very short time toward having the National Dairy Show come down here. The opinion of several men is that it is a foregone conclusion that this may go to St. Paul, Minnesota, or maybe Chicago. It sas not been officially announced as to where it will go for 1922. The opinion of all with whom I have talked is that it would be a wonderful thing for the general dairy industry to have the National Dairy Show come to Indianapolis. It is attended by from 50,000 to 100,000 people from all the states in the Union. There are over 1,000 of the finest dairy cattle exhibited and dairy machinery is also shown there. There is also an educational exhibit. All of the up-to-date machinery is seen there. It is the meeting place of practically all national organizations who have anything to do with the general dairy business. It would not only be an Indianapolis fair—it would be an Indiana fair. State-wide support must necessarily be guaranteed, according to the fair officials, before they consent to go to any place. There will have been accumulated by tomorrow night a considerable amount of evidence which will indicate that Indiana is behind this proposition.

It is too late now for any concerted action for next year, but it is my opinion that this may come here in the year 1922 or 1923. Certainly the work that has been done so far cannot be lost. I speak of this to solicit your co-operation in any method that might occur to you. Now, you can put in a stroke in this or that way, as you stand in your own peculiar relation to this show, if you want this show to come to Indiana at some future date.

If the National Dairy Show does not come here next year, there is a good chance, as far as we can superficially judge, of it coming a year later.

Indianapolis is particularly well fitted for that sort of a show. The Agricultural Board is enthusiastic about it coming. They have charge of the State Fair grounds, and are making all effort toward having the new buildings constructed.

You know, Indianapolis has seventeen trunk lines. It is the biggest interurban center in the world. To be present at the interurban station at 5 o'clock on any day will convince a man there there is some interurban traffic centered in this city. Indianapolis has a total of fifty-one hotels, a good many of which are first class. Indianapolis is within sixty or seventy miles of the center of population of America. It is within 150 miles of the industrial center of America. The impetus that would be given to the production, distribution and consumption of dairy products in Indiana would be far greater than that resulting from any other kind of an advertising medium I can think of. So I ask you to be mindful of the possibilities in having the National Dairy Show in Indianapolis, for if not in 1922, then in 1923, simultaneously will be held the World's Dairy Congress. There will be representatives at this congress from all nations that have anything to do with dairying. It is the first time any such thing has ever been attempted. Indianapolis and Indiana want the National Dairy Show to come here in 1922.

One of our members wrote to us not long ago concerning a matter which I am reasonably safe in saying you will be interested in discussing, and I will call on Mr. Fosdick to mention that proposition.

Mr. Fosdick: I will speak of the matter of credits. We all have accounts on our books, I believe, a few years back, and something came up in regard to forming an organization whereby we could stop the sale of ice cream to any dealer who is delinquent in his payments. It seems to me that we could have a delinquent list in this association whereby we could protect each other. Every manufacturer could report his delinquent customers. We could make him pay his bills or quit buying ice cream.

Mr. Holly: Mr. Klepper asks if this is a local proposition. Iowa has a plan whereby this matter is handled. On account of this having been brought to my attention very recently, I have been unable to investigate just how those plans are worked, and I am not in a position to propose any particular method of handling it, but in Iowa, at least, it is handled as a state-wide proposition. Mr. Olson says it is likewise handled in Nebraska.

Mr. Holly: When I was in the ice cream business, I took on a customer, who when he quit us, owed us $118. He quit another fellow before he came to us, owing him $175, and the fellow whom he bought from before that one, he still owes over $400 to, and nobody will collect anything from him.

Mr. Atkinson: We had a little experience last summer. Personally, I think it is a splendid idea if we would co-operate. I would like to state an instance that happened to us. We had a customer who was buying in the neighborhood of forty gallons per day, and he was running a little behind in his payments. We put him on the C. O. D. list. At the same time, we tied up everything he had in the store in a way that we could have closed him in twenty-four hours. One of our competitors started selling this party ice cream. He refused to buy from us because we put him on the C. O. D. list. At that time he owed us 800. I asked this competitor if he was paying. "Yes," he said, "he pays every

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Blanke-Baer Honey Fruit Salad

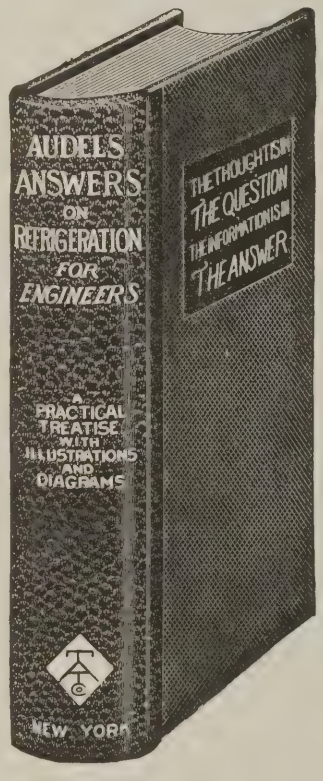
The Marvelous Fruit Combination means much in overcoming Winter Selling difficulties as Honey Fruit Salads adds to your Ice Cream just the Fruit and Flavor your customers want.

Put up in gallons cans, 10 gal. kegs, ½ bbls. and bbls.

Don't lose time or wait for sample. Order TODAY a case (6 gal. cans) of this heavenly mixture. You'll be surprised at wonderful results and low cost.

Blanke-Baer Extract & Preserving Co.
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How may refrigerator machines be classified?

What are the different forms of compressors? What conditions make top expansion desirable and what bottom?

What is the first process in pumping out expansion coils?

Could a single cylinder, double-acting compressor be kept in service while being repaired?

If Not—You Need a Copy of This Book

A practical book that should be handy wherever mechanical refrigeration is employed.

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week." I told him that he owed us quite a little, and that was the reason we put him on the C. O. D. list, and he had agreed to pay so much a week. In a short while, he paid off the $800 to us, and by that time, the competitor put him on his C. O. D. list.

Mr. Miller: I suggest that a committee be appointed to investigate and work out this thing.

Mr. Holly: Put that in the form of a motion.

This motion was made by Mr. Miller, seconded by Mr. Fields, and carried.

Mr. Loewenstein: I would like to explain a system had in Illinois a few years ago. We adopted a plan of comparing lists of the different manufacturers. The different lists were sent in to the manufacturer's office and every manufacturer who would compute a list was entitled to a list of others. The result was that we found several people who were owing as many as thirty-five different manufacturers. This is a very important proposition at the present time—this credit system. Two or three years ago this was not of sufficient importance to warrant us going into, because everybody was paying their bills in a fairly good way, but now we have a different situation. The fellow who was good pay a year ago may be very slow pay at the present time, and I believe the different manufacturers ought to know the conditions that exist in the different localities so that they can protect themselves. Some fellows go from one manufacturer to another, and the first thing you know they are on the books for amounts ranging from $100 to $1,000 with several manufacturers, and they are making more money owing the manufacturers than the manufacturers can make out of the dealers by selling them ice cream, and if you adopt the system of exchanging lists, I believe you will be getting at the bottom of the proposition. In Illinois, anyone who was not sufficiently interested to protect the manufacturer did not get the list from the other fellow. If Jones sent in a list showing his delinquents, he got the list from all the other manufacturers. All we should report is the dealer who is slow in making his payments, or who makes complaints that are not business like. Some constantly complain of shortages. You ought to know that as well as the poor payments. This is a very vital subject and will save the manufacturers a lot of money.

Mr. Fields: I think this matter we have under discussion at the present time will mean a great deal to us within the next two years. We are going through a business depression that is liable to last that long and maybe longer. I think we are going to find our credits will be in a worse shape next summer than last. I think next summer we will have more trouble than we did last summer, and I think this matter will be of vital importance to the ice cream man within the next few years. I think we are on the right track. It will be a good thing if we can get it to working soon enough to take care of next summer's business.

Mr. Schlosser: I move that a committee be appointed by the chair to draft a plan whereby a satisfactory arrangement may be made to take care of this credit matter.

Motion seconded and carried.

Mr. Risch: I want to make a motion here that our Secretary be notified of the names of customers who have cans in an unsanitary condition, and that the Secretary in turn write these customers in this regard about three times a year—say the first of March, the first of June and the first of August. You can readily see that this will be beneficial to the people who send in the names.

Seconded and carried.

The Chair appointed a committee of three, consisting of Messrs, Fosdick, Fairchilds and Miller to take care of the credit matter.

Mr. Holly: At 6:30 our banquet begins, and there will be a photograph of all present. The Hoosier Wild Cats have charge of this program this evening, and the rest of us sit back and listen. They have secured a speaker who stands very high, Mr. Malloch.

The morning session will begin in this room at 9:30. Luncheon at noon, and session in the afternoon, when business matters will be discussed. Reports of officers, and the election of officers. If you have nothing further, we will proceed to the election of officers.

A motion was made by a member that a temporary committee of three be appointed to make a selection of two names for chairman and secretary.

Seconded by a member. Carried.

Hugh Lawrence, Roy Atkinson and Ed. Nance were appointed on this committee. The names selected by this nominating committee were W. A. Klepper and William Beach for chairman, and George Fosdick and Fred Eward for secretary. This vote was made by ballot, Mr. Klepper receiving 17 votes and Mr. Beach 12; Mr. Fosdick 25 votes and Mr. Eward 9.

Mr. Holly: The chairman of the Ice Cream Division is Mr. Klepper and the secretary, Mr. Fosdick. Mr. Klepper, it is your duty to appoint before the first of the year, a representative from this state association as a director in the National Ice Cream Association. This is the custom which has prevailed.

Mr. Loewenstein gave a talk on the subject of tax matters, and there being no further business, the meeting adjourned.

* * *

SECOND DAY — AFTERNOON SESSION.

The Convention was called to order at 1:15 p. m., Thursday, December 15th, Mr. W. A. Klepper in the chair.

Chairman Klepper: The only thing we have on the program, aside from the general business of the Association, is an address by Prof. J. A. Estey, Professor of Economics of Purdue University. Mr. Holly assigned to him the subject of "Business," and Prof. Estey informs me that that is a broad subject. He can go as far as he likes.

Prof. Estey: Mr. Chairman and Gentlemen: I am sure it is very kind of the Association to invite me to be here. I think of the story of the man who received from a friend a jar of peaches in brandy (that was some years ago). He wrote to the friend and said that he appreciated the peaches very much, but that he appreciated more the spirit in which they were sent. I feel the same way.

The subject of business is exceedingly broad, and the thought that occurred to me was this: Most people are interested in knowing, or speculating at any rate, when our present depression in business will come to an end, when prosperity will set in again, and similar questions, and I thought it might be worth while to put before you very briefly just what sources of information are available as to when the depression which we have suffered since January, 1920, will come to an end.

Of course, business forecasting is very dangerous. Anybody may undertake it, and, of course, it is more or less speculation, but it is possible in a general way to do a certain amount of business forecasting. That is what is generally called business cycles. That seems to be the only way we can make any estimate whatever as to just where we are; particularly, as to the questions

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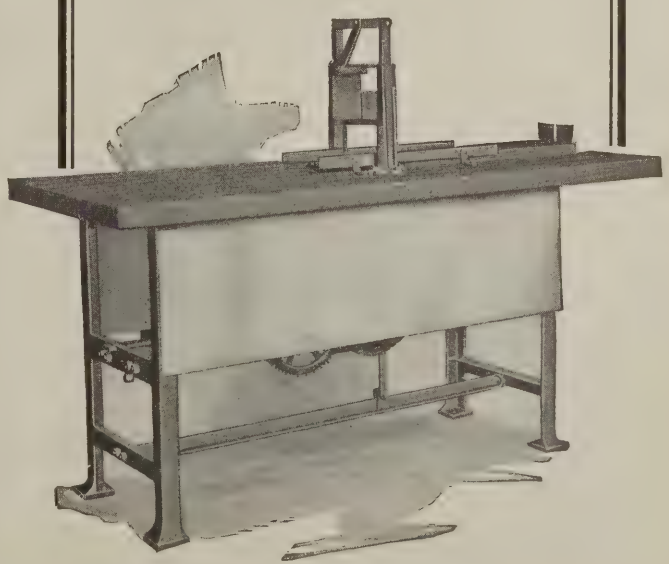
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of when the depression has come to an end, when the period of good times will come to an end, and so on.

Doubtless, you are aware that statistically, the business of the United States, or of any country that is industrial, shows a very remarkable thing; that is, it fluctuates in waves, or goes round and round in what men call cycles. That is the history of the business of the United States in the last half century. There has been in a way a succession of these business cycles. And the business cycle is a well defined thing lasting sometimes three or four years, sometimes longer, and it consists of certain very well known periods. That is, you begin at the bottom in a period of depression. Business as a whole seems finally to climb out of that and get up to what we may call expansion and then to pass into the period of over-expansion almost invariably. We never seem to expand just the right amount, we always seem to go to the point of over-expansion, and when that becomes acute, there is a crisis like that of 1920, when business passes through a sort of storm and if very severe it may be accompanied by a bank failing, etc. When the crisis is over, we pass through a period, more or less prolonged, of depression, sometimes lasting a year two, or three. It would depend to a certain extent, I suppose, on the previous expansion, and after we have passed through that period of depression, certain readjustments are made, the over-inflation of business is cut down, a certain number of business failures occur, prices fall and wages fall.

After these readjustments are completed, then business begins to go up again toward the upper part of the cycle, through a recurrent period of expansion, and then it would seem when the expansion gets full headway it goes on once more to over-expansion and another crisis and around through another cycle. These are very well marked indeed, and in the period from 1871 to before the war, there were some thirteen of these cycles, very well marked indeed, all displaying the same characteristics, and when you approach this question of forecasting business and try to know what is going to happen next, or when a depression has come to an end, it is a study of the cycles, which seems to be the only way. Statistical agencies which make any calculations at all upon business base it upon a study of business cycles.

Now, just why business should go around such a curious performance as that is not very well understood, and there is no complete explanation of it. Many people assume it is the psyhology of the average business man; that he is in his normal moods an optimist. If he is not an optimist, somebody makes him an optimist. You don't have to organize optimist clubs in your business community. You get it any how in the course of events. Knockers are stepped on and you have to be a booster and here in business is that expansion and these are times when profits are more than ordinary and, as a rule, the expenses also, and some way or another business will begin to go beyond its normal boundaries, whatever that may mean, and that is generally accompanied by a very keen demand for bank funds. You will find generally a rising rate of interest and heavy diminution in the reserves kept by banks, and a great deal of new construction—business enthusing in a more permanent form —and there will be enventually a break, or, in other words, you reach the end of bank reserves; you cannot expand any more. As a rule, business expands in a kind of lopsided way, some goes ahead faster than others and when that happens the purchasing part of the community is diminished relatively and the market for the expanding businesses becomes restricted and for one reason and another it comes to an end and from that into this more or less acute depression which is called a crisis, such as the crisis of 1920.

In this last one of 1920, matters were made of course in a way worse by the external expansion due to the war; war purchases, contracts and war prices. Rising prices have passed. All of those things made for an unusually profitable condition and the expansion was exceedingly abnormal, and hence it would seem a more or less likely conclusion that the depression which follows an abnormal expansion would be in some way abnormal, more sudden or more profound while it lasted, it may not necessarily last long—to make up in intensity to some degree for the over-expansion.

The question which interests us is when will the depression we are now in, and which followed the crisis of 1920, come to an end and when shall we begin on that rise which is inevitable, if the history of the past is any indication. That, of course, is a difficult question. Statisticians do not pretend to do anything in the sense of predicting exactly when a depression will come to an end. It is very commonly asserted that the depression will come to an end when readjustments are made, but when they will be made no man can prophecy. It is generally believed by economists and those who base their judgment on the cycles of the past that these are things which must come about before we have any general rise. You may call them readjustments. In the first place it is held that prices must become stable and cease to fall, remain permanently at some level—they may never fall to the level previous to the war, I don't think they will ever get down to the level of before the war—but to a permanent level, stable level, before we shall enter into the period of expansion that seems to be necessary. and hence, if prices are still fluctuating, uncertain as to the bottom, have still some place to go, then the period is not over. It is also very commonly held that there

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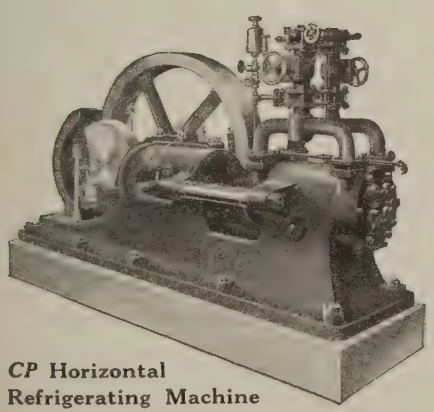
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must be a reasonable relation in the level of all prices. That is, no particular price should show an abnormal relation to others. In the case of retail prices, they have not reflected the same fall as wholesale. This is necessary before the readjustment will be complete. Real estate has not revealed the fall that some other lines have. For instance, in the price of raw materials and finished products, if the one has fallen faster than the other—the raw materials generally fall first—then the finished products have to carry out their part of the performance before the readjustment is complete; and that is the sign, which one must watch for in business conditions. Each should have fallen more or less proportionately. Then, of course, that will affect the wages. The cost of manufacturing, including wages and cost of raw materials, must be proportionately low and therefore what one would expect to see all over the field is a reasonable fall in wages, whatever that may mean. None would argue that wages will fall in general back to the pre-war level. There is a resistive power, unconscious, perhaps, among unorganized labor, which is very hard to overcome, and hence you will find again and again in these cycles that wages go up on the rising part of the period and go down, but not as far nor to the point from which they started, and therefore, you may expect that in the readjustment of wages. Of course, your own particular line may fall as far as before, but in general, you will expect to see wages come down, but not as low as 1913, if history is any clue. I suppose this will account for the difference in costs, and, by the way, labor is not as efficient as it was before the war. The difference of cost other than wages must be made up I suppose by increasing efficiency on the part of the management. Perhaps you have seen the accounts given by engineers appointed by the American engineering societies, who will investigate waste of industry, and it appears there is a waste due to inefficient labor and mismanagement. Of course, that was increased during the war owing to the way that profits could be made and that must be eliminated and some increase in efficiency must be made also. Apparently, there is no liklihood that labor will come down to where it was in 1913, but it is not yet complete in the matter of wages.

Then, again, you would expect to see before we get out of this depression reasonable readjustments in the interest rates. The general beginning of the rise of business after depression is in some ways as much as anything else, due to cheap money, bank loans cheap, and above all you can get stocks and bonds at reasonable prices, and of course, both stocks and bonds have sold low for some time and therefore, you would expect to see falling and rising prices of stocks and bonds before the readjustment is complete. This is necessary to cause the general advance in business, and also, naturally, you would expect to see a real adjustment in railroad rates. Transportation costs are very peculiar. They rise slowly and it takes a good deal of maneuvering on the part of the railroads to get their rates up, and it takes a good deal more of maneuvering and legislation to get them down. At any rate, it will be more time before they come down. There is a petition now before the Interstate Commerce Commission which will be acted upon in the spring, in March, I suppose, to get them down, but that is an adjustment which must be made before the readjustments are complete.

And again, we would expect to see an adjustment take place in the matter of foreign trade and here we have a peculiar situation. The relation between foreign and home trade is all broken to pieces. There is the peculiar rate of exchange, which makes the American dollar worth four or five times that of those countries in Europe, both of the allies and enemy countries, and hence, we would suppose that some readjustment of these exchange rates would be essential before there is a complete recovery of foreign trade, and many people argue that foreign trade is so important. I don't think it is so important, but they think we should do something and do something very radical to put Europe on its feet; that is, to cancel our debts, or to go further and export a vaster amount of capital, that is, billions of dollars, in order to set the central European people on their feet. Of course, our export trade is lagging; the exporters would like to keep it up, but our export trade is only about seven to ten per cent of our general sales. The domestic trade is therefore, very large and its readjustment is therefore very necessary.

To carry through a complete survey, there will be certain readjustments, I suppose, relating to the government: taxes, tariff, government control. The taxes imposed during the war are a burden and will have to be cut down. These are readjustments that will have to take place. These are the things which are generally expected; they look for these readjustments to take place, and they argue when they have all taken place, then the depression is over and then business will begin to pick up and go upward in the scale, passing through the cycle again, and so on, in the usual course of events.

As far as I can see from the financial statistics and statements, we are not through that readjustment period. There are a great many which are only in process and are not completed. Financial people say that the process will be completed by next spring, so that we can start off 1922 with a booming business. Perhaps that may be so.

Now, if I may call attention to another aspect of this question. There are certain indications which statisticians and economists use to judge whether or not revival is beginning. How will you know what signs are there? What is the major thing, anyhow, in a business revival? Of course, you are having to take statisticians with certain reservations. There are only a general guide and any one statistical society taken alone is not of much use, but there are certain laws that all standard statisticians use and which is the means used by certain economic papers and financial journals. I refer to the business barometer, the production of pig iron which is the business barometer, and if you follow the Iron Age you can find out week by week what the production of pig iron is and it is generally held when it picks up extensively it is the sign of reviving business, pig iron being at the bass of construction business and it is therefore in great demand. Now, at the present time, pig iron is picking up and on the other hand it is lower than in any month of 1919 and any month of 1920.

The railroad gross earnings is a thing that is commonly used too to judge whether or not we are on the rise, because they carry all kinds of traffic, and, subject to the more or less fixed rate, give to their gross earnings a reasonable measure of certainty as to whether the country as a whole is picking up, and the same thing is true with the movement of freight cars. The number of idle cars—if they are diminished, will indicate that business is picking up.

The same thing is true of bank clearings as published by the papers. If the clearings in the country as a whole is expanding rapidly then business is picking up. They use the price of stocks—take say thirty or forty stocks, average their prices and try them on a chart, and if they show over long periods of time a gradual increase, it is generally a sign of mending business. Bonds are falling, getting better prices for bonds and more capi-



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tal easier. If there is lots of money idle and capital is cheap it is generally a sign that business is in position to pick up rapidly.

If you examine today—I am trying to put before you the only clues we have as far as we can see for estimating business conditions—if you examine today these various things, the output of pig iron, railroad gross receipts, movement of stocks and bonds, bank clearings, imports and exports, you will find this, that while there is a certain increase in bonds, it is not very large; that while there is right now a little increase in stocks, it has been overshadowed by a considerable fall; and while there is considerable increase in bank clearings, it is not the same as in previous years, and the same of pig iron orders and of the steel corporation, the purchase of copper is also used as an index by financial journals and economic experts. Many still argue we should not expect yet a very great increase in business prosperity, but perhaps we will get it in the spring when the uncertainty about the government is over and when the present relations between the nations of the world is permanently known and established, and the stabilizing of the exchange rates, and reduction in railroad rates; that we are still in the process of making readjustments.

I suppose most people agree that we cannot experience the usual profits of the war and the unusual possibilities which made the cycle of trade very high, with heavy fluctuations, without it being in some sort of a way the cause of—perhaps not all the cause—more or less continued depressions.

The average length of the depression would seem to be about sixteen months. I say there were sixteen cycles. The average time of rise will come in about twenty-two months, and the average time of depression will be about sixteen months, but then that is only an average. Many are short in duration and others last for three years; others are longer, seven or ten years. Therefore, you can't tell from the average length of these cycles how long the present one will last.

If I may conclude these rather scattered remarks—it seems to me anybody who is interested in the future investigation of business must not persuade himself he can prophesy with any exactness that these conditions are going to change. He can make a survey of things which must happen and which have been known to happen in the past before business conditions revive. I think we are still in the process of what men call—for lack of a better term—readjustments, and when we get out of that it will be because all of the adjustments have been made. Then we can expect the reviving of business.

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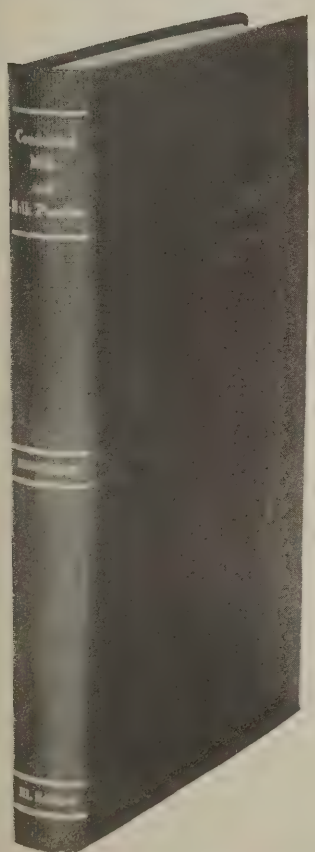
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These folks are all enthusiastic about their plant and an invitation to "go through" will be promptly forthcoming. So let us take a trip with one of these congenial gentlemen through this modern ice cream factory. We have provided an illustration of the ground floor plan so that you may trace your steps and get a better idea of the time saving arrangement of space at this plant.

From the office you pass directly through to the freezing room. Note from the illustration the sanitation that prevails here. The floor is of tile. The walls are also of tile up to the wainscoting. From here up the walls and ceiling are painted a peculiarly pleasing shade of light bluish gray. This color reflects a lot of light and has the advantage of not showing spots as readily as pure white. The battery of freezers stand out like an advance guard to arrest your immediate attention. They are Cherry freezers of the dreadnaught type, and equipped with Thomas automatic batch measures.

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25 pints	6.25
50 pints	6.00

TERMS: 2% 10 days, 30 days net.

REX EXTRACT COMPANY

257 Pacific Street Brooklyn, N. Y.

Order direct or through any of the following well-known firms:

J. G. CHERRY CO.....Cedar Rapids, Ia.
MEYER DAIRY EQUIPMENT CO.....St. Louis, Mo.
BEATRICE CREAMERY CO.....Denver, Colo.
ENTERPRISE DAIRY & CRY. SUP. CO..Cincinnati, O.
CENTRAL OHIO SUPPLY CO.....Columbus, O.
DAIRYMEN'S MFG. & SUP. CO.....St. Louis, Mo.
BLANKE MFG. & SUP. CO.....St. Louis, Mo.
HAZELWOOD CO., LTD.....Spokane, Wash.
RICHARDSON & HOLLAND, Inc.....Seattle, Wash.
MANNING MFG. CO.....Rutland, Vt.
W. L. KNORR CO.....Pittsburgh, Pa.
HEATH & COMPANY.....Wilkes-Barre, Pa.
CHERRY-BASSETT CO.....Baltimore, Md.
CHERRY-BASSETT CO.....Philadelphia, Pa.
FERRIS-NOLTH-STERN CO.....Baltimore, Md.

batch mixer. After proper mixing and pasteurization, the cream is drawn through sanitary piping, run through a 450-gallon per hour viscolizer, passed over a large tubular cooler and then pumped into the storage tanks shown in the illustration. After ageing from twelve to twenty-four hours, the cream is drawn through sanitary piping to the freezing room below.

At the end of this long row of tanks are two 40-quart freezers which are used for making brick ice cream only. This section is where the famous bricks are developed for the week-end "Specials" that have helped to create such a wonderful demand for Hutchinson's ice cream. Once you try some of these specials the taste lingers and the desire is for more. We know.

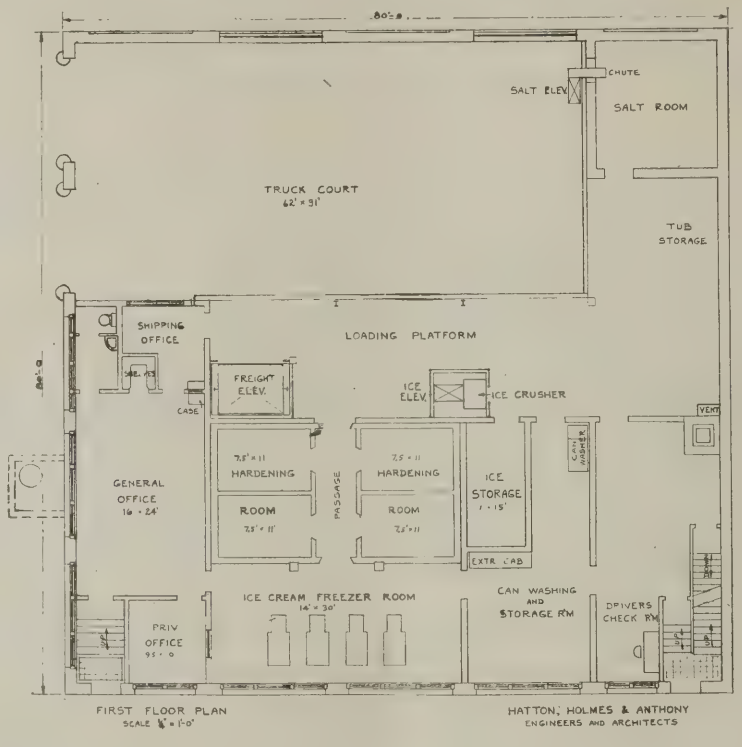
Your attention is directed to the refrigerating and hardening rooms in this plant. Bulk goods are handled on the first floor and bricks on the second. On the second floor is also provided cold storage space for fruit and raw cream as it is unloaded from the elevator.

After you have viewed this mixing room, noticed the adjoining spacious storage room for supplies, equally as inviting and sanitary as any other portion of the plant, the elevator boy calls "Going down" and you slowly drop two floors to the basement. Here you are attracted by the gentle hum of two twenty-five ton refrigerating machines. These supply the brine for the cooling and hardening rooms and also for the freezers. A double installation was provided to insure against shut-downs in the rush season.

Surprised is most everyone when entering the boiler room. The lack of soot leads one to inquire whether the boiler is not an "oil burner." You will be answered with a view into the coal bunkers, which are located under the large concrete loading platform within the enclosed court. A deep well engine pumps the water for the entire plant.

"Going up," says the elevator boy, and you step off on the loading platform, which opens onto the large enclosed turning space for the trucks, which, by the way, makes an ideal garage at night. Up comes one of the great white brine cooled trucks. It moves slowly along the loading platform, takes on its supply of ice cream, fills its bunkers with crushed ice from the ice chute that is supplied with the cracked ice by a large crusher, and passes on to the salt supply station which loads trucks in a similar manner.

This completes the trip through this modern factory; a credit to the industry; an asset the owners can be justly proud of and an achievement of the designers.



It is gratifying to know what rapid strides the Hutchinson Company has made in the development of the ice cream business in the middle west. This can best be illustrated by a hurried talk with one of their officers. This year the Cedar Rapids plants will produce more than two hundred and fifty thousand gallons of frozen product. Each of the five branches have an annual output of more than fifty thousand gallons which makes a grand total of more than a half million gallons.

The next thing you wonder about is how these branches are supplied. The raw sweet cream is shipped from a number of outlying creameries and from the most of these their entire sweet cream stock is annually consumed by the Cedar Rapids plant. How can this be possible? The mixing, viscolizing, and ageing is all done at the home plant and is then shipped in 10 gallon cans to the branches ready to freeze. The reason for handling in this manner is to insure a uniform mix at all times, thus resulting in a uniform product at both, branches and home plant.

The Hutchinson Co. invites everyone to visit their plant and this point is impressed on you as you shake hands for the last time and again find yourself outside.





Ice Cream is a Food

FOOD IS MOST APPETIZING WHEN PROPERLY FLAVORED. PHILADELPHIA HAS SHOWN THE WAY BY USING

MICHAEL'S MEXICAN
THE ORIGINAL
VANILLA POWDER
WITH AND WITHOUT THE BEAN SHOWING

MEMBER THE ASSOCIATION OF ICE CREAM SUPPLY MEN

DAVID MICHAEL & CO.
INCORPORATED
MILLERS AND MANUFACTURING CHEMISTS
GUMS AND FLAVORING EXTRACTS
RIDGE AVE., GREEN & CLAY STS.
PHILADELPHIA

MEMBER THE ASSOCIATION OF ICE CREAM SUPPLY MEN

THE FLAVOR THAT MADE PHILADELPHIA ICE CREAM FAMOUS

WHAT IS YOUR ANSWER?

A recent visitor at the offices of The Ice Cream Review, asked us the all important question, "What can I do to reduce my overhead expenses during the winter so that my winter business will not eat up all of my last summer's profits?" This man had several methods in mind, but before trying them out wanted to hear something of the experiences of others.

One of his methods was advertising. He is a firm believer in advertising, but he wants to know the best way to go about it in his particular circumstances. His, is a town in Louisiana, of about 15,000 population. The greater part of his make is sold in surrounding towns up to 75 miles distance. Advertising in the local newspaper is now being done, but it reaches only a small percentage of his customers. Advertising in the newspapers in all the towns, he says, is too costly, and circularizing the entire population in his distributing territory would also be very expensive.

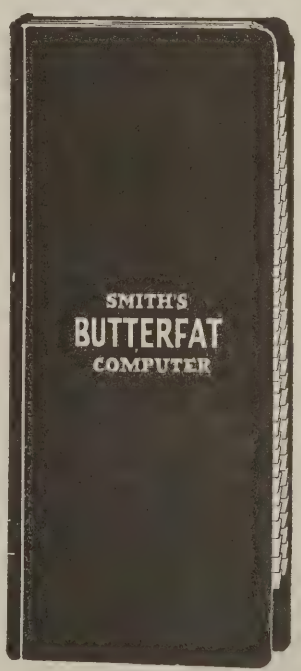
Another thing he has in mind is introducing a side line that could be handled to good advantage in connection with his business.

If any readers of The Ice Cream Review solved this problem, or have tried to solve it, either with or without success, we would like to hear from them. An interesting discussion on this subject would be of benefit to all.

ANNUAL MEETING OF ASSOCIATION OF ICE CREAM SUPPLY MEN.

The annual meeting of the Association of Ice Cream Supply Men will be held in the McAlpin hotel, New York City, on Jan. 24th, 1922. A large attendance is desired. Make sure that a member of your firm is there.

You Need It In Your Business



If you have never used a Smith's Butterfat Computer you can't imagine what a big help it is. All drudgery of figuring and checking done away with.

In buying all kinds of farm produce it is indispensable to the man who has used it.

Just Turn Over a Page and There's the Answer.

It's the correct answer, too. We want you to have one. Send us $2.00 and we will put one in the mails for you at once, postage prepaid. Your money back any time within 10 days if you don't like it. Address:

THE OLSEN PUBLISHING CO.
210 Sycamore St. Milwaukee, Wis.

Powdered Milk Market Report for December, 1921

By Bureau of Markets and Crop Estimates, United States Department of Agriculture.

Prices Paid for Raw Material Delivered During November, 1921, F. O. B. Factory.

Geographic Sections	Whole Milk			Buttermilk per gallon	Skimmilk per cwt
	Price per CWT	Butterfat Basis	Allowance 0.1 p. c. fat		
New England	$2.21	3.5	4.46	...	..
Middle Atlantic	1.98—2.45	3.5	4—5	...	20
South Atlantic	....	...	...	...	50
E. North Central	1.50—1.84	3.5	4—5	...	50
W. North Central	1.90—2.40	3.5	3	¾—0.8	..
South Central	....	...	..	...	..
Northwestern	1.85	3.5	5	...	..
Southwestern	1.93	3.5	..	...	..

Manufacturers' Wholesale Selling Prices During November.

The wholesale prices given below are based on reports of manufacturers covering actual sales made to jobbers, wholesale grocers, and similar buyers on basis of cash or short time credit with freight included to distributing point in each section.

Prices in the column headed "Range of Prices" are the highest and lowest reported by all firms. Those given under "Bulk of Sales" are the highest and lowest reported by different firms as the "bulk of sales" prices.

Geographic Sections		Whole Milk Powder		Skim Milk Powder		Buttermilk Dried	
		Range of Prices	Bulk of Sales Prices Fresh Goods	Range of Prices	Bulk of Sales Prices Fresh Goods	Range of Prices	Bulk of Sales Prices Fresh Goods
N. E.	Case	.....	.....	.....	.....	11½	11½
	Bulk	28–30	28–30	8½–13	8½–13	8	8
M. A.	Case	.....	42	.....	.....	.....	.....
	Bulk	28–34	28–34	5–12½	5–12½	5¾–12½	6¼–7.8
S. A.	Case	.....	.....	.....	.....	.....	.....
	Bulk	28–30	28–30	9–13	9–13	5¾–11½	7–11½
E. N. C.	Case	36–50	.....	11½	11½	9½	9½
	Bulk	20–38	28–30	7½–13	7½–13	5¼–10.6	6.4–8
W.N.C.	Case	43	43	.....	.....	9½	9½
	Bulk	28½–33	28½–30	6½–13	6½–13	3½–10.6	3½–6.3
S. C.	Case	.....	.....	.....	.....	10½	10½
	Bulk	28½–30	28½–30	8–13	8½–13	6.12–12½	7½–8½
N. W.	Case	.....	.....	.....	.....	10½	10½
	Bulk	31	31	7–14	8–14	7.6–12½	10
S. W.	Case	.....	.....	.....	.....	10½	10½
	Bulk	31–38	31	8–14	11–14	5¾–8	5¾–6.8

NOTE—Bulk goods includes that sold in barrels and drums. Case goods includes that sold in tin containers.

NOTE: Skimmilk powder for export trade was reported sold at 8—12c per lb. F. A. S. Atlantic Seaboard and 11c per lb. F. A, S. Pacific Seaboard. Whole Milk Powder in cases at 38c per lb. and in barrels at 27½c per lb. F. A. S. Atlantic Seaboard.

New England (1)—Maine, New Hampshire, Vermont, Massachusetts, Rhode Island and Connecticut. Middle Atlantic (2)—New York, New Jersey, Pennsylvania. South Atlantic (3)—Delaware, Maryland, Dist. of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia and Florida. East North Central (4) Ohio, Indiana, Illinois, Michigan and Wisconsin. West North Central (5)—Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska and Kansas. South Central (6)—Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, Oklahoma and Arkansas. Northwestern (7)—Montana, Wyoming, Idaho, Washington and Oregon. Southwestern (8)—Colorado, New Mexico, Arizona, Nevada, Utah and California.

(Continued on Page 136)

PLEASE MENTION THE ICE CREAM REVIEW WHEN WRITING TO ADVERTISERS

Condensed and Evaporated Milk Market Report

By Bureau of Markets and Crop Estimates, U. S. Department of Agriculture.

Manufacturers Wholesale Selling Prices of Condensed and Evaporated Milk (November)

The wholesale prices given below are based on reports made by manufacturers covering actual sales of condensed and evaporated milk to jobbers, wholesale grocers and similar buyers, delivered at manufacturers' distributing points on basis of cash or short time credit. Foreign prices are given as F. O. B., or F. A. S., points of export in section in which sales were made.

Geographic Sections	Sweetened Condensed, Bulk, Per Cwt. Unskimmed	Skimmed	Unsweetened Evaporated, Bulk Per Cwt. Unskimmed	Skimmed
New England—				
Range	9.01—9.50	4.00—6.76	.....	.....
Average	9.13	5.06	....	4.00
Mid. Atlantic—				
Range	8.75—11.00	4.00—6.76	9.00—12.22	2.26—7.40
Average	9.50	5.11	10.81	3.77
So. Atlantic—				
Range	8.75—9.50	4.00—6.76	.....	2.12—4.00
Average	9.09	5.25	10.28	3.37
E. N. Central—				
Range	8.00—10.00	4.00—6.76	7.00—10.00	2.50—6.45
Average	8.85	5.27	8.07	4.05
W. N. Central—				
Range	9.00—9.50	5.50—6.76	7.08—8.33	.....
Average	9.17	6.09	7.71	3.88
So. Central—				
Range	9.01—9.50	5.50—6.76	.....	.....
Average	9.26	6.13	....	....
No. Western—				
Range	9.01—12.00	5.50—7.50	.....	4.00—4.50
Average	10.13	6.69	....	4.26
So. Western—				
Range	9.01—9.50	5.50—6.76	.....	.....
Average	9.26	6.13	....	....
United States—				
Range	8.00—12.00	4.00—7.50	7.00—12.22	2.12—7.40
Average	9.26	5.46	9.12	3.77

New England—Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, Middle Atlantic—New York, New Jersey, Pennsylvania. South Atlantic—Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida. East North Central — Ohio, Indiana, Illinois, Michigan, Wisconsin. West North Central—Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas. South Central—Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, Oklahoma, Arkansas. North Western—Montana, Wyoming, Idaho, Washington, Oregon. South Western—Colorado, New Mexico, Arizona, Utah, Nevada, California.

LIGHTER EXPORTS REMOVE A SUPPORTING FACTOR IN CONDENSED AND EVAPORATED MILK MARKETS.

Neither domestic nor export demand have yet reached such a point as to relieve condensed and evaporated milk markets of the more or less dull condition which has prevailed throughout the past few months. Regardless of generally reduced prices on manufactured goods, business has not been up to expectations, and now with the first of the year at hand when inventories are in order, a still further factor has entered to temporarily slow up the movement. There has been a little buying going on for Russian relief purposes, although as yet no great volume of this has taken place, and accordingly the tone of the market has shown no change as a result of it. Exports during November dropped materially under those of the previous month, evaporated milk shipments being less than half of the amount which left the country in October. France, Germany and the United Kingdom continued to take the largest quantities of both condensed and evaporated goods, although shipments to parts of Russia materially increased. The immediate export outlook is said to be discouraging, for in this connection it is reported that there is considerable of an oversupply of both condensed and evaporated milk in England, and that some of this is being offered on the market for sale at prices lower than prices quoted in this country delivered seaboard. It is also reported that there are large unsold stocks in foreign countries of goods originally sent on consignment.

Selling Prices of Manufactured Product Lowered.

Advice from producing sections indicates that additional condensing plants may be closed after the first of the year. Some plants now in operation are utilizing the milk received for other products other than condensing, but the condition of butter markets which at present are unsettled and somewhat weakened on account of the relatively heavy current production and the outlook for imports, is not entirely satisfactory. December milk cost prices on the average were about the same as November, with a somewhat higher cost in parts of the New England section offset by reductions elsewhere. Prices received for manufactured goods were reduced about 50c lower per case during November.

A review of the accompanying statistics bears out the fact that the movement of goods has slowed up. The latest available export figures have already been referred to. December 1 stocks in manufacturers' hands were

(Continued on page 136)

MANUFACTURERS UNSOLD STOCKS OF CONDENSED AND EVAPORATED MILK

Includes all stocks held by manufacturers which were not sold or under contract for delivery on unfilled orders.

Commodity	Total Unsold Stocks Dec. 1, 1921		Comparison of Unsold Stocks For Same Firms Reporting			% Inc. or Dec.
	Firms	Pounds	Firms	Nov. 1, 1921 Pounds	Dec. 1, 1921 Pounds	Dec. 1, 1921 over Dec. 1, 1920
Condensed Case Goods	13	22,757,609	13	22,004,508	22,757,609	– 37
Condensed Bulk Goods	44	10,071,835	41	13,863,835	9,804,235	– 58
Evaporated Case Goods	33	104,328,124	31	84,658,661	104,251,924	– 26
Evaporated Bulk Goods	23	287,346	22	434,452	284,151	– 23
Total		137,444,914		120,961,456	137,097,919	– 32

UNFILLED ORDERS FOR CONDENSED AND EVAPORATED MILK

Includes the amounts of each commodity for which orders have been received by manufacturers whose orders were in excess of their unsold stocks.

Commodity	Total Unfilled Orders Dec. 1, 1921		Comparison of Unfilled Orders For Same Firms Reporting			% Inc. or Dec.
	Firms	Pounds	Firms	Nov. 1, 1921 Pounds	Dec. 1, 1921 Pounds	Dec. 1, 1921 over Dec. 1, 1920
Condensed Case Goods	2	529,400	1	290,000	185,000	– 83
Condensed Bulk Goods	..	.....	..	.....	.....	–
Evaporated Case Goods	4	706,933	6	347,120	706,933	–
Evaporated Bulk Goods	..	.....	..	.....	.....	–
Total		1,236,333		637,120	891,933	– 17

MONTHLY POWDERED MILK MARKET REPORT.

(Concluded from Page 134)

Manufacturers' Total Stocks of Powdered Milk.

Includes all stocks held by manufacturers reporting whether manufactured by them or purchased from others; whether on their own premises; in storage; or in transit (unsold) for warehouse consignment; and whether sold or contracted for sale but not delivered.

TABLE I.

Total Stocks of Powdered Milk Products.

Commodity	Code	Pounds Dec. 1, 1921	Pounds Dec. 1, 1920
Whole Milk Powder	Case	239,954	467,163
	Bulk	828,111	808,589
Skim Milk Powder	Case	118,466	347,760
	Bulk	6,990,462	11,061,442
Park Skim Milk Powder	Case	.....	.....
	Bulk	43,456	20,300
Cream Powder	Case	.....	.....
	Bulk	75,485	61,056
Dried Buttermilk	Case	50,200	.....
	Bulk	2,232,705	1,514,367

Manufacturers' Unsold Stocks of Powdered Milk.

Includes that portion of stocks reported in Table 1, not covered by current sales or future delivery contracts.

TABLE II.

NOTE—Bulk goods includes that sold in barrels and drums. Case goods includes that sold in tin containers.

Unsold Stocks of Powdered Milk Products.

Commodity	Code	Pounds Dec. 1, 1921	Pounds Dec. 1, 1920
Whole Milk Powder	Case	239,954	.....
	Bulk	803,111	1,797
Skim Milk Powder	Case	118,466	.....
	Bulk	6,229,282	5,246,613
Part Skim Milk Powder	Case	.....	.....
	Bulk	43,456	800
Cream Powder	Case	.....	.....
	Bulk	75,485	.....
Dried Buttermilk	Case	50,200	.....
	Bulk	2,030,623	854,961

EXPORTS OF CONDENSED AND EVAPORATED MILK FROM THE UNITED STATES.

	Condensed Lbs.	Evaporated Lbs.
Total, November, 1921	6,653,042	11,473,068
Total, November, 1920	13,051,288	4,155,675
Total, November, Inc., 1921	87,026,546	180,412,500
Total, November, Inc., 1920	268,024,400	123,785,485

EXPORTS OF POWDERED MILK FROM THE UNITED STATES DURING NOVEMBER, 1921.

Total exports, November, 1921 ..... 974,259 pounds
Total exports, November, 1920 ..... 80,398 pounds
Jan.-Nov., 1921 (Inc.) ..... 9,155,003 pounds
Jan.-Nov., 1920 (Inc.) ..... 2,351,538 pounds

LIGHTER EXPORTS REMOVE A SUPPORTING FACTOR IN CONDENSED AND EVAPORATED MILK MARKETS.

(Continued from page 135)

some 9,000,000 lbs., or about 6 per cent heavier, as compared with November 1. Unsold stocks show even a larger comparative increase, amounting to 17,000,000 lbs., or approximately 14 per cent more on December 1 than the previous month.

RICE PARCHMENT COVERING FOR BRICK ICE CREAM.

Ice cream, wrapped in rice parchment, may be next introduced in the ice cream world. S. H. Berch, president of the Velvet Ice Cream Company, of Seattle, Wash., believes he has solved the problem of wrapping ice cream by rice parchment. He has applied for patents on his invention and has perfected the process so it is commercially practicable.

The rice parchment, which is manufactured in Holland, is made of pure rice; chemical analysis shows that it contains 90.49 per cent starch, 8.6 per cent moisture and .91 per cent ash. The wrapper can be eaten just as an ice cream cone. It is believed the new invention will increase the sales in ice cream.

THE KEYSTONE EXHIBIT.

Visitors to the convention held in Atlanta by the Southern Association of Ice Cream Manufacturers will recognize this handsome exhibit of The Keystone Fruit Products Co. of Cincinnati, Ohio.

The Keystone booth, in charge of Mr. M. B. Abrahams and Mr. Al. Isaacs, had the time of their lives keeping up with the constant procession of callers at their display and answering the host of questions about



the celebrated Keystone products. Handsome souvenirs in the shape of "Keystone" key chains and many packages of Keystone products were generously distributed, to all who called. Luckily the booth was well supplied and the big demand was taken care of.

The Keystone delegation reports that their efforts were more than appreciated and that a goodly quantity of orders was booked as their reward.

⚜

CISCO HAS ICE CREAM FUTURE.

Cisco, Texas, has good prospects for an ice cream plant, so Mr. Richardson, secretary of the Cisco Chamber of Commerce tells us. In his enthusiasm for his city he submits the following facts for the information of those who might be interested:

"Cisco is located on the main lines of the Texas & Pacific, the M. K. & T., and the Cisco & North Eastern Railroads. There are probably 100,000 people in Cisco's trade territory that could be reached by an ice cream factory here. Eastland county, in which Cisco is located, is now spending four and one-half million dollars on good roads. Cisco is now constructing a million dollar dam which will impound 15 billion gallons of water, and the lake will have a shoreline of 35 miles, and this will be developed into one of the largest summer resorts in the southwest. Cisco enjoys an ideal climate and ice cream is used extensively the year around. We will be glad to furnish complete information in detail to any one interested."

⚜

He: They tell me that your complexion is all made up.

She: That's false.

He: That's what they meant.

Ice Cream with Chocolate Coating

wrapped in

Conley Foil

--an unbeatable combination

ARE you making chocolate-covered ice cream pies or bars? If not, you soon will be. For example, there's "Eskimo Pie," as introduced by the Russell Stover Company, Mallers Building, Chicago.

We will handle promptly your orders for pure Tin Foil wrappers, average size 5″ x 6″, printed in orange and purple, or any two colors you wish. As the largest Foil manufacturer in the world, we can make quick delivery at the right price.

Make a rough estimate of your possible wrapper requirements, basing it on the present winter-time average daily sale per dealer of forty-eight chocolate-coated ice cream bars. Then wire us, giving

1—Your imprint (name and address) exactly as you want it to appear.

2—Time of delivery.

3—Quantity wanted.

If a special cut is required, kindly send electrotype or a copy of the design. We will then put your order through at once and guarantee to have your name and address well displayed and correctly imprinted.

The new chocolate-coated ice cream confection is going strong. So is Conley Foil. The combination is unbeatable.

The Conley Foil Company

Makers of Foil for more than forty years

541 West 25th Street **New York City**

Conley Foil
TRADE MARK

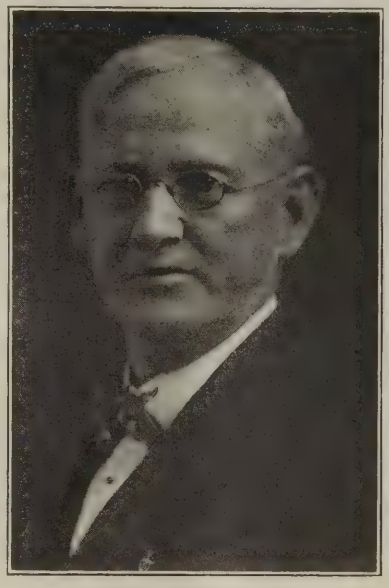
Cuscadens' Ice Cream Made in Louisville for Fifty Years

GEORGE W. CUSCADEN, Sr., who is known as "The Ice Cream King," came to Louisville from Cincinnati in 1866, more than fifty-five years ago. Louisville, Kentucky, then had a population of 65,000.

In 1871 Geo. W. Cuscaden and his mother opened a small confectionery and George made the ice cream. In those days, ice cream was made by hand, and only during the summer months, and none was packed or delivered to your home. All ice cream was made by turning the freezer around and around until the cream was frozen to a stiff batter; then it was beaten or whipped with a paddle. Thirty gallons was a big day's work for a man.

In 1880 the first ice cream machine was built. It was considered a wonder. It would make 20 gallons an hour.

In 1875 George Cuscaden opened one of the first ice cream factories in the United States. It was called an ice cream depot. It was a hard matter to educate the public to have ice cream sent home, but with a steady fight to win out, Mr. Cuscaden took to advertising through papers and circulars until his ice cream became known all over the state.



Geo. W. Cuscaden, Sr.



Geo. W. Cuscaden, Jr.



Arthur B. Cuscaden.

He was the first man to ever ship ice cream on railroads and one of the very first to sell ice cream soda water.

In the olden days Mr. Cuscaden shipped ice cream as far as Virginia, down into Tennessee and all over Indiana. But today there are ice cream factories in almost every small town from coast to coast. Today the ice cream business has become one of the biggest commercial industries of the country. There have been inventions of machinery for handling milk, cream and ice cream and today the farmers ship thousands of gallons of milk and cream on railroads. There was very little milk shipped on railroads forty-five years ago, and no machinery of any kind to handle it. There was no such thing as pasteurizing milk and cream.

In 1899 Geo. F. Cuscaden invented a machine for making ice cream bricks in four colors and flavors. He had this machine patented and continued to use it for more than twenty years, up until a year ago, when the Cuscaden Ice Cream Works discontinued the four-flavor brick, during which time it made thousands of gallons of brick ice cream.

The manufacturing growth of ice cream has been remarkable when you consider that fifty years ago, when ice cream was a luxury, Mr. Cuscaden made from five to ten gallons a day, and now the same plant, with its additional facilities, can make more than 3,000 gallons per day. Mr. Cuscaden always kept his ear to the ground and when there was anything new to be brought out in the ice cream business, he was one of the first to see it and had the ability to develop it.

Today the Cuscaden Ice Cream Works, Inc., is operated and managed by Arthur and Harry A. Cuscaden. George Cuscaden, Sr., has practically retired. George Cuscaden, Jr., owns and operates a retail business known as Cuscaden's Confectionery.



Harry A. Cuscaden.

Harry A. Cuscaden answers the oft-asked question, "What is the Cuscaden nationality?" in this manner, "We are Irish and are proud of it, and green is our standardized color on our tubs, trucks and equipment."

The plant is equipped with a York compressor, Emery Thompson freezers, Progress homogenizer, and Standard Milk Machinery Co. vats.

Thus in referring to the history of the Cuscaden Ice Cream Company we might add, "From a Small Acorn a Large Tree Did Grow." Harry A. Cuscaden has been working for some time on a small booklet containing the history of the Cuscaden Ice Cream Works and it will be illustrated with pictures of the business from its beginning.

DO YOU SELL

CARAMALA ICE CREAM

The Flavor Compelling Flavor

PRICES Per Gal.	
1 gallon	$7.00
5 gallons	6.75
10 gallons	6.50
25 gallons	6.25
50 gallons	6.00

Use 4 oz. to 10 Gallon Freezer
Use 3 oz. with Nut Meat to 10 Gallon Freezer

CARAMALA ICE CREAM is always the smoothest and most firm, in comparison with any other made from the same stock mix and handled under identical conditions.

Sample cheerfully sent on request

THE ASSOCIATION OF ICE CREAM SUPPLY TRADE MEMBER

REX EXTRACT COMPANY

257 Pacific Street Brooklyn, N. Y.

Order direct or through any of the following well-known firms:

J. G. CHERRY CO.....Cedar Rapids, Ia.
MEYER DAIRY EQUIPMENT CO.....St. Louis, Mo.
BEATRICE CREAMERY CO.....Denver, Colo.
ENTERPRISE DAIRY & CRY. SUP. CO..Cincinnati, O.
CENTRAL OHIO SUPPLY CO.....Columbus, O.
DAIRYMEN'S MFG. & SUP. CO.....St. Louis, Mo.
BLANKE MFG. & SUP. CO.....St. Louis, Mo.
HAZELWOOD CO., LTD.....Spokane, Wash.
RICHARDSON & HOLLAND, Inc.....Seattle, Wash.
MANNING MFG. CO.....Rutland, Vt.
W. L. KNORR CO.....Pittsburgh, Pa.
HEATH & COMPANY.....Wilkes-Barre, Pa.
CHERRY-BASSETT CO.....Baltimore, Md.
CHERRY-BASSETT CO.....Philadelphia, Pa.
FERRIS-NOLTH-STERN CO.....Baltimore, Md.

MERGER OF ICE CREAM AND MILK COMPANIES ANNOUNCED.

The merger of two of Los Angeles industries was announced recently by O. R. Lee, president of the Consumers' Milk Company, when he stated that the Globe A1 Ice Cream Company and the Consumers' Milk Company had joined hands.

"It is a great move," said Mr. Lee, president of the milk company, "and by a consolidation will reach the cost of overhead for both companies."

The ice cream company was incorporated recently for $1,000,000 and has as two of its directors, W. E. Keller and A. A. Comey, besides having back of it six millionaires, men who are well known in national and business interests.

The ice cream company will furnish both steam and refrigeration to the milk company. The truck which delivers milk to the dealers will also carry ice cream, thus cutting down on the delivery system.

Two other ice cream companies under this same management, one in Oakland and the other in San Francisco, will begin manufacturing ice cream immediately.

The ice cream factory will commence with an output of 1,000,000 gallons of ice cream a year, and the ice plant will manufacture 250 tons of ice a day. The Consumers Milk Company willl have a production of 8000 gallons a day.

Mr. Comey, the general manager of the ice cream plant, stated that the factory would turn out a better grade of ice cream for Los Angeles and with the reduced cost of overhead and efficient management it would be possible to lower the cost to wholesale dealers.—Los Angeles (Calif.) Express.

ANNOUNCEMENT

You can buy your

ICE CREAM MIX

from us

READY TO FREEZE

Write for prices

PERRY PACKING CO. Perry, Iowa

FOR YOUR INFORMATION

Our Ice Cream Manufacturers' catalog, will have illustrations and give full information on machinery and supplies for the ice cream maker and be ready for mailing about February 15th, 1922, with up-to-date prices.

We will not send these catalogues out promiscuously, but only to our customers or bona fide applicants, who are interested in receiving our catalogue and request us to place their name on our mailing list. **If interested write today.**

DAIRYMEN'S MFG. & SUPPLY CO.

403 North Main St. ST. LOUIS, MO.



B. Riley Hauk
President

TO MEMBERS OF THE NATIONAL DAIRY ASSOCIATION.

The annual meeting of the board of directors of the National Dairy Association was held in Chicago on Thursday evening, December 1st, and the member's annual meeting was held on Friday, December 2nd, in accordance with calls issued.

The new board of directors held its first meeting immediately following the close of the members' meeting on the afternoon of the second, at which time officers for the ensuing year were elected as follows: H. E. Van Norman, president; G. Watson French, vice-president; J. A. Walker, vice-president and treasurer; W. E. Skinner, secretary and general manager.

The executive committee for the year was named by the president as follows: J. K. Dering, W. W. Marsh, Chas. L. Hill, M. D. Munn, Hugh G. Van Pelt, J. D. Hollowell, Walter L. Cherry with president and two vice-presidents ex-officio members).

The committee named at the last annual meeting to consider the matter of increasing the number of directors made a report recommending that the number of directors be raised from 27 to 33 in order to give more even representation to the various branches of the industry and to keep pace with the increasing membership. The directorate is now filled as follows: G. Watson French, W. S. Moscrip, Frank O. Lowden, Fred Pabst, W. W. Marsh, Chas. L. Hill, F. K. Babson, Robert Scoville, J. K. Dering, M. D. Munn, Hugh G. Van Pelt, Nelle Fabyan, Paul O. Reymann, Hugh J. Chisholm, Frank Wills, E. M. Bailey, John LeFeber, J. A. Walker, T. H. McInerney, John T. Cunningham, M. J. Norton, C. W. Larson, H. E. Van Norman, H. H. Kildee, F. J. Macnish, E. W. Chandler, W. C. Davis, E. G. Miner, John D. Hollowell, C. M. Burdette, Walter L. Cherry, A. J. Glover, W. E. Skinner.

At the directors' meeting on Thursday evening President Van Norman presided and there were seventeen directors present. The minutes of the last annual meeting were read and approved. Two committees named at the 1920 meeting reported in favor of the increase in directorate, and progress in matters concerning the World's Dairy Congress which is to be held in this country in 1923. The secretary's report showed attendance at this year's show as being 100 per cent from the industry, the shortage of gate receipts being due to lack of city attendance because business interests of the twin cities failed to get the support of their people to back their promises of attendance. This they promise to do, backed by a guarantee, if we go back next year.

Provision for making classes in the show for calves owned by boys and girls in calf clubs was adopted and a committee appointed to work out details. The matter of increasing grade cattle exhibits was approved and the manager was requested to develop more activity in this direction through the cattle clubs. The matter of reducing group exhibits and cutting out junior calves, and developing futurity classes in the show, was discussed and referred to a reclassification committee to be appointed to review all cattle classes. The purebred bull campaign was approved and the manager was requested to develop a one-price bull sale of all breeds at the show each year.

The question of displaying all of the features connected with dairying—farm, factory, milk plant—in an attractive, informative way as entertainment for visitor as well as education, was approved.

The matter of a central home for the association was reported on by the chairman of the "Own Home" Committee as still being worked on with some chance of bringing it to accomplishment.

The report of the treasurer on the year's operations was read and approved, and copy of balance sheet is attached hereto.

Some comment was made as to the machinery men desiring to change the period of holding the show to every other year. Action was left to conference between machinery men and show management.

Delegations from Minnesota, Indiana and Kentucky, desiring to convey an invitation for the 1922 show to come to their states, were heard and a committee named to go over the proposals and facilities. The cities tendering invitations by delegates were Louisville, Indianapolis, and St. Paul and Minneapolis. Macon, Ga., Memphis, Tenn., and Richmond, Va., sent invitations by mail. The executive committee is to determine where the show shall be held, after hearing report by the president and secretary.

If you were not present you missed much valuable discussion on many subjects of dairy interest that only those present enjoyed. It is hoped that you will make a promise to yourself that you will always attend the annual meetings and give the industry the benefit of your experience and wisdom in conducting the work of this great association in such a manner as to cause it to reach its fullest measure of service to the industry.

Yours very truly,

W. E. SKINNER, Secretary.

* * *

National Dairy Association Balance Sheet As at November 30, 1921.

Assets.

Current Assets—		
Cash on hand	$ 78.06	
Cash in banks	19,272.62	
Accounts receivable—exhibitors	700.92	
Accounts receivable—advertisers	1,431.24	
Accounts receivable—dairy products	2.00	
Accounts receivable — miscellaneous	219.79	
Total current assets		$21,704.63
Investments—		
Bonds		24,887.50
Equipment—		
Furniture and fixtures	$ 725.03	
Automobile	2,523.50	
Miscellaneous	6,417.91	
Total equipment		9,666.44
Total assets		$56,258.57

Liabilities.

Current Liabilities—		
Notes payable	$ 907.78	
Accounts payable—trade	1,072.38	
Accounts payable—cattle premiums	2,028.00	
Accounts payable—miscellaneous	6,861.64	
Total current liabilities		$10,869.80
National Dairy Show Association stock		3,850.00
Surplus		41,538.77
Total liabilities		$56,258.57

Surplus Account—November 30, 1921.

Balance—December 31, 1920		$30,630.09
Add—Cancellation of 1917 Federal income tax reserve	$ 2,151.24	
Memberships sold for cash, 1921	2,800.00	
Net profit for 11 months ended November 30, 1921	5,957.44	
		10,908.68
Total surplus—Nov. 30, 1921		$41,538.77

OKLAHOMA ASSOCIATION OF ICE CREAM MANUFACTURERS.

(Continued from page 80)

Afternoon Session, Dec. 13, 1921.

Prof. A. D. Burke, Stillwater, Okla., spoke on the "Food Value of Gelatine."

ADDRESS BY PROF. A. D. BURKE, A. & M. COLLEGE, STILLWATER, OKLAHOMA.

To the Ice Cream Manufacturers of Oklahoma.

The Food Value of Gelatine.

Gelatine occupies a unique position in the ice cream world. It holds a distinct place on its side of the fence, and as yet no gums, powders, or any substitutes have been able to take its place and get over the fence with it, at least, not in one particular, namely, food value.

A few weeks ago a certain chemist claimed that gelatine was no longer looked upon as a food, in the true sense of the word. Perhaps he is right; perhaps not. I prefer to think the latter, for as one writer states, "It is certainly not by accident that the people of France turned to gelatine as a substitute for meat during the seige of Paris in 1870-71."

At least something of the use and nature of gelatine was undoubtedly known as early as 1700, for a European, Genys Papin, by name, in 1861, prepared it from bones under pressure, and from that time on it was made and used in Europe, especially in France, where its employment in hospitals and hotels became quite general.

Then experimenters, as is always the case when any new material comes to light, began to plunge into a study of its secrets and learn its true value. Chemists analyzed its composition and found that some grades contained such impurities as arsenic, copper, chlorides, sulphides and other materials, whcih they claimed made all but the highest grades unsuitable for use as food, and indeed their claim was probably true, for not so very long ago one worker at least, claims to have found copper present in some samples in sufficient quantities "to cause poisoning when the gelatine was used to garnish beef."

You, yourselves, and I likewise, although I am not so very old, have seen the day when physicians and some dietitions, and almost anyone who wrote on the subject of the healthfulness of ice cream, frequently condemned the use of gelatine on the grounds that the poorer grades oft times contained germs of disease, because as the writers claimed, they might have been manufactured unknowingly from diseased carcasses. Furthermore the word was passed around that practically all gelatine, if disease germs were not present, at least contained a sufficient number of undesirable germs to make its use unsatisfactory for ice cream making. In fact I know of a number of bacteriological analysis which showed gelatine to contain upwards of 2,000,000 germs per gram. I mysèlf have found varying numbers of bacteria, some samples running as high as 9,000,000 germs per gram. Think what that means to your ice cream if you use it in the mix. Think what it might mean to health. Such material at best could not be considered a very satisfactory edible product.

But do you know how the germs got in that gelatine? Carlessness and lack of knowledge on the part of the manufacturer who sent it to me. Gelatine you all realize is a glue, but of course the very purest type of glue, naturally it has a glue consistency.

Exposure to air, or dust, therefore, leads to contamination, and it behooves the maker of gelatine to use some care in packing his product for shipment, for not all ice cream makers pasteurize gelatine along with

RE-TINNING MILK AND ICE CREAM CANS

A SPECIALTY

MAKE YOUR CAN SANITARY

Now is the time to have your old cans retinned, all double coated, so do not throw your old cans away, sent us a sample so we can show you what we can do to it.

SANITARY TINNING & MFG. CO.

3757 E. 93rd St., CLEVELAND, O.

NO higher standard nor better quality in cream test bottles and glassware can be found than the well known Kimble Brand.

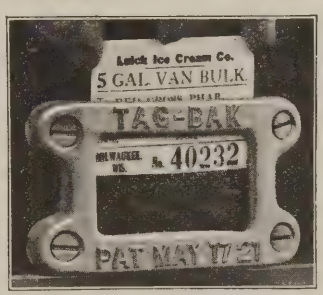
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Kimble Glass Company

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Chicago, Ill.

Factories: Vineland, N. J., Chicago, Ill., New York, N. Y.



Tags slip in easily

TAG-BAKS

WILL

bring your tubs back

Furthermore, Tag-Baks tell you just who have the tubs that do not come back as quickly as they should.

Our circular tells in detail what Tag-Baks are and what they can do for you. GET ONE.

TAG-BAK

183 Ogden Ave Milwaukee, Wis.

the mix, and even if they do, a clean product should be demanded.

If any gelatine makers are present they have probably begun to squirm, but they needn't, for I want to say right here and now, that most of the gelatine on the market, at the present time goes to the packing room practically if not absolutely sterile, and the manufecturer and ice cream maker should be interested in keeping it so.

Contamination not only detracts from the food value but frequently injures the product, and at best is not conducive to the making of a first class mix.

The other day I received ten 5-pound lots of gelatine, shipped from clear across the United States. The greatest number of germs any sample contained was 2,000 per gram. That gelatine firm knew how to pack and ship the product. So you see under the present methods of manufacture all standard makes of gelatine should be nearly sterile.

Now as regards the impurities that gelatine may contain. I have mentioned a number, such as copper, arsenic, sulphides, etc. An analysis from a well known standard firm shows the following:

Copper—less than 30 parts per million.
Lead—less than 10 parts per million.
Zinc—less than 100 parts per million.
Arsenic—less than 2.4 parts per million.
Sulphur—less than 350 parts per million.
Dioxide

Think what a very small amount of impurities this gelatine contains, and the reason lies in the fact that only the purest of chemicals are used in its preparation, because most of the impurities that gelatine does contain, comes from the chemicals used in its manufacture. Such small amounts of foreign substances as above, could, at least, cause no detrimental effects, and might be considered a negligible quantity.

And right here is another point for the ice cream maker to remember: "Be sure your gelatine is pure, chemically as well as bacteriologically." You have a right to demand its analysis from the manufacturer, and I suggest you do so in order that we keep the gelatine which is now on the market up to its present high standard of quality.

Thus we have come to see that a good gelatine is, as a rule, nearly pure, and purity is a primary prerequisite to a high food value.

(Continued in next issue)

The man who is careless enough to lose his temper ought not to be trusted with other people's belongings.

RETROSPECT AND PROSPECT.

Bulletin No. 2 of the North Carolina Ice Cream Manufacturers' Association.

The ending of the year just passed has caused many a sigh of relief,—1921 was a year which will be long remembered and hard to forget. Still it was beneficial in that the problems furnished will be guide posts for 1922 and the old mistakes can be avoided. The dawn of the new year is bright with hope and promise which we trust will not be disappointing.

Gathering up the threads of the holiday we find the repeal of the tax on ice cream which is most encouraging and should stimulate the trade. Another thing that should have a stimulating effect is the tax on soft drinks which the manufacturers are supposed to assume, but which they are disposed to put on the retailer. For instance, a druggist showed the writer an invoice for cocoa cola dated Jan. 1st on which he stated the price had been increased, making him bear the tax, the tax having been added by the manufacturer to the jobber, who in turn passed it to the retailer. This druggist stated he would have to either increase his price to the consumer or reduce the size of the drink served to seven ounces. If this is generally followed the consumption of ice cream will be increased. So if we look we will find many things that may help us, and instead of turning our thoughts to the difficulties of 1921, let us use the solution of them for 1922, and put forth every effort to make this the brightest year in the history of the trade.

Wisconsin Ice Cream Manufacturers:

Let's pull together and get every ice cream manufacturer to attend our convention this year. Make this year a record breaker. The Badger Flyers are working hard to help us put it over. Every member should do his part. A good time is assured.

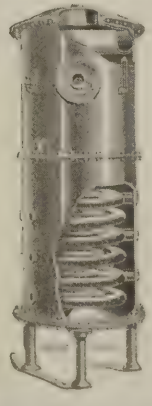
D. D. SMITH, President,
Wisconsin Assn. of Ice Cream Mfrs.

The writer is most thankful for the nice remembrance Christmas and wishes to thank each member individually for it. It is a pleasure to be of service to all of you, and if there is anything you want done at any time, wire or phone me, and it will be accomplished if possbile.

Sincerely,
A. E. DIXON, Secretary.

Let's push the membership to 50 for 1922.

People who commit suicide have a correct idea of their value to the world.



CONDENSED MILK MACHINERY

The Better Kind

We teach you to make condensed milk.

C. E. ROGERS

Builders of Better Condensing Equipment

8731 Witt St. Detroit, Mich.

Highest Purity



MADE IN AMERICA
For Quality Buyers

MEMBER

You can't forget the satisfaction which unfailingly follows the use of Chalmers Gelatine.

CHALMERS GELATINE

RICHMOND, VA. WILLIAMSVILLE, N. Y.

PURITY
STRENGTH
UNIFORMITY

ARE STANDARDS COVERING THE PURCHASE OF GELATINE

BOSTON
CRYSTAL GELATINE

IS STRONGEST - IS GUARANTEED PURE UNDER ALL PURE FOOD LAWS - IS ALWAYS UNIFORM

A TRIAL ORDER WILL CONVINCE YOU

CRYSTAL GELATINE COMPANY
121 BEVERLY STREET BOSTON, MASS.

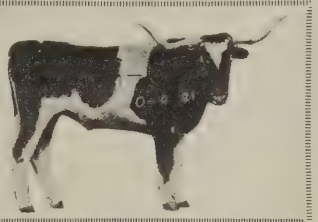
Branch Stores

New York	Philadelphia	Chicago	St. Louis	San Francisco
14 Ferry Street	418 Arch Street	3630 Iron Street	408 Elm Street	Fairfax Avenue and Rankin Street

TEXAS LONGHORNS

President—J. R. KRAMER, Creamery Package Mfg. Co., Dallas, Texas.

Secretary—J. B. HUFF, Prall-Huff Co., Fort Worth, Texas.



No, dear reader, this is not a new department instituted in honor of a new organization. "The Texas Longhorns" is the new name for an old organization—The Texas Association of Ice Cream Supply Men. How do you like it? So do we.

By the way, what do you think of the longhorn—brand and all— selected as the symbol of the organization? Carl Zimmer, the popular and good looking representative of the Menasha Printing & Carton Co., Kansas City, insisted upon the honor and privilege of selecting this symbol and furnished, without cost to the organization, the cut which will appear regularly at the head of this department. Now it is up to the rest of you Longhorns to keep us supplied with news to publish under this symbol.

The Longhorns, in customary Texas style, entertained the ice cream manufacturers at the Fort Worth convention with satisfaction to all concerned. Secretary J. B. Huff was a busy man all the time and did the job so well that he was retained for another year.

At the business session the following officers were elected for 1922:

President—J. R. Kramer, Care Creamery Package Manufacturing Co., Dallas, Texas.

Secretary—J. B. Huff, care Prall-Huff Co., Fort Worth, Texas.

Considerable discussion preceded the vote on change of names of the organization. There was no sentiment in favor of retaining the old name, but there was a division of sentiment regarding the new. M. S. Pennybacker made a wonderful speech, replete with adjectives and reminiscences of his days as a pioneer in the southwestern country, and he bitterly opposed the suggestion to change the name to Texas Steers. A committee consisting of Messrs. Peale, Miller, Zimmer and Owens, was appointed to decide upon the name and report at an adjourned meeting. The report of the committee favored the name "Texas Steers," which brought forth another impassioned speech by Mr. Pennybacker. The final vote was unanimous for "Texas Longhorns" and thus the organization will be known for all time without doubt. We are suspicious that the committee was "spoofing" Mr. P., but he was happy anyway.

TENNESSEE CONVENTION, FEB. 7TH.

Just as we go to press we receive word that the Tennessee Association of Ice Cream Manufacturers will meet in annual convention in Nashville on Tuesday, Jan. 17th. Mr. W. M. Sidebottom, 145 Sixth Ave., No. Nashville, is president, and Geo. A. Decker, care John Decker & Son, Nashville, is secretary.

A BEAUTIFUL SOUVENIR.

This office is in receipt of a beautiful souvenir metal calendar, which stands upright on our desk, and which came from The McCormick Company, Inc., of Pittsburgh and New York City. It is a very practical reminder of the firm which advertises as "architects and engineers for the dairy and ice cream industry." Thanks, folks.

Ohio Ice Cream Manufacturers' Ass'n Convention at Columbus

Success and conventions go hand in hand. This year the annual convention of the Ohio Association of Ice Cream Manufacturers will be held at Columbus in the Deshler hotel on January 31st and February 1st.

The world war has brought about conditions, which in turn have brought up problems which cannot well be solved by individuals. There are problems which require discussion by the best informed figures in the ice cream business to secure the answer which will be most beneficial to all concerned. These problems cannot be met satisfactorily by hammering away at them alone, but they require the combined efforts of men engaged in the ice cream business in various sections and who have recognized these problems from different angles, or who have seemingly devolved practical solutions of them of their own.

It is important that the ice cream manufacturers attend as many of these conventions as possible. The Ohio convention has always been largely attended but we feel that in particular this year—a year of reconstruction—it is more important than ever that you make it a point to attend at least your state convention. It is the place to learn how to overcome excessive operating expense, excessive delivery expense, how to increase the consumption of ice cream where the consumption has apparently already reached its maximum, how to help the consuming public to realize the real food value of ice cream and its relative value compared to the cost of other foods—the conventions are the places for discussions such as these—come and profit by the other fellow's methods.

The Hotel Deshler, which is to be the convention headquarters, is one of the most beautifully appointed hotels in the United States. You will enjoy its atmosphere and vote the service the best. The management is preparing to entertain you in large numbers and you can make it a little vacation trip to be enjoyed before the coming season's rush. There will be evening entertainments and the Ohio Ice Cream Manufacturers' Association promises to see that all attending have a good time.

In this age, when competition is so keen and when the public has been educated to such a thorough appreciation of quality ice cream and how this ice cream is handled, it behooves the wide awake manufacturre to consider attendance at his state convention as important and necessary to his own welfare. The progressive ice cream manufacturer realizes that he must keep in close touch with the new equipment and the new methods as they come on to the market—to do this he attends conventions and carefully reads his trade papers. Columbus is inviting us to attend this Ohio state convention of ice cream manufacturers—we are going, manufacturers and supply men will all be there. It is our pride. It is our opportunity to draw upon that annual treasury of ideas. It is our business father and our helpful big brother. It is our dynamo for recharging the batteries of knowledge and power and we must not overlook our chance to invest in a little more power. The Ohio convention will be a veritable storehouse of ideas and a builder of ideals. You must attend to catch its enthusiasm and its value lies in what you seek of it and how well you learn the answer. Enthusiasm is born of a crowd—it is to be your crowd, your business, your pride, and above all—your opportunity.

For illustration as to the importance of attending the convention let us call to your attention the country store, back from the beaten paths of business where you find that a modernly equipped store with up-to-date stock is an exception rather than a rule. The reason is obvious—isolated from the hum and bustle of broad-gauged business, the proprietor is out of touch with the contagious enthusiasm radiating from big accomplishments, and unless he ties himself often to the center of things, his business soon lacks the stimulating effect of new methods and soon saps its own strength and figuratively speaking, is a "dead one." Moral: Get out and interview other business men—it makes even BIG men bigger and better—equip yourself with practical proven business methods of the latest pattern from which you can derive new and perfect ideas to strengthen your business with, and you wideawake ice cream manufacturer must mingle freely with others in your own field and elsewhere as often as possible. Start in right by attending this Ohio state convention—there isn't a better place to start the convention habit. Fortify your business for the coming year by hiking Columbusward! Conventions are the timekeepers of progress and have claimed an important position in our commercial development. No man in the ice cream business can leave the convention without a considerable addition to his store of knowledge and an extension upon the breadth of his outlook.

Columbus is a city of about 237,000 population and is an ideal convention city—it was the home of the National Dairy Show in the years of 1917-1918.

Your attendance is of no small consequence to the ice cream manufacturers of Ohio—they are holding this convention for your benefit—let us not disappoint them by remaining away—MEET US IN COLUMBUS January 31st and February 1st.

Practical Accounting That Constantly Influences the Increase of Net Profits

The E. C. Bishop Co.

Industrial Accountants

AUDITS SYSTEMS APPRAISALS
INCOME TAX SERVICE

523-24 Lemke Bldg. Indianapolis, Indiana

PERSONAL.

Mr. E. D. Fear, with the N. A. Kennedy Supply Co., was in Milwaukee one day recently and paid The Ice Cream Review a pleasant call. He was in the city demonstrating the De Raef Standardizer in the plant of the Luick Ice Cream Co. Mr. Fear is enthusiastic about business prospects for 1922 and is hustling to get his share.

J. A. TAYLOR EXPANDS BUSINESS.

Miss Taylor, of the Mineral Wells Ice Cream Co., Mineral Wells, Texas, was an interested delegate to the Fort Worth convention. Her brother, J. A. Taylor, is the proprietor of the Taylor Ice Cream Co. at Weatherford, Texas, where he has been in business for the past 8 years. He has recently opened the Mineral Wells Ice Cream Co. at Mineral Wells.

COAT ESKIMO PIE

WITH

ALASKA CHOCOLATE COATING

A High Grade Milk Chocolate READY TO USE

Prepared especially for Coating Eskimo Pie and any other Ice Cream Delicacies

If you want to build up a lasting trade use ***this*** Chocolate Coating.

It eats right, Looks Better, Dips Easy, ***Coats*** more Bricks, costs less when quality is considered.—Contains ***more*** milk Solids, and more ***Pure Cocoa Butter.***

Made only by

Ambrosia
REG. U.S. PAT. OFF.
CHOCOLATE CO.

331-333-335-337 Fifth Street - - MILWAUKEE, WIS.

Write or Wire for a SAMPLE CASE of 110 Lbs.

MISSISSIPPI CONVENTION, JAN. 16-17.

The Fourth Annual Convention of the Mississippi Ice Cream Manufacturers' Association will be held in the Edwards Hotel, Jackson, Miss., on Monday and Tuesday, January 16 and 17, 1922. The officers, President P. L. Farrell, of Brookhaven, and Secretary-Treasurer N. D. Brookshire, of Meriden, have prepared a splendid program as follows:

January 16, 1922.

Registration.
Report of Secretary-Treasurer.
President's Address.
Re-Icing of Ice Cream by the Manufacturer.....S. N. Sutton
Vicksburg, Miss.
The Cream and Milk Outlook for 1922.....D. S. Cox, Jr.
Columbus, Miss.
Will Collective Advertising Benefit Our Industry..W. D. Seale
Jackson, Miss.
Eternal Triangle, Manufacturer-Retailer-Consumer...
.....A. A. McLeren
Clarksdale, Miss.

January 17th, 1922.

Address .....W. W. Campbell
President, Southern Ice Cream Manufacturers Assn.,
Shrevesport, La.
Food Value of Ice Cream.....E. R. Harris
Hattiesburg, Miss.
Co-operation Between the Inspector and the Manufacturer .....P. C. Cromer
State Creamery and Dairy Inspector, Jackson, Miss.
Constructive Association Membership.....C. A. Kent
Kentwood, La.
Best Methods of Collecting Ice Cream Accounts.....
.....H. G. Duttlinger
Memphis, Tenn.
Luncheon.
Business Meeting for Members Only.
Report of Committees.
New Business.
Election of Officers.

TENTATIVE PROGRAM FOR THE IOWA ICE CREAM MANUFACTURERS' CONVENTION, CEDAR RAPIDS, IA., JAN. 24 AND 25.

Jan. 24, 1922.

Visiting the Hutchinson Ice Cream Plant, where display of fancy ice cream and the making of the same will be held.
Meeting of the Board of Directors and also Registration of members.
Address of Welcome.
Response.
President's Address.
Reports of Secretary and Treasurer.
Address by W. B. Barney, Dairy and Food Commissioner.
Address by Prof. Mortensen, Iowa State College.
Reports of Standing Committees.

Evening.

Annual Banquet and entertainment by the Poodle Dogs.

Jan. 25, 1922.

Address by Prof. Washburn.
Continuation of Reports of Committees and Discussions.
Adjourn to J. G. Cherry factory for luncheon and inspection of the plant.
Second Address by Prof. Washburn.
Final Reports of Committees.
Election of Officers, etc.

DON'T FORGET KANSAS.

Remember that the postponed convention of the Kansas Association of Ice Cream Manufacturers will be held at the Baltimore hotel, Kansas City, Mo., on Thursday and Friday, Jan. 26th and 27th. If you had your grip sack all packed to go and then had to unpack it don't let that discourage you.

Please remember that the several pages of publicity which we gave the Kansas convention in the November issue all apply with equal force to the postponed convention. The Jack Rabbits will all be there and promise you a "hopping" good time. Don't miss it.

National Association of Ice Cream Manufacturers

Bulletin No. 48.

TO THE MEMBERS:

1921 Revenue Bill.

Herewith is presented an interpretation of such portions of the 1921 Revenue Bill as it is thought are of importance to Ice Cream Manufacturers:

SOFT DRINKS: Sections 628 and 630 repealed, effective January 1, 1922.

For the taxes now provided under these sections (on ice cream, ice cream sodas, soft drinks, cereal beverages, etc.), the bill provides, effective January 1, 1922, a tax of 2c a gallon upon (1) cereal beverages and substitutes, (2) unfermented fruit juices (as distinguished from fountain syrups) used for beverage purposes, (3) carbonated beverages known as soft drinks, (4) still drinks intended for consumption in the form in which sold, and (5) natural or artificial mineral waters, including imitations, sold by the producer, bottler or importer in bottles or closed containers at over 12½c a gallon; upon fountain syrups (including syrups made by manufacturers of carbonated beverages, or proprietors of ice cream parlors), 9c a gallon.

This tax would not apply on fountain syrups sold for use in the manufacture of cereal beverages and still drinks subject to the tax of 2c per gallon mentioned above; but when sold to be used in the manufacture of carbonated bottled beverages the tax is 5c a gallon.

Upon carbonic acid gas sold (1) to manufacturers of carbonated beverages, (2) to persons conducting soda fountains and ice cream parlors, and (3) carbonic acid gas used by producers, or importers thereof in preparation of soft drinks, there would be a tax of 4c a pound.

The foregoing are manufacturers' taxes, as to which returns would be made monthly, under oath, by the manufacturer, producer or importer, under a penalty of 5%, with interest at 1% monthly for delay.

Persons required to pay taxes under this title would be required to keep posted on their premises a certificate stating that they have registered in accordance with the regulation of the department.

EXCESS PROFITS TAXES: The repeal of these taxes is effective January 1, 1922, but the repeal does not apply to 1921 business, returns on which must be filed as heretofore.

Income Taxes.

Surtaxes on Individual Incomes: Effective for the calendar year 1922 and thereafter surtaxes on individual incomes would range as high as 50% on net income in excess of $200,000. These surtaxes would begin at 1% on $6,000 to $10,000, increase by 1% for each $2,000 of net income (except on $20,000 to $22,000, on which the rate would be 8%, and $32,000 to $36,000, on which the rate would be 15%) to 47% on $98,000 to $100,000, continuing at 48% on $100,000 to $150,000, 49% on $150,000 to $200,000, and 50% on net income in excess of that figure.

Returns: To the present requirement for returns is added a provision that any one with a gross income of $5,000 or more, whatever his net income, is to file a return. Corporate returns are to include such statements as will enable the commissioner to determine earnings or profits during the taxable year which have been distributed to stockholders during such year.

Personal Exemptions are changed in the case of the head of a family when net income is $5,000 or less, being increased to $2,500, and in the case of all taxpayers being increased to $400 for each dependent. Where the head of a family or a married person is living with husband or wife, the normal tax is not to exceed the tax on a net income of $5,000 plus the excess of net income over that figure for the taxable year. The reduction of the exemption from $2,500 to $2,000 would not operate to increase the tax payable under the higher exemption by more than the amount of net income in excess of $5,000. The status of a person as single or married, etc., is to be determined by his situation on the last day of the taxable year; in the event of death, the status is fixed at the time of death, except that a surviving spouse will be entitled to full credits for the whole year.

Traveling Expenses: Section 214 provides that in computing net income there shall be allowed as deductions traveling expenses (including the entire amount expended for meals and lodging) while away from home in the pursuit of a trade or business.

Partnership Returns: Section 224 provides that every partnership shall make a return, stating specifically the items of its gross income and the deductions allowed by this title, and shall include in the return the names and addresses of the individuals who would be entitled to share in the net income if distributed and the amount of the distributive share of each individual. The return shall be sworn to by one of the partners.

Corporation Rate: For 1922 and following years the rate is placed at 12½ of net income remaining after deduction of $2,000, the latter to be allowed only to corporations having a net income of $25,000 or less. Where the net income is over $25,000 the denial of the exemption is not operative to increase the tax which would be payable without the exemption by more than the net income in excess of $25,000. This provision might be availed of in computing net income of "affiliated" corporations.

Holding Companies or Other Corporations, if devised or used to prevent imposition of surtaxes upon shareholders, have their penalties increased by a tax of 25% of their net income. Stockholders in such a company may, if all agree, be treated like partners and each assessed with income tax upon his distributive share of the corporation's net income. In this event, the corporation will be free of tax.

Capital Gain and Capial Loss: A new section is inserted in the law to deal with capital gains and losses of individuals. Capital gain means taxable gain from the sale or exchange of capital assets at any time after December 31, 1921. Capital assets include any property acquired and held for investment, but not stock in trade or other property which would be included in the taxpayer's inventory. Individuals are to report separately their ordinary net income and their capital net gain and upon the former are to pay at the regular rates on individuals' income, but on the latter are to pay 12½%. In no such case where there is a net capital gain is the total tax paid to be less than 12½% of total net income. At the election of the taxpayer capital gain might be taxed as net income under Sections 210 and 211.

Sales to Record Losses: No deduction from gross income is allowed because of loss incurred through sale of stock or other securities if it appears that within 30 days of the sale the taxpayer, otherwise than by bequest or inheritance, acquired identical property in practically the same amount which is held and not disposed of. An exception is made upon behalf of dealers in securities, who claim losses incurred in the ordinary course of their

business. If the new acquisition is only partly in identical property, the deductible loss may be the portion corresponding to the balance. When a loss cannot be deducted under this provision, the property acquired with relation to which such loss is disallowed is to be treated as replacing the property sold.

Inspection of Books: No taxpayer is to be subject to unnecessary examinations or investigations in connection with income or other taxes. Unless the taxpayer makes a request, or the commissioner of internal revenue gives special notice of necessity, books may not be examined more than once a year.

Other Taxes.

Transportation Taxes: Effective January 1, 1922, the taxes on transportation of freight, express and passengers, sleeping car and parlor car accommodations, berths and staterooms, as well as the parcel post tax, would be repealed. The tax on telephone and telegraph service would remain unchanged. The Commissioner of Internal Revenue would by regulation arrange for the refund of tax on unused portions of mileage books and tickets for passenger service.

The Capital Stock Tax is retained as under the 1918 Act.

N. LOEWENSTEIN, Secretary.
C. G. MORRIS, President.

B. B. SCOTT,
President,
care Scott Mfg. Co.
Providence, R. I.

Address all communications to P. N. MILLER, Jr., Secretary, 2913 11th Avenue, Birmingham, Ala.

Minutes of Annual Meeting.

The annual meeting of the Dixie Flyers was held at 11 A. M., November 29th, in the reception room of the auditorium, Atlanta, Ga. Various discussions as to entertainment after which the election of officers took place.

The nominating committee, composed of L. H. Evers, Frank Wright, Adolph Skinner and H. P. Olsen, nominated the following officers:

President—B. B. Scott.

Vice-President—Adolph Skinner.

Secretary-Treasurer—P. N. Miller, Jr.

Directors—J. W. Mulligan, S. H. Alston, Roy Jennings, C. B. Hostetter, Thomas J. Stewart.

Motion made and carried that secretary cast ballot.

The newly elected president, Mr. Scott, appointed the following entertainment committee for 1922:

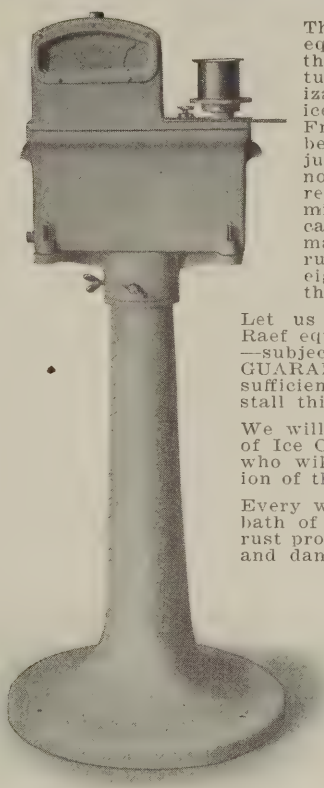
Thomas J. Stewart, chairman, Cincinnati, Ohio; Frederick W. Hooten, Nashville, Tenn.; Dr. Ben H. Brown, Chattanooga, Tenn.; Byron Morris, Chicago, Ill.; Mrs. Ruby Marnette, Atlanta, Ga.

Votes of thanks were extended to the officers, directors and entertainment committee, and also to Mrs. Marnette for their efficient work during the year.

Particular thanks were extended to Mr. Everett, Mrs. Marnette and the secretary who were in Atlanta several days in advance getting the affair into shape.

The dance and lunch held Tuesday night were highly complimented and the Dixie Flyers then adjourned for another year.

DE RAEF Ice Cream Weight Standardizer



The only patented equipment offered to the ice cream manufacturer for the Standardization of all makes of ice cream — Vanilla — Fruit — Nut — Sherbets—without any adjustments of any kind—no charts—no weights regardless of weight of mix—making it practical in any plant, to make an entire day's run and not to vary an eighth of a pound to the gallon.

Let us demonstrate this De Raef equipment in your plant—subject to sale. We will GUARANTEE YOU A SAVING sufficient to justify you to install this equipment.

We will send you the names of Ice Cream Plant Managers who will tell you their opinion of this Standardizer.

Every working part works in bath of special oil making it rust proof from the salt laden and damp air.

Drop us a card

N. A. Kennedy Supply Co.
Kansas City, Mo.

National Distributors



Boost Your Sales The Sanisco Way

Extra Business

Awaits the progressive Ice Cream man who lets the fact become known that he can furnish a "SANISCO"—the popular, clean, sanitary and rapid dispensers of ice cream for social events, as

Dances—Parties—Bazaars

Full Details on Prices on Request

SANISCO CO. MILWAUKEE WISCONSIN



HOOSIER WILD CATS

President, EDWIN J. SMALL, Indianapolis, Indiana

Send all communications to H. A. STEVENS, Sec'y and Treas. 717 Railway Exchange, Chicago, Ill.

THE WILD CATS REVEL.

The Hoosier Wild Cats, although the youngest of its kind in the country, put on an entertainment at the Indianapolis convention of the Indiana Association of Ice Cream Manufacturers that would do credit to one of the oldest. To say that it was "good" only partially tells the story.

At the conclusion of the big banquet in the Claypool hotel the Wild Cats took charge of the meeting and made everybody feel good. A jazz orchestra furnished the enlivening stuff and a couple of good singers not only sung themselves out but made everybody else sing. The leader was not satisfied until he "showed up" two particular tables of warblers whose harmony was not unlike that of a back fence chorus in summer time.

The big hit of the evening was the address by Mr. Douglass Malloch, of Chicago, who kept his audience of over 200 of the best folks in the world at high pitch for an hour and a half, but which didn't seem that long. He started in by saying that he had often wondered what made wild women wild. He said that he had reached the conclusion that the Hoosier Wild Cats are responsible. Mr. Malloch carries his audience from the sublime to the ridiculous and back again as only a finished artist can do. He is a humdinger.

We are privileged to quote below a letter from Secretary Holly to Secretary Stevens of the Wild Cats. This letter tells how the entertainment was appreciated by the ice cream manufacturers better than we can tell it. Here it is:

Indianapolis, Ind., Dec. 21, 1921.

Mr. H. A. Stevens,
Care Hoosier Wild Cats,
717 Railway Exchange Bldg.,
Chicago, Ill.
Dear Mr. Stevens:

It is certainly with great pleasure that I learn that not anybody in our organization expressed any unfavorable criticism about the remarkable program which your organization so unselfishly furnished last Wednesday night at our annual meeting. Reports come to me that it was by all odds the very finest entertainment which has been put on at any annual meeting in this state. I have said to you and to many that there must always exist a very friendly spirit between the manufacturers of dairy products and the men who make and sell the machinery and products without which the manufacturers could not operate.

We congratulate you upon so successfully handling not only this program but your organization. We further congratulate you upon having a clean, dignified program throughout. If there is anything we can do to assist you this coming year, let us know. Wishing you the compliments of the season, we are

INDIANA MANUFACTURERS OF DAIRY PRODUCTS,
A. P. Holly, General Secretary.

The entertainment committee, consisting of Harry A. Stevens, chairman; E. J. Small, Elmer Mack, and Geo. C. Anderson, have reason to feel all puffed up over the success of the affair. Another member, who apparently constituted himself as chairman of a self-appointed committee of one to hustle memberships, was H. H. Adler, of Mayburn fame. He led each new man up to the operating table where he was divested of superfluous coin of the realm which made him a member in good standing of the wildest bunch of wild cats in existence.

At the regular business meeting of the organization on Dec. 15th the following officers were elected:

President—E. J. Small, Indianapolis, Ind.
Vice-President—C. E. Bishop, Indianapolis, Ind.
Secretary-Treasurer—Harry A. Stevens, Chicago, Ill.

The old officers were re-elected with the exception of Mr. C. E. Holmes, who served as vice-president last year. Mr. Holmes no longer travels in the Hoosier state so the members reluctantly dropped his name, after voicing their appreciation of his splendid efforts in behalf of the organization in 1921. Mr. Holmes was unanimously elected an honorary member.

The Hoosier Wild Cats have a reputation to sustain now and we are betting that they will live up to it and then some. They keep busy the year round and that helps when the big occasion arrives. Success to them.



YE-OW!

Just as we push to press we received a letter from Secretary Stevens advising us that Ed Razey, who was elected "Keeper of the Cat" at the Indianapolis meeting, is getting cold feet on the job. We are privileged to quote from a letter which he wrote the secretary as follows:

There seems to be some misunderstanding about this "Custodian of the Wild Cat" move. I think you will remember that it was to be a "Stuffed" (meaning mounted) Wild Cat of which I was to be made custodian. That the erstwhile stuffed feline was to serve as the emblem of our association and to be used each year at our state convention. I think you will agree with me that it will hardly be fair to me that a live wild cat be substituted for the harmless variety as I understand there is a move on foot now to play just such a low down wild cat trick on me. This is really a warning that if the boys do go on through with such a move I will not be responsible for the value of a live wild cat as I already have it figured out that it would be cheaper to pay a taxidermist once than to hire a chamber-maid for a live one for even one year. This is really therefore notice that the association as a whole can be expected to assume responsibility for the value of the live wild cat.

In view of the above I am no longer in doubt as to what it is that makes a wild cat wild. If there are any who really don't know the secret I am sure they can learn the answer if they will ask any member of the Indiana Manufacturers of Dairy Products who knows me personally.

Yours without regret,
ED. RAZEY.

P. S.—How big is this wild cat going to be, so that I can have a glass case already for him (or her) when it arrives.



THERE ARE EXCEPTIONS IN EVERYTHING.

You know, as a rule, it is awfully hard to get a fellow to have his picture taken—you'd know better if you sat here in the office and read the answers we get from requests for photos—but if you will refer to page 94 of this issue to the picture of the Delegates and Exhibitors at the Southern Ice Cream Show held in Atlanta, Ga., you will find exceptions to the species. Here we find that "Red" of the Homer Cabinet Co.; Dave Gundrum of the Keiner-Williams Stamping Co.; Peter Miller, Jr., of the Crown Fruit & Extract Co., past president and now secretary of the Dixie Flyers; B. B. Scott of Scott's Coffee Flavor fame, the newly elected president of the Dixie Flyers; and the tall man on the end (in other words, a few of the exceptionally fine looking chaps), thought they would kill two birds with one stone and have their pictures taken twice in the same place. We just wanted to explain this to our readers so they wouldn't think there were two of such individual men in the world and to put them wise that they were not seeing double.

RETINNING ICE CREAM CANS

Special Department

WE DO REFINISHING of old ice cream cans in a special department of our plant which devotes its entire time throughout the year to doing this one thing and doing it well.

OLD CANS MADE NEW AT LOW COST

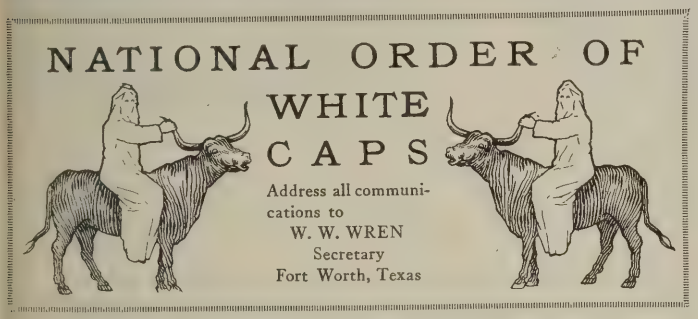
And we do know how to fix up your otherwise hopelessly rusty old cans so they will be tight and bright and good as new. IT IS NOT EXPENSIVE and PAYS YOU A DIVIDEND. A can retinned by us has a thicker coat of Pure Block Tin than when new.

SAMPLE CAN RETINNED FREE

This is the time of year to send cans for renewal. Send us a sample can NOW. We will repair and retin it without charge and return it promptly, so you can see the quality of our work. Write us when you ship it, so we will know whose it is, and we will do the rest.

OAKES & BURGER COMPANY

Established 1873 **CATTARAUGUS, N. Y.**



WHITE CAPS INITIATE BIG CLASS.

The National Order of White Caps put on one of the entertainments at the Fort Worth convention for which they are famous. If any candidate for membership failed to get his money's worth he is surely hard to satisfy. The writer, as one of them, got his money's worth long before the perpetrators decided that he had value received.

W. W. Wren, of Fort Worth, as chairman of the entertainment committee, secretary-treasurer and a little bit of everything, seemed to enjoy his job. He made good, too, and was entitled to the praise he received for staging such a good show. The entertainment "electrified" the audience—at least a portion of it—and Mr. Collins assisted nobly as referee of the bout between a couple of prominent lightweights. The membership list of the National Order of White Caps was increased considerably as a result of the Fort Worth meeting and its future usefulness is assured.

⚜

Nothing will develop latent wickedness in a man faster than being watched.

THE KANSAS ASSOCIATION OF ICE CREAM MANUFACTURERS.

The Kansas Association of Ice Cream Manufacturers meet at Hotel Baltimore, Kansas City, Mo., January 26 and 27.

This convention was postponed from December 15 and 16 on account of the small pox epidemic.

The officers and members of the Kansas Association extend, through The Ice Cream Review, an invitation to all ice cream manufacturers, whether in Kansas or outside, whether members of our ice cream association or otherwise, and a cordial welcome to meet and attend with us.

We have a splendid program. The small pox epidemic is completely stamped out and we can assure you a grand good time and profitable trip. Come, and be one of us.

Owing to the fact that there are two other large conventions in Kansas City the same week, it would be well to make your hotel reservations early in order to get choice rooms, although there is no doubt but that you can get accommodations.

KANSAS ASSN. OF ICE CREAM MFRS.
L. R. Manley, President.
B. T. Perkins, Secretary.

⚜

A 1922 REMINDER.

A beautiful maiden adorns the calendar which the Thomas W. Dunn Company, New York City, are sending to their friends as a reminder of the fact that they are manufacturers and importers of gelatine and that "Cox's Gelatine" in "The Checkerboard Package" has been used by American housewives since 1845.

LAST MINUTE "CELEBRITIES."

For a long time we have tried to obtain the photos of A. O. McCune, secretary of the Iowa Poodle Dogs Association and representative for the Morton Salt Co. of Chicago, Ill., and of Chas. Gifford, a Badger Flyer and representative of the Gelatine Department of Swift & Co., Chicago, Ill.

At the last minute, our efforts have been crowned with success. These men are regular attendants at the various conventions and we hope to meet them at some of the coming events scheduled for this month and which events we have tried to boost in this issue of The Ice Cream Review.

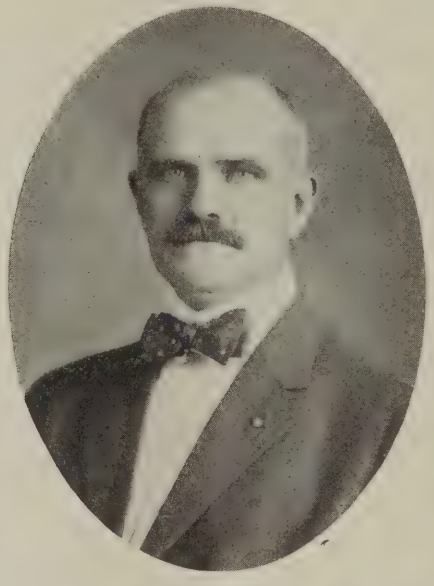
Mr. Gifford says we may think his delinquency is due to shyness, but it isn't true, he attributes his procrastination to diplomacy. He says, "It takes diplomacy to get a picture back from one of your best girls. It was either that, or else go to the police for the copy in the well-known rogues' gallery." We are glad to know he chose the former method, although we don't know but what it would have been safer to choose the latter. When you are captured and sent to jail, you get 60 or 90 days usually, but when you are captured by a girl, you get "Life."

SMILES ARE CONTAGIOUS.

You will find C. W. Kester, the genial representative of the Michigan Salt Works, Marine City, Mich., and well-known Michigan Dairy Booster, elsewhere in this issue of the Review, and in his own words, he explains the happy expression which illuminates the face of the picture. He says: "I am very happy as you can see by the smile. I could not be any other way after finishing one of the best years I have had calling on the ice cream trade. This is due to the many friends that I have in the ice cream business and I am glad that I am one of the Boosters at the convention. I am sure that this one will be long remembered and talked about. Michigan has a live bunch of ice cream men, so let's be there and make it a real convention."



CHAS. GIFFORD,
Swift & Co.,
A Badger Flyer.



R. J. DECY,
Decy Ice-Less Express Container Co.



A. O. McCUNE,
Morton Salt Co.,
Secretary Iowa Poodle Dogs.

JUST IN TIME TO SAVE ESKIMO PIE.

We read an account of a fire recently in the Tyler Brothers ice cream factory in Villisca, Iowa, in which the flames were stopped just in time to prevent the discontinuing of the making of Esquimo Pie, the brand new and already famous ice cream confection. We think this speaks for itself as to what the public thinks of this popular new ice cream bar.

LOWER EXPRESS RATES

Comparative Costs Old Method and New Method for Interstate Shipments

	25 Miles or less	25-37 Miles	37-50 Miles	50-100 Miles	100-150 Miles
Iced Tub	78c	84c	89c	$1.09	$1.26
Glacifer	46c	50c	53c	64c	74c
Savings	32c	24c	36c	45c	52c

Would not this enable you to get back that customer you lost because of high express rates?

The Glacifer Dry Packer is the only solution.
(Patented)

THE GLACIFER CO.

102 MERRIMAC ST.
BOSTON, MASS.

Prospects for the Dairy Industry in 1922

By E. W. CHANDLER, President, The Creamery Package Manufacturing Company

Father Time has moved another step forward and we are standing on the threshold of a new year. What will it bring forth?

For many of us the year 1921 will be long remembered because it was, for business men, a year of heavy anxieties and painstaking watchfulness. Fortunately, because of the sound financial position of the United States and the great resources of the country, we suffered no panic nor great failures. Here and there a business craft floundered because it was not soundly managed, or was financially weak, but we had no outstanding failures as in former years of business depression and the company, large or small, which endeavored to give honest service had made the long pull.



E. W. CHANDLER

There is now no question but what the worst is over. We have reached the bottom of the hill and are now climbing toward the pinnacle of prosperity.

An improvement has been felt all along the line since early fall, prices have quit receding and in most business centers, the building permits have broken all records. No concern could build at a more opportune time than now, if present quarters are inadequate. Wages have dropped materially and labor is keen to give a full day's work for a full day's pay. While not all building material has been reduced in cost, much of it has, and building can be done today at two-thirds of what it would cost a year ago. The man who expects building costs to drop much lower is very optimistic indeed.

Most classes of farmers have suffered from low prices and, except for replacements, they will buy sparingly during the coming year. But there is one splendid exception—the dairy farmer. In most parts of the country he has been getting a good price for his milk or cream—and disposing of his entire output. The dairy farmer is not hard up and from this standpoint our depression has not been without value, for it has taught the one-crop farmer the value of the dairy cow. Carload after carload of dairy cattle is going into the grain sections, and our dairy sections would be swept clean of cows if the one-crop farmer was not so hard up .

This man won't forget his lesson in a hurry and by building up a dairy herd, he will have the best insurance policy in the world against hard times.

Our federal reserve banking system has proven under severe trial its ability to prevent serious panics. A dairy herd on every farm will tend to prevent times of depression, not only on the farm but in the city as well, for in the last analysis the prosperity of the city is dependent on the prosperity of the farm.

Conditions in foreign countries are improving very rapidly. The limitation of arms conference is going to relieve the world of a great load of taxes and will provide the world with a practical League of Nations. Already the spirit of the conference is acting as leaven in the affairs of the world. The Irish question is undoubtedly settled once and for all. The allies will relieve Germany of part of the reparation load and assist her in reorganizing her fiscal system.

The nightmare of Bolshevism has been dissipated and trading with Russia has definitely opened up. The improvement in European conditions is going to have an invigorating effect on business in this country. She needs an immense amount of the raw material that the United States possesses and her purchasing ability will rapidly improve. Europe will need grain, cotton, steel, dairy cattle and dairy products in great volume.

Every year sees more and more recognition in the value of the dairy industry by our press and public, thanks to the educational work of the various dairy organizations, the dairy press and the advertising of the individual members of the industry.

We have done much to improve the dairy industry during the last few years but we still have much to do. We must educate our great metropolitan press as to the healthfulness of dairy products; we must educate our teachers and through them the youth of the land; we must educate our physicians,—to the end that the consumption of dairy products be increased. And we must see that production keeps pace with consumption. We must educate the one-crop farmer to keep dairy cows and we must educate the diversified crop farmer to keep more and better cows.

If we will band together to boost the dairy industry on the highways and byways, in the pulpit and in the press, in the school and on the dairy farm, great will be our individual reward, and still greater will be the benefit we will confer on the entire country. By encouraging a greater use of dairy products, we will assist the public to live more economically, we will raise the standard of living and we will have an integral part in producing a healthier and better race of American citizens.

THE KANSAS ASSOCIATION OF ICE CREAM MANUFACTURERS.

The Ice Cream Review:

We again ask through your valuable publication, the privilege of calling the attention of the Kansas Ice Cream Manufacturers Association members and all others concerned, to our postponed annual meeting, which will occur in Kansas City, Mo., January 26th and 27th, headquarters, Baltimore Hotel.

It was with great regrets that we were compelled to postpone our meeting fixed for December 15th and 16th on account of health condition prevailing at that time in Kansas City, but we are glad to say that health conditions are again normal and that all arrangements are being made for a good meeting January 26th and 27th.

We feel that the uncertainty prevailing in many lines of business at this time and some extent in our own, makes it very necessary that every member of our association and all others interested in our industry, be at this meeting. You owe it to yourself and the industry at large. Make your arrangements now to attend.

Very truly yours,
LOUISIANA ASSN. OF ICE CREAM MFRS.,
L. R. MANLEY, President.

Without personal ownership of property mankind would sink lower than the Digger Indians.

NEWS ABOUT SUGAR

Items of Interest for the Ice Cream Manufacturer

EXPORT DEMAND GROWS FOR REFINED SUGAR.

Decline in Prices and Low State of European Sugar Stocks Leads to Larger Movement.

The opinion expressed in Facts About Sugar states that export demand for refined sugar which has been growing for over a month has now reached fairly large proportions, estimates in well informed quarters being that about 5,000 tons daily were sold during the latter part of December for shipment from Eastern ports alone.

The demand appears to have shown a sudden gain when prices recently reached a level of 3 cents for export refined, and has been well maintained as a result of subsequent price declines.

Foreign Buyers Attracted.

The fact of the matter seems to be that buyers in other parts of the world are beginning to believe that prices have reached a point that makes purchases in this market attractive and that such declines as may take place in the immediate future will not be long maintained.

According to a report from one of the largest sugar dealers in Europe, the trade there believes that the bottom is now in sight and that while a decline of a few points in the raw sugar market is still possible, if such a decline materializes it will only be the signal for an attempt on the part of buyers to absorb large quantities of sugar at the lower levels, such buyers anticipating a profit by the subsequent increase in values.

European Supplies Low.

From the same source it is learned that the supply of refined sugar in Europe is much lower than has been generally supposed and that buying from that market is likely to be of material volume for some time to come.

Supplies in England, according to this authority, are so low that if the country tried to purchase a month's supply of sugar the movement would result immediately in a substantial advance in the market.

The attitude of European buyers towards the sugar market and values of today is reflected in the fact that the Dutch sugar syndicate, which normally is a large seller in England, has refused to meet the competition set by American granulated, and does not propose to re-enter the market until prices for export from here have reached a level of about four cents.

* * *

AMERICAN WINS ANOTHER SUIT.

Boston, Mass.—Damages in the amount of $5,000 were awarded the American Sugar Refining Company in its suit against the Daggett Chocolate Company, of this city, by a jury in the United States district court here last week. The action was one of those brought by the refining company for repudiation of contracts entered into last year to buy sugar at 22.5 cents a pound. The case was the first involving such contracts to be tried in New England.

On the question of the various defenses which were urged, which were substantially those offered in other cases on similar contracts, District Judge Morton ruled as a matter of law the defendant could not sustain.

RESUME OF 1921 SUGAR INDUSTRY.

In the period from May, 1920, to the end of the year, in Facts About Sugar, the price of 96 degree test sugar had fallen from the high mark of 24.67 cents a pound to 5.39 cents. This downward movement continued without interruption during the first few weeks of the year and brought the raw quotation to 4.5 cents. In February and March there was a temporary recovery, due to the establishment of the Sugar Finance Committee with authority to handle the sale of the Cuban output, but in April, as it began to be evident that Cuba would produce another large crop, the downward movement of prices reasserted itself and continued to the end of the year, at which time the cost and freight price of Cuban raw sugar in New York was 1.75 cents a pound, the lowest point it had touched in nineteen years.

Although prices at the close of the year have declined to a level that is ruinous to many producers who made their crops under the abnormally high costs prevailing in 1920, the outlook in other respects is far more encouraging than it was twelve months ago. At that time the trade, and to some extent the large consumers of sugar were loaded up with heavy stocks bought at high prices, which it was evident they must sell at tremendous losses. At the present time stocks in distributors' hands all over the world are lower than they have been for years. The displacement of supplies in 1920 which led to acute congestion in this market has been overcome, while the improvement in exchange and in the general industrial condition of Europe is making that market an active purchaser of Cuban sugar in the form of raws and of refined.

To summarize conditions, it may be said that while 1921 has been a year of heavy losses for producers, it has carried well toward completion the readjustment made necessary by the abnormal course of prices during 1920 and has paved the way for a gradual improvement in market conditions, which is clearly promised to 1922. The year 1920 was filled with undue inflation, followed by demoralization, while 1921 was a period of depression and readjustment and 1922 promises to be one of recovery and of the gradual restoration of a normal relationship between supply and demand.

* * *

U. S. DEPARTMENT OF AGRICULTURE ESTIMATE.

The sugar production of the continental United States in 1921, covering the beet and cane sugar crops whose production is now in the final stages, totals 1,142,305 long tons (1,279,382 ordinary tons) according to the final estimates for the year, issued by the United States Department of Agriculture.

Beet sugar production is estimated at 2,024,764,000 pounds, or 903,912 long tons, and that of cane sugar at 534,000,000 pounds, or 238,393 tons.

As compared with the crop of 1920 the combined figures indicate a slight increase in the country's aggregate production, the falling off of approximately 7 per cent shown by the domestic beet sugar crop being more than offset by a gain of more than 50 per cent in the cane sugar output. The 1920 total for beet and cane combined was 1,130,477 long tons, of which beet sugar contributed 973,233 tons and cane sugar 157,244 tons.

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SUGAR MARKET CONDITIONS IN A NUTSHELL.

Cuban centrifugals declined to 1.75 cents, cost and freight, following withdrawal of commission control. The advancement was one-sixteenth at the close of the week. The volume of export trade is growing. New York refined quotation reduced to 4.8 cents. Active demand for clarified reported from New Orleans. Refiners have been taking raws much more freely and the market has been kept pretty well cleared of this class of sugar; planters are taking this as an indication of improving conditions.

* * *

FUTURES SHOW MORE STRENGTH.

As we go to press, the range of prices on raws was as follows:

	High	Low	Closing
January	2.00	1.92	2.00
March	2.11	2.07	2.10
May	2.26	2.20	2.26
July	2.44	2.38	2.44
September	2.56	2.50	2.56

* * *

REPORT FROM HONOLULU.

Many sugar plantations have not received sufficient returns to cover the cost of production, and are living off the surplus they had the foresight to lay aside during the prosperous season. The conservative policy with which the sugar industry of the territory has been conducted alone has protected the business and financial interests from sudden and serious disaster.



JUNK ?

NOT WHEN YOU GET THEM BACK

Your cans may look like wrecks —it may seem hopeless to reclaim them for another season of use, but unless you have tried our retinning service you don't know the possibilities of making old ice cream and milk delivery cans look like new. Furthermore there is a big saving in having your cans retinned.

Now is the time to look your cans over and send the bad ones to us for redemption. OUR TRIPLE TINNING INSURES SATISFACTION.

DALLAS TIN PLATE CO. 2836 N. Haskel Ave. DALLAS, TEXAS

SUPPLY MEN SUPPORT NATIONAL ASSOCIATION OF ICE CREAM MANUFACTURERS IN NEW YEAR GREETING.

Also Issue Important Business Resume.

The Association of Ice Cream Supply Men expressed its support of the National Association of Ice Cream Manufacturers in a unique way in sending the following handwritten 1922 greeting to all wholesale ice cream manufacturers in the United States and Canada:

"Our New Year's Wish."

"It is our happiness this holiday to wish that you may have the greatest business good that 1922 can give.

"It is a wish that—if you do not do so now you may begin this year to benefit by national association with your fellow manufacturers. The National Association of Ice Cream Manufacturers has proved that it gives to one the strength of all.

"We wish you, also, new profits, the esteem of your community, the consciousness of things done well. But in their essence all these things will come in the fulfillment of one wish—that from now on the strength of the National Association of Ice Cream Manufacturers may be yours!

"As it is ours, through organization, to serve, may it henceforth be yours, through the National Association of Ice Cream Manufacturers, to grow to greater influence and power.

THE ASSOCIATION OF ICE CREAM SUPPLY MEN.

January 1st, 1922."

Enclosed with each copy of this greeting was a pamphlet written by Mr. Chas. G. Morris, president of the National Association of Ice Cream Manufacturers, outlining the past and present services to the industry of that association, under a caption, "Do You Know What **You Owe** to the National Association of Ice Cream Manufacturers?"

In a confidential printed bulletin to its membership, dated December 20th, 1921, the Association of Ice Cream Supply Men, summarizing general business conditions and trends, said in part: "Nevertheless in the country taken as a whole money is easier and there is markedly less inflation; in manufacturing sections savings bank deposits have lessened yet unemployment is also slightly reduced. The latest comprehensive figures available on commodity production, wholesale prices, general cost of living, etc., are those ending November 1st. The production of basic commodities increased slightly in October over the previous month and on November 1st the stocks of such commodities held at various points in the distributing chain were lower. Domestic wholesale prices computed by the U. S. department of labor show that on November 1st the cost of farm products, metals, food chemicals, clothing, fuel and lighting, building materials, house furnishings and miscellaneous other commodities averaged one-half greater than the 1913 average and compared with the maximum prices of 1920 as 15 does to 27. Figures compiled by the same government department show that average weekly earnings throughout the United States of workers in men's clothing, boots, shoes, woolens, car-building, silk, cigars, textile, paper, hosiery and underwear, cotton furnishing, cotton manufacturing, leather, automobile, iron and steel industries compare with average earnings within the same industries in 1914 as 16.4 does to 10.

"Results of the limitation of armament conference, it is general belief, will stimulate and give confidence to general business in greater degree than any event since the war's end."

LOUISIANA ASSOCIATION OF ICE CREAM MANUFACTURERS.

Monroe, La., Jan. 1, 1922.

All Members:

Our second annual meeting will be held in New Orleans at Hotel Grunwald, on Jan. 19th, 1922. We are counting on you to be there and have at least one of your friend competitors with you that does not belong to the association.

All members are urged to be in New Orleans either the night of the 18th, or early morning of the 19th so that we may have one full day, and be able to leave the night of the 19th.

You are advised that the war tax, express, freight and passenger and ice cream is repealed effective Jan. 1st, 1922. With the season's best wishes and hoping to see each of you at the convention, I remain.

Yours very truly,
LOUISIANA ASSOCIATION OF ICE CREA MFGS.,
By Secy.-Treas. N. F. Manning.



BIG ATTENDANCE AT CEDAR RAPIDS ASSURED.

Association of Ice Cream Manufacturers of Iowa.

The nearer we approach the time for the annual meeting of the Association of Ice Cream Manufacturers' of Iowa, the better the outlook is for a record breaking attendance.

The weather is in our favor, the sale of ice cream is light, the ice crop will have been harvested by then, the yearly statement will be out, the income tax figured and everybody will need a rest and an opportunity to recuperate and spend some of the excess profits and there will be no better place and opportunity to do this than at Cedar Rapids, January 24th and 25th.

Remember there are only two days, but arrive early and stay late. You can't afford to miss any of it. Something will be moving all the time. The program will be a good one. Secure your reservations in advance and in doing so provide space for the wife.

We will look for you, don't disappoint us.

W. S. WILCOX, President.



TO ALL BARKERS.

Chicago, Ill., Jan. 4, 1922.

The Association of Ice Cream Manufacturers of Iowa will hold their annual convention on January 24th and 25th at the Montrose Hotel, Cedar Rapids, Iowa. A very large attendance of both manufacturers and supply men is anticipated. This is the one opportunity that you will have to become personally acquainted with the Iowa Ice Cream Manufacturers and a personal acquaintance will surely be of value to you during 1922.

You will, no doubt, plan to be there yourself and to insure the success of the meeting, you should urge every supply man you meet and all of your customers to be sure to be on hand.

The Kansas Ice Cream convention is to be held at the Baltimore Hotel, Kansas City, on January 26th and 27th. I am informed that the Rock Island has a train with sleeping car service leaving Cedar Rapids at 7:00 P .M., arriving Kansas City at 7:25 the following morning. Any of you who wish to go to Kansas City from Cedar Rapids should write the Rock Island agent at Cedar Rapids for reservations on their evening train on the 25th.

POODLE DOG ASSOCIATION.
A. O. McCune, Secretary.

Associations of Ice Cream Manufacturers and Affiliated Bodies

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NATIONAL ASSOCIATION OF ICE CREAM MANUFACTURERS.
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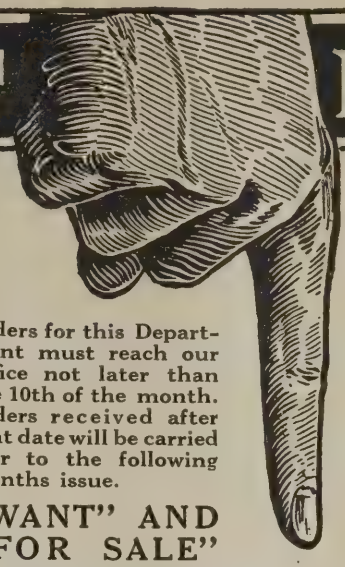
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Secy., T. A. Burke, Hamilton, Ont.

PLEASE MENTION THE ICE CREAM REVIEW WHEN WRITING TO ADVERTISERS

WANT DEPARTMENT



Orders for this Department must reach our Office not later than the 10th of the month. Orders received after that date will be carried over to the following months issue.

"WANT" AND "FOR SALE"

Notices will be published at the rate of 2 cents per word, cash with order. For blind address 15 cents extra.

HELP WANTED

WANTED—First class salesman to sell a full line of materials to ice cream and candy manufacturers. Great opportunity for man who is able to produce. The Wexmar Co., 2712 Montrose Ave., Chicago, Ill. 2-22

WANTED—By April first ice cream maker in an up-to-date factory. State experience and salary wanted. Jersey Creamery Co., Newcastle, Ind. 1-22

WANTED—Practical ice cream maker who understands homogenizing, pasteurizing, testing, standardizing. New modern plant located 175 miles from Chicago. Address: R-203, Ice Cream Review. 1-22

WANTED—We are installing a large ice, refrigeration and ice cream plant and have an opening for a young man who is well up in ice cream making and wants to grow up with the business wuold like to have a man interested and who is a sticker, as this business is new here and has to be built up. If interested address Box 32, Celaya Guanajuato, Mexico. 1-22

POSITION WANTED

HIGH GRADE ICE CREAM MAKER, capable all around dairyman, open for engagement. Thirty years' practical experience, expert on testing, standardizing, pasteurizing milk, cream. Thoroughly experienced in all departments inside, and outside work, steam, refrigeration; good mechanic; reliable; best of references. Will guarantee to save and make you money in your plant. Desire position with reliable firm. Address: R-48, Ice Cream Review. 7-21tf

POSITION WANTED—As a well known member of Supply Men's Association I cannot openly lend my name to recommend a man for managerial and buyer's position, but I have in mind a man who knows as much all around about the scientific and practical side of the retail milk and wholesale ice cream city and country as any manager I have met in 25 years travel all about the country, he is of the highest type of executive. He is well situated but might make a change of location, 29 years' experience. Nothing under $7,500 or $10,000 considered. Address: R-92, Ice Cream Review. 1-22

POSITION WANTED—As superintendent or manager of ice cream plant. Technical trained college man, in creamery with two years' experience. Address: R-208, Ice Cream Review. 1-22

POSITION WANTED—By thoroughly experienced person who understands modern methods of ice cream making. Nine years' experience. Furnish best of references. Address: R-207, Ice Cream Review. 1-22

POSITION WANTED—As manager of large ice cream business, fully acquainted with all details of manufacture handling and sales, prefer position offering working interest. Address: R-206, Ice Cream Review. 4-22

POSITION WANTED—Efficient butter, ice cream production expert. Thoroughly conversant, practically, and theoretically, in every phase of milk productions. Specialty in ice cream. Instructor in microscopic work, Mojonnier, testers, Babcock, fancy creams, ice cream cakes, cultures, buttermalks, starters, condensories, butter making, homogenization, honores in butter makers' contest, state certificate, grading, sampeling, weighing and testing, milk distributing. Will satisfy my statements at first conference. Twenty years' practical experience, good references. Present position, superintendent of large ice cream and butter department, also control laboratory work using my influence over large milk distributing business. Company doing two million dollar business. No small position considered. Address: R-204, The Ice Cream Review. 1-22

POSITION WANTED—By university graduate, thoroughly experienced in milk products, ice cream manufacture, etc. Capable of handling position as manager, chemist, or scientific expert. Willing to travel, service work or good selling proposition. Only high grade position desired, at present employed, references. Address: R-201, Ice Cream Review. 1-22

POSITION WANTED—Agricultural college graduate, having specialized in dairy manufacturing, with a thorough practical knowledge of ice cream manufacturing desires position as superintendent or assistant superintendent in city milk or ice cream plant. South or East preferred. Address: R-108, Ice Cream Review. 1-22

POSITION WANTED—As ice cream maker; 10 years' experience. Capable of handling 3,000 gallons a day. Address: R-101, Ice Cream Review. 1-22

FOR SALE BARGAINS

FOR SALE—Controlling interest in prosperous ice cream business in live Wisconsin manufacturing city. Would consider as trade northern lakes property, improved or unimproved, in Wisconsin, having summer resort possibiilties. Excellent opportunity—good reason for selling. Address: R-105, Ice Cream Review. 1-22

FOR SALE—Cheese factory. If you want to buy a factory write to us. We have some in Taylor, Clark, and Marathon counties in prices from $4,200 up to $11,000, all are located in the Clover Belt of Wisconsin. For any information write to F. D. Steinert, Abbotsford, Wisconsin. 3-22

FOR SALE—Established ice cream plant doing good business, in live Michigan city with two railroads Good reasons for selling. Address: R-200, Ice Cream Review. 2-22

FOR SALE—Ice cream factory. Good shipping point. Sell reasonable. Good location. Address: R-205, Ice Cream Review. 1-22

MACHINERY AND SUPPLIES AND

BOILERS, NEW AND SECOND HAND—Electric Motors, Engines, Pumps, Pipes and fittings, Valves, Belting, Shafting, Bearings and Pulleys. Money Saving prices. Harris Machinery Co., Minneapolis, Minn. 12-20tf

FOR SALE—Three new Cherry model "I" 60-quart freezers; motor driven. Rich Ice Cream Co., Buffalo, N. Y. 3-21tf

FOR SALE—In excellent condition, one 1000-gal. copper tinned Cherry ice cream batch mixer with direct connected A. C. 220-volt, 3-phase, 60-cycle motor. Immediate shipment. Address: Box 250, Elyria, O. 9-21tf

FOR SALE—The following good ice cream equipment: Cabinets, cans, tubs, vats, viscolizer, ice cream freezer, ice machines, flavors, ice breakers, motors, automobile trucks and wagons. For information apply Kelly-Lester Milk Company, Twelfth and Pine Streets, Philadelphia, Pa. 2-22

FOR SALE—Three Cherry 40-quart brine freezers, belt drive. All in first class condition. Overhauled last year. We are replacing with larger size Cherry freezers. Will sell, one, two or three to first bidder. Address: R-104, Ice Cream Review. 4-22

FOR SALE—Ruff condenser, 4-roll, No. 7 machine. Used two seasons. Will sell cheap. Mifflin Creamery Co., Inc., Mifflintown, Pa. 1-22

FOR SALE—Meyer refrigerator body, No. 202, Type A, for 2½-3 ton chassis, used April to October this year, perfect condition but too small for route. Immediate delivery. White Dairy Products Co., Raleigh, N. C. 1-22

FOR SALE—1, No. 1 DeLaval Emulsor, good as new, new bowl, spindles and bearings; 12 Babcock tester, 8, 10, 12 bottle sizes; 1 24 bottle Crepaco Babcock tester; 1 Toledo Print scale, good as new; 1 small Blackmer Pump, bronze, ½ inch connections; 1 Jensen Bronze Sanitary 1¼ inch connection pump; 1 Trahern Iron 1 inch connection pump; 1 Farrington enameled moisture oven; 1 continuous double disc ice cream freezer, 100 gallon capacity, with counter shaft and pulleys; 1 250 gallon Wizard disc vat; 1 Ventura 18 inch wall suction fan (new); 1 12 bottle Troemner cream scale. Ottawa Condens-

FOR SALE—One 15 horsepower International Harvester Co.'s engine. Runs on kerosene, gasoline or naptha. In first class condition. Have about $50.00 worth of extra parts or will trade for a one and a half horsepower electric motor. Address: Moline Ice Cream Co., Moline, Illinois. 2-22

FOR SALE—I will sell to a live business man one-half interest in new vacuum container for shipping ice cream. No ice. No salt. One-half the weight of ordinary shipping package. Keeps cream in perfect shape for upwards of 24 hours in hotest weather. If you mean business address H. C. Folger, 181 King St., Northampton, Mass. 1-22

FOR SALE—Cottage cheese in one, two or five tub lots, shipped date of make. Rock Lake Creamery, Lake Mills, Wis. 1-21

FOR SALE—Three brand new 2½-ton Sterling ice plants all complete with fittings, coils, valves, ammonia, etc., ready to install. Sacrifice for less than one-half wholesale cost. F. E. Tarrant, 1232 W. Van Buren St., Chicago, Ill. 2-22

FOR SALE—Fifty second-hand Western style cedar tubs, used one season. Will sell cheap for quick movement. The Conner Ice Cream Co., Coshocton, O. 2-22

FOR SALE—One 40-gal. Sharples emulsifier used one year. Paid over $800. Will sell for $400. Herman F. Miller, 1126 Buttonwood St., Reading Pa. 1-22

FOR SALE—Two vertical open top, blue enamel, 38 in. O. D. by 37 in. high, 125 gal., $200.00 each. Three vertical, open top, 37 inch O. D. by 48 in. high, 225 gal. capacity, $225.00 each. Eight vertical, open top, 6x9 feet O. D. by 3 feet high, 768 gal. capacity, $300.00 each. Chas. S. Jacobowitz, Buffalo, N. Y. 1-22tf

FOR SALE—Miller, Ft. Atkinson and other makes motor and belt freezers, 400 gal. Progress belt homogenizer, also vats, batch mixers, cans, coolers, etc. Send for list. Philadelphia Retinning Co., N. Philadelphia, Pa. 1-22

FOR SALE—Six 40-quart Tyson Advance Special Ice Cream Freezers. These Freezers are new, belt driven, and will be sold at a very low price. Address: J. B. Parker, 608 Cherry St., N. E., Canton, O. 2-22

WANTED TO BUY

WANTED TO BUY—Established ice cream plant. Middle west preferred. Describe fully in reply. Address: R-90, Ice Cream Review. 1-22

WANTED—Wholesale ice cream plant in city of 25,000 or over with good shipping advantages. Must have considerable volume of business. Cash proposition if interested. Describe fully in reply. Address: R-202, Ice Cream Review. 1-22

WANTED—To hear of good business for sale. Send description. 500 Kasota Bldg., Minneapolis, Minn. 2-22

MACHINERY WANTED—Viscolizer, capacity 100 gallons per hour or larger. Cherry Perfection churn, capacity 600 to 1,000 pounds. Cherry Perfection pasteurizer, 300 gallon capacity. Friday butter printer, 90 pounds capacity. This equipment must be in good condition and price reasonable. Write or wire J. W. Clopton. Decatur, Alabama. 4-22 1-22

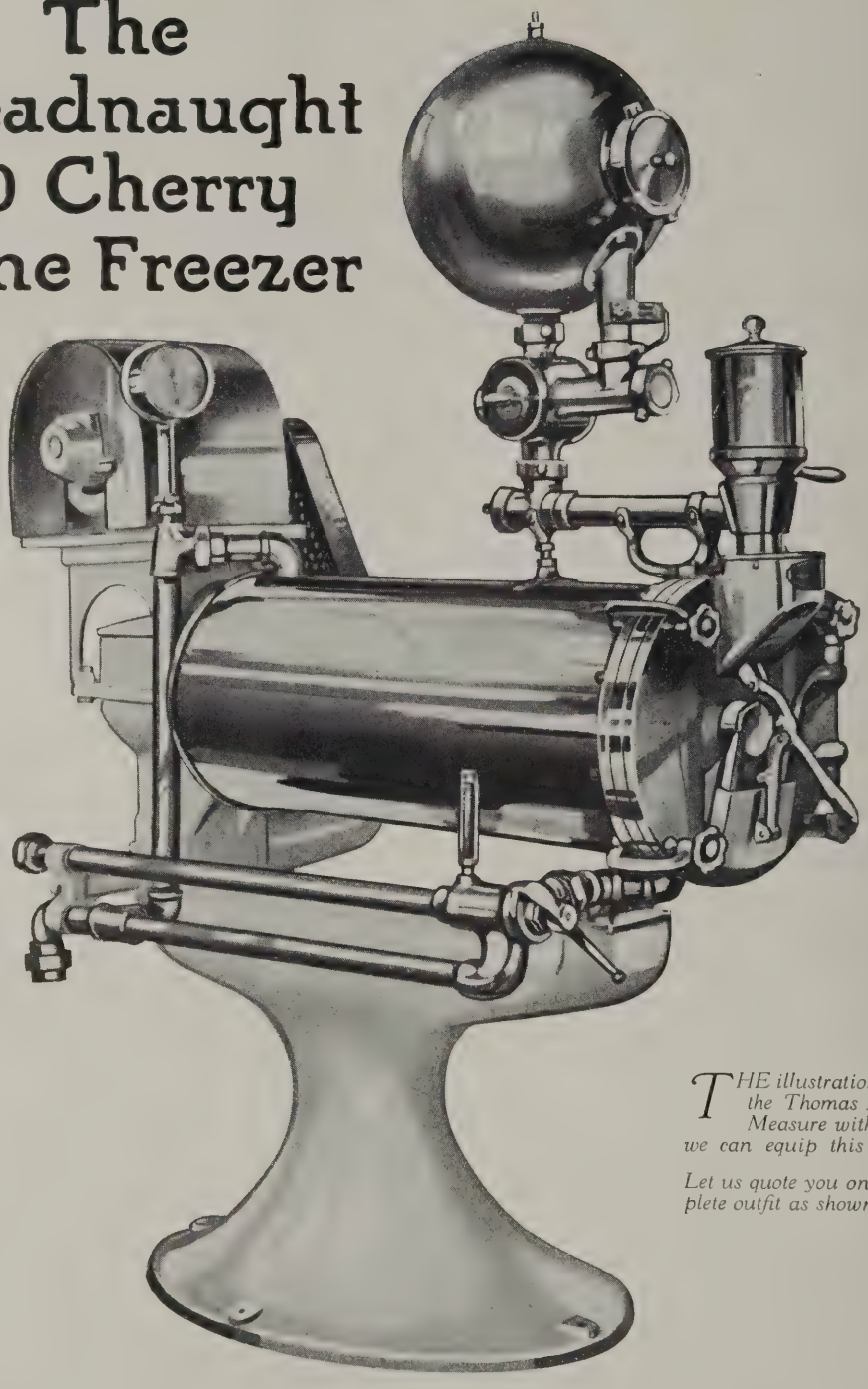
MAR 20 1922

The Ice Cream Review

Volume Five—Number Seven MILWAUKEE, WISCONSIN—MARCH, 1922 Two Dollars a Year



The Dreadnaught 60 Cherry Brine Freezer



THE illustration shows the Thomas Batch Measure with which we can equip this model.

Let us quote you on a complete outfit as shown.

THIS model Cherry brine freezer is a 60 quart machine. An unusually fine machine mechanically, it is equipped with all the well known patented features found on all Cherry freezers. The inner freezing cylinder is removable; all controls are at the working end of the machine and it can be furnished for either belt or motor drive. Additional features on the Dreadnaught 60 are a swinging or hinged head; a rim expansion clutch on the belt drive; a sanitary, symmetrical white enameled base, all exposed metal parts heavily nickel plated.

Bulletin 2011 gives you full details of this and the other models of Cherry Brine Freezers. Send for it.

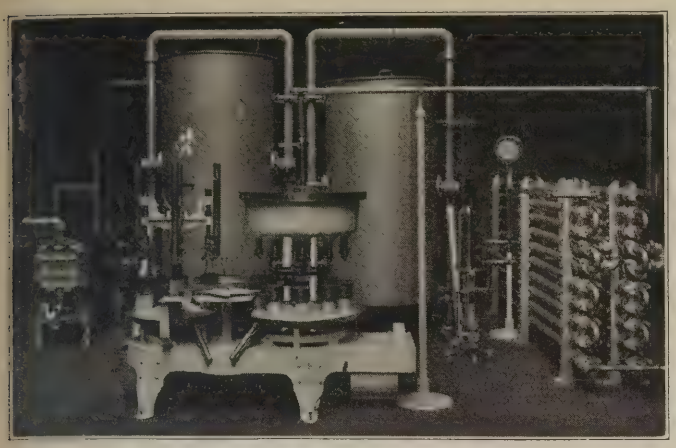
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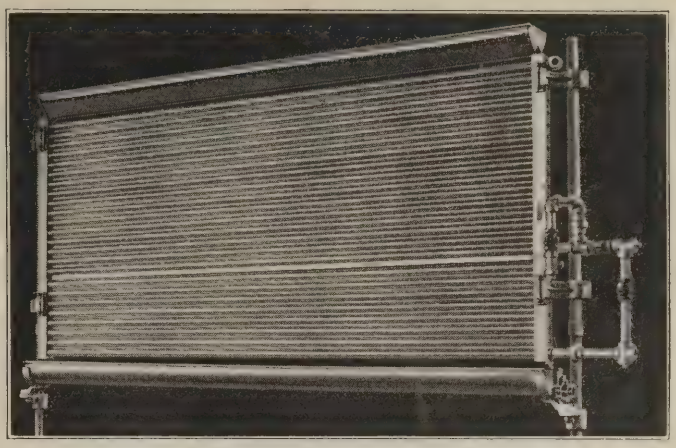
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Economy Pasteurizing Outfit



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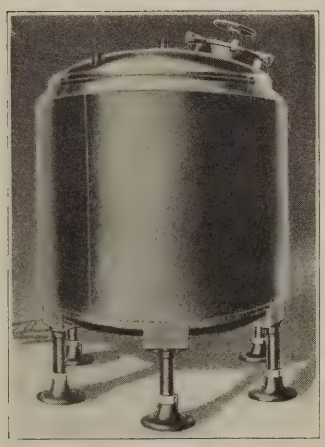
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DAVIS-WATKINS
DAIRYMEN'S MFG. CO.

Makers of the Famous Dairymen's Cans

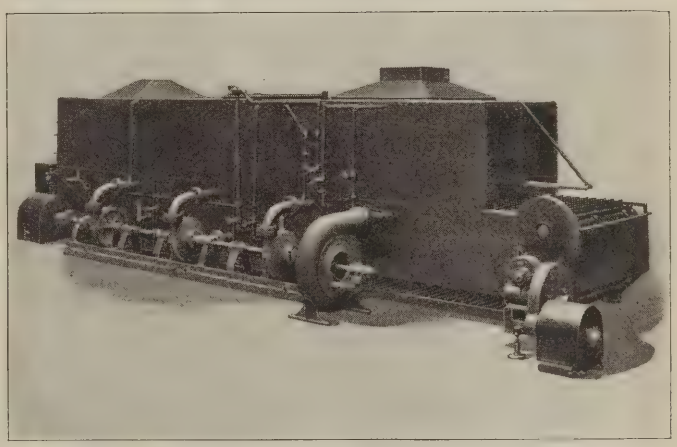


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Your Request for Large Catalog will have Quick Attention.

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SEATTLE, WASH., L. C. Smith Bldg.

THINK UP, TALK UP, STOCK UP, AND BUSINESS WILL WAKE UP.

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The
ICE CREAM REVIEW

PUBLISHED THE FIFTEENTH OF EACH MONTH BY
THE OLSEN PUBLISHING COMPANY
H. P. OLSEN, President and Manager E. K. SLATER, Secretary and Editor
Also Publishers of
"THE MILK DEALER" and "BUTTER, CHEESE & EGG JOURNAL"

210 SYCAMORE STREET MILWAUKEE, WISCONSIN

We claim no responsibility for the views or opinions expressed by contributors, nor for news sent us for publication

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OFFICIAL ORGAN
Ice Cream Division Indiana Manufacturers of Dairy Products
North Carolina Ice Cream Manufacturers' Association
North Dakota Ice Cream Manufacturers' Association
Oklahoma Association of Ice Cream Manufacturers
Louisiana Association of Ice Cream Manufacturers
Wisconsin Association of Ice Cream Manufacturers
Mississippi Ice Cream Manufacturers' Association
Nebraska Association of Ice Cream Manufacturers
Michigan Association of Ice Cream Manufacturers
Southern Association of Ice Cream Manufacturers
Kansas Association of Ice Cream Manufacturers
Association of Ice Cream Manufacturers of Iowa
Arkansas Ice Cream Manufacturers' Association
Texas Ice Cream Manufacturers' Association
Poodle Dog Association of Iowa
National Order of White Caps
The Nebraska Cornhuskers
Michigan Dairy Boosters
Oklahoma Wolfhounds
Kansas Jack Rabbits
Hoosier Wild Cats
Texas Longhorns
Missouri Mules
Badger Flyers
Dixie Flyers

MARCH 1922

REPORTS coming to us from all over the country indicate that ice cream manufacturers are preparing for the biggest year they have ever enjoyed. Optimism is rampant, and if the weather man behaves the business will come. Everybody in the business is looking to see better business conditions prevail generally, and this means more money expended for ice cream if the weather is favorable and if the ice cream is of good quality. Many ice cream manufacturers are planning big advertising campaigns, and are going to go after business harder than they ever have before. These advertising campaigns are all right, and we thoroughly believe in them, but we hope that no ice cream manufacturer will make the mistake of thinking that an advertising campaign will expand his business, unless he backs up such a campaign with **quality** and **service.**

Let's make this a quality year in the ice cream business. There is no sense in making poor ice cream anyway. It doesn't pay the manufacturer to make it and the consumer doesn't want it—at least he doesn't want it the second time. There is no place in the ice cream industry for the price cutter. In the first place he must use cheap ingredients in making his ice cream and then he must give poor service to the trade. That isn't the way to build up an individual ice cream business; neither will it build up the ice cream industry.

Many ice cream manufacturers are right now wondering what ice cream should sell for during the summer months. As springtime approaches they are in the habit of guessing about what the price will be. It is a bad habit. Instead of fixing a price at what ice cream should sell for and then adjusting the quality and service to such a price, manufacturers should go ahead and make the very best ice cream possible, add a reasonable profit and let the price be fixed accordingly. This is the only way to build up a reputation for quality and it is the only way to build up an enduring business. There are many retailers who are looking for an ice cream at the lowest price, but their number is decreasing. Their numbers can be still further decreased by effective quality advertising, especially when they are shown where increased sales of good ice cream at perhaps a lower margin of profit bring them more money than decreased sales at a higher margin of profit. In your efforts to increase your gallonage don't sacrifice quality.



A VERY successful ice cream manufacturer recently expressed the opinion that more ice cream manufacturers are forced into bankruptcy through ignorance of depreciation costs, than from any other cause. He said that most ice cream manufacturers let their competitors run their business for them instead of running it themselves. Instead of conducting their business as good judgment would dictate they are always worrying about what competitors are going to do and then adjust their methods accordingly. Few of them, he said, realize what their depreciation costs really amount to, and the first thing they know they have a lot of worn out equipment on their hands with no depreciation fund to replace it with. They perhaps do a big business and think they are making money when they are actually operating at a loss. He said that he would not operate his factory at a loss in order to meet competition. He has built up his business on quality and service. He knows what it costs him to produce ice cream and he knows what price he must get for it in order to cover expenses, depreciation costs, and leave him a reasonable amount of profit. He admitted that the first few years he was in the business he worried about competition, but his good judgment finally predominated, and he says that he is satisfied that he would have been out of business long ago had he not changed his tactics.

This manufacturer keeps a very complete cost system in operation. Depreciation costs are part of his operating expenses, and he doesn't try to fool himself by making them lower than they really are. This man's experience might well be the guide for others who have not been in the business so long and whose chief aim seems to be to meet competition. Such men should adopt a good cost accounting system and then build their business on quality and service. It's a simple recipe for success in the business of manufacturing ice cream.

A LEARNED professor of the Harvard Medical School has been quoted as saying, "Had I the privilege of choosing between the liquor saloon and the ice cream parlor, I would favor the saloon." Had he stopped there he might have enjoyed the approval of millions of his compatriots who would gladly and promptly make the same choice. But he is quoted further: "No child under 5 years old should be given ice cream as it is detrimental to the health and well-being of the child." Thus he makes it clear that he is knocking ice cream and not merely expressing a desire for strong drink.

Just when you think that you have a fact established it is distressing to have someone, whose word should carry some weight, come along and throw a monkey wrench into the machinery. That is exactly what this loquacious pedagogue has done to us. There is a big, healthy appearing 7-year-old boy in our family who consumed more ice cream cones during his first five years in this vale of tears than a whole regiment of kids might be expected to consume. He developed the trait before he could hold a cone and his mother watched his dad stuff him with ice cream with uncertain judgment. We even waked him from sleep to save an ice cream cone and he always responded with all the manifestations of delight of which a normal baby is capable.

Now at 7 years of age he wears 12-year-old suits, stands a full head taller than the normal child of his age and weighs over 90 pounds. One of his favorite diversions is to "split a brick" with dad, and he is always ready for a cone or a coated ice cream bar. He is the picture of health and robust boyhood.

To have this learned professor now tell us that we made a horrible mistake in feeding the boy ice cream is indeed disconcerting. It's too late, however, and there is nothing to be gained by crying over spilled milk—or rather thoroughly melted ice cream.



AN ICE CREAM expert made the statement at a recent convention that practically all bacteria in ice cream comes from milk, cream and the butter used in the mix; that is providing the other ingredients are high grade. Buy the very best gelatine and other ingredients and you need not worry about poor quality so far as those ingredients are concerned. He says that experiments have proven that using good gelatine does not materially increase the bacteria count. Good gelatine is practically free from bacteria in spite of the fact that it is such a good medium for bacteria growth. This is just another evidence that in order to make a good quality of ice cream the best materials must be used.



THE best authorities recommend pasteurizing everything in the ice cream mix except the flavor. Some manufacturers follow the practice of holding out part of the mix so that it is not all pasteurized, but there is no good reason for it. Of course the flavor should not be added until the mix is pasteurized and cooled down, but everything else can go through the pasteurizer.

WE HOPE you will like the cover page on this issue of The Ice Cream Review. For some time we have been contemplating this change and in a series of drawings appropriate to the ice cream industry we hope to convey suggestions that will be pleasing and of real value to the ice cream manufacturer. The high school girl, dropping in at the corner drug store on her way home from school to enjoy her favorite dish, immediately suggests an advertising campaign directed towards our schools where additional information can be offered relative to the food and health value of dairy products in general and good ice cream in particular.

We are glad that the growing patronage of The Ice Cream Review makes this improvement possible. It is accomplished at considerable expense, but we feel confident that results will justify the change. With the continued co-operation of the big army of friends who are always found boosting for the paper, we are confident that this improvement will justify the effort we shall put forth to make The Ice Cream Review "a thing of beauty and a joy forever."

We feel that the paper "dressed up," as we hope to make it each issue, will better represent the great ice cream industry for which it "lives and has its being." Yes, we surely hope you like it.



AT ONE of the state conventions an ice cream manufacturer made the statement that he follows the practice of charging the retailers with the packers he furnishes them. He requires the retailer to pay one-half the cost of a packer, thus dividing the cost with him. He says that this plan has practically eliminated the trouble he used to have with strayed or lost packers. When the retailer has his money invested in the packers he is more careful in handling them and of course doesn't want to see them get lost. This is another illustration of the well known fact that most people are more careful with their own property than property which belongs to someone else.



THIS issue of The Ice Cream Review is mailed to a considerable number of ice cream manufacturers who are not on our subscription list. If you are one of these we particularly invite you to look this issue over carefully. Note the pages and pages of news about the ice cream industry and the valuable information about ice cream making problems. Note the character of the advertisements and the effort put forth in them to reach the ice cream manufacturers of the country. Surely these experienced advertisers would not make this effort unless they considered The Ice Cream Review worthy of it.

Unless you are interested in the manufacture of ice cream you will not enjoy The Ice Cream Review, but if you are thus interested, you need it in your business. You need to be in closer touch with the army of folks who are using the paper to boost their business and your business. And they need you. Come on.

Supply Men Will Hold National Show This Year

Their Association decides on Cleveland and invites the National Association of Ice Cream Manufacturers to Participate in Great Ice Cream Event

THE Association of Ice Cream Supply Men has decided to hold a National Show devoted to the ice cream industry this year.

The dates have not yet been announced, but the show will be held in the new Public Hall in Cleveland, the newest, best outfitted and most elaborate structure in the country for the holding of conventions and exhibitions.

The Association of Ice Cream Supply Men has extended an official invitation to the National Association of Ice Cream Manufacturers to hold its 1922 convention in conjunction with the Cleveland show. It has offered the National Association complete facilities and accommodations there.

In announcing that a National Show will be held by the supply organization, O. S. Jordan, its president, recently said:

"In the last three years it has been the policy of the Association of Ice Cream Supply Men to promote and manage regional exhibitions for the benefit of the ice cream industry. Six such exhibitions have been held since November, 1919: In Philadelphia, St. Louis, Atlantic City, Portland, Ore., Buffalo and Atlanta. These six regional exhibitions have done their work well. They have aided incalculably, if we are to credit not only our own observations, but the voluntary testimony of many ice cream manufacturers in giving a more modern, scientific, unified and ambitious trend to the ice cream industry of each section. They have been pre-eminently a service to the ice cream manufacturers of each section.

"This year we believe the time has come to hold one great National Show in the same spirit of service to the industry. Business and industrial conditions point to the greater efficiency of one great show. The ice cream industry itself is in a condition better to profit from such a single great show than from smaller regional exhibitions. The ice cream industry is more truly a single national, forward-looking industry today than at any time in the past. Its spirit as well as its practical needs incline it toward a desire for such a great National Show.

"The show to be held in Cleveland will be incomparably the greatest exposition of the ice cream industry ever made. No effort will be spared to make it all inclusive, elaborate in detail, practical and serviceable in spirit. More literally than at any time in the past our association believes that, in preparing for this great National Show, it is laboring in the service of the industry to which its members cater."

The association on February 11th officially invited the National Association of Ice Cream Manufacturers to hold its annual convention in conjunction with the exhibition. This invitation was extended upon authority of the Board of Directors of the association and in the following form:

The National Association of Ice Cream Manufacturers,
Attention Mr. Charles G. Morris, President,
Care New Haven Dairy Company.
New Haven, Conn.

Gentlemen:—

It is our pleasure herewith to extend to you an invitation to hold the 1922 convention of the National Association of Ice Cream Manufacturers in conjunction with a National Exhibition in the service of the ice cream industry to be held by our organization in Cleveland, Ohio.

It is the purpose of the Association of Ice Cream Supply Men to hold one large exhibition only in 1922, and that of a national character, and to make it a record-breaking expositional event for the ice cream industry of the country as a whole.

The completion of the new municipal convention and exhibition hall in Cleveland gives that city the premier accommodations for such an industrial gathering as a joint convention-and-exhibition of the National Association of Ice Cream Manufacturers and the Association of Ice Cream Supply Men would constitute, of any of the more centrally located larger cities of the country.

The acceptance of our invitation by your board of directors will immediately be followed by the working out of present tentative plans, in co-operation with your own officers, providing for the bringing of the maximum attendance to your convention and the supplying of the most complete facilities and conveniences for your meeting, upon such a scale and in such detail as will afford the National Association of Ice Cream Manufacturers a record-breaking gathering. Held simultaneousuy with the convention, but its hours and conduct so arranged that it will not interfere with the regular convention proceedings, will be assembled and opened to the inspection of ice cream manufacturers the most comprehensive, carefully prepared and educationally and scientifically modern exposition of supplies, machinery, services and equipment ever held.

Such a national exhibition in the service of the ice cream industry, it is believed by our organization, is distinctly called for by present conditions and will be held regardless of the action taken upon our invitation.

It is our hope that this letter of invitation will be transmitted in full, and in due form and time, to your several directors, and that we may before long receive word of the acceptance of the invitation. We believe it unnecessary to reaffirm at this time our proved devotion to the interests of the ice cream industry, interests in their broader manifestations identical with our own, and to the advancement of which a combined National

Continued on page 144

WELCOME, NORTH DAKOTA!

The Ice Cream Review:

This is to notify you that we have adopted The Ice Cream Review, by unanimous vote, officially, as the official Organ of this Association, and you may hereafter carry our name on your roster.

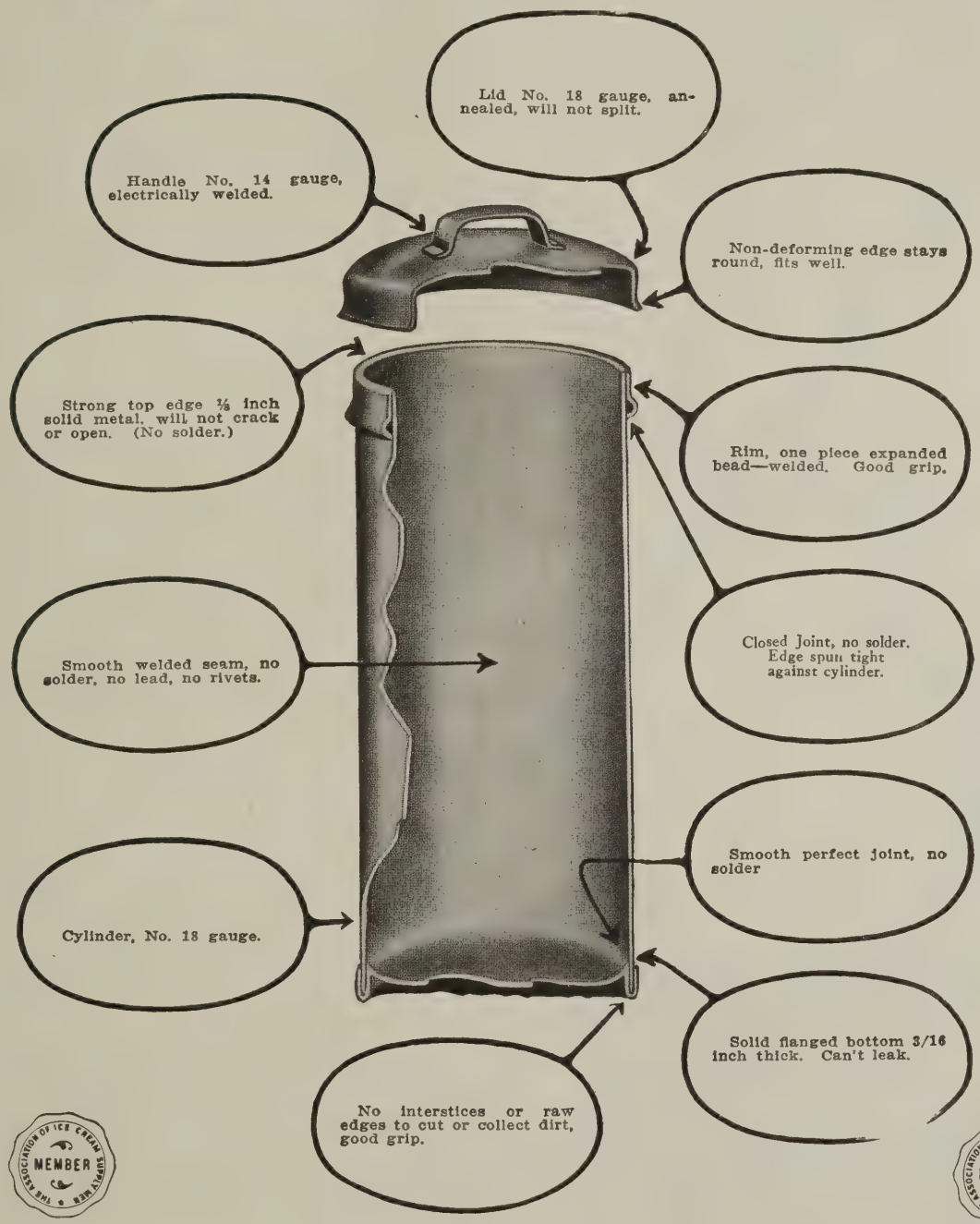
Yours truly,

THE NORTH DAKOTA ICE CREAM MNFRS. ASSN.,
O. A. Amundson, President.

Electric Weld

RIVETLESS SOLDERLESS ICE CREAM CANS

should be judged on a basis of the ratio of cost to service. The can that makes the most trips for the least cost is cheapest. We have other important features. **One-Piece Construction** securing all the advantages and none of the disadvantages of seamless can.



PATENTED

Electric Weld Rivetless-Solderless ice cream cans are easily and cheaply retinned, for they are ALL STEEL and PURE STRAITS TIN. No unnecessary weight, for due to absence of solder and rivets.

WRITE FOR NEW LOW PRICES.

JOHN WOOD MFG. CO. Conshohocken, Pa.

CHICAGO OFFICE (320 E. North Water St.) CLEVELAND OFFICE (2041 Warren Rd., Lakewood, O.) BOSTON (60 Pemberton Sq.)
BROOKLYN (No. 5 Bush Terminal Bld.) OAKLAND, CAL. (335 Cypress St.)

Wisconsin Association of Ice Cream Manufacturers

Proceedings of the Seventh Annual Convention held at Hotel Plankinton, Milwaukee, Wis,, January 17 and 18, 1922

First Session—Tuesday, 10:30.

Meeting called to order by president, D. D. Smith of Fond du Lac.

President: We have with us this morning for the address of welcome, Honorable John M. Niven, City Attorney of Milwaukee.

ADDRESS OF WELCOME.

Honorable John M. Niven, Milwaukee, Wis.

.. Mr. Chairman and Gentlemen: It is ordinarily the privilege of Mayor Hoan or President Corcoran, of the Common Council, to give the address of welcome, possibly you are unfortunate in not being able to hear the eloquent words of the Mayor or the rich Hiberian brogue of Mr. Corcoran, but the work has to be divided. It is always popularly supposed that one of Scotch descent is particularly adopted to give something like a welcome which comes without price and without compensation. So they selected one of that rational predilection.

We are very glad to have all of you gentlemen come to Milwaukee. Milwaukee has had a reputation for years for its convention facilities and for the wholesouled and hearty welcome it extends to those who visit the city. It is a matter of regret, or a matter of good fortune, as you may individually decide, that Milwaukee has not some of the facilities of entertainment we had formerly. Possibly in a convention of ice cream manufacturers and dealers, it is a matter of good fortune that the competition which Milwaukee used to afford to your product is probably not as keen as it was in years gone past. I sometimes think that the time of the ice cream man is coming as the time of the brewer goes.

Sometimes I think that the reputation that Milwaukee had on account of the brewing industry was a detriment to the city because the people around the country got the idea that about all we had in the city were breweries. While brewing was a large and important industry in Milwaukee, the very excellent advertising which those concerns gave to our city, obscured many of the larger and more important industries that we have. It is, I believe, the fact that brewing was the seventh industry in point of importance, although from the advertising, the world has generally thought it was the very first. Now we are beginning to realize that there are many other interests the people of this city are engaged in, that you people are engaged in and that we have to offer to the world.

We are proud of our home city, we are glad to welcome you people from the state or from other states to Milwaukee. We are proud of our schools, we are proud of the high average of intelligence of our citizens, we are proud of their steady going qualities, of their ideas of government, and of their obedience to law and order.

We are a city which is primarily a city of manufacturing industries. When you want to realize what Milwaukee means, you don't go down its main street and look at its main section, you go out along our rivers, along our railroad lines, up the slips, and you view the magnificent factories that extend for miles and miles in every direction, and then, and not until then, do you realize what it is that constitutes the real backbone of this great city of ours. You can't understand it by walking down Grand Avenue or Wisconsin Street. You can't realize it by looking at the retail or shopping industries like Minneapolis and St. Paul, because it is a very different sort of a city, but we who have been here are proud of it, are proud of the character of our citizens, we are proud of our homes, we are proud of the fact that more of our people own their homes than nearly every other city in the world. We are proud of our climate, and we claim there are only two cities in the United States of anywhere near the same size that have a better health rate than Milwaukee.

We are glad to welcome you fellows here because we are beginning to understand that no man can live for himself alone, that no industry can live for itself alone, that no city can live for itself alone. We have gone through a great world war to determine that no nation or no people even can live for itself alone, and that there is something that units every one of us with every other person in the world, that we have responsibilities which extend beyond the confines of our own home, beyond the confines of our own municipality, our own state, and even of our own country.

I am glad to see you people here meeting in convention because I am firmly convinced that association is one of the things we have got to have if we want to get along right in these days. I am not talking about the purely financial benefits that come from association, but I am speaking about the broader, the greater and more lasting benefits from the intermingling of men of kindred business and kindred ideals, and necessarily common aims and common responsibilities.

If you look back over the history of the world, you will find that from the very beginning of time, there has been gradually and slowly, but steadily growing the idea of association. There never was a time in the history of the world when there was not association, except in the very beginning of time. That was the time when we had personal liberty, we hear so much about, when the only right, the only power that there was, was the power of might and gradually, as a matter of self-protection, we find developing out of that, association, and we find the family uniting, then the several families uniting into a tribe, then several tribes into a nation, and finally we have got to a higher stage of development, when nations are uniting for the common good. That is a real tangible benefit, and the sooner we people begin to realize we have got to get together and work together, the better off we are going to be.

Did you ever stop to think that your friends are the best fellows in the world? There isn't a single one of us who doesn't realize that his friends are a little bit better than any one else. My friends are a little bit better than Mr. Smith's friends, as I believe, and his friends are doubtless better than my friends, as he believes. It is not because my friends are better than yours, or your friends are better than mine, but because I know my friends better, and you know your friends better and when you get to know a fellow, whether he is a competitor of yours or in another line of business, you realize he is a pretty decent sort of fellow. You realize his faults, but you forget his faults because you realize his good qualities. So it is that we have associations with the primary purpose of many of them to inculcate those ideals of fellowship, of making one acquainted with his competitors, with those in other lines of business so that they will realize after all we are good fellows when we realize we are going

Our Guarantee

We guarantee our cabinets to keep ice cream in perfect condition from 24 to 30 hours with one packing. If it does not, return at our expense and we will refund purchase price.

"NO-SWET"

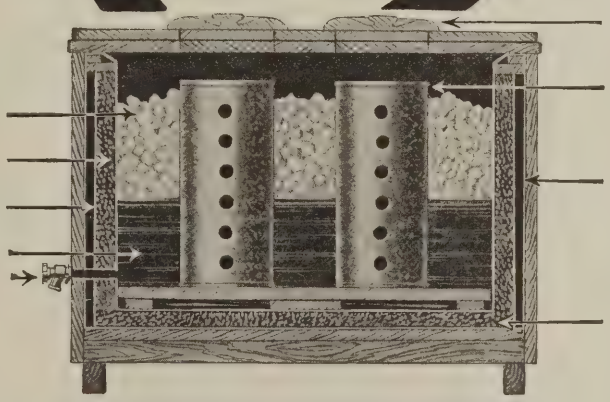
The Sweatless Cabinet

CUTS ICE COSTS ONE THIRD

BUSINESS today demands protection against inefficient equipment. With this thought in mind we have been constantly at work endeavoring to improve on old methods and perfect new. The advent of the "NO-SWET" ice cream cabinet marks a great stride toward the protection against waste in the Ice Cream Industry. Built on the principle of the Thermo Bottle its efficiency has surprised every one.

If you are progressive and aim to keep abreast of the times, write us for particulars.

Write Today for Illustrated Circular and Our Proposition



CABINETS MADE IN BULK OR BRICK STYLES, IN 3 OR 5 GALLON UNITS

The Grand Rapids Table Company

GRAND RAPIDS MICHIGAN

to get together and think of something besides our own selfish purpose. And what do we find? That our competitors are pretty decent fellows and we will say, "I am not going to fight that fellow, he is a pretty decent sort." That chap has his good points and I am not going to worry about him any more," and then you are going to think about what you are going to do for your community, for your state, and your country. You are going to think about something besides the confines of your business and there the real hope of the nation lies, that the every day business and professional man, the every day worker is going to devote a little time to his civic duties, to his civic responsibilities.

We have election, and nine out of ten people don't know who they are voting for. Nine out of ten, don't know what the officer they are voting for has to do when he goes into office. They are voting on measures and they don't know what those measures mean. They are voting in the dark. They are passing on measures with which they have no concern and no knowledge. Everybody should realize in these days we have got to sense our responsibility to our city, our state, our nation, to our neighbor; when we do we are not going to have so many evils to remedy, because as we go along everything will be taken care of along the way. That is old stuff you may say. I know it is old stuff. I am not trying to tell you anything new, but I am trying to impress it upon you as I see it from the standpoint of one in public life, to some extent, that we need the co-operation, we need the interest, we need the support of you men who are in business. That applies through all the walks of life. Milwaukee needs you. Milwaukee can't live for a week cut off from the rest of the world, and none of your cities can live for a week cut off from the rest of the world. Milwaukee is not one part of Wisconsin and the rest of you another. We are all a component part of one great state, and we have all got to work together for the common good, because our civilization has got so complex that no one and no city can work for itself alone. We have all got to get together and pull together for the common good.

I simply want with those ideas, thrown out more or less at random, to close with the renewed welcome that we are glad to extend to all of you who come to Milwaukee. It is evidence of a closer feeling of all peoples in kindred industries. We are glad you can come down and see what we have to offer you and we are doubly glad because it means that the whole state of Wisconsin is getting together and you are going to work out in your own way those things that will make for the betterment of yourself and the betterment of the community.

I thank you.

Applause.

President: We certainly appreciate the address given by Mr. Niven and in response to the address of welcome we have with us, one of the live wires of our industry, Mr. Charles Touton.

RESPONSE.

By Mr. Charles Touton, Janesville, Wis.

I am not a public speaker, I don't know how they can bear to pick on me, I don't see for the life of me what anybody can have to say after this man's talk, but nevertheless we thank Mr. Niven for the worthy address he has given us.

I will admit last night sitting and standing around the lobby it was kind of a longing feeling for something that used to be here. Once and a while, some fellows would sneak over and ask us to go with them and we would go but we got nothing but near beer. We came back to the hotel and someone else would take us off.

I wonder if Mr. Niven realizes that there are some other cities in the state besides Milwaukee. We have a lot of good cities in the southern part, in the western part, in the northern part and they are also industrial and manufacturing cities. We have some interesting places to offer the people for touring and we have some wonderful roads outside of Milwaukee and Milwaukee county. Out through Rock county, up north, take around Kilbourn, is one of the most scenic trips one can take and some place on the route, you will have to pass somebodies ice cream plant or sales room and that all helps to add to the sale of the product. I often wonder to myself, if the different cities realize what the ice cream manufacturer means to the city. Take for instance your Milwaukee industries; I have thought of this several times. I wonder if your city and our city really realizes what the ice cream plant means to them. Every dollar that is taken in and disposed of in your plant is turned right back to the city. These extract men sitting around here, who put up our strawberries, etc., get some of it, but aside from that really every dollar we take in is put right back into the community and the farmers of this locality of ours and in southern Wisconsin are in mighty good shape. They are getting their little milk check the first of every month. I really think those are things to consider and when you go home talk up to your merchants. You are a small plant, but at the same time, I think you are entitled to all the credit we try to turn out and the state of Wisconsin certainly ought to be proud of the ice cream industry.

Again I want to thank Mr. Niven on behalf of the association for the very eloquent response. As far as I am able, I will keep these fellows straight and out of jail. Of course I can't watch all of them.

Applause.

President: The next number on our program is "Ice Cream Standards," by Mr. Harry Klueter, assistant dairy and food commissioner, Madison.

"ICE CREAM STANDARDS."

By Mr. Harry Klueter, Madison, Wis.

Mr. Smith, ladies and gentlemen: Lest I might forget some of the things I want to say, I took occasion to put them down in writing.

I consider the subject of "Ice Cream Standards" is one of the most important subjects that might be discussed with your organization.

Before, however, proceeding directly to the subject of ice cream standards, I thought it might be of interest to you to know something of the origin of ice cream. I have therefore gone to the literature on the subject which I can assure you is not plentiful, but is however very interesting. In an article on the origin and development of the ice cream industry we find the following information, due to the efforts of Mr. Frank M. Buzzell, who is credited with the same. From motives of comfort and health, the instinct of man in all ages and climes has been to maintain his physical, if not his mental being, at a temperature as nearly normal as possible. Thus we find the natives of Iceland and other very cold climates living upon heat producing foods, fats, tallow candles and such delicacies, while the South Sea Islander lunches on a little fruit or cereal or other foods producing a minimum of body heat. This rule applies also to liquid refreshments. Hot weather creates a demand for cooling drink and vice versa, and we, in our today, when we sit in the coolest spot to be found on some sweltering August night and sip our favorite cold drink are actuated by the same motive which

The Last Word in Modern Freezer Construction

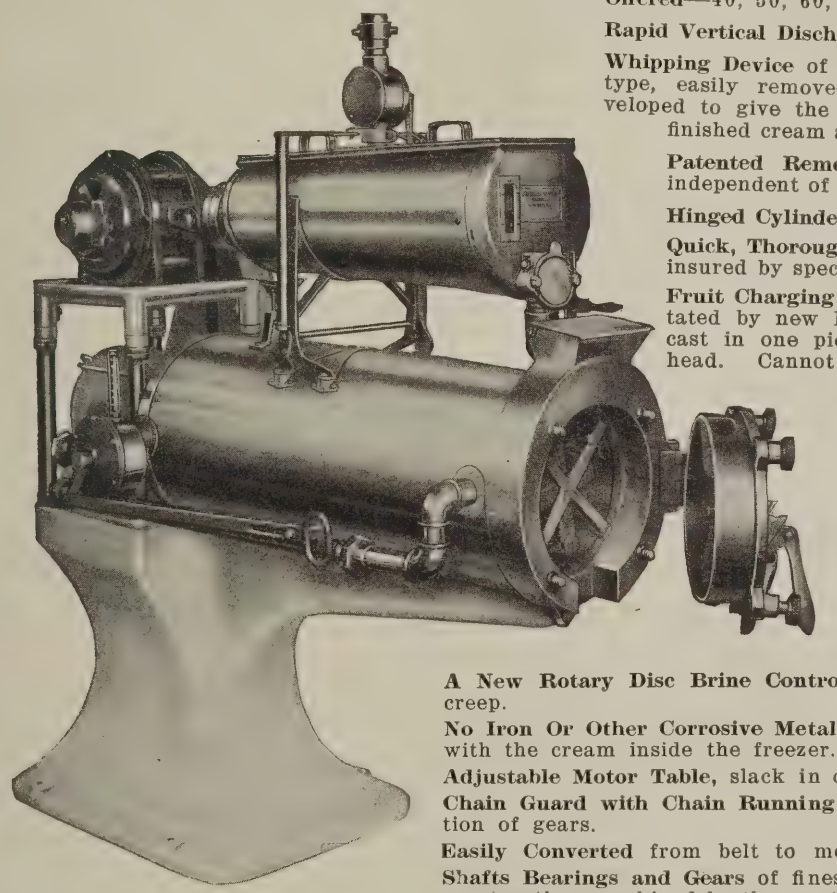
U.S. Heavy Duty Freezers

Produce the finest texture of clean, velvety ice cream with the fullest desired overrun. They turn it out in quick time, with the least labor, attention and power, and require the smallest manufacturing space.

They have won the cordial appreciation of hundreds of Ice Cream Manufacturers in all parts of America.

Where Else Can You Find Such a Combination of Advanced Features and Exclusive Advantages?

Roller Bearings optional on all sizes. (Best grade Standard Government Bronze Bearings used where Roller Bearings are not specified).



Automatic Batch Weigher—simple, positive, reliable, gravity operated, optional on all sizes.

Widest and Most Complete Range of Sizes Ever Offered—40, 50, 60, 80, 120, 140 and 160 quarts.

Rapid Vertical Discharge.

Whipping Device of most approved double dasher type, easily removed, cleaned and replaced—developed to give the finest velvety texture to the finished cream as well as the desired overrun.

Patented Removable Bearing and Support independent of cover, for front end of dasher.

Hinged Cylinder Cover on All Sizes.

Quick, Thorough Mixing of fruits and flavors insured by special cover design.

Fruit Charging and Inspection greatly facilitated by new Fruit Hopper and Peep Hole cast in one piece with the bronze cylinder head. Cannot become airbound.

Simplified Cream Passages easily accessible for cleaning.

New Rotary Disc Cream Valves throughout, reliable in action, few and simple parts, easy to take apart and reassemble.

A Cream Can made with solid cast bronze ends. Outlet valve housing cast in one piece with end of the can.

A New Rotary Disc Brine Control Valve, won't leak, stick or creep.

No Iron Or Other Corrosive Metals to wear or come in contact with the cream inside the freezer.

Adjustable Motor Table, slack in chain easily taken up.

Chain Guard with Chain Running in Oil, also insures lubrication of gears.

Easily Converted from belt to motor drive and vice versa.

Shafts Bearings and Gears of finest materials and extra heavy construction, machined by the most improved scientifically correct methods.

Brine Jacket and Passages that do not clog up easily or leak, yet are readily accessible for inspection and cleaning.

Bolted-Together Unit principle of assembly, all parts interchangeable.

No Soldered Joints to open up and leak.

A Really Heavy-Duty Machine.

U.S. Freezer & Machine Corporation

Union Avenue and Frost Street BROOKLYN, N. Y.

Representatives and Distributors in all parts of the United States and Canada.

May we not arrange to have one call on you?

has influenced our ancestors from the more recent past back to the days of Job and Solomon the Wise.

The Bible tells us indirectly that the people of Palestine knew and appreciated the refreshing quality of snow in time of harvest. The Jews, the Ancient Greeks and Romans were all accustomed to the use of snow for cooling wines and other beverages, and it is still used today in this way in certain parts of Spain and Turkey.

Alexander the Great is said to have been very fond of iced beverages. Snow and ice were used at the table in the court of Henry the Third of France in the hot summer months.

The Italians it is claimed made the first improvement in the original method of cooling, which improvement was to dissolve salt petre in water and pour a little of this solution in with the snow and ice surrounding the dish to be cooled. Later it was found that better results were attained by dropping the salt petre directly into the snow and ice and at the same time revolving the vessel containing the substance to be cooled. By this means the mixture in the vessel could be brought to a fairly solid state. Wines were commonly iced in this way, then water sweetened and flavored with various fruit juices or other flavorings was made into a sort of water ice. Water ices and such refreshments are still the rule in the orient today, while ice cream as we know it is rare.

There is no reliable record of the first water ices, dates and places are either lacking altogether in the vague allusions made to them or are so indefinite as to be of no value. From water ices to mixtures containing milk or cream and eggs was apparently a logical progression, but history is vague on the question of who first made ice cream.

It is recorded that in Rome a certain Quintus Maximus Gurges, nick-named The Glutton, a well known writer of those times on subjects pertaining to the table, wrote a recipe in one of his books for a dish that somewhat resembled ice cream. The name ice cream is one of modern origin, the original terms being butter ice or cream ice, the latter being that favored in England. The earlier forms after the ices containing milk or cream, which were really the first ice creams known, were called butter ice probably because of their rich butter like consistency, being made from rich cream and spaddled. Cream ice is said to have been known in Paris in 1774. Cream ice is mentioned in an account of a banquet given by Charles First of England.

The dish was made by a French cook named De Mireo and it is related that the king was so well pleased with the frozen milk, as he called it, that he pensioned the cook with 20 pounds a year on condition that he would not divulge the secret of making the desert or make it for any one but himself.

Another account says that the first ice cream was set before Duke De Chartras on a hot day in August, 1774, by his chef, who had depicted the duke's coat of arms on the cream. Again we find in an account of an entertainment given by Louis XIV (fourteenth) of France, that toward the end of the feast a chef caused to be placed before each guest in a silver gilt cup what was apparently a freshly laid egg, colored like those of Easter, but before the company had time to recover from their surprise at such a novelty at desert, they discovered that the supposed egg was a delicious sweet meat, cold and compact as marble. A French cook, Clairmont, residing in London, gave instructions for making sweet ices in a book, published in 1776. English cook books 150 years old give recipes for cream ices, in which cream and milk, sugar, eggs, arrow root or flour, and flavorings were used. Recipes have always varied according to the whim or desire of the maker. We deduct from the foregoing bit of narrative that ice cream was not apparently discovered, but rather was the result of a slow process of evolution, which was taking place in different locations at about the same time.

History states that ice cream was first sold in New York by a Mr. Hall at 75 Chatham Street, now Park Row. Ice cream is mentioned in an account of a ball given by a Mrs. Johnson, December 12, 1789, and was introduced to the city of Washington by Mrs. Alexander Hamilton at a dinner at which President Washington was present. She had become familiar with the dish in New York.

The first advertisement of ice cream appeared in a New York paper, the Post Boy, dated June 8, 1786, and reads as follows:

"Ladies and Gentlemen may be supplied with ice cream every day at the City Tavern by their humble servant, Joseph Crow."

A negro, one Jackson, who had worked at the White House after Mrs. Hamilton had introduced ice cream to President Washington, learned the recipe and started a confectionery. He sold his cream readily at $1.00 a quart.

Jacob Fussel is admitted to be the father of the manufacture of ice cream as a wholesale business. He entered this business in 1852, and from this beginning of the manufacture of ice cream in 1852 in a single plant in the United States, the industry has grown and developed until now every city of any importance has from one to several such wholesale plants.

Today ice cream is an important article of food. Its use is no longer confined to that of a desert on elaborate occasions, but it is a common and important article of diet and is indulged in freely by a vast majority of our people. In 1910 the estimated value of the ice cream manufactured for that year was placed at one hundred million dollars. Just exactly what the value is today I would not dare say, for we know that its use has increased steadily and I do not believe it would be over stating this increase if it is put at ten times the production and consumption of ten years ago.

An ever increasing demand for ice cream and its new uses in the American dietary have made necessary a study of ice cream with a view to standardization.

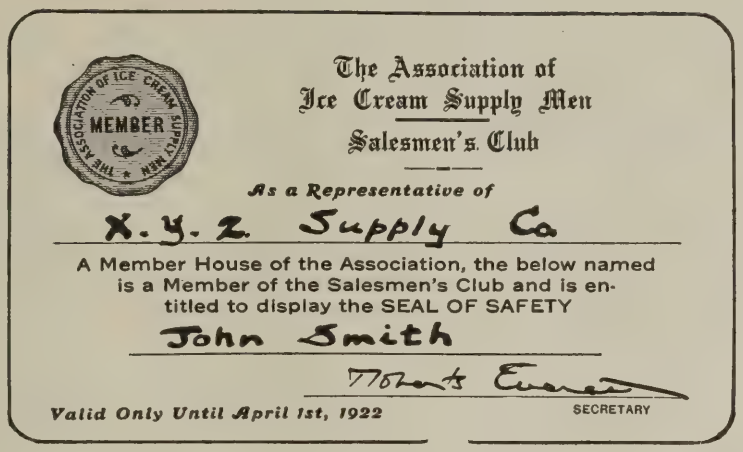
Food officials, like weights and measures officials, need standards.

Why? As you determine the correctness or accuracy of measuring and weighing devices by comparison with standards; so we after chemical analysis to determine the composition of many foods, decide whether such foods are legally saleable by comparison with standards for such foods fixed by legislative enactment. Wisconsin's new standards for ice cream are such standards.

Foods may be divided into two classes for the purposes of standardization. Those natural food products like milk, honey, spices, meats; and manufactured foods such as vinegars, flavoring extracts, butter, cheese, evaporated milk, cream and many others.

In standardizing natural foods, certain minimum requirements as to the percentage of one or more of the constituents may be established, as in milk. In the case of milk the Wisconsin standard requires a minimum of 3 per cent of fat and a minimum of 8½ per cent of solids not fat; milk containing less fat or solids not fat is adulterated milk. Or as is the case in the standardization of spices, a minimum percentage may be set for one or more of the constituents such as oleoresin or the volatile oil, but it is necessary to go a step farther and establish a maximum percentage for certain other constituents such as ash, starch and moisture. How is the

(Continued on page 142)



THIS is the identification of the salesman who is entitled to display the Seal of Safety—the membership seal of The Association of Ice Cream Supply Men.

When he calls on you ask him what he knows of current trends and doings in the industry. His Association club keeps him in touch with other salesmen. He sometimes learns of matters of progressive import in this way very early . . . broader, general, national matters that may inform and aid.

And the Fair Practices Code to which his company is committed PROTECTS the buyer!

The Association of Ice Cream Supply Men
1328 BROADWAY NEW YORK CITY

Michigan Convention and Show Big Success

THE annual convention and dairy show of the Michigan Allied Dairy Association, held in Saginaw, February 14-17, was pronounced by everybody the most successful ever held in that state, which has the record of holding the best state show of any of the states and is second only to the national. The Auditorium was jammed with exhibits both commercial and educational. It being reported by the management that only half of those who sought space could be taken care of.

The exhibit by the U. S. Department of Agriculture was the feature educational exhibit, and was inspected liberally. The dairy products exhibit arranged jointly by the Michigan Agricultural College and the State Department of Agriculture was of great interest to convention and show visitors, and reflected truly the diversification of the dairy industry in Michigan.

The Auditorium was opened to the visitors and the public promptly on time, with all exhibits in place. The first general session scheduled for 10 A. M. Tuesday morning was a revelation to old time convention followers, in that the session was called promptly on time with most of the seats in the banquet hall in the Auditorium filled. F. E. Hollweg, with the Thos. W. Dunn Co., of New York City, functioned at the piano, playing America while the Colors were borne in and placed at the speakers' stand while the crowd sang. Glen Overton, president of the Michigan Allied Dairy Association, then called the convention to order, when the divine blessing was invoked upon the occasion by the Rev. Mr. Montgomery of Saginaw. Mayor Ben N. Mercer welcomed the visitors to Saginaw in a manner that left no doubt in any mind that all were truly welcome. W. W. Marple of Chicago responded to the mayor's address of welcome in his characteristic manner, ending with Marple's "Eulogy to the Dairy Cow."

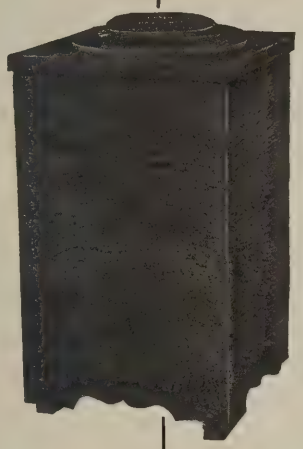
President Overton's annual address was full of real meat, and is published in this issue. The annual report of the secretary-treasurer, Mr. H. D. Wendt, of Lansing, showed the association to be in a good financial condition. Mr. Wendt also discussed and emphasized the necessity of improving the character of dairy stock, and took up other points of interest to dairymen.

The afternoon general session was addressed by the Hon. H. H. Halladay, commissioner of agriculture of the state of Michigan. Mr. Halladay's address is also published in this paper. Col. M. D. Munn, president of the National Dairy Council, was the other speaker on the afternoon program, and discussed the work of the Council and the results that it was getting in increased consumption of dairy products through the educational campaigns now being conducted at various points throughout the United States.

Wednesday was given over to unit meetings of the Creamerymen and the Ice Cream Manufacturers. "Jake" Kindleberger of Kalamazoo "starred" at the creamerymen's session with an address that will be remembered by all who heard it, as it was truly an inspiration to those who are struggling with the problems of the hour. W. W. Marple next discussed "The Yellow Peril." Mr. Marple has confessed that it took him three weeks to prepare his paper. Roy C. Potts of the Bureau of Markets, closed the meeting with a discussion of "Future's Yardstick" in which he emphasized the importance of quality as essential in the marketing of dairy products. At the ice cream meeting Prof. O. T. Goodwin of the Michigan Agricultural College, spoke on the subject of "Bacteria in Ice Cream" and on the results of some work in making carbonated ice cream. Ed. Slater, editor of the Butter, Cheese and Egg Journal, The Ice Cream Review and The Milk Dealer publications, was unable to attend, but sent a paper which was read by Mr. L. S. Olsen. There were in addition to these numbers the usual reports of the officers.

Wednesday night was the time of the general banquet of the allied association. This was pronounced the best dairy banquet ever staged in the memory of many of the old timers, not even excepting dairy banquets of national associations. The banquet hall at the Bancroft Hotel was utterly unable to seat the crowd and overflow tables were set on the mezzanine floor and in the regular dining room. "Father" Marple acted as toastmaster, 'nuf said. Short talks were made by Prof. A. C. Anderson, W. A. McDonald, A. E. Williams, Prof. O. T. Goodwin, John W. Ladd, Roy C. Potts, Glenn Overton, H. D. Wendt and Roy Frary, who presented Mr. Marple, in behalf of the Allied Association, a framed three verse eulogy of his own composition. The entertainment at the banquet was of a high order and was very much appreciated. Special mention is due the dairy firms of Saginaw, who made special contribution to the entertainment. After the banquet the hall was cleared and the dance was on, which lasted until one o'clock in the morning.

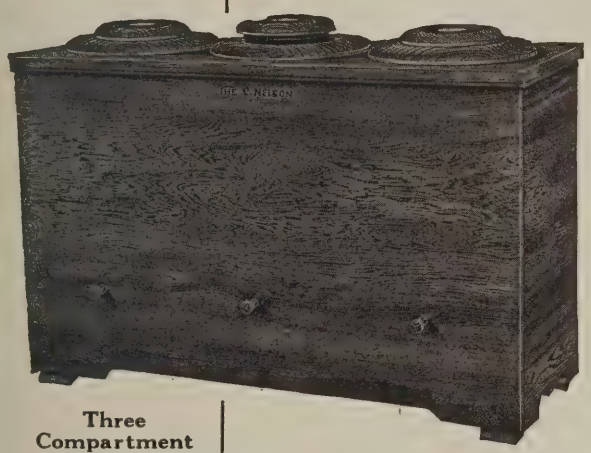
Thursday forenoon was again given over to unit sessions of the ice cream manufacturers and the Creamery men. T. H. Brouthon, of the Michigan State Department of Agriculture, read a paper on the subject of "Department Policies" at the ice cream session, and N. Loewenstein, Secretary of the National Ice Cream Manufacturers Association, discussed the subject of chocolate covered ice cream. The creamery men's session was devoted entirely to business, reports of committees, election of officers, etc. Following are those who were elected as officers and directors of the Michigan Association of Creamery Owners and Managers. President Glen Overton, Allegan; Vice-President W. A. Ross, Detroit; Treasurer E. G. Cooper, Detroit; Directors A. C. Anderson, Flint; Oscar Vasold, Midland; Roy Riley, Marlette; Martin Seidel, Bay City, and Mr. Ralston, Kalamazoo. The Ice Cream Manufacturers elected directors: N. J. Dessert, Detroit; J. J. McDonald, Owosso; Glen Cowan, Detroit; L. S. Wilson, Port Huron; John Kelley, Grand Rapids; A. E. Williams, Saginaw, and W. H. Bechtel, Caro. The directors elected for the Allied Association are: Glen Overton, Allegan; Martin Seidel, Bay City; Roy F. Frary, Lapeer. For the butter section—N. J. Dessert, Detroit; F. J. Fleming, Jackson; W. H. Bechtel, Caro. For the ice cream section—N. P. Hull, Lansing; John C. Naar, Flat Rock; R. C. Read, Howell; Ray Potts, Washington; C. L. Brody, Lansing; M. L. Noon, Jackson. For the State Farm Bureau and the Milk Producers' Association—C. H. Parker, Saginaw, and W. J. Kennedy, Detroit. For the Market Milk Distributors—Peter Van Allsburg, Grand Ledge, for the condensed and milk powder manufacturers, and R. A. Page, Zeeland, for the cheese manufacturers. The Supplymen ("Boosters") have as their members, on the Allied board, D. W. Shiel, Hillsdale; R. J. Elwanger, Grand Rapids, and C. J. W. Smith, Detroit. The Boosters also elected as their President, C. J. Yuncker, Toledo; Howard Black, vice-president; and re-elected C. J. W. Smith, secretary-treasurer; and R. J. Elwanger, Grand Rapids, and Mr. Keating, also of Grand Rapids,



Nelson (Patented) Ice Cream Cabinets

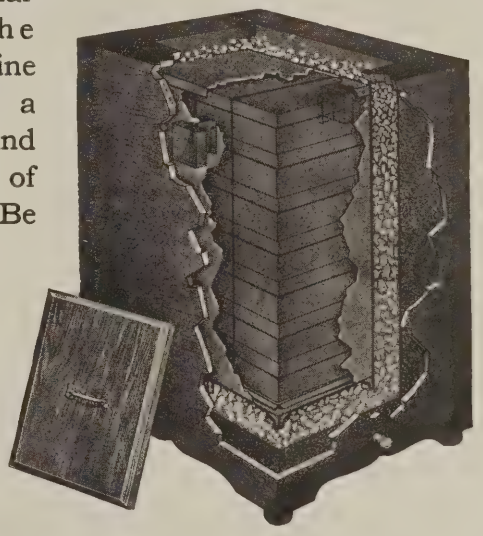
"Confessed The Best When Put to Test"

are constructed along scientific and practical lines to conserve ice and salt supplies and keep the ice cream in perfect condition until sold. The manufacturers have devoted thirty years of study and experiment toward the building of the best possible ice cream cabinets for the manufacturing trade. Each particular make of cabinet of the Nelson line is sold with a guarantee and on a plan of "You Must Be Satisfied"



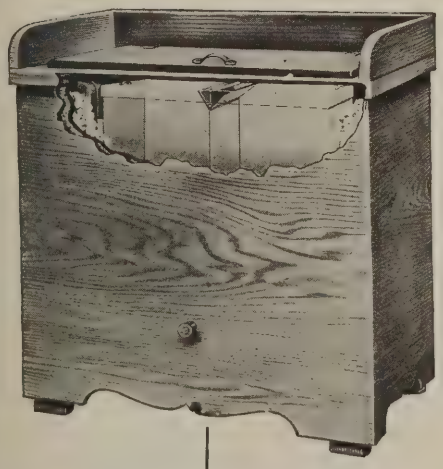
Three Compartment Cabinet

C. Nelson Brick Cabinet
Patented May 8, 1906





42 Qt. Brick Cabinet with Ice Rail



Patented Nov. 11, 1919—1321120

This Proposition Will Interest You

Any responsible ice cream manufacturer—particularly wholesale ice cream manufacturers and dealers—may order from 1 to 100 Nelson patented Ice Cream Cabinets, place them in practical use, and after 30 days, if not entirely satisfactory, return at our expense for freight, both ways.

Can any manufacturer offer a more liberal or fair proposition? You owe it to yourself to thoroughly investigate the price, merits and construction of the Nelson Patented Ice Cream Cabinets before making any further purchase.

Plan on your season's requirements now, and have your supply on hand when needed.

C. Nelson Manufacturing Co.

2308 Division St. **St. Louis, Mo.**

as directors. The officers of the Allied Dairy Association will be elected by the board of directors at their next regular meeting at Lansing on March 16.

Resolutions were adopted as follows:

Since another year of earnest effort of a million Michigan men engaged in the noble business of producing, manufacturing and marketing the product of the humble cow has passed in history, and this, the 38th annual convention, marks the close of another epoch, and since this convention, with its enthusiastic program sessions, its splendid machinery and supply exhibits, and the crowning event, a banquet, which will long be remembered in the minds of those who enjoyed its festivities, represents not only our esteem for the business in which we are engaged, but also reflects the result of the most hearty co-operation, good will and conscientious enterprise, therefore we

Resolve, That our appreciation be expressed to those on whom the success of this convention has rested. In this we are particularly mindful of the efficient services of Mr. Wendt and his various committees in their selection of talent, engineering of arrangements and execution of plans. We further

Resolve, That we are highly appreciative of the hospitality of the City of Saginaw, of the hearty, loyal and unstinted co-operation of the Saginaw Board of Trade, and of the press, both trade, state and local. We are also not unmindful of our obligation to the Federal Department of Agriculture for the wonderful demonstrative exhibit and to the Michigan Central R. R. for their free transportation of same; likewise, we would remember the State Department of Agriculture and the Michigan Agricultural College. That we have appreciated the efforts, the courtesies, and the hospitality of the Saginaw hotels, and particularly so, are we endebted to the management of the Bancroft Hotel, in caring for the 35 per cent over attendance of our estimated number at the banquet. We further

Resolve, That we are unanimous in our appreciation of the addresses that were so ably rendered and lent so emphatically to the inspiration of the convention. Likewise, we would express appreciation of the Saginaw Dairy Products Manufacturers for their contributions to our entertainment, the Phenix Cheese Co., and the Geo. Zeigler Co., for their contributions to the menu, as well as the mayor of Saginaw, and all others who have contributed to the successful and valuable convention and show. (Signed)

R. F. FRARY.
SIMON HAGEDORN.
R. J. ELWANGER.

* * *

Thursday evening there was an entertainment and smoker given by the Michigan Dairy Boosters, in the banquet hall at the Bancroft Hotel, which was a most enjoyable affair. Free tickets were given all those attending the convention. Over 400 were in attendance. Sweet cider and doughnuts were consumed in large quantities. The numbers on the entertainment program were all well received. John W. Ladd, of the John W. Ladd Co., Detroit, spoke before the gathering and obtained a rising vote of every person in the room that this year's convention and show was the best ever, and pledging their co-operation for a still larger and better convention and show next year.

* * *

PRESIDENT'S ANNUAL ADDRESS.

By Glen Overton, Allegan, Mich., President of the Michigan Allied Dairy Association, at the Saginaw Convention, held February 14, 15, 16, 17.

This is the 38th annual meeting of the organized dairy interests of Michigan.

Today, more than ever, agriculture is recognized as the foundation of national prosperity, and dairying has proven itself to be the most vital phase of agriculture.

As president of the Michigan Allied Dairy Association, it is my privilege and duty to again, briefly, bring to your attention, some outstanding problems, with facts and figures in which we are all deeply interested, and to the satisfactory solution of which we must continue to give our most sincere and best efforts.

The Michigan Allied Dairy Association now represents the affiliated interests of everyone engaged in the production, manufacture and the distribution of milk and its many products.

We are at the close of the second year of this new affiliation of dairy interests, and while much has been accomplished, in view of the many new problems and situations which continually confront us, we may at times feel somewhat discouraged, as to the results of our organized efforts.

The past year, however, will be an outstanding one in the dairy history of Michigan.

A new state administration has taken a very active interest in this great industry, and a much needed reorganization of state government has been successfully accomplished.

A Department of Agriculture is actively functioning; a Dairy Division has been created in the new Department of Agriculture, and competent, experienced men, who have the full confidence and undivided support of all of us are in charge.

Our Agricultural College is entering upon a new period of useful activity and the great organization of our actual producers has passed through its experimental stage, and is becoming one of the leading factors in the improvement of unsatisfactory conditions.

More than ever during the past year have the distributors and manufacturers of dairy products come to appreciate the problems and difficulties that beset the actual producers; and likewise, producers are more fully appreciating the fact that the manufacturer and distributor of the products of the dairy cow, has after all, a job with plenty of complications.

Thus we see that these powerful agencies for good are already at work, which promises much for the future, and with the better understanding and the closer relation between all the different branches of dairying, is sure to come better co-operation and greater confidence. We are passing through one of the most violent periods of economic readjustment.

Whether we are selling automobiles, merchandise, farm products or our own labor, we must face the fact that we are going to get less than we have been getting during the past three or four years.

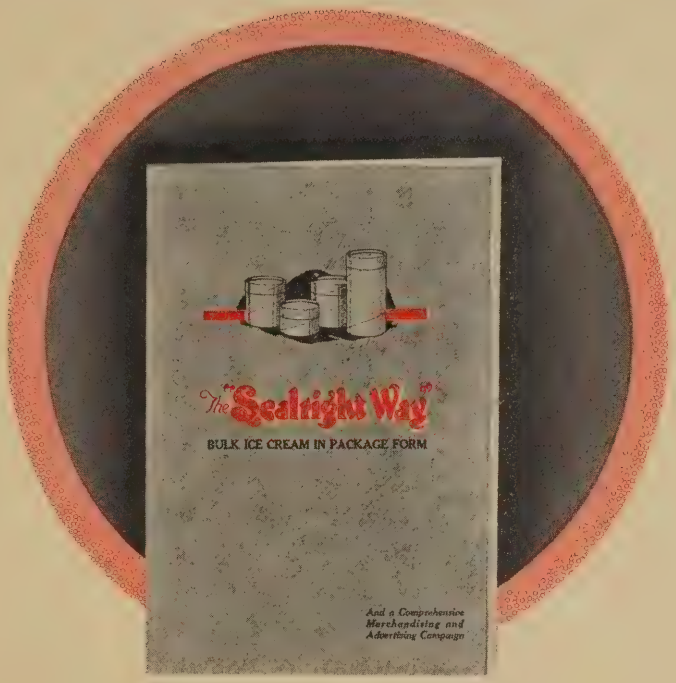
(Continued on page 110)

MAILING FOLDERS
MAGAZINES AND HOUSE ORGANS
BUSINESS CARDS
CONVENTION PROCEEDINGS
LETTERHEADS
CATALOGUES
STATEMENTS
BILL HEADS
ENVELOPES
CIRCULARS

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High grade work at reasonable prices. Send us a sample of what you want and we will quote you prices.

THE OLSEN PUBLISHING CO.
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A Definite and Practical Plan to Increase Bulk Ice Cream Sales

FROM the experiences of ice cream manufacturers (who have adopted the "Sealright Way") and from our own observation and investigation, covering a period of more than a year, there has evolved a remarkable Merchandising and Advertising Plan. . . . "It is the most important advanced step made in twenty years," writes one manufacturer. This "advanced step" is interestingly portrayed and plainly outlined in a beautiful Portfolio entitled, The "Sealright Way." It has been prepared at a considerable expense; consequently, it is not intended for promiscuous nor free distribution. Every user of Sealright Filling Machines will receive a copy, for it is the "connecting link"—pointing the way—to the greatest good he can obtain from the "Sealright Way." Sealright Representatives will gladly show you this Portfolio when next calling on you. You should, by all means, take the time to study the plan as outlined in this Portfolio. You are bound to be favorably impressed and sincerely concerned in the greater sales possibilities this plan affords.

Bulk Ice Cream In Package Form Will Increase Your Business



SEALRIGHT CO., INC.

Largest Manufacturers In The World of Cylindrical Liquid-Tight Paper Containers

FULTON — — NEW YORK



ELINE'S

INCORPORATED

MILWAUKEE, U.S.A.

ICE CREAM COATINGS HAVE

Proven A Revelation

Not only in eliminating the coating troubles of the manufacturer of ESKIMO PIES but the Superior Blend of Pure Whole Milk and Finest Imported Cocoa Beans milled right, balanced to just the right strength, to impart that—

Melt-In-The-Mouth Goodness

that can readily be distinguished in ELINE'S Chocolate Products.



Write Today for Quotations on

Yukon and Polar Brands

Keep in mind, however that in developing the delicious taste and purity of our coatings, we have not, for one instance, neglected its practicability from the manufacturers' standpoint. The ingredients are mixed to the right consistency to dip properly on ice cream, producing a smooth uniform coating.

MILWAUKEE **ELINE'S** WISCONSIN

SAND.

"Sandiness" in ice cream, a trouble frequently encountered by ice cream makers, soda fountain dispensors, and occasionally by consumers, can be prevented by keeping the milk sugar content of the ice cream low enough, and by keeping the storage temperature of the ice cream low, according to H. H. Sommer of the dairy department of the University of Wisconsin.

"Sandiness" is a grainy, gritty texture caused by the crystallization of the milk sugar, says Mr. Sommer. "This condition was unknown a few years ago before ice cream makers started to increase the Solids Not Fat content of their mix by adding milk products such as skimmilk powder, condensed milk, and sweetened condensed milk.

"By adding these dairy products to the mix, the manufacturers found that the resulting product had a smoother texture and gave a bigger over-run, two conditions very much desired by the manufacturer. These additions frequently raise the total solids content of the mix as high as 38 to 40 per cent. The milk sugar is found in the Solid Not Fat portion of the mix so that an increase in this content increases the possibilities of crystallization. To prevent 'sandiness' the Solid Not Fat content should be below 13 per cent."

Other causes of this ice cream defect as given by Mr. Sommer are, super-cooling of the mix in the freezing process, and also the fact that lactose crystals present in the sweetened condensed milk added to the mix, act as a "starter" for crystallization. Sandiness generally occurs in the "hardening" room at the factory. The mix is taken from the freezer in a semi-liquid condition and is then placed in the "hardening" room where the temperature is kept quite low. The ice cream remains here until hard. In some factories using the same kind of a mix only certain of the plants have trouble with "sandiness." Mr. Sommer attributes this fact to a variation in temperature in the hardening room. As long as the mix is kept below the cryohydric point, that temperature at which all the water in ice cream is in a solid state, crystallization of the milk sugar is not likely to take place, maintains this ice cream specialist.

It often happens that in drug stores and ice cream parlors the ice cream becomes "gritty." Mr. Sommer explains this occurrence as being due to the fact that the ice cream is iced when put in the cabinet, and as the ice melts considerable during the day, the ice cream that is left from the day's business is iced again at night. The flucuation in temperature causes a crystallization in the left-over ice cream, and the manufacturer is often blamed for this condition whereas the fault lies with the lack of care given the ice cream after it left the factory.

"The only aid to 'sandiness' in ice cream that pasteurization of the mix renders, is that of dissolving any crystals that may be present in condensed milk added to the mix," declares Mr. Sommer.

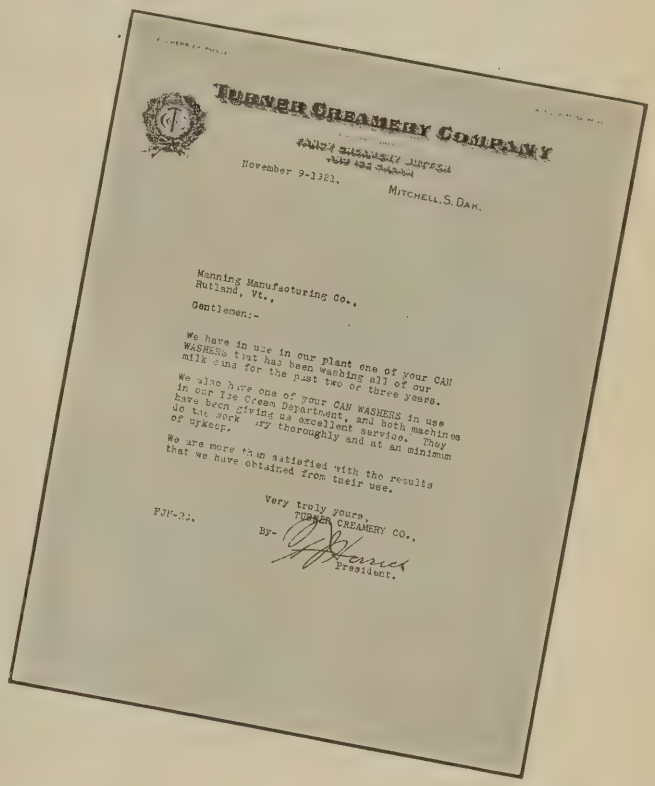
CHOCOLATE COVERED ICE CREAM BARS NOT TAXABLE.

The commissioner of Internal Revenue has announced, through the National Association of Ice Cream Manufacturers, that the chocolate covered ice cream bar as manufactured and sold at the present time "consisting of an interior of hard ice cream with a chocolate coating are not such confections as are taxable under Section 900 of the Revenue Act of 1921." It is therefore not necessary for ice cream manufacturers of the chocolate coated ice cream bar to make any return thereon under this act.

"A Minimum Of Upkeep"

"They do the work very thoroughly at a minimum of upkeep" is the way this Manning user puts it—and that's about the whole story.

Next month a Manning user in Canada will tell you why he likes the Manning Can Washer.


TURNER CREAMERY COMPANY

November 9-1921. MITCHELL, S. DAK.

Manning Manufacturing Co.,
Rutland, Vt.,
Gentlemen:-

We have in use in our plant one of your CAN WASHERS that has been washing all of our milk cans for the past two or three years.

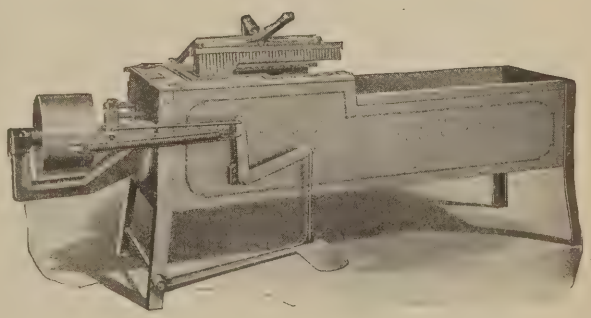
We also have one of your CAN WASHERS in use in our Ice Cream Department, and both machines have been giving us excellent service. They do the work very thoroughly and at an minimum of upkeep.

We are more than satisfied with the results that we have obtained from their use.

Very truly yours,
TURNER CREAMERY CO.,
By- President.

MANNING
MANUFACTURING COMPANY
RUTLAND, VERMONT

MANNING EQUIPMENT



Used Everywhere—
Liked Everywhere!

EVER HEAR OF ICE COLD CAKES SELLING LIKE HOT CAKES?

A New Test for Fat in Gelatine

By A. D. BURKE, Assistant in Dairying, and PAUL MENAUL, Assistant Research Chemist, Oklahoma Experiment Station, Stillwater, Oklahoma.

THE question "Why is it important to know the fat content of gelatine?" has frequently been asked. The answer is well illustrated by a number of tests for the "jelly value" and hardness of different samples of gelatine which have proved conclusively that as a general rule; in fact almost as an absolute rule, gelatine which contain fat even in minute quantities have a lower jelly value and are weaker, than those containing no fat or only a trace. The following typical tests will serve to illustrate this point:

Sample	Jelly Value	Hardness	Per cent Fat
1	3.0	65	.10
2	2.6	34	.05
3	1.8	15	.00

From the above table it may be seen that a knowledge of the fat content of gelatine is of primary importance since it gives an insight into the quality of the product and will assist the user of gelatine in selecting a standard material.

A quick practical method of determining fat in gelatine has long been sought but until quite recently the so-called "grease test" has been resorted to as a means of determining at least qualitatively the fat content of gelatine. In brief the "grease test" consists in making up a certain standard acqueous solution of gelatine, mixing with a small amount of a fat dye and smearing a brush of the mixture over a white sheet of paper. The fat particles being more highly stained than the surrounding film, appear as minute distinct spots and a relative test—at best only a poor qualitative test, is obtained. Obviously the method is impractical for use by the layman who is unfamiliar with the appearance of gelatine which may or may not contain fat when dyed and smeared on paper, and only to those persons continually operating such tests does the method really reveal anything regarding the character of gelatine so far as its grease or fat content is concerned. A method which is simple and yet reasonably accurate, not only qualitatively but likewise quantitatively should be a boon to manufacturers of gelatine as well as to those primarily interested in its use alone.

A method bordering along these characteristics has of late been devised by A. T. Seeker, chief, New York station, U. S. Bureau of Chemistry. The operation of the process consists essentially of digesting a 10-gram sample in a mixture of water and 10 cc. of conc. HCL in a flask, introducing the whole into a separatory funnel and shaking with 50 cc. of ether to dissolve the fat. The ether extract is then filtered into a previously weighed flask, evaporated to dryness and the flask reweighed after an hour's drying in a water oven.

Apparently the test seems simple and accurate and in order to test out its accuracy, similar tests were run by the writers, several determinations for fat being made on different and the same samples of gelatine. The results obtained, however, were not indicative of accuracy of the test. For example, one sample of gelatine known to contain fat was digested as above using the HCL, and boiled gently for 4 hours, while the resulting mixture was clear it yet remained very dark, thus indicating that some humin was formed. Extraction with ether and evaporating to dryness at a low temperature yielded a dark colored residue which did not consist of pure fat. This was proved by making further extraction with petroleum ether which dissolved the fat but left behind the dark substance. Tests using this further method of extraction yielded a much lower fat content than by extracting with ether alone.

The following are representative results obtained from a series of determinations using a sample of Know sparkling gelatine. Using Seeker's method* a fat content of .088 per cent and .098 per cent was found; if, however, the ether extract was washed twice with distilled water only .0325 per cent and .032 per cent of fat was indicated. When the dishes containing the dry residue from the ether extract were extracted with hot petroleum ether, and the fat determined by difference (that is, the residue soluble in petroleum ether) only .025 per cent and .02 per cent fat was indicated. This indicates that the ether extract of hydrolysed gelatine may contain other substances than fats.

From these experiments the writers are inclined to believe that some modification of the above test must be made if it is to become an accurate method for determining fat in all samples of gelatine. However, it is believed by us that in the majority of cases the method is sufficiently accurate for most practical cases and even though by further trial it should prove less applicable, it is nevertheless, apparently, a splendid step toward a simple, accurate method of determining fat in gelatine.

For the past year one of us (Burke) has been engaged in working out a test for fat in gelatine which would not only be simple, reasonably accurate and sufficiently delicate for use in gelatine factories but also practical for the ice cream maker, thus aiding him to detect a gelatine which contained no fat and indicating in at least one way the relative merits of the gelatine. A test apparently conforming to these requirements has

ESTABLISHED 1868

Milligan & Higgins Gelatine Co.

222-224 FRONT STREET
New York

□ □ □

We have built our business on 54 years of satisfaction to our customers.

□ □ □

Quality and Prices always right.

Your Friend Billy Bell
Has learned a thing or two About Vanilla Flavors



You see, I've been at this game one way and another for the last twenty-four years, ever since I was a kid. First as a Candymaker, then as an Ice Cream Maker, then as a practical Chemist and now I've been at the manufacture of Flavoring Extracts for the past eight years.

Remember "Marko" in the book "If Winter Comes?" Had a habit of "thinking things through." That's ME! Analytical sort of cuss. Never satisfied with half-way measures. Gotta get the "straight" of everything, looked at from all sides—impartially.

And all this time I was **working!** Working out a **dream.** Dream was to make a supremely good VANILLA COMPOUND — one that should have all the flavory delight of the pure bean extract; all the strength and staying-power of the synthetics; with none of the practical defects or disadvantages of either.

And I've GOT it! Grandest Ice Cream Vanilla in America judged by the **true** test—the taste of the **finished Ice Cream!**

"545"

After 544 attempts, some of which were mighty good, but not good enough for me—I **struck** it, on my 545th test—the climax of many years of trying.

That was two years ago.

And every day since then, the demand for "545" has been growing.

It's a case where every test means a steady customer; and my **only** problem is to get the stand-patters to realize that **I have** something that they **want**—and to put it to the test.

My "545" is 38% true vanilla and 62% vanillin, coumarin, essential oils, fruit flavors and other things—compounded by a special process that is mine alone.

2 qts. flavors 100 gals. Dairy mix or fully 200 gals. Ice Cream

And "the flavor **lasts.**" Just as richly delicious in cream two days old as when it leaves the hardening room.

Let me send you a 2 qt. sample for $1.90—the barrel price—or a 50 gallon barrel at $3.80 per gallon.

Wm. M. Bell
PRESIDENT
Tisco Co.



2 E. Lake St. Chicago

Northwestern Office
53 Metropolitan Life Bldg.
Minneapolis, Minn.

Southwest Office
208 E. Myrtle Street
San Antonio, Texas

been accordingly devised and the method of making it is as follows:

Make up a 50 per cent solution as follows: To 25 grams of gelatine add 30 cc. of a dilute sulfuric acid, specific gravity 1.25 to 1.3. The dilute H_2SO_4 contains about 35 per cent of sulfuric acid by weight. Mix thoroughly with a glass rod then set the beaker in boiling water or in a steam bath for 15 to 20 minutes, stirring occasionally. At the end of this time the solution will be liquid and free from bubbles. Cool the solution, pour into a 50 cc. graduated cylinder, dilute to the 50 cc. mark, mix thoroughly and add 18 cc. to each of two ordinary Wagner skimmilk test bottles reading to twenty-five hundredths of one per cent (25-100 per cent). Now add 20-25 cc. of sulphuric acid, a few cubic centimeters at a time, shaking after each addition until sufficient has been added to turn the solution a dark coffee brown. (Care should be taken in adding the sulphuric acid to avoid foaming and subsequent bubbling of the mixture from the bottle). Centrifuge for ten minutes in an ordinary steam Babcock milk tester running at a high rate of speed; preferably at 1,800 R.P.M. Fill the large neck of the bottle with sufficient water to bring any fat within the scale of the small neck and centrifuge a second time for ten minutes as above. Remove from the tester and read the per cent of fat multiplying the reading by 2 to obtain the per cent of fat in the original gelatine sample. The test is accurate to within .01 of a per cent of fat.

In order to prove the accuracy of the above test the following method was employed; one of us prepared a solution of fat free of gelatine by dissolving 40 grams of gelatine in 400 cc. of a 5 per cent sulphuric acid solution, boiling it for one hour under the reflux condenser. After this digestion the gelatine solution remained liquid at 15 degrees C at which temperature it was thoroughly extracted with ether to remove all traces of fat. Several determinations for fat were made by pouring the ether extract into a previously weighed dish, evaporating the ether and reweighing the dish, any fat being thus determined by difference. The extraction was continued until no fat was detected. Ether was removed from the original solution by cooling and the volume restored to 400 cc. with water.

To prove that a correct determination for fat could be made by the Burke method detailed above, pure fat—hydrogenated oil, was weighed into skimmilk test bottles and 17.6 cc. of the fat free gelatine solution added. The fat was emulsified by shaking the warm solution and after standing for several hours no fat appeared on the surface. In this manner one of us (Menaul) prepared a gelatine solution in which the amount of fat was known. The samples were then sent to the operator of the Burke test to whom the fat content was unknown.

The results obtained were as follows:

Sample	Theoretical % of fat added by Menaul	% Actually obtained by Burke test
1	.020	.015
2	.016	.015
3	.012	.015
4	.100	.095
5	.200	.180
6	.042	.035
7	.390	.390
8	.041	.040
9	.160	.150
10	.220	.200
11	.250	.250
12	.074	.072

The percentage represented by the third decimal place .001 was of course estimated by the Burke method it being practically impossible to accurately determine this small amount from the scale on the Wagner skimmilk test bottle. However, it can readily be seen from the above experiments that any slight discrepancies are well within the limits of experimental error and that the method will detect fat contained in a gelatine solution.

A brief explanation of the chemistry of the Burke test is as follows: The dilute sulphuric acid serves to dissolve the gelatine in a 50 per cent solution without charring any particles of the gelatine contained in the mixture. Further hydrolysis is then aided by the addition of the final 20 or 25 cc. of sulphuric acid which liberates the fat from the gelatine solution and permits it to rise to the surface when centrifuged as in the test for milk.

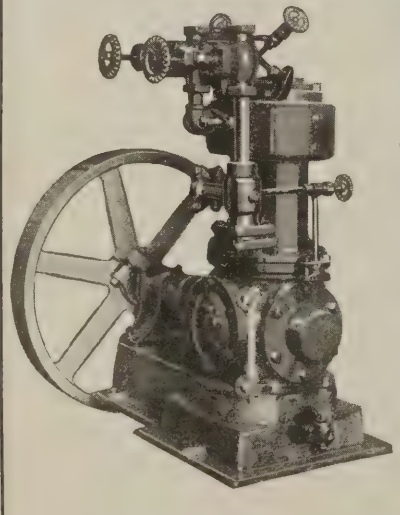
From this the following method for figuring is evident; that the solution introduced into the bottle was one-half gelatine, therefore, the reading times 2 gives the percentage of fat in the commercial gelatine.

*Information regarding this test obtained from report of the Conn. Agr. Expt. Station on Food Products and Drugs, 1919, Part 1, Page 221.

WILL MANUFACTURE ICE CREAM.

Mr. Ed. Hofland, a Menomonie, Wis., dairyman, who owns a purebred Holstein herd, and H. J. Vigels, recently with the Waldorf Ice Cream Company of Akron, O., purchased a building and lot for $10,000 in Menomonie, Wis., and will engage in the manufacture of ice cream.

Machinery and equipment were purchased of J. E. Joyce, formerly of the Menomonie Dairy Company, in the amount of $4,000. A homogenizer and a cooler, purchased from the Creamery Package Company, have been installed. The building has been thoroughly remodeled and the company is now ready for the season's ice cream supply. They plan on manufacturing around 50,000 gallons a year. Mr. Vigels was at one time with H. P. Hood & Son of Boston, Mass.



DID You ever stop to think of the saving on reliable refrigeration with small and medium ice cream plants. They pay for themselves in less than a year.

Consulting us will prove these facts

We build complete ice cream equipments and hardening rooms. Also experts on Soda Fountain for mechanical refrigeration.

Our installations are simple in operation and money savers.

Write us your requirement for Ice Cream and Dairy plants.

Reliance Ice Machine Co., Inc.

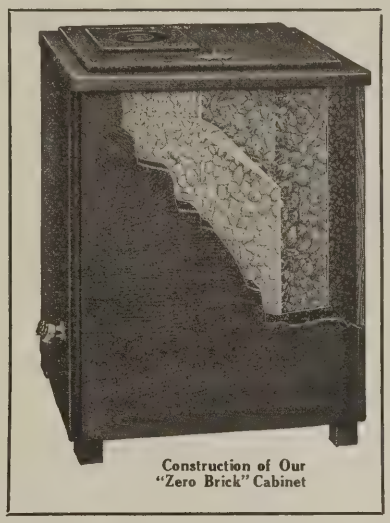
MANUFACTURERS AND ENGINEERS

1221 Belmont Ave. CHICAGO, U. S. A.

The Grand Rapids
ICE CREAM CABINET OF QUALITY

For Keeping Eskimo Pie in Perfect Condition

The Grand Rapids



Construction of Our "Zero Brick" Cabinet

Zero Brick Cabinet

Eskimo Pie, the new confection, which is meeting with such great success, must be kept in perfect condition to insure maximum sales.

Our Zero Brick Cabinet is ideally fitted for this purpose. The design is widely different from ordinary brick cabinets, one of the principal features being the separate covers for the Brick Tank and the Icing Compartment. The tank is held perfectly rigid—no floating. There is no chance of getting ice and salt into the brick compartment while icing.

The high efficiency of the cork-board insulation and construction means a constant low temperature and a minimum ice bill.

Take Advantage Now of Recent Price Reductions

Lower manufacturing costs enable us to give you the same high quality for which our line is noted at a lower price. Write today for prices and all other data.

GRAND RAPIDS CABINET COMPANY

Successors to CHOCOLATE COOLER COMPANY

55-59 Alabama Avenue N.W. GRAND RAPIDS, MICH.

New England Sales Office and Warehouse, MERROW BROS., Inc., 44 N. Market St., BOSTON, MASS.
South Eastern Sales Office and Warehouse, CHERRY-BASSETT CO. } 33 So. Charles St., BALTIMORE, MD. / 1106 Arch Street, PHILADELPHIA, PA.
North Western Sales Office and Warehouse, A. C. BLACK, 515 Lumber Exchange, MINNEAPOLIS, MINN.

That Big National Dairy Show

By W. E. SKINNER, Secretary and General Manager

THE article by Mr. W. C. Davis on the National Dairy Show proves its own proposition. Mr. Davis is thinking in terms of the dairy industry as a whole and as a something worthy of the best annual roundup of all of its interests and branches for promotive and comparative purposes that can be built, and his grasp of what its annual exhibit should be is well stated, in fact he hits the nail on the head. And when ye editor editorially comments on the article and asks, "How about it, Col. Skinner?" my reply is, how about it? And perhaps we can both reach some conclusions of value if we just go into a careful analysis of the great National Dairy Show and its progress.

In the first place let us agree that the building of an annual exposition that would adequately present the great American dairy industry to the world, is more than a one-man job. That is evidenced in the fact that until the year of 1922 it was managed by a board of 26 directors, and in 1922 seven more directors were added, and in 1912 a manager was employed whose sole duties were to be the co-ordinating of all the branches of the industry to bring together once a year all that each had to offer as a contribution to progress of the industry.

Now let us check up and see how the child has developed. By 1916 it was proven that the organization as a stock concern could not perform the service expected of it and inasmuch as the parties to its formation and owners of its stock certificates never did look for cash dividends from their investment, it was quickly reorganized as a membership organization founded upon an integrity of purpose open to each and every man, woman, and child with a vision and a desire to see their industry developed to the proportions necessary to secure for it the recognition in the world work it was entitled to. So in 1917 it started on its way again, equipped to satisfy the most critical that it really and truly was in a position to bring the interests into one harmonious family with each year's results to be equally cashed in on by those who were willing to be counted as one of the family. And so in four years it may be said to have, from a child in swaddling clothes, emerged into a fair sized youngster with plenty of opportunity for growth, and this growth must come from just such lines as Mr. Davis suggests. And it is up to he and others of similar vision in the industry to put their shoulder to the wheel and help put her over as big as she can be made. We have the cattlemen; we have the educational and human welfare forces of the state and nation; we have the machinery men and some of the productive side of the business, and we have the national conventions of nearly all of the real big parts of the industry held in the cities where the show is held, but not yet right at and with the show, and here is the work for us to do now: Let us get every branch that has an organized entirety to realize the great big opportunity this annual get-together means to each and every one of us, and to the industry as a whole, and then we will have an annual gathering that will set a pace for all industry and all will realize on it according to the bigness of their vision. We have space to embrace all features and can hold dinners and banquets of all of our people right at the show fully as well as can be provided elsewhere and develop the loyalty to industry spirit in everybody and attain the great success so much desired.

The enlarged plans for the shows of '22 and '23 afford the opportunity perhaps, greater than ever before, for this further melting together of our whole industry, and the committee requested by the machinery exhibitors at a meeting in January of the Dairy Club, and appointed by the directors of the Show Association, with Mr. Davis as chairman, can and will do a lot to bring about what is necessary, and if the men handling the affairs of the organized dairy life have the vision of what it means to be all counted together it will, as the board of directors of the Show Association as now constituted, with every interest represented upon it, fourteen cattlemen to safeguard the interest of the fundamental of our industry, and three milk dealers, two ice cream manufacturers, four educators, seven machinery manufacturers and supply men, one butter man, one condensed milk man and one at large, there can be no further good grounds for any part of the industry not to be functioning as a part of the whole.

Now, how about it, will we go to it now and all be found together building a world's show for 1923 that will be sufficiently inspiring and powerful to give the world a view of co-ordinated dairy industry unequalled in capacity and ability?

Go to it, Mr. Editor, let us have full and frank talks, and when you are through call the volunteers and see who is missing at the next roll call. There is an obligation in our industry resting upon those engaged in it, greater to humanity and equal to commerce of all industries, and big enough men in it to meet the obligations.

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TARPAULINS

ETC.

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on application.

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Everything in Canvas
WACO TEXAS



The "Perfection" Imprint on Your

Ice Cream Cartons, Can Liners and Butter Cartons

is your assurance that the Buying Public is going to get the correct impression of the quality of goods that you have put in your package. INSIST on the best, it COSTS NO MORE

Write for Booklet

CHICAGO CARTON COMPANY

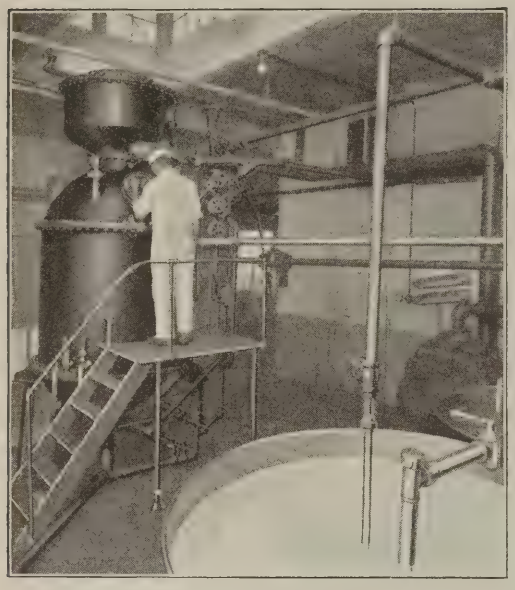
4433 Ogden Ave., Chicago

NEW YORK, 516 5th Avenue
CINCINNATI, Gwynne Bldg.

CHICAGO CARTON COMPANY

DALLAS, 601 Elm Street
DENVER, 1526 Blake Street
SALT LAKE CITY, 355 Pierpont Ave.

Standardize Your Ice Cream



Mojonnier Vacuum Condensing Unit (5') in plant of Lawrence Ice Cream Co., Chicago. Temperature of milk never exceeds 140° either in hot wells or vacuum pan.

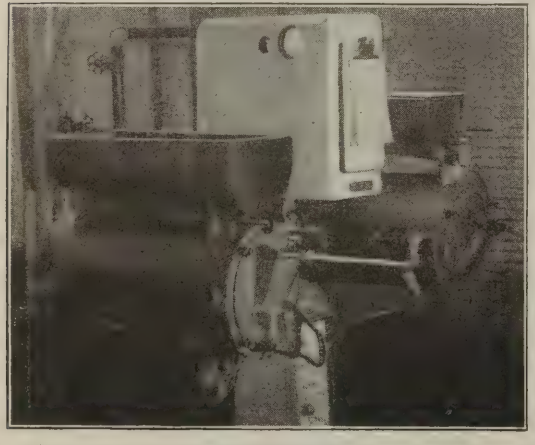
Standardize The Flavor In The Mojonnier Vacuum Condensing Unit

ICE CREAM manufacturers everywhere are fast recognizing the invaluable advantages of the Mojonnier Vacuum Condensing Unit. By displacing the pasteurizer and mixing tank it enables the manufacturer to make his mix from fresh milk direct from the producer and cut the cost of his mix 10c per gallon.

The Mojonnier Vacuum Condensing Unit is a scientifically designed combination of Vacuum Pan, Hot Well, Vacuum Pump, Steam Piping and Traps, steps and all other accessories necessary for a complete Condensing Unit.

Converts waste into profits by converting surplus milk into sweetened condensed milk or other condensed milk products for which there is a ready market.

Compactly built, it takes up little room. Simple and easy to operate.



Overrun Tester in plant of Decatur Ice Cream Co., Decatur, Ala. Mr. Clopton writes it is "one of the most important machines in our plant."

Standardize The "Swell" With The Mojonnier Overrun Tester

WITHOUT definite means of control, the "swell" or overrun in ice cream is subject to wide variation from day to day and from batch to batch.

The Mojonnier Overrun Tester enables you to control your overrun absolutely. You don't have to guess. You can test it while the cream is still in the freezer and control the factors that effect the overrun.

Each per cent of overrun represents just .4c per gallon of mix. Increase your average overrun only 10% and it means a saving of 4c a gallon, or $4,000.00 a year on 100,000 gallons. It is savings such as these that are attracting ice cream manufacturers to the Mojonnier Overrun Tester.

Used by the largest ice cream plants in the country: Hortons, Telling-Belle Vernon Co., Hydrox, Abbotts, etc. Also by progressive ice cream manufacturers operating two or more freezers.

EFFICIENCY PRODUCTS Mojonnier

Mojonnier Bros. Co.

MILK ENGINEERS

BRANCH OFFICES: NEW YORK, 17 E. 42nd St. ATLANTA, 301 Bedford Place.

PLEASE MENTION THE ICE CREAM REVIEW WHEN WRITING TO ADVERTISERS

by the MOJONNIER Process

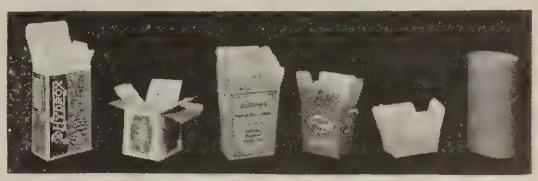
Standardize The Package With The Mojonnier Packaging Machine

THE Mojonnier Ice Cream Packaging Machine is a LABOR SAVER. In one plant it reduced the labor of packaging from twelve to seven operations; reduced number of helpers from seven to three; has reduced hardenings from three to one. Eliminates pouring into molds, dipping, cutting, wrapping and exposure to heat and air after hardening, improving quality and texture of the brick ice cream. It prevents loss of ice cream and does not reduce overrun.

The Mojonnier Packaging Machine is of the measured feed type. Fills all shapes illustrated herewith—quarts to individuals—accurately. No over-weight; no air-pockets; nothing taken for granted. Fills either one, two or three flavors at the rate of twelve hundred bricks per hour.



Mojonnier Ice Cream Packaging machine in operation at the big plant of the Hydrox Co., Chicago, where they package their entire output of one, two and three flavor bricks.



Fills any of the types illustrated above



Mojonnier Tester in plant of Russ Bros., Harrisburg Pa., where they test all the milk products that are used in the mix, and standardize the mix.

Standardize the Butter Fat and Solids With the Mojonnier Milk Tester

TO BE able to buy your raw materials absolutely on the basis of actual butter fat received—to be able to standardize your ice cream mix to within .05% and eliminate all guess work—these are advantages which you desire for your plant.

With the Mojonnier Milk Tester you can standardize your butter fat and total solids in your mix to within a few hundredths of one per cent. Thus you can control all of the ingredients—butter fat, milk solids (not fat), sugar, gelatine, etc. If your ice cream maker gives your laboratory analyst a sample of the complete mix at 8 o'clock, in just forty minutes the operator can tell him the exact butter fat and total solids content in the mix.

The Great Hydrox Company advise that the Mojonnier Milk Tester pays for itself every month in the flush season.

With the Mojonnier Milk Tester, you can test, check and absolutely control the factors entering into your overrun. And that kind of accuracy pays big dividends.

Further Information Given on Request

Chicago, Illinois

739 W. JACKSON BOULEVARD

True Servants to the Ice Cream Industry

ST. LOUIS, 4931 Margaretta Ave. SEATTLE, 513 Pioneer Building. COLUMBUS, 123 E. Frambes St.

CLEANLINESS IS GOOD DAIRY PRODUCTS INSURANCE.

IS THE CHOCOLATE COVERED ICE CREAM BAR HERE TO STAY?

The Ice Cream Review:

The writer just returned from a western trip, visiting several ice cream factories which were making chocolate coated ice cream bars. In almost every factory visited there was someone who asked this question. "What is your opinion regarding the fate of the chocolate coated ice cream bars?"

This question, at present, seems uppermost in the minds of the ice cream manufacturers. Some are optimistic and have spent or are spending much money for labor saving devices, automatic machinery, etc., in order to more quickly and more economically handle this product. Others are more conservative and are not spending any more money than necessary because they are expecting the demand to be short lived and consider it only a fad. They are making all they can by simple manual methods. They are waiting to see what the summer will bring forth and whether the bar will replace the cone or vice versa.

I was much impressed by the interest and anxiety of the ice cream men concerning the chocolate covered bar. An equal degree of interest was also manifested by chocolate manufacturers and jobbers. Therefore, while lying awake in a Pullman, on my return trip, I naturally began pondering this question.

Here is a product that is only a few months old. From the very beginning its sale has been phenomenal. It has increased the consumption of ice cream and chocolate considerably. Why is this product so popular? Why has the demand fallen off somewhat? Will the demand continue to decrease or will it reach a certain fairly constant level which will only be affected by the seasons?

The initial popularity of the chocolate coated ice cream bar was due to the facts that it was something entirely new, distinctive and well advertised. Curiosity was stimulated by the name. Everybody wanted to know what a chocolate covered ice cream bar is and how it tastes. Naturally when this curiosity was gratified sales were bound to decrease somewhat. However, there are a few other important reasons for the decline in sales.

I have heard a great deal of comment from the "bar" eaters themselves. Namely, the price, when compared to size or to a cone is too high. Some manufacturers have reduced the thickness of the coating or now use a chocolate of lower quality. Some have also reduced the quality of the ice cream. It does not take the public long to notice these changes.

Different manufacturers report a drop from the first week's sales varying from 30 to 60 per cent. It was interesting to note that those who are already making a quality product of larger size, report the least drop or decline in sales. However, the demand is now fairly constant and this, I believe, indicates that the public, in general, likes the chocolate coated ice cream bars.

It is my opinion that the ultimate future of the bar lies entirely within the hands of the manufacturers. Some have already realized this and instead of reducing the price, they have increased its size. Where they originally cut 16 or 18 to the quart, they are now cutting only 12 or 14. This, they claim, has had a noticeable effect on re-establishing their sales, to a certain degree.

There is one point which, I believe, the manufacturer has lost sight of. That is, the fact that chocolate itself has made the ice cream bar possible and its novel combination with ice cream is responsible for this winter's increased consumption of ice cream. Without chocolate there could be no such novelty and since everybody likes chocolate, it behooves the bar makers to use the best obtainable and not be too stingy concerning the thickness of the coating. One manufacturer said "I'm in business to sell ice cream, not chocolate." He didn't stop to think that if it were not for chocolate he couldn't also have said, "This is the busiest winter we've ever had."

The temperature of the coating when applied has much to do with the thickness, uniformity and smoothness of the same. In some plants a recording thermometer is attached to the dipping pans which are heated by either electricity or steam and controlled by a thermostat. An average temperature of about 90 degrees is maintained.

While it is true that an excessively thick coating will flake off it is also true that ice cream melts more quickly when directly exposed to a warm atmosphere. A medium thick coating of good chocolate will not flake off any easier than a thin one and has the advantage of acting as insulation which helps the ice cream to retain its hardness longer after being removed from the ice box. The harder the ice cream, the less flaking or cracking takes place when the bar is eaten.

The ice cream cone is a mussy proposition at any time and causes a loss to the retailer on account of ununiformity of size and shrinkage in dipping.

The chocolate coated ice cream bar entails no shrinkage loss, is uniform in size and if properly coated, is a much cleaner and easier proposition to handle.

When hot weather comes, the public will realize this and then the ice cream bar will be here to stay.

H. F. LICHTENBERG.
East Aurora, N. Y.

Manufacturers of Complete Line of Steel and Metal Products



No. B-85
Patent Applied For

Of Vital necessity
are good

TUB HANDLES

When considering the knocks and rough usage subjected to them in daily use. Hence the necessity of selecting a tub handle that will stand all sorts of abuse and be sure to provide a a handy and positive grip.

Beehler Tub Handles

Are made of special steel of a toughness that defies destruction

Beehler Steel Products Company
St. Louis, Mo.

Plant "Housekeeping" Economy

THE expense item of keeping a plant in order is too often subordinated, yet it is an important factor worthy of close consideration. If all the labor time consumed in cleaning up after a day's run were to be tabulated for a year the total would be astonishing. It would reveal an almost unbelievable percentage of cost.

The relation of "housekeeping" economy to the general-system plan or lay-out of the plant is obvious. The difference between the thoughtless placing of machinery, exits, etc., without regard to continuity -- and skillful arrangement, often represents a sum equal to the annual interest on the whole plant investment.

All the way from the preliminary plan to the completed plant there is a sure-footed progression by a co-ordination of

McCormick Architectural and Engineering **Service**

experts highly trained in their respective lines of work. Capacities, areas, volumes, expenditure of labor energy and time, as well as innumerable construction ramifications, are determined with scientific precision, and results are as definite as they are efficient.

Such accurate meshing of these various productive units can not fail to establish an automatic system of "housekeeping" economy.

Before starting on your new plant or remodeling work, it might be to your advantage to communicate with us. You will not be obligating yourself in any way.



Freeman Dairy Company, Flint, Mich.
Bottling Room, Freeman Dairy Company.
Hoffman Bros. Company, Altoona, Pa.
Hardening Room, Hoffman Bros. Company.

PITTSBURGH
Century Bldg.

THE McCORMICK COMPANY, Inc.
Architects and Engineers for the Dairy and Ice Cream Industry

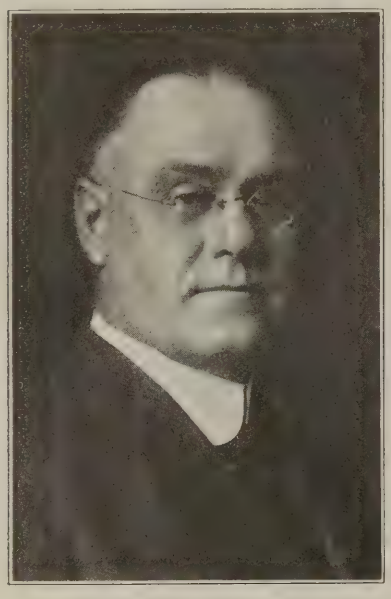
NEW YORK
41 Park Row

Construction Executed by Your Own Contractor Under the Direction of Our Visiting Superintendents

For Greater Service to the Dairy Industry

Chief of Illinois Dairy Division Joins Staff of Frederick C. Mathews Co.

The modern milk plant is delivering a safer, cleaner, sweeter milk than was possible a few years ago. The public appreciates this better product and is quick to criticise anything which it considers wrong in milk. The successful milk man must keep his product above criticism in the matter of pasteurization, cream layer, ropiness, flavors and sediment.



H. A. HARDING.

His need of expert assistance in handling some of these problems is quite similar to the need of a family doctor. Few families can afford to pay for the entire time of a competent physician. Moreover, the emergencies demanding the doctor's skill come at irregular intervals. Accordingly the situation is best met by a number of families joining in the support and sharing in the services of a doctor. In like manner all milk companies need a technical service which is too expensive to be maintained alone by any but the largest companies. The other milk companies can best meet their needs by joining in the support of such a service.

The Frederick C. Mathews Company takes seriously its slogan "Servants to the Dairy Industry." Some months since Mr. Mathews expressed to the Editor his keen appreciation of the need by the industry of a kind of technical service which his company was not then in a position to furnish. It so happened that the Editor had an old friend whom he knew likewise appreciated this same need of the industry. Finding that both men had essentially the same thought the Editor was instrumental in bringing them together and he naturally feels a personal interest in the announcement in this issue that the Frederick C. Mathews Company and Dr. H. A. Harding have joined in the establishment of the Dairy Research Division of the Frederick C. Mathews Company.

Many of the milk dealers have met Dr. Harding at the annual meetings of the International Milk Dealers Association and more know him through his writings. However, few but his intimate friends appreciate how long and how intimate has been his contact with milk problems.

His boyhood was spent in one of the most intensive dairy regions in Wisconsin. At the University of Wisconsin he came under the influence of Professor, now Dean H. L. Russell, who was then just starting the work on tuberculosis of cattle and on pasteurization, both of which have been so important to the dairy industry.

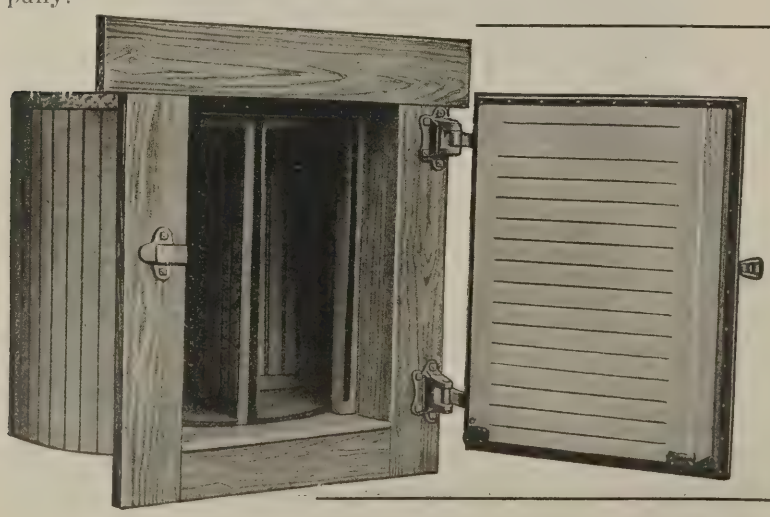
The University conferred on him the degree of Bachelor of Science and later Master of Science. Six months were then spent in Europe with the men who had laid the foundations of our knowledge of germ life. He was particularly impressed by two Danish scientists, Dr. Bang, who developed the Bang Method of handling tuberculosis, and Dr. Storch, who founded the pure culture starter method of cream ripening.

While Research Fellow at Wisconsin under Dr. Russell he had been associated with Drs. Russell and Babcock in the studies which were the beginning of our present commercial practice of ripening cheese in cold storage. On returning from Europe he became Dairy Bateriologist of the New York Agricultural Experiment Station at Geneva, N. Y., and for ten years the larger part of his time was devoted to the study of the process of cheese ripening. A substantial part of what is now known regarding cheese ripening dates from these studies.

Many of these investigations took him into unexplored scientific fields, and when more fundamental training seemed desirable he went after it. Some time was spent at the Massachusetts Institute of Technology in the study of yeasts from dairy products and later a year was spent in study at Cornell University, where he was given the degree of Doctor of Philosophy.

At the New York Agricultural Experiment Station Dr. Harding undertook to find the ways in which bacteria gets into milk and for more than fifteen years he has kept this work going. Many have heard him emphasize the importance of drying milk cans to reduce the germ life entering milk, but few have appreciated that these statements are based upon years of study in this field.

His acquaintance with pasteurization is of even long-



JAMISONS'

"NOEQUAL" REVOLVING DOOR

is making can-passing easier in Ice Cream Plants and Creameries everywhere.

It passes Ice Cream and Milk Cans back and forth without loss of temperature—and requires but one person to operate when fitted with unloading device.

Standard 5-Gallon sizes in stock.

Send for Catalog No. 10 and Prices

Jamison Cold Storage Door Co.

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Jones Cold Store Door Co.
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Schroeder Perfection Cabinets

"Insulation is the Thing"

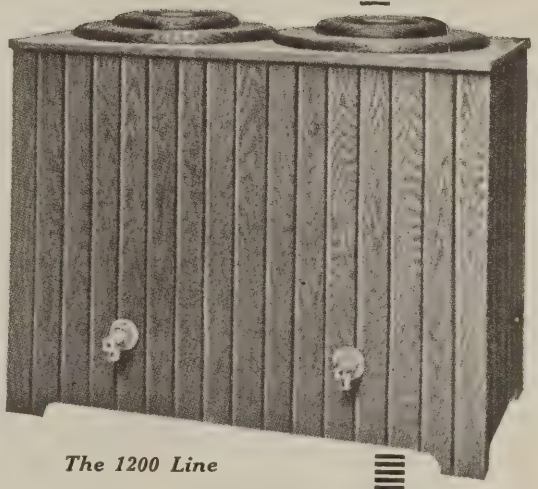


The 600 Line

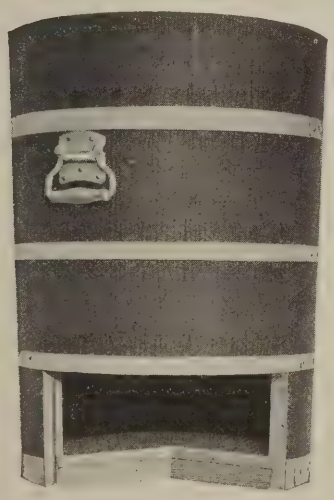
that has made Stout-Schroeder Perfection Cabinets pre-eminent in the most important quality of real usefulness which the ice cream manufacturer is looking for in the cabinets he requires in his business.

Tub Lined—insulated with fine regranulated Cork, packed by our special process. It's the method of packing that really secures the "complete" insulation.

Metal Lined—outer walls lined with Asphaltum paper, next to this "pure" *baked* cork board. Baking the air "in" is what keeps it in the cells of the cork, preserving its insulation qualities. It is 3″ thick at bottom and tapers to 2″ at top, protected by wooden inner wall with galvanized metal liner.



The 1200 Line

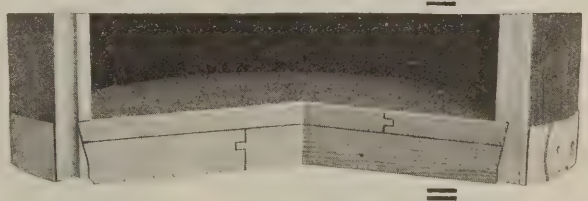


Either type of construction furnished in the Panel Smooth Surface 600 Line or the Standard Ceiling Finish 1200 Line.

Stout Cedar Tubs

are carefully built of close grained cedar, well seasoned and treated to resist water absorption. Cedar construction gives a lighter weight tub with the best qualities of durability.

See that Wedged-in Bottom with Buffer Projection which protects the staves against careless dropping of the tub. Positively guaranteed the strongest tub bottom made.



We Guarantee Satisfaction and Prompt Shipment.

THE STOUT CRATE COMPANY

375 Broadway **Milwaukee, Wis.**

er standing. He was an assistant to Dr. Russell in 1895, at the very beginning of the study of pasteurization in this country. His first Bulletin at the New York Agricultural Experiment Station was on the effect of pasteurization at different temperatures upon the germ life in the milk. His recent publications on the effect of the temperature of pasteurization upon the creaming ability of milk are simply a continuation of the studies and observations which have been going on for more than twenty-five years.

While at Geneva, New York, Dr. Harding served four years on the local board of health. This gave him an opportunity to study city milk from the health angle and to test various methods of improving city milk supplies. He became convinced that the small amount of money available to the health department for milk work could be most wisely spent in inspecting pasteurization plants and in examining the milk as delivered to the consumer.

In 1913 he was called to the University of Illinois as the head of the Department of Dairy Husbandry. The dairy herd at the University of Illinois is one of the largest and best at any agricultural college, and recently it contained the state record cows of their class in each of the four leading dairy breeds. In dairy manufactures the department is equipped to train students in the problems of city milk, ice cream, butter, cheese and condensing, which includes everything except milk powder and the plans for adding this were interrupted by the war. Back of this fine equipment is the largest group of highly trained dairy experts in any dairy department in the country. The dairy department of the University of Illinois is a monument to the administrative ability of Dr. Harding and in developing it he came into contact with all sides of the dairy industry.

The "RICHMOND"

CEDAR PACKING TUBS



NEW STANDARD PKG TUB (VA. CEDAR)

Quality and Workmanship Count. In the "RICHMOND" Tubs—we have both. Made of Selected Virginia White Cedar. Heavy galvanized iron hoops—thick staves and stout bottoms. Prices gladly given on all sizes. Historical Catalog upon request.

RICHMOND CEDAR WORKS

RICHMOND, VA.

Like many of us, the Doctor has been something of a joiner. He has long been a Fellow of the American Association for the Advancement of Science and he was a charter member of the Society of American Bacteriologists and of the American Association of Certified Milk Commissions. He was long ago elected an honorary member of the National Association of Ice Cream Manufacturers. He is also active in the American Dairy Science Association and in the International Dairy Inspectors Association and is a member of the World's Dairy Congress Association. He is also an active member of the American Public Health Association and has recently been made a member of the Royal Institute of Public Health of England.

Having enjoyed this wide range of duties and interests most men would have been satisfied to mark time. However, the Doctor is keen to devote his entire energy to milk problems and his co-operation with Mr. Mathews as chief of the Dairy Research of the Frederick C. Mathews Company will make this possible.

The purpose of this Dairy Research Division is to co-operate with the dairy industry in producing the highest quality dairy products, in lowering costs, and in satisfying their trade. They will do this by furnishing the industry with a technical service of the high quality which is characteristic of the Frederick C. Mathews Co.



FORBURGER DAIRY COMPANY TO MANUFACTURE ICE CREAM.

What was formerly the Forburger Dairy of Niles, Mich., has now been incorporated as the Forburger Dairy Company, owing to the growth in the business which calls for an expansion of the facilities for handling their growing trade.

The new company will conduct the dairy company as usual, but will now manufacture ice cream also. The company is now incorporated for $20,000. The officers are C. A. Forburger, president; Clare Rollert, vice president; Carl A. Rollert, treasurer, and L. E. Forburger, secretary. These officers also constitute the board of directors.

The addition to the building is now completed and the floor space is 32x90 feet. A new ten-ton compressor ice making unit, having a four-ton daily ice capacity for use in the ice cream making, has been installed. A 100 gallon viscolizer is also installed, and a chill room having a capacity of 600 gallons of ice cream is in evidence.



ANNOUNCEMENT.

Mojonnier Bros. Co. announce their New York City office, which is now under the charge of Mr. W. E. Larkin, has been moved from 17 E. 42nd Street to 490 Sanford Avenue, Flushing, New York City.

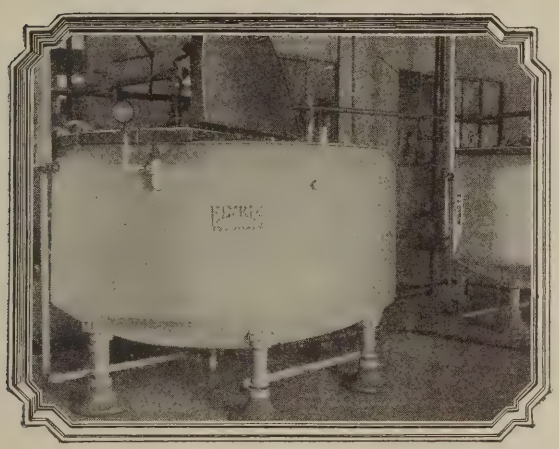
Mr. Larkin is already well known to ice cream manufacturers of the east as he has acted as representative of the Daigger Company for several years and is fully qualified to give any information relative to the Mojonnier Bros. Company's line of scientific dairy apparatus.



Tell us what you want, or what you have that you don't want, and we'll fix up a little Ad for you and insert it in the next issue of The Ice Cream Review. You just stay at home and wait for results. You'll soon have your hands full.

Answering the need for economy with the saving that Elyria brings





General Necessities Company and Elyria Equipment

The General Necessities Company of Detroit use the following Elyria Equipment; three 2500-gallon Aging Tanks; two 1000-gallon Pasteurizers; one 200-gallon Weigh Tank.

THE design and construction of Elyria Glass Enameled Steel Tanks is a vital factor influencing efficiency of operation, long life and dependable service.

Their mechanical perfection is assurance of smooth, continuous operation, steady production and the minimum of time and labor required in the process. Sanitary glass enamel—fused into the steel—is clean and easy to keep clean, and assures purity of the product.

Elyria Equipment, plus Elyria Service in providing plant layouts and recommending operating plans assures large capacity, operating economies and better profits for the user.

Pasteurizers **Weigh Tanks**
Truck Tanks **Storage Tanks**
R. R. Car Tanks **Receiving Tanks**

Complete Glass Enameled Steel Equipment for the Dairy Industry

Elyria can prove that Glass Enameled Steel Tanks can be used with profit in your plant. Write for the evidence and proof of Elyria superiority today.

ELYRIA ENAMELED PRODUCTS COMPANY, ELYRIA, OHIO

Pittsburgh New York Chicago San Francisco Boston Los Angeles Canadian Milk Products, Limited, Toronto, Ont.

ELYRIA GLASS ENAMELED STEEL EQUIPMENT

Factory Hose — Its Abuse

By Mr. S. D. Baldwin, Cincinnati, Ohio.

It is probably safest to say, first of all, that the writer of this article makes a business of selling among other items, a well known brand of hose used by creameries and ice cream factories and the suggestions outlined below are drawn from practical experience focused, as might be said, on this one item.

Most of us have a very distinct aversion to the man who continually says "don't". It implies that we know less than he. However, it is necessary to "don't" this article at the very beginning because—

The most common cause of trouble with your creamery hose is the attempt to insert an iron nipple in the end of a hose in place of a regular steam hose coupling. DON'T do it. Usually there is a slight burr on the end of the nipple and this in the process of insertion punctures the inside rubber lining of the hose causing a small jet of steam to escape into the fabric. It is seldom that this runaway steam breaks through at the point of fracture. Usually it follows the line of least resistance winding its way spirally through the various plies until it comes out several feet from the point of original fracture. At times in a well built hose the steam will travel as far as twenty-five feet before it finally breaks through. A regular steam hose coupling carefully inserted will save all this trouble and the cost is certainly not to be compared with the price of several feet of hose. DON'T be penny wise and pound foolish — a good coupling never wears out.

Many creamery men are of the opinion that a good grade of steam hose is sufficient for the work and in some instances it is but steam hose is made to convey steam alone. After being used it is laid aside and allowed to cool gradually. Furthermore, it is used only occasionally. Creamery hose is first expanded to its full extent and then the steam is shut off, as is the case with any steam hose, but before the hose has contracted to its natural dimensions some one uses it for cold water. Thus we have severe expansion at one moment and severe contraction the next — a thing which no self-respecting steam hose is built to do. The two way steam and cold water valve idea is responsible for this difficulty. It is the finest little eliminator of ordinary steam hose ever invented and it is just as easy to get you, Mr. Creameryman, to do away with it as it is to move the Pyramids of Egypt. The only way out of the difficluty has been for the rubber manufacturer to put his chemists to work. If you use ordinary steam hose examine the inside rubber lining. Isn't it about twice its original size?

Creameries usually have cement floors. This plays havoc with the outside of a hose because of the little spears of sand that stand up and which are continually cutting the hose as it is dragged about. Various methods have been employed to counteract this wear, and among them have been the winding of the hose with wire. This is objectionable in that the wire rusts, it makes the hose cumbersome and difficult to handle. Trucks run over it or heavy objects fall on it smashing it out of shape, and a wire wound hose out of shape cannot ever be brought back into its original form. Frequently the wire rusts through causing a break; then the wire spins back from either end and must be cut off leaving the body of the hose without protection. Eliminate wire wrapping. It has not been proven satisfactory.

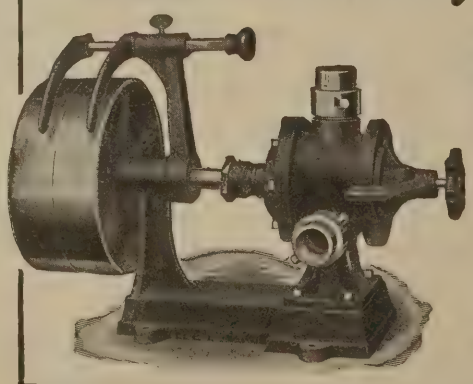
Another method of protecting the hose has been to wrap or braid it on the outside with cotton or marline. In the first place this covering soon wears through in spots, becoming here and there a nasty snarl of fabric and in the second place the fiber quickly absorbs the fats and ever present cleaning compound solutions holding these rubber-destructive elements constantly in contact with the rubber. Either of these types of covering is less satisfactory than wire winding.

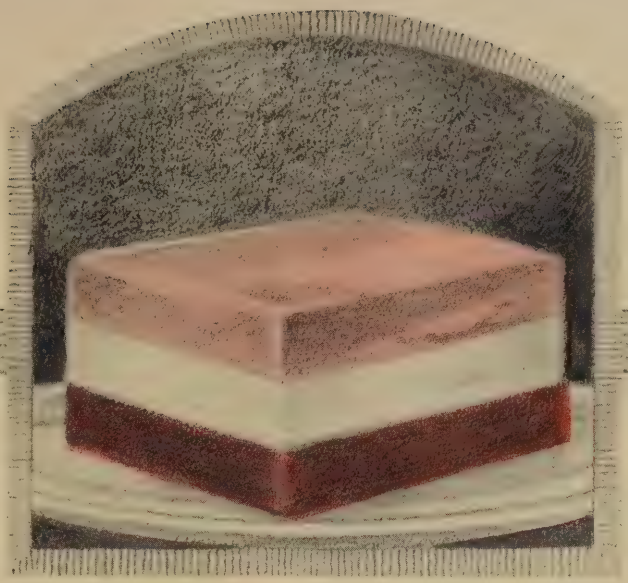
A rubber cover for the above mentioned braided covering is sometimes used, the idea being to keep the fats, etc., away from the fabric. To some extent this protects the hose but the trouble is that it is difficult to thoroughly bond this rubber to the fabric and it has a tendency to loosen. By and by the loose cover catches on something and the whole thing rips off.

A heavy rubber cover, compounded to resist the deteriorating action of the fats and cleaning compounds is easily cleaned and acts much like the tread of a tire. It protects the hose in its dragging over the floor much as the tread of a tire protects the inside fabric in driving on a concrete road. How long do chains last in constant driving, as compared to the rubber tread? Would you think of winding a tire with rope to make it last longer? There you have a fairly apt comparison with wire wrapping and braided cotton or marline jackets.

All of the above deals with the physical construction of a hose adaptable to creamery uses and it is only half the battle. The other half lies in the rubber manufacturer's laboratories and he isn't much in the habit of advertising results that it has perhaps taken ten years to accurately determine.

"Crescent"
Ice Cream Packing Tubs
Made right
Keep tight
Write For Prices
Crescent Tub Manufacturing Co.
Johnson City, Tenn.

Taber Creamery Pumps

are the most sanitary because they are entirely dissectable. Demand a Taber Pump from your jobber. If he cannot supply you we will sell you direct. Address:
Taber Pump Company
297 Elm Street
BUFFALO, N. Y.



Testimonial Courtesy

THERE are two classes of testimonial letters . . . . . (1) The SOLICITED, written by a satisfied customer at the request of a manufacturer and to be used by the recipient for advertising purposes. (2) The UNSOLICITED, voluntarily written by a satisfied customer and usually accompanied by a remittance for the item purchased.

We are agreed, that the "Solicited Testimonial" is a sincere expression of satisfaction and that its use for advertising purposes is both proper and correct, and that it serves a useful purpose both for the advertiser and prospective purchasers. The "Solicited Testimonial," judiciously used, has held an important place in modern advertising.

But with the "Unsolicited Testimonial," it would be "a breach of business etiquette" to request permission to publish it, and flagrantly discourteous to reproduce it in an advertisement. Such letters are too personal, too sincere, too near "from the heart" to be made public property. Delighted and happy as the recipient of such letters is, his sense of courtesy directs him in their proper use.

Users of B-F Flavors and Colors have written us many "Unsolicited Testimonials." These cherished letters are in our files now. They are not for "public-print," even though their authors would undoubtedly grant us permission to show them to prospective customers.

Our most significant testimonials of satisfaction are best expressed by our trade's "continued repeat orders."

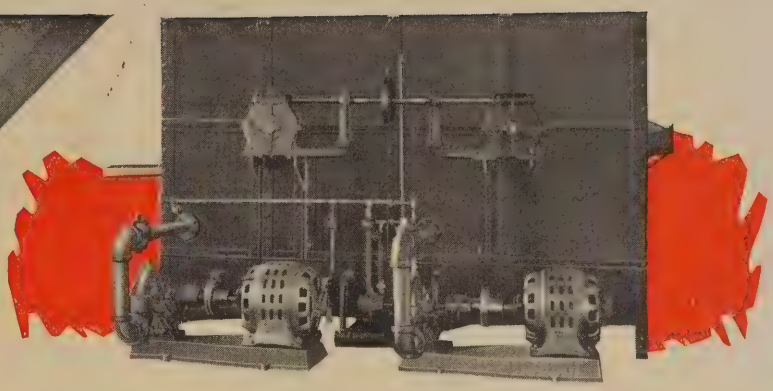
The Boerner-Fry Company

Manufacturers of High Grade Extracts

Iowa City, Iowa



Rice & Adams Ice Cream



Washes, rinses, sterilizes

The washer is a two compartment power driven machine. In the first compartment the cans receive five washings of solution water at 140 degrees and in the second compartment five washings at 190 degrees, followed by one sterilizing jet of fresh boiling water.

Washed and rinsed with water under pressure of 40 to 50 pounds!

NO WONDER the R & A Ice Cream Can Washer thoroughly loosens the dirt in the dirtiest of ice cream cans. The wash and rinse water, under a pump pressure of from 40 to 50 pounds is directed to every part of the can inside and outside from jets placed at various angles.

Not only are the cans washed and rinsed but they are sterilized with fresh boiling water. When the cans emerge from the machine they are clean, "sweet" and sterile—far superior to cans washed by hand.

Washes all size cans, covers and brick molds

Cans from 2 to 5 gallons, covers and brick moulds can all be washed at the same time.

6 to 10 cans per minute

With the machine running at minimum capacity one man can wash 6 cans per minute. At its maximum capacity two men can wash 10.

Speed up your can washing

Install a R & A Ice Cream Can Washer. The washer will pay for itself with the money it saves on your payroll. It will reduce your costs, help you meet present day competition and give you sterile cans that will keep your ice cream sweet and wholesome.

RICE & ADAMS CORPORATION, 166-182 Chandler St., Buffalo, N. Y.

Branch Sales Offices: 150 Nassau St., New York, N. Y., 104 So. Michigan Ave., Chicago, Ill., 52 High St., Malden, Boston, Mass.

Can Washer





Makes Better Chocolate Coated Ice Cream Bars

THE maker of Chocolate Coated Ice Cream Bars without a firm ice cream center is destined to lose a large share of business that is rightfully his.

The use of UCOPCO Gelatine—the highly efficient ice cream stabilizer—in the manufacture of your ice cream not only insures the retention of your present business but adds to the popularity of your brand.

The Chocolate Coated Ice Cream Bar with a firm center is bound to gain favor. Make yours the favorite brand by starting now to stabilize your ice cream with UCOPCO Gelatine.

There's a grade for every purpose. Write us.

The United Chemical & Organic Products Co.

4200 S. Marshfield Ave.
Chicago, Ill.

401 E. 45th Street
New York, N. Y.

"UCOPCO Comes Sealed in Red Drums"

Ucopco Pure Food Gelatine

MILLER CREAMERY CO. REORGANIZE.

The ice cream manufacturing business formerly conducted under the name of the Miller Creamery Co., is to be incorporated. The present business is the outgrowth of the personal efforts of F. E. Miller, who began in the ice cream business in a small way about sixteen years ago, and after changing locations twice to meet increased demands he moved to 2941 Broadway in 1912 and erected the main building of the present location. The volume of business has steadily increased and the past year when the make reached half a million gallons, the old quarters were taxed beyond efficient capacity.

For some time past Mr. Miller has recognized the inadequacy of his plant and the need for a stronger business organization. With this thought in mind it was but natural when outside interests came to Oakland to look the situation over with a view to engaging in the ice cream industry, that they found an attentive listener, and current authentic reports tend to show that a strong organization is being developed.

Incorporation proceedings are in progress and the new name of the business will be "The Miller Ice Cream Company." The following well known and experienced men will be on the directorate: W. E. Keller, Los Angeles; F. E. Miller, Oakland; I. J. Trainor, Sacramento; Walter Martin, San Francisco; A. A. Comey, Los Angeles; C. W. Hightower, Jr., Visalia.

The new organization will in no sense attempt to establish a monopoly in the ice cream industry, but will pursue an equitable policy and manufacture a high grade, uniform product, and adopt a constructive program to build up and stabilize the industry in the city and vicinity of Oakland.

Extensive improvements are in progress and new equipment will be added as rapidly as needed. No pains will be spared to make the plant fully modern and complete in every respect.

Incidental to taking in outside capital, Mr. Miller has disposed of his distributing branch in San Francisco to the Acme Ice Cream Co., which started complete operations in November, 1921. Up to the time of disposing of the San Francisco branch, the ice cream sold there was made in Oakland and transported across the bay on ferry boats, and as this method did not prove to be entirely satisfactory, Mr. Miller decided to sell out his branch business.



ORIGIN OF ICE CREAM IS CLAIMED IN STILL A DIFFERENT STORY.

Ice cream was first mentioned, although not perhaps by that name, by Marco Polo, who visited Japan in the thirteenth century. He brought back tales of water and milk ices which were among the delicacies then known to the people of the east.

In the sixteenth century occurred mention of the delectable compound in connection with Catherina de Medici, who introduced frozen fruit juices from Italy to France, while later her son employed a special chef to invent new kinds of ices, the latter installing a shop to sell ice cream to the aristocracy.

There is an account of a wonderful banquet given by Louis XIV. of France, at which was laid before each guest a gilt cup containing apparently an egg colored to resemble those presented at Easter. But to the surprise of the guests, it was found to be "a delicious sweetmeat, cold and compact as marble."—Pittsburgh (Pa.) Press.

PURITY THE ORIGINAL PAPER CAN



—with the famous "locked crimp" top and bottom construction

FOR USE

1. In conjunction with Automatic Ice Cream Packaging Machines produced by Mojonnier Bros. and other manufacturers of creamery equipment.

2. As a sanitary package filled direct from the freezer.

3. As a "carry-home" sales builder by supplying your dealers with them.

Made in capacities from quarter-pint to half-gallon.

The PURITY PAPER VESSELS COMPANY
BALTIMORE, MD.

INFERIOR TO NONE

A HIGHLY CONCENTRATED VANILLA

Made of Mexican Beans and Fortified

Will Not Freeze or Cook Out.

THE IDEAL FLAVOR FOR CONFECTIONERY OR ICE CREAM

VAN-MUL

3 drams (10 cents) Flavors 100 lbs. Candy ¼-oz. (5c) Flavors a 5½ Gal. mix of Ice Cream.

Can be made into an extract by adding warm water—1 pound makes 2 gallons.

Price—Per Pound

1 pound Bottles	$5.00
5 pound Bottles	4.50
6-5 pound Bottles	4.25
Special Contract Price	Order Now

Guaranteed to please or money back

Downey-Turnquist & Co.

Soda Water Flavors True Extracts

537 No. Dearborn Street Chicago, Ill.

ICE CREAM MIX READY FOR FREEZING IS ON THE MARKET.

Are Your Percentages of Winter Sales up to Standard?

ARE your winter sales of ice cream up to your expectations? What are your expectations? How much ice cream should you expect to sell in January when you sell twenty thousand gallons in July?

Several prominent ice cream manufacturers have supplied us with data on their sales during different months and seasons of the year. Compare these figures with your own. Send us your own figures and comments for publication.

A manufacturer in a northwestern city with a quarter of a million people, writes:

"We have had a condition out here during the war activities that places us where we have to go back some time and base further increases from then on, the competition is greater and we have to meet with long hauls by trucks where they are giving city service. This has cut into the shipping business a lot, for we have not yet arrived at a point where we can figure it profitable or just. However, we submit the following figures for your statistics:

	1916 Pct.	1917 Pct.	1918 Pct.	1919 Pct.	1920 Pct.	1921 Pct.
Jan	1.1	1.0	4.2	4.2	2.8	4.8
Feb.	2.1	1.4	3.7	4.0	3.8	4.6
Mar.	3.0	1.8	3.3	5.8	5.7	6.2
April	6.8	3.2	6.8	8.8	7.3	8.6
May	11.1	8.2	10.7	12.5	10.5	14.6
June	16.9	12.4	16.5	13.4	13.6	14.2
July	19.4	19.0	16.7	17.4	19.1	17.6
Aug.	21.2	19.8	14.6	14.0	16.9	13.2
Sept	10.0	11.4	12.0	10.8	8.0	6.3
Oct.	3.4	9.0	4.7	3.5	4.9	3.8
Nov.	2.6	7.0	3.2	2.9	4.0	3.1
Dec.	2.4	5.8	3.6	2.7	3.9	3.0
	100	100	100	100	100	100
Total output, gallon	44,028	87,622	129,090	160,849	100,761	81,152

"By this you will note we are considerably behind in 1921, which is to be expected, owing to the business conditions and a very cold season."

* * *

We asked the most progressive ice cream company in a large city located in the central states, for their sales figures. They very generously gave the sales percentages for each month during the past six years, and the average prevailing temperature as well, as reprinted below. Note the gradual increase of winter sales:

	Normal Temp.	1915 Sales Pct.	1915 Ave. Temp.	1916 Sales Pct.	1916 Ave. Temp.	1917 Sales Pct.	1917 Ave. Temp.	1918 Sales Pct.	1918 Ave. Temp.	1919 Sales Pct.	1919 Ave. Temp.	1920 Sales Pct.	1920 Ave. Temp.	Pct. of Grand Total
Jan.	24.6	2.76	23	2.86	30	3.72	24	1.99	13	3.70	31	3.48	17	3.12
Feb.	24.5	3.20	30	2.75	22	3.41	20	2.39	24	3.45	29	4.05	23	3.26
Mar.	33.6	3.99	32	3.65	29	5.64	36	4.34	40	4.72	36	5.84	38	4.79
April	45.9	9.31	52	6.65	47	7.21	44	5.26	45	6.20	46	7.34	41	6.78
May	57.7	9.53	53	10.30	58	8.58	51	11.14	62	9.60	57	11.19	56	10.21
June	67.2	13.07	63	12.58	63	13.36	64	14.24	67	16.28	74	15.45	69	14.50
July	72.2	17.48	70	21.96	78	20.66	72	16.70	71	16.17	75	15.10	70	17.55
Aug.	70.2	14.11	66	17.08	75	15.77	70	18.70	75	13.87	70	14.00	69	15.52
Sept.	63.6	12.08	65	9.63	63	9.59	61	8.47	57	10.67	67	10.57	66	10.09
Oct.	52.1	6.16	53	5.41	53	4.31	45	6.85	56	6.90	56	6.40	59	6.17
Nov.	39.1	4.72	42	4.06	40	4.21	38	5.24	42	4.80	39	3.50	39	4.40
Dec.	29.1	3.59	28	3.07	27	3.54	22	4.68	36	3.64	23	3.08	33	3.61
Total	48.2	100.00		48.2	100.00	48.7	100.00	45.6	100.00	49	100.00	50.3	100.00	48.3	100.00

From a city on the Pacific coast, came the following data:

Month	1918 Pct.	1919 Pct.	1920 Pct.	1921 Pct.
January	3.9	5.9	6.4	5.8
February	3.8	5.5	6.0	8.4
March	5.7	7.2	6.2	7.5
April	8.0	8.5	7.4	8.3
May	7.1	9.7	9.9	8.2
June	10.4	10.3	10.8	10.8
July	10.1	10.1	9.5	11.7
August	11.9	10.1	10.3	8.4
September	11.0	11.3	9.6	9.8
October	13.2	9.2	9.7	8.6
November	8.3	7.0	7.7	6.8
December	6.6	5.2	6.5	5.7
	100	100	100	100
Total output, gal.	85,065	105,945	101,581	108,140

* * *

Climatic conditions in the city referred to above and the one from which we received the figures below are identical. There is no apparent reason why the percentage of sales should vary in the two cities from one month to another. But compare the figures:

Month	1918 Pct.	1919 Pct.	1920 Pct.	1921 Pct.
January	3.3	4.3	4.6	4.7
February	3.3	3.8	5.7	4.3
March	5.0	5.4	5.9	5.4
April	7.2	8.2	8.1	8.4
May	8.1	10.7	10.9	8.8
June	12.2	12.3	11.1	13.7
July	12.3	10.9	11.5	13.0
August	12.2	11.3	12.1	10.4
September	10.8	12.5	10.5	11.7
October	13.6	9.5	9.1	9.2
November	6.7	5.9	5.9	5.6
December	5.3	5.2	5.1	4.8
	100	100	100	100
Total output, gal.	152,730	210,424	220,621	301,004

* * *

An easterner reports:

"For the five years commencing November 1, 1916, the percentage of our sales for the first four months compared with that of the following four months were as follows:

1916-1917	30 per cent
1917-1918	29 per cent
1918-1919	35 per cent
1919-1920	33 per cent
1920-1921	38 per cent

* * *

OVER 2000
ICE CREAM
MANUFACTURERS
REGULARLY USE
GUMPERT'S
ICE CREAM
IMPROVER

S. GUMPERT & CO.
Brooklyn, New York

MAKE OLD CANS LOOK LIKE NEW BY RE-TINNING.

From the extreme southwest we learn:

"Replying to your letter in regard to ice cream sales during the year, we wish to submit the following figures:

	Per Cent
January	3.755
February	4.751
March	6.765
April	7.742
May	7.741
June	11.062
July	15.190
August	13.322
September	10.631
October	8.200
November	6.021
December	4.820
Total	100.

and we wonder why so many American people go there to spend the winter. We might infer that the visitors to this winter resort abstain from the great American dessert because it is the season of winter, regardless of the fact that the thermometer may register 90 in the shade.

* * *

The phrase, "It pays to advertise," has been thrown out of the class that carry a question mark behind them and placed with those that are backed up by facts, since a manufacturer with a number of plants throughout the east central states put on an advertising campaign during the winter months, just to see what it would do.

The following table shows the percentage of sales during the winter months:

Per Cent of Year's Total.

	1917-18 Per Cent	1918-19 Per Cent	1919-20 Per Cent	1920-21 Per Cent
October	4	4	8	9
November	2	2	5	6
December	2	2	3	5
January	1	2	3	5
February	2	2	3	5
March	4	4	5	7
Total	15	16	27	37

Does it pay to advertise ice cream? Can the proportion of winter sales be increased? The answer is in the table above. This manufacturer says:

"The increased sales in January and February, 1921, were due principally to a special winter advertising campaign we carried on for experimental purposes.

"We have selected one of our plants this year and will spend the advertising appropriation during the lean winter months, omitting summer advertising, and we hope to have something of interest to report this time next year."

* * *

From a north central city came the following:

"We are pleased to submit the following figures relative to the proportion of ice cream sales during the winter months compared to that of the summer months:

1914	15 per cent
1915	25 per cent
1916	19 per cent
1917	25 per cent
1918	17 per cent
1919	31 per cent
1920	31 per cent

"You will notice the consumption of ice cream for the past two years has increased considerable and we are satisfied that it will continue to increase."

* * *

A Philadelphian boasts:

"In reply to your inquiry of the 3rd instant, we desire to advise you that our winter sales are approximately 30 per cent.

"We believe that the winter consumption of ice cream in Philadelphia is considerably larger than any other community in the country. This is chiefly due to the fact that the people of our city have been educated to look upon ice cream as a food rather than a luxury. Advertising has played a conspicuous part in this educational work. While, at the present time, we are unable to quote exact figures, we are quite certain that the per capita consumption in Philadelphia is very much above that of any other city."

* * *

The three reports below are from the south:

"Replying to your letter of December 3rd, regarding the percentage of our winter sales as compared against that of our summer, might say that they will run about 33⅓ per cent. In other words, we sell about three times as much ice cream during the summer months as we do during the winter months."

* * *

"Our fiscal year is from October 1st to September 30th, and all our figures are on such years.

"We have taken the months November, December, January, February and March to be winter months. March is really an early spring month, but very often is as cold and bad as any month that we have. We therefore never figure much on March as an ice cream month.

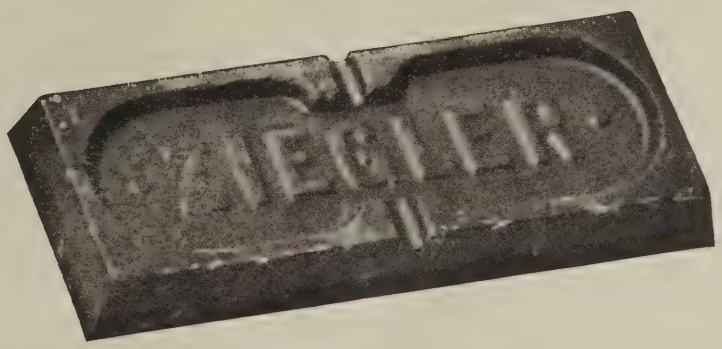
"Figuring on that basis, our winter gallonage for the year, October 1, 1916, to September 30, 1917, was 15.9 per cent of our total gallonage. For 1917-1918, was 14.5 per cent. For 1918-1919, was 18.3 per cent. For 1919-1920, was 16.7 per cent, and for the last year, 1920-1921, was 24 per cent.

"With the weather the same during the entire period we feel sure that it would have shown a steady increase

A REPORT FROM THE MISSISSIPPI VALLEY.

	1915 Sales Per Cent	1916 Sales Per Cent	1917 Sales Per Cent	1918 Sales Per Cent	1919 Sales Per Cent	1920 Sales Per Cent	Per Cent of Grand Total
January	2.02	1.70	2.45	1.95	2.68	3.21	2.49
February	1.83	1.77	2.32	2.37	2.61	3.39	2.59
March	3.27	3.01	3.93	4.60	3.68	5.49	4.21
April	9.69	5.79	4.98	6.01	7.46	6.74	6.69
May	10.65	9.36	11.53	10.19	10.50	11.68	10.76
June	19.59	18.20	16.95	17.70	13.43	15.37	16.23
July	18.26	27.43	22.48	19.53	20.60	18.22	20.66
August	18.79	18.68	17.62	20.59	16.93	15.80	17.71
September	7.19	5.12	8.12	6.62	10.55	9.27	8.29
October	3.70	3.36	3.17	3.84	4.42	4.73	4.05
November	2.79	2.74	3.84	3.94	3.76	3.00	3.40
December	2.22	2.84	2.61	2.66	3.38	3.10	2.92
	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Eskimo Coating—



No additional Coco Butter or Liquor Required.

Zieglers



CHOCOLATE MANUFACTURERS

GEO. ZIEGLER CO.

364-366-368-370-372-374-376-378-380-382-384
FLORIDA STREET

MILWAUKEE, WISCONSIN
SINCE 1861

each year. We are working harder each year to increase our winter gallonage and we believe that we will be able to show a better percentage than 24 per cent for this year."

* * *

"Considering October, November, December, January, February and March as winter months and the rest as summer, we can submit the following information, based on gallons actually delivered. In 1918 we sold 147 per cent more in summer than in winter; in 1919, 126 per cent more; 1920, 196 per cent more. For the first three months of 1921 we sold 36 per cent more than the same corresponding period for 1920, but show a decrease of 27 per cent for the six summer months of 1921, as compared with the same period in 1920.

"We could easily consider October a summer month, for the sales compare favorably with other summer months, however, in submitting these figures we have considered October as a winter month as we imagine most plants do likewise."

* * *

Sales during 1921 in Philadelphia:

Month	Ratio
January	4.0 per cent
February	3.8 per cent
March	6.6 per cent
April	7.9 per cent
May	10.1 per cent
June	14.4 per cent
July	16.2 per cent
August	11.9 per cent
September	11.6 per cent
October	5.8 per cent
November	4.3 per cent
December	3.4 per cent
	100.0

* * *

Ice cream manufacturers everywhere are requested to send us their reports for publication, name withheld if desired. If your winter sales are anywhere near, or over 37 per cent of your year's total, tell us how you did it.



LOWER PRICES.

The fifth reduction in the price of Blackmer pumps and units has just been made, according to an announcement by the Blackmer Rotary Pump Co., of Petoskey, Mich. The factory is now operating six days per week.

IN MEMORIAM.

It is with sincerest regret that I am obliged to chronicle the death of Albert J. Rice with whom I was associated in business over twenty-five years.

Mr. Rice was born in Sodus, N. Y., in May, 1847, and died there January, 22nd, 1922.



A. J. RICE.

He was educated in Sodus Academy and Cornell University. His brilliant mentality and fertile brain seemed to have a natural trend toward mathematics and invention. Many useful articles were invented and patented by him, some of which worthy of mention are: The Rice Fruit Evaporator and the Rice Apple Parer.

In later years when he became interested in the manufacture of Dairy Machinery for the economical handling of market milk, he invented the In-The-Bottle-Pasteurizer, but his greatest achievement was the invention of the Pressure Bottle Washer.

This Pressure Bottle Washer completely revolutionized the method of handling bottled market milk, and made it possible to wash and sterilize milk bottles in large quantities with great speed. It is not unusual to handle two hundred thousand bottles daily at one plant. Thousands of these machines are in use in this and other countries, which are a lasting monument to his memory.

RICE & ADAMS CORPORATION,
By C. S. Adams, President.



If you want a Manager, Superintendent, Expert, Chemist, Bacteriologist, Operator, Pasteurizer man or help of any kind, "**The Ice Cream Review**" can help you find the best available man. If you want a position, "**The Ice Cream Review**" can help you as it has helped hundreds of others to secure a good position.

LIST OF

Ice Tools

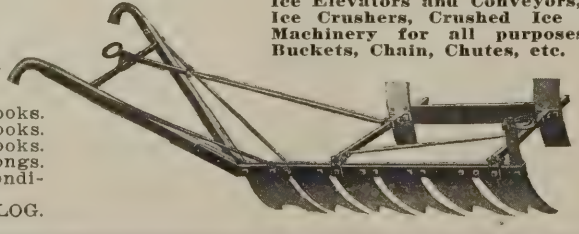
Suitable for Harvesting 500 Tons of Ice

1 No. 315 8-in. Ice King Plow.
1 No. 412 Plow Rope.
1 No. 422 5-ft. Ice Saw.
2 No. 444 Splitting Forks.
1 No. 457 Calking Bar.
1 No. 458 Bar Chisel.
1 No. 470 Floor Shaver.
1 No. 476 Ring Splitting Chisel.
1 No. 500 Line Marker.
1 No. 505 Scoop Net.
1/4 doz. No. 520 4½ ft. Ice Hooks.
1/12 doz. No. 520 6-ft. Ice Hooks.
1/12 doz. No. 520 12-ft. Ice Hooks.
1/12 doz. No. 540 24-in. Boston Tongs.
This list may be added to if conditions demand.
SEND FOR COMPLETE CATALOG.

Ice Tools Suitable for Harvesting 500 Tons of Ice

The Ice Cream, Soda Fountain and Confectionery Trade appreciate the value of a good cold storage and plenty of Ice during the summer. The set of tools suggested here are suitable for harvesting 100 to 500 tons of Ice.—Everyone gathering Ice can afford his own outfit.
Place your order early.

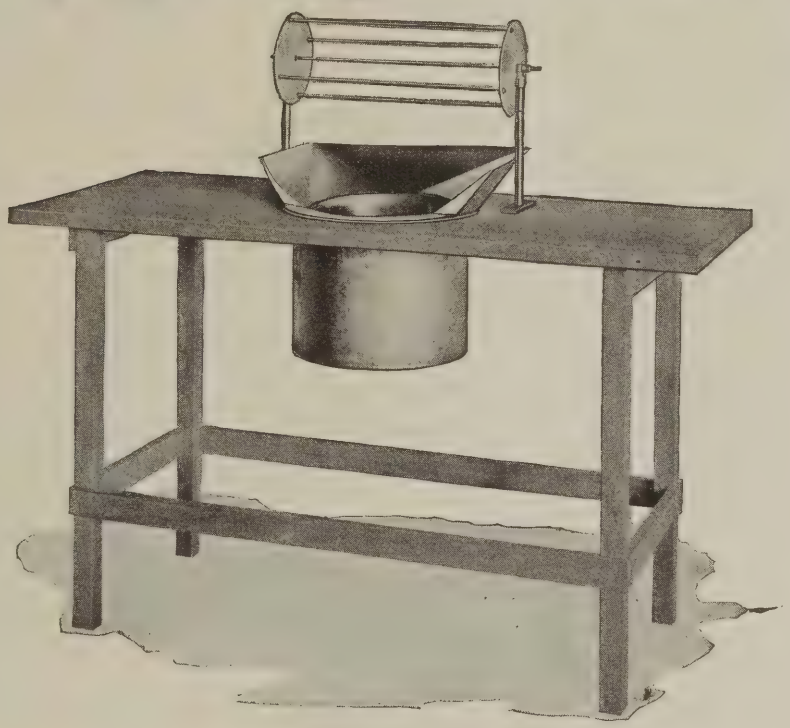
WE MANUFACTURE
Ice Elevators and Conveyors, Ice Tools, Hoists, Ice Crushers, Crushed Ice Carts, Conveying, Machinery for all purposes, Wagon Leaders, Buckets, Chain, Chutes, etc.



Gifford-Wood Co.

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ESKIMO PIE Dipping Outfits



Patents Pending

Special Heated Apron Catches All Drip

NO CHOCOLATE WASTED

Pans can be Heated by Steam, Hot Water, or Electricity.
Dipping Pans are Seamless, Round Containers; Sanitary and easy to clean.

Special Reel Saves Space

Reels can be furnished to fit your present outfit.

Price—Outfit Complete as shown (less table), including 100 hooks, $25.00.
Price—Extra Reels, $5.00. Price—Extra Hooks, per 100, $2.00.

We Carry in Stock Standard Eight Quart Single Cover Slab Bricks.

Keiner Williams Stamping Co.

Manufacturers of Milk Cans, Ice Cream Cans and Soda Water Tanks

8746-8782 123rd STREET RICHMOND HILL, N. Y.

Illinois Association of Ice Cream Manufacturers

Proceedings of the Twenty-second Annual Convention held in the Sherman Hotel, Chicago, December, 6-7, 1921

(Continued from February Issue)

Mr. Roszell: Mr. President, ladies and gentlemen, this question of proper depreciation is one that is a pretty big mouthful. The word depreciation is a big mouthful. It rolls out of your mouth nicely. We are inclined to talk about it and not know a lot about it. It seems to me it is like Kinky Rastus down in Oklahoma. He rode in on a prosperous oil wave and made himself a lot of dough in a hurry. Now Rastus had an obsession for a wrist watch and he went out and got one for $500, the finest he could buy. Rastus put this wrist watch on his arm and he was swaggering up the main street with it just as proud as he could be, and the watch shining like the sun. He met Moze on the street. Moze looked at the wrist watch and he said, "Ras, what time am she?" Rastus immediately saw his prestige slipping, because he had no more idea how to tell time than a rabbit, but he thought he'd try to bluff it through, and so he threw his wrist out toward Moze and said, "Dere she am!" Moze came right back with, "I'll say she am." Now that is the situation a lot of times; we are inclined a lot of us too many times to talk about depreciation and not dig into actually what the stuff means to us.

Proper Depreciation for Ice Cream Equipment.

This subject covers one of the most vital phases in the ice cream business, and yet one which in a great many cases is not given the thought and consideration commesurate with its relative importance to new profits.

The average ice cream manufacturer is extremely careful in figuring his cost of materials, labor and what we might term outstanding cost items, but too often, almost entirely overlooks the hidden items of expense. The most insidious of these items, and one that works twenty-four hours a day—day in and day out—regardless of whether business is good or bad, is DEPRECIATION.

The principles of DEPRECIATION and properly commuting it and setting up a reserve depreciation account, is for but one purpose—no matter whether the business is that of manufacturing railroad locomotives or ice cream. It is for the purpose of securing a correct wear and tear cost on operating machinery and equipment so that when a certain unit of machinery or equipprovision made to buy the new unit from a fund that has accumulated for that purpose and not have to take money out of the profit account to pay the bill.

DEPRECIATION, as applied to the ice cream business is extremely deceptive, because the peculiar nature of the business and the materials used, and the necessary unusual construction of the type of machinery used, all combine to create a depreciation condition not ordinary to any other business.

For a moment, let us just consider the equipment of an ice cream manufacturer, that is subject to the ravages of salt brine and calcium. If this equipment were continually in use the effect of these chemicals would not be so disasterous as it is when the equipment is largely idle during the dull season. This one point is merely mentioned as one of the out of the ordinary conditions peculiar to the ice cream business.

To get down to brass tacks on this depreciation of equipment in an ice cream plant, let us assume that we are discussing the average one hundred thousand gallon ice cream business in which the investment in equipment is somewhat as follows:

Building	$35,000.00
Refrigerating and ice machinery	7,500.00
Ice cream machinery	5,000.00
Tubs, cans and cabinets	5,000.00
Delivery equipment	5,000.00

As a total of these figures, we have depreciable items of $57,500.00.

The question that is often asked is what is a fair depreciation on ice cream equipment.

This question is answered in many ways and is a debatbale one, and has been determined by many manufacturers by keeping close tab on actual experience. Any manufacturer who has watched depreciation properly for a period of years can correctly answer the question.

The figures here submitted are taken from a concern who have a depreciation experience record covering a term of ten years, and the actual replacements on items of equipment have proven these estimates to be correct within a very small percentage. The table followed in commuting depreciation by this concern is as follows:

	Per cent
Buildings	7
Trucks and delivery equipment	33⅓
Ice cream machinery	12½
Ice cream tubs, cans and cabinets	20
Refrigerating and ice machinery	15

This rate of refrigerating and ice machinery figures 12½ per cent on the actual machinery, piping, etc., and 25 per cent on ice cans.

Taking this basis of figuring depreciation, let us

DON'T RE-TIN

until you have seen our work. We are specialists in retining. Ship us a few cans at our expense and be convinced what real tinning is.

LIMITED—ONE WAY FREIGHT ALLOWED ON THREE HUNDRED CANS OR MORE.

CEDAR RAPIDS TINNING AND GALVANIZING CO.

CEDAR RAPIDS IOWA

PURE — HIGH GRADE

GELATINE

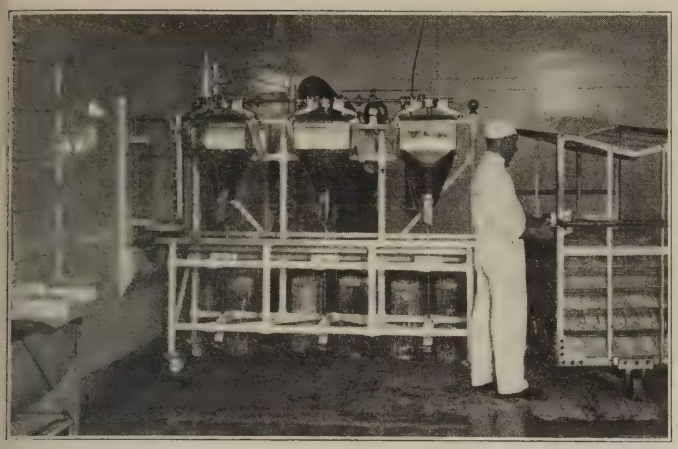
AND

Quick Action Ice Cream Powder
Special Double Strength Ice Cream Powder
Pure Powdered Gum
Ripener Powder

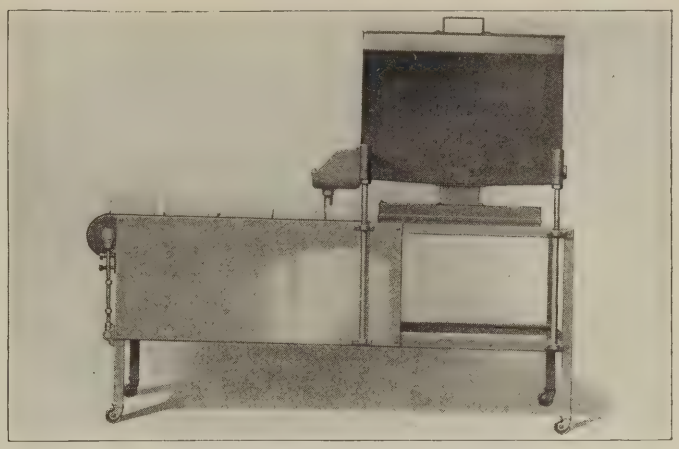
QUALITY — UNIFORMITY — SERVICE

St. Louis Gelatine Company

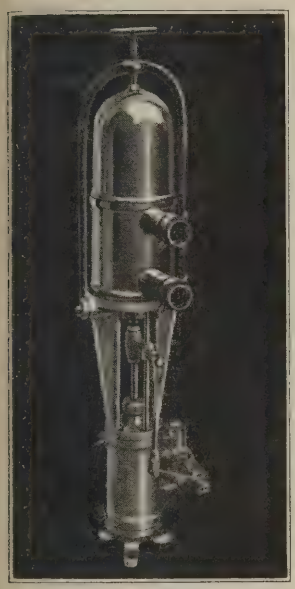
St. Louis Missouri



Myers & Burt Slab Filler.



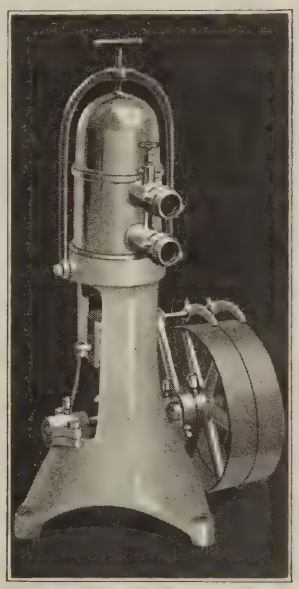
Valerius Brick Carton Filler.



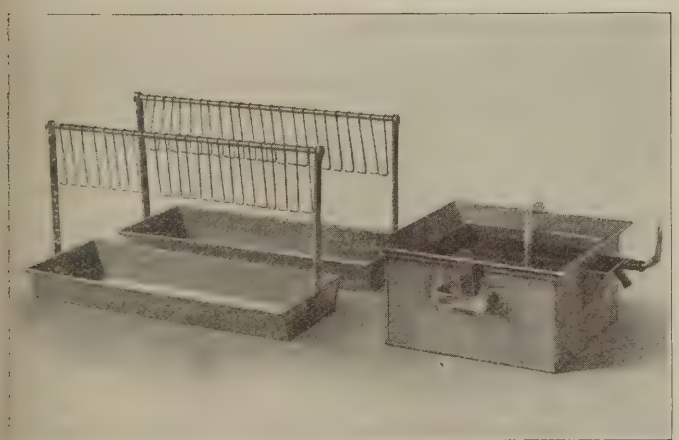
Progress
Milk Pump

DAIRY EQUIPMENT
DAVIS-WATKINS
DAIRYMEN'S MFG. CO.

Makers of the Famous Dairymen's Cans.



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Milk Pump



Eskimo Pie Making Outfit.



Myers & Burt Tub Icer.

Send for Davis-Watkins Catalog No. 6.

Davis-Watkins Dairymen's Mfg. Co.

JERSEY CITY, N. J. CHICAGO, ILL. KANSAS CITY, MO. DENVER, COLO. SAN FRANCISCO, CALIF. SEATTLE, WASH.

A DEPENDABLE CAN WASHER WILL KEEP WORKMEN CONTENTED.

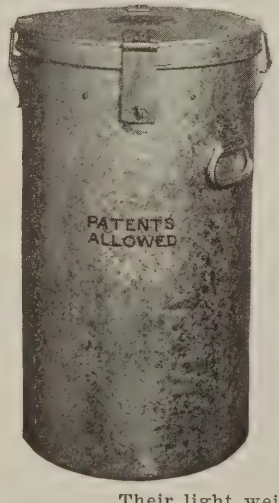
now see what we have in the way of an expense item chargeable to the production cost of our ice cream.

	Value	Per Cent	
Buildings	$35,000	7	$2,450
Refrigerating and ice mach...	7,500	15	1,125
Ice cream machinery	5,000	12½	625
Ice cream tubs, cans and cab.	5,000	20	1,000
Trucks and delivery equip...	5,000	33⅓	1,665
Total			$6,865
Total			

Possibly it may occur to some of you that the figures of 7 per cent on buildings is unreasonably high, but you must bear in mind that the construction of this building is for one specific purpose—the manufacture of ice cream. Here we have another situation quite peculiar to the ice cream business, in that while this building might not be entirely ready for replacement at the end of approximately 15 years, yet, what would it bring for any other purpose? Any of you who have attempted to cash in buildings constructed especially for the ice cream business will realize that 7 per cent per annum depreciation will not absorb the loss you were obliged to accept then disposing of the building for any other purpose. An ice cream building is not like a building erected for light or dry factory purposes or for store purposes, and there is, therefore, a big item of depreciation that must be considered when converting an ice cream building to any other purpose.

Now that we are willing to assume that these figures are substantially correct,, let us see where this generally overlooked item of expense gets us on our cost books.

We had a total annual depreciation of $6,865.00 which figured against our annual production of 100,000 —gives us a cost of nearly 7 cents per gallon.



Saves 10c a Gallon

That is the saving a shipper just reports who uses the

D-C IceLess Express Container

Well hardened ice cream will keep in perfect condition in these containers for 12 hours. We guarantee that, and on the basis of the most trying conditions. In a fairly cool place, 24 hours without ice and still in perfect condition, is nothing extraordinary for ice cream in the D-C Icless Express Container.

What Would it Save for You?

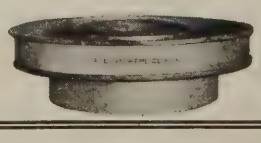
Their light weight gains a remarkable reduction in express charges. Saves ice, salt, tubs and the labor of packing.

D-C Refrigerating Cover { Converts D-C Shipping container into a cabinet. A practical, inexpensive device that serves a good many opportunities for savings and extending business.

Let us send you prices on these containers. We will also show you some practical way in which they help to develop business.

Decy IceLess Express Container Co., Inc.





THE ASSOCIATION OF ICE CREAM SUPPLY MEN MEMBER

TIMES BUILDING
Room 1001
NEW YORK, N. Y.

With this assumed situation which may vary when compared with actual situations in the case of you gentlemen, and making suitable allowances to fit individual cases, you cannot but see that this item of depreciation is one of tremendous importance in your cost figures. Comparatively speaking—it means more than the cost of your sugar—nearly as much as your entire payroll. It is with you 365 days a year and with the present price lowering tendency coupled with lower gallonage and therefore increased costs, it will in 1922 amount to more than the average profit in the ice cream business; and unless it is taken into consideration, may mean a difference between a profitable and an unprofitable year's operation.

By all means, if you are not already doing so, complete immediately a careful classified inventory of your depreciable equipment and charge off each month into a reserve account an amount adequate to cover the day in and day out shrinkage in your equipment values.

Just remember that it is an extremely comfortable feeling when you need new ice cans and new freezer, new tubs, cans, cabinets or a new truck, to realize that the necessary outlay for this new equipment has been covered in your cost figures and that the purchase is not going to disturb your profit account.

Now it seems to me in the discussion we were having about the small ice machine, that that hits this thing right here. If you are going to load your trucks with tons of ice and salt, the brine runs down all over them; you do the same thing with your cans; if you can find a dry storage in the cabinet for your cans the saving in depreciation on the cans and on the drivers jamming the cabinet to pieces will cut the depreciation on the cabinet down to half. That would be a saving that would almost equal your saving on the ice and the salt.

Now those figures are just gotten together for the purpose of comparison.

Mr. Shedd: Mr. Roszell, on the matter of buildings I had occasion recently to fight that out a little bit with the income tax,—I don't know what you call him, but he came and looked over our books for the last four or five years and sort of told us where we cheated the government a little bit.

He wouldn't allow us that heavy depreciation on the buildings. Our buildings are constructed of concrete foundations and good brick walls, but the inside is what they call mill work, and we wanted to allow 7½ per cent depreciation on the building, and he wouldn't allow us but 3 per cent.

Mr. Roszell: He may get us, but I am going to suggest that you move down to Peoria. So far we have been getting away with 7 per cent depreciation. We have been investigated several times. It has been necessary to take the inspectors down and show them how the salt water is eating the building floors out and eating the I-beams out, but whether the government allows that depreciation or not on an ice cream plant, if they don't allow it, it is due to the fact that they don't understand the situation. Take any ice cream plant and go to convert it into anything else, and the difference in the cost of the cost of that diversion would more than run it up to the 7 per cent figure. Where the fellow goes to work and makes an investment in an ice cream plant he has an ice cream plant and nothing else; he cannot change it over to anything else without a large cost. It is something that we should consider, I think, when we are thinking of refrigeration and depreciation.

Mr. Cunningham: I never looked at the ice cream plant from just that particular viewpoint before, Mr. Roszell, but it is a good point, the changing of the plant, that is a depreciation there all right; the ice cream plant is a specific building, built for that pur-



The New Ice Cream Sensation

Everybody wants it—Everybody buys it—Chocolate covered Ice Cream. The finest and best results may be obtained by using the following:

KLONDIKE STAR CHOCOLATE KLONDIKE CHOCOLATE
ICE-KREME KOTE CHOCOLATE
ESKIMO COVERING POLAR DIP COVERING

These WILBUR products are manufactured especially for covering Ice Cream. Tested to insure easy dipping. No waxy after-taste. May be used either for machine or hand dipping. Bright in luster.

Made in the same careful way as the celebrated Wilbur Quality Coatings and Liquors.

Send for samples

H. O. WILBUR & SONS, INC., *Philadelphia, Pa.*

pose, I know mine is and I want to thank Mr. Roszell at the same time for the warning that he sounded to the manufacturers sitting here to be careful about the depreciation account.

Mrs. Babcock: The druggists that are going in in Minneapolis are going to have no depreciation, and they are going to refund the druggists 50 cents a gallon next fall.

Chairman Courtright: They are forming a company of their own?

Mrs. Babcock: To manufacture ice cream, yes. They are going to sell at less than a dollar a gallon and refund the druggists 50 cents.

Chairman Courtright: Seems to me that an ice cream convention with Col. Munn, the president of the National Dairy Council, is not complete unless we have a few words from him. I see he is with us and I would like to hear from Col. Munn, president of the National Dairy Council. (Applause).

Col. Munn: Mr. Chairman I am mighty glad to be in this convention and stand side by side with the ice cream men. The National Dairy Council is glad to do it. We are glad to talk about the product you are producing as a food, and we are going to continue to do it.

I see a great evolution going on in this industry; I see it going on, because men are getting this industry; I see it going on, because men are getting so they understand better the business you are engaged in; you are understanding better what it means, and you are building faster than I would have supposed it possible to build, considering the short time you had to build this great branch of the dairy industry. We cannot do these things in a minute; it takes time for evolution of the right kind. When you realize that this industry has practically grown to the point it occupies today in the last ten years you can realize what I mean by that, because ten years ago the industry was nothing compared to what it is today. I can remember when it was a race to see whether I could get the ice cream in my stomach before it melted or I had to drink it as a liquid. You are putting out a product today that has more food value in it, because it is made better, and enables a man to eat it in company.

There are two or three things that I think you should be doing that you are not doing. Gentlemen, you have to begin to talk your product as a food, because that is what it is, a vital, human food, a basic food, and you have to begin to talk it as such.

I listened to this gentleman, and I supposed he was for the soda fountain men,—I assume there are some in the room. I thought to myself, what an opportunity there is for the dispenser of this in the drug store, the soda fountain or in the restaurant to build this industry. Why, you go by and you see a beautiful painted maiden, either drawing up visions of a harem or heaven, whichever way a man's mind happens to run, labeled Cocoa Cola. Why don't you talk in the drug stores about ice cream as a food? Why don't you have something there to say "If you are tired, ice cream will restore your vigor." "If your vitality is reduced, ice cream will restore your vigor." You have the facts for it, plenty of them. I used an illustration, I think, in Minneapolis about how the ice cream industry stands today, and I want to call it to your attention again—I assume some of you weren't there. I had the government figures a short time ago on the amount of ice cream made in 1920, —260,000,000. They are too low. Of course there was a good deal of ice cream made that the government never heard about. We will assume it is 300,000,000 gallons, which is somewhat nearer right, and I presume still too low. Ice cream, machine run, weighs about five pounds to the gallon; batch run weighs nearer six pounds to the gallon. Taking it midway on that, and assuming there were 300,000,000 gallons of ice cream manufactured and sold in 1920, reducing it back to pounds and quarts, it means there were about eleven quarts of ice cream per capita consumed in 1920. Now one quart of ice cream will make six raifly good sized dishes of ice cream, just medium sized dishes, or, in other words, we ate in 1920 sixty-six dishes per capita of ice cream, one dish of ice cream a day per capita for sixty-six days out of three hundred sixty-five. We should have been eating three, four or five times that much for our own good.

Does that give you any idea of what the possibilities of your business are? Can't you see what an opportunity there is to build if you will get the mother and the father and the guardian of the children thinking about ice cream as a food? You don't have to appeal to the child on the ground of a delicacy any more. Find me a child who doesn't know that ice cream tastes good and I will say you have discovered almost a miracle. You don't have to talk about that side of it. But get the person in charge of that child to understand that every time he gives that child a dish of ice cream he is building that child up. Talk about this as a food. Don't talk about it as a delicacy, but as a food. We all know it is delicious, but few of us know it is a food.

Now I want to say this to you. I know that most men who are engaged in the ice cream industry are trying to put out as good a product as they know how. I won't say it is impossible to improve on this; we know improvements can be made, but I am not one who believes that the ice cream industry, as such, or those who are engaged in it, are dishonest. They are low in morality—I don't believe that. I know that the contrary is true, and I am here to tell you that. But I do want

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830 Clinton Street, - MILWAUKEE, WIS.



Horizontal Refrigerating Machine.

Ice Making and Refrigerating Machinery.

Corliss and Poppet Valve Engines.

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The BANTAM—a C-T truck for light delivery and parcel or messenger service. Less expensive to operate than a motorcycle, fast, easy to operate, reliable and long-lived. The smallest of the C-T line which includes trucks of all capacities up to 5-ton, and 10- and 15-ton tractors.

Trucks, however good, require service

THESE two garages are typical of a number of others placed at central points to furnish service to C-T users, promptly and economically.

If a part breaks, there is another at a nearby C-T service station, and a man to put it in if you want him.

The user does not have to go to other manufacturers for anything. C-T trucks are made throughout in the C-T factory. The C-T service station carries a complete stock.

C-T users do not need service often. Note the simplicity of the BANTAM—steering gear, controller on the steering column, and two compact motor wheel units make up the entire mechanism of the truck.

There are very few parts to wear out or break. But when parts are needed, any of these well-equipped service garages can supply and install them without delay.

ELECTRIC

Commercial Truck Company

PHILADELPHIA

BRANCHES IN NEW YORK, CHICAGO AND ATLANTA

Representatives in other principal cities

to see you men put this where it belongs in the great category of human food. I want to see you men build your business, because in doing so you are helping yourselves, but above that you are helping humanity, you are helping build healthy boys and girls, and therefore helping to build a more stable and secure nation of tomorrow. (Applause).

Mr. Knobbe: Mr. Chairman and Gentlemen, I not only didn't know I was on the program, but I refused to serve on the program, but they put me on anyway.

I have been listening very attentively this afternoon, and we have had a very nice program, very interesting. I did begin to think there that the ice cream man was just about right and reached perfection, gave service, and that was all our trouble, just giving service, to be courteous, be right there on the job every minute. It is a very fine paper, but I want to say that in the city of Chicago we have pretty nearly overdid the service. We are giving them such service that we are there at their door before they get their breakfast, and we are giving them some service with the refrigeration and the soda fountains, so much so that when you come in now they look at you and say, "Well, what are you going to do for us? What is your proposition? How much are you going to pay on the soda fountain?" And I hope that is service. (Laughter.) It is running this town all the way from two hundred to a thousand dollars, and I guess we have pretty much been in the same condition as other lines of industry, we thought we were going to escape the slump, but we didn't, and we have woke up now, where we have about four trucks where one would give mighty good service. That is the condition this town is in, and I think the ice cream man of the city of Chicago that I am speaking about now—because that is very dear to me—I don't care much about Peoria, I think they can handle Peoria pretty well—but we have a great problem on our hands. They tell us "boom the product." That is all right, but she was boomed pretty heavy, and there is a happy condition in business whereby you must also have a little demand. You cannot create it all, it is impossible to do that.

Now when a class of men think that they can turn around and take an article, I don't care if it is an article as good as ice cream, and crowd it and over-supply the demand, they are mistaken, and the city of Chicago today has got more buildings and more freezers and more trucks than the industry warrants, and you have to do a lot of hard thinking over it.

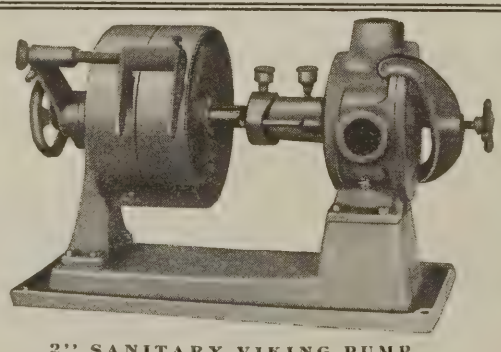
There has been money thrown into the ice cream business promiscuously. I don't know whether it was the fault of the fellows originally in the business, but I will take it we were going through a war period where there were pretty good margins made in all lines of industry, and the man making money in one industry would say "What is good to get into?" and he would kick over into this, and the men up here know very well that the demand for ice cream in Chicago is pretty well taken care of. We went fine up until the first day of August, and then the weather changed a trifle and I lay it a good deal to the people becoming more cautious about spending their money, their earning power dropped, and they can get along without ice cream; while it is a wonderful food, we will admit that, but they can get along without it, and they are beginning to economize, and the sales have dropped, and I don't believe that a little advertising is going to make all the freezers and all the trucks busy.

And you have something to think about. You have to watch your step. Yesterday I met a gentleman from Iowa. He dropped in town here and he came down to see me, and he said, "What is the trouble with the ice cream industry?" "Why," I said, "there isn't anything the matter just now, it is very quiet." He said, "I just came down Randolph Street and counted six big five ton auto trucks on one street, ice cream trucks, on Randolph Street, right here in the loop." Now, gentlemen, I hope that is service. That is the condition we are up against.

As far as refrigeration and those things are concerned, I think they are coming along very nicely, and I hope these men that work in the soda fountain game will build a better box and I hope the little refrigeration machine will get down where we can use it, and without a doubt it will, and we will accept it very readily, because I believe it is a good way of handling the goods, it is a saving. But there is some thing the matter with the overhead. When overhead runs more than the material in the pot there is something the matter and that is what it is doing in this city today. That is the problem, the overhead is running greater than the material. Think it over. That is the condition we are facing. Sugar, cream, milk and everything going in there costs so much; then figure your total overhead, with your large buildings and large equipment and the method of making and the method of delivering—that is what is staggering the ice cream man.

Now what is right up in front of them all is, "I haven't gallons enough for my plant; I haven't gallons enough for my institution." That is the one problem facing the ice cream man. Shall he go out and crowd? Try to fill those trucks? What are you going to do with the other fellow's trucks? What are you going to do with his plant? Today the ice cream man is in a very nervous state. He is running from one city to another. It has been amusing the last four weeks to see them chase up and down this country—"There is something the matter." That is what is crowding, too much

For CREAM



For BRINE

2" SANITARY VIKING PUMP
THE UNIVERSAL PUMP
For Milk, Brine, Water or Foods
VIKING PUMP COMPANY, Cedar Falls, Ia.

Planning The New Factory

If you contemplate the erection of a new factory or an extension to your present one, it will be to your advantage to investigate our service.

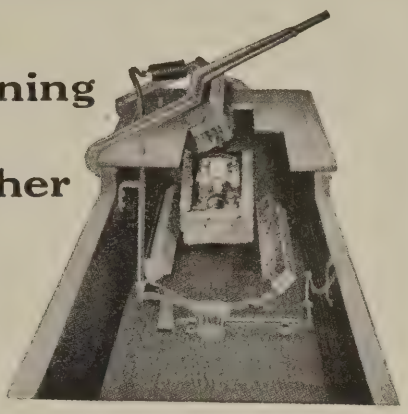
We lay out a factory on the basis of what, how and how much it will produce, and then design the building and the proper arrangement of modern labor saving devices for the greatest production efficiency.

Our experience assures you a serviceable building, economically constructed and attractive as an advertising asset.

You assume no obligation in discussing your problems with us.

HATTON HOLMES & ANTHONY
Engineers and Architects
Masonic Temple Cedar Rapids, Iowa

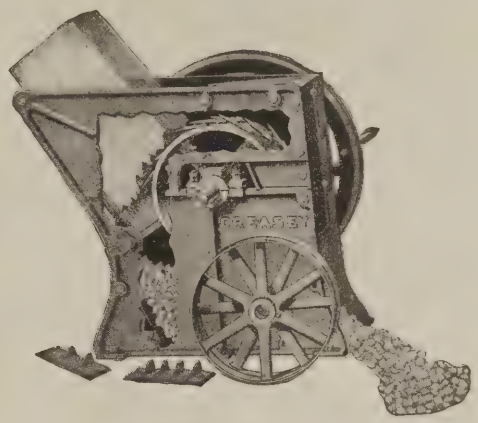
Manning Can Washer



More thorough, more dependable and more economical than hand washing—gives you greater friction that cuts loose every particle of film and grease.

Turns a mean, sloppy job into a pleasant task, keeps workmen contented, and makes it easier to hire more good men.

The brushes reach every curve and corner of the cans, inside and out. Brushes can be removed separately as they become worn—no necessity for buying a complete set of brushes when one wears out.



Creasey Ice Crusher

This is the favorite "Old Ironsides" which has been grinding through tons of ice year after year for a host of satisfied users.

We carry Creasey Crushers in carload lots, in Chicago—a saving to you of time and freight.

This is a sturdy machine, built over-size throughout to stand up under the hardest service. Every ice creamplant needs it.

BARBER

AS the ice cream season draws near you will find that you must have certain equipment or supplies—in a hurry. Remember that we carry in stock everything from parchment to heavy duty freezers, ready for immediate shipment—in line with our policy to serve the trade well at all times, and *when they need it most.* You can save freight on most items by buying in Chicago—from Barber.

A.H. BARBER CREAMERY SUPPLY CO.

Home office: 300 W. Austin Ave., *Chicago*

TWIN CITY OFFICE: 2490 UNIVERSITY AVE., ST. PAUL



Rogers Brick Maker

A machine that is really marvelous in its speed, accuracy and labor saving possibilities. Turns out three color bricks at the rate of 4 gallons per minute, REGARDLESS OF WHETHER IT IS OPERATING ON QUARTS, PINTS OR INDIVIDUALS.

Fills directly into tasteless, odorless, well-paraffined bleached sulphite cartons.

Let us give you more information about this splendid machine.

WASH AND RETURN EMPTIES PROMPTLY

M&B Ice Cream

T. M. McCOLGAN & SONS

Factory 301-303-305 N. Water St.

SAGINAW, MICH.

Pure Vegetable Parchment

We can ship immediately any standard size of vegetable parchment paper circles for ice cream cans, or parchment squares for wrapping ice cream bricks or individual pieces. Printed in one color or two colors. A special design or cut, when desired, is furnished at cost. Write for price list.

equipment for the demand, and I am going to tell you gentlemen I don't believe it is a good thing to crowd any industry too hard. There comes a breaking point where the supply is overdone, the demand isn't there. We went through it in the milk business and we have reached it in the condensed milk business, if you please. There have been a great many condensing plants had to shut down in the last week because they couldn't move condensed milk without a loss. They say, "Who is going to close?" They are all alike. Every man has a right and a chance to do business. I met some condensing men about a week ago and they said, "You haven't any business to make evaporated milk,"—because I was in the ice cream industry—and I was in the milk business a long while before he was. I finally informed him that I understood he was connected with the packers, and I believed the packers would better stick to the meat business. That is the condition that we have gotten into and the ice cream man has reached that point also. We are just sitting here studying the proposition—which way will it go? Some fellow will lead out and he says, "I am going to crowd." Then we will call it the survival of the fittest. You cannot rush into an industry the way they have in this industry, because the population has sagged back on their buying, and you couldn't blame them—they need the money, they are not going to buy something that they don't need; they are not going to give the children a half dollar for a brick of ice cream because we have put five thousand dollar motor trucks to take around that ice cream, and because we have built buildings for two or three hundred thousand dollars that we know now could have been built a little smaller. but the game looked so good they rushed at it, and what one man did the other had to do, and then the other fellow came along and met him and said, "I am right up with you again," and then the other fellow went out and raised the ante again, and so it went. Now they are all sitting and looking at each other and wondering, and I don't believe there is a manufacturer in this town that is going to lay down and say "All right, there is hardly enough for all of us, you take it," and walk away.

Talk about nervousness. Why even the idea of the Eskimo Pie got them all panicky. (Laughter.) Why you have been throwing a fit for ten days. (Laughter.) Ice cream put up in a little chocolate covering, a new method of marketing ice cream. The ice cream man says, "It is a confection, I don't know as I want to take hold of it," "but," he says, "I must, because my competitor will." He wasn't particularly interested that his competitor might make some money out of the candy, but he was afraid he would go out and take his customers. There you are. When they began to abandon the horse-drawn vehicles and put on a beautiful motor truck, the other manufacturer said, "I don't believe I can deliver as cheap with a motor truck as I can with a horse, but say, I have to do it to keep pace, my customers might think I was a back number if I didn't."

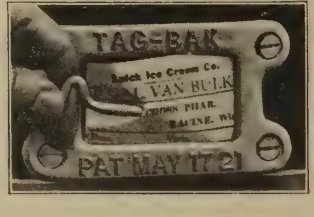
Now those are the things that are the most interesting to the ice cream men of this city. I know that because I meet them occasionally and I hear their talk, and they are not worrying very much just how we are going to put it in a cabinet.

That little ice machine was a very interesting thing to us. That started a panic here about eight weeks ago. They came running down to me and said, "You will have to go up and look at this thing, this is a winner, and you will better get in on it. I said, "All right, there is another fifty thousand dollars." But you have to buy it because the other fellow will get it and he will take your customer. So I went along and examined it. I said, "It looks good." We talked with the gentlemen about the cost of it, and about the maintenance of it, and then the vital thing came out, the monopoly part of it—"can we get it? Can we get the patents and shut the other fellow out?" One fellow said to me, "Let's get that, and look at the stops we can get." He wasn't particularly interested in that little machine except to get the stops. And when I discovered up in Milwaukee there were five or six firms building them I said "Good night, I am not worrying so much now, except where they tie it up and get the advantage." We will all accept the small refrigeration when it comes, just as we have other methods of handling ice cream, and it has changed considerably in the last twenty years.

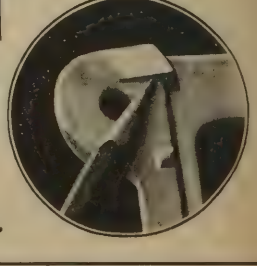
Now I don't care to say very much this afternoon. I am pretty well interested in the conditions, and there is a great deal of thinking to be done, there is a great problem ahead of us. In the evaporated milk game we are up against the same proposition. The milk business is the same, and the dairyman is in the same situation. They say "Advertise, and boom the product." That is all very good, that is an outlet, but you cannot spend all your money advertising, either. I happen to be a farmer myself, and I am going to tell you that when they come to tell us—a lot of men from Dakota came down into Wisconsin and bought some of our Holsteins, and "this milk business is going to be good, boys, they are buying you out in Dakota"—and I want to inform you that the Dakota milk can kill us too. The cows are still in the country and they cannot drink all the milk the way we are equipped now. We are simply suffering from the awful prosperity we had during the war. We had to supply the world and part of the world has shut us off now. It is a condition that we must meet, and it is not anything very alarming, if men will only cooperate. It is a condition that the Wise men knew was

Why TAG-BAKS Bring Your Tubs Back

is best explained by the special patented construction of the TAG-BAK itself and by those who have used them.



The projection on the back is the little device that lets the tag slip in easily and prevents the tag from coming out again. Only a sharp pointed tool; deliberately inserted in the tag can remove it from the TAG-BAK System.



Learn more about the TAG-BAK System thru one of our circulars—write

TAG-BAK, 183 Ogden Ave., Milwaukee, Wis.



STANDARD 500-gal. Glass Lined Batch Mixer-Pasteurizer, equipped with patented three-piece cover (highly tinned and insulated), patented spray coil (steam distributor), flush outlet valve, propeller type agitator, two-speed motor drive, recording thermometer, pop valve, and adjustable legs. Furnished also in other sizes.

"——Have found the tanks sanitary and easy to clean. They have helped to keep our labor costs to a minimum in the mixing room."

—Tech Food Products Co., Pittsburgh, Pa.

WE ARE not even going to ask you to take the recommendations of our customers as to the merits of the Pfaudler Mixer and Pasteurizer — we can demonstrate it to you in your own office!—Waiving the superiority of our enamel, we know from experience that a discussion of the fittings and general design of our equipment immediately gives it the preference.—Remember that a Glass Lined Tank is more than a mere shell; think also of—"flush valve," steam distributor (coil), agitator, three-piece cover, inlet-spreader, and so on.—They are *part* of the tank.

Signing the clipping will bring either our salesman, booklet, or both to your desk—and with absolutely no obligation.

Pfaudler

The PFAUDLER CO.

The World's Largest Makers of Glass Lined Steel Equipment

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The Pfaudler Co. .....1922.
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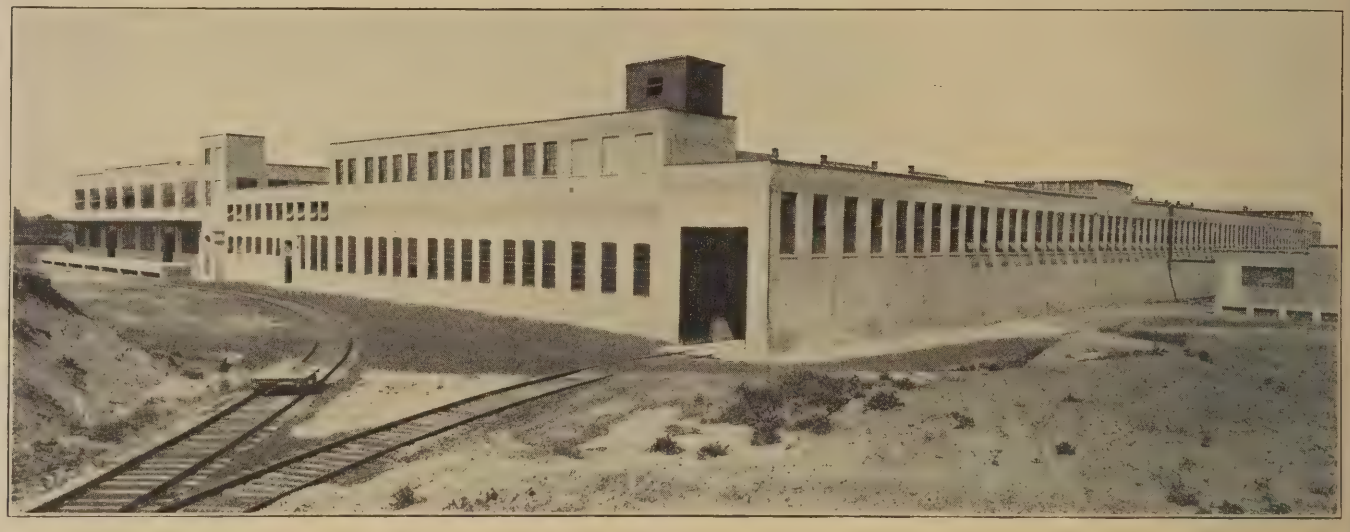
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Send booklet only

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"U. S. GEL"



WORLD'S LARGEST INDIVIDUAL GELATINE FACTORY

UNITED STATES GELATINE CO.

MILWAUKEE, WIS.

U.S. Gelatine is produced in the World's Largest Gelatine Factory, which means Uniformity, Purity, Strength at the Right Price. Stock used in the manufacture assures a bright, clean, odorless Gelatine. Its use means a smooth, high quality and superior texture Ice Cream.

LET US SEND YOU SAMPLES AND QUOTE ON YOUR REQUIREMENTS

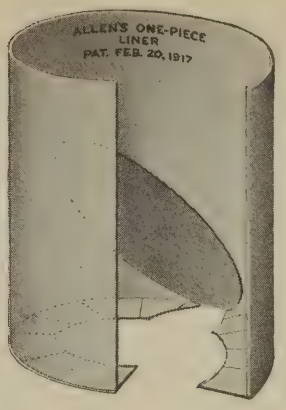
coming. It is a condition that we expected, and it is a condition that sensible people take gracefully, and if there is one class of people in the United States that you have to take your hat off to to take a bumping and a good bumping and smile, it is the farmers, the men that are milking the cows today. I associate with them right along, and I know what condition they are in, and they take it very gracefully, and I am going to show you why —because they are all in the same boat. But I am going to tell you that if a few farmers could lead out and market their products and get the people to buy their milk, there wouldn't be so much harmony among the farmers.

So I think the ice cream industry as a whole will have to co-operate a little bit, and I would advise not too much pushing or too much crowding, and if each one of you will carry your part of the burden you are not going to suffer much. I will say that we have got a third more equipment than we should have. Instead of trying to run one hundred per cent on your equipment, you let that other fellow run somewhere around seventy per cent, and you wait your time, and you do a little judicious advertising in the meantime and see if you cannot work back on to the mat. I figure that it will take a couple of years without any more fresh equipment to let the men live that are here.

Those are the conditions of the ice cream business as I see it. In the evaporated milk business there are men big enough in that game when they got their warehouses full and couldn't sell it to stop making evaporated milk until there would be an opening. Now you will have a certain crowd all over that says "This is a case where I can still get a little." There is always a certain crowd that will put their feet in the trough. But if you ride through next season with a low purchasing power of the people and go to crowding, I think you will crowd down pretty low.

Now some figured out—and it is natural—if I could cut down a little and go out and get more in my line—but you will find that the other man is there too, so that here is the cry that goes up, "You are too high with your prices, your goods are costing too much." Maybe that is so—that is something for us to think about. If we didn't have so much equipment and overhead—perhaps we are all wrong, perhaps we should take our medicine and put that article right down to bed rock and ride through a year without a cent profit and let the people get this at a reasonable price. Those are the big problems we have to figure over. Maybe we were a little too prosperous in the war. Everything we get in this world we generally pay for, and she just goes in cycles. They tell about the big boom that is on now. In 1892 in the city of Chicago the boom washeavier than it is now. There was real estate sold in Chicago for two hundred dollars a front foot that never reached it again. Men drew seven or eight dollars a day building the world's fair, and the same men went back to a dollar and a half and two dollars and three dollars a day. That will have to come again. We were talking it over today in regard to delivery of motor trucks. When you get oats down to thirty cents, corn down and hay down, horses cheap, then you are facing the problem with your big motor truck, the heavy repairs, and you have to figure out how to do your own repairing; you certainly cannot run the big trucks in the shop and pay the bills we have been paying on the margins.

Now I don't want to be a pessimist at all, because I am not, but I am simply pointing out the things as facts as we see them, and I think it is a good thing for us to look squarely in the face. Personally, I feel a little more comfortable today than I did two years ago. It was a reckless way to do business. I couldn't see much to it.



Get Them From Your Supplyman

ALLEN'S ONE-PIECE SANITARY CAN LINERS

These Dealers Sell Them:

The Creamery Package Mfg. Co., Chicago, Ill., and Branches.
The Schmitz Supply Co. - - - St. Paul, Minn.
A. H. Arnold & Bro. - - - - Chicago, Ill.
N. A. Kennedy Supply Co, Kansas City, Oklahoma City
J. G. Cherry Co., Cedar Rapids, Ia., and Branches
A. H. Barber Creamery Supply Co. - Chicago, Ill.
The Dairy Supply Co. - - - Minneapolis, Minn
Peaslee-Gaulbert Co. - - - Louisville, Ky.
J. W. Allen & Co. - - - - - Chicago, Ill.
Spurbeck Lambert Co. - - - - Algona, Iowa
The Maas, Keefe Co. - - - - St. Paul, Minn.
The Crandall Pettee Co. - - - New York, N. Y.
Dairymen's Supply & Construction Co., Pittsburgh, Pa.
Owatonna Creamery Supply Co. - Owatonna, Minn.
Davis Watkins Dairymen's Mfg. Co., No. Chicago, Ill. and Branches.
Meyer Dairy Equipment Co. - - St. Louis, Mo.
Liebers Farm Equipment Co. - - Lincoln, Nebr.
Dairy Machinery Co. - - - - Seattle, Wash.
Consumers' Gelatine Co. - - - St. Louis, Mo.
The Crane Co. - - - - - - - Chicago, Ill.
Cherry-Bassett Co. - - - - - Baltimore, Md.
The Hurley Co. - - - - - Denver, Colo.
Hawkeye Supply Co. - - - Mason City, Iowa
The Hudson Mfg. Co. - - - - Chicago, Ill.
Chapman & Smith Co. - - - - Chicago, Ill.
Kennedy & Parsons Co. - - Sioux City, Iowa and Omaha, Nebr.
E. B. Adams Co. - - - - Washington, D. C.
Monroe & Crisell - - - - Portland, Oregon
El Paso Butcher & Dairy Supply Co., El Paso, Tex.
Gowing Dietrich Co. - - - - Syracuse, N. Y.
H. C. Schranck Co. - - - - Milwaukee, Wis.
Northwestern Bakers & Conf. Co., Minneapolis, Minn.
Dairymen's Mfg. & Supply Co. - - - St. Louis, Mo.

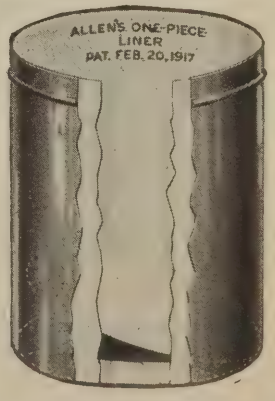
Made by

THE ALLEN CANDY CO.

Sole Manufacturers

PONTIAC ILLINOIS

Samples and Prices on Request



You didn't know where you were. Why, as I told a friend of mine the other day, I said, "We were millionaires on paper, but we had the satisfaction of being rich for a little while anyway. Now we are going back to work and we will feel better.

Gentlemen, I thank you.

Chairman Courtright: Thank you, Mr. Knobbe. I would like to get both sides of it, but I am afraid Mr. Knobbe has been reading about the disarmament proceedings in Washington and wants to take a ten-year vacation.

Mr. Knobbe: I don't believe in disarmament, and I think that is all it will ever amount to, is simply a little saving, and you will never stop war until you play fair with the other fellow. You will have to play fair with the other fellow before you will ever stop war.

Secretary Loewenstein: The Barber people have requested that an announcement be made that the Rogers brick wrapping machine is on display at the Standard Ice Cream Co. plant, 4501 W. Lake St. Any manufacturers wishing to see it in operation can do so tomorrow morning at 8:30 and still get down here in time for the opening of the meeting at ten o'clock.

The Mojonnier machine is in operation at the Lawrence Ice Cream Co. plant, 937 W. 21st St.

Upon motion, duly seconded and carried, adjournment is taken at 4:55 P. M.

* * *

Wednesday morning session of the Illinois Association of Ice Cream Manufacturers is called to order at 10:45 A. M., President G. R. Courtright presiding.

Chairman Courtright: The first on the program this morning is an address by Mr. Gassmann of the Gassmann Ice Cream Co., Olney, Ill., on the subject, "Viscolizing the Ice Cream Mix."



Boost Your Sales
The Sanisco Way

Extra Business

Awaits the progressive Ice Cream man who lets the fact become known that he can furnish a "SANISCO"—the popular, clean, sanitary and rapid dispensers of ice cream for social events, as

Dances—Parties—Bazaars

Full Details on
Prices on Request

SANISCO CO. MILWAUKEE WISCONSIN

VISCOLIZING THE ICE CREAM MIX.

Address of Z. G. Gassmann, Olney, Ill., Before Illinois Association of Ice Cream Manufacturers, Dec. 7, 1921.

Viscolizing the ice cream mix is a process by which we bring about important and desirable physical changes in it, without affecting in any way its chemical composition. I shall dwell only briefly on the physical changes which take place, inasmuch as I believe we are most interested, not in **what** they are, but **how** we can go about securing them.



Z. G. GASSMANN

In the first place, the relation of the words "Homogenizing" and "Viscolizing" does not seem to be generally understood. At the time Gaulin brought out his first Homogenizer, he spoke in his patent of a homogeneous mass, being a mass or substance more closely put together and more perfectly emulsified. No doubt from this claim of a "homogeneous mass" he conceived the word "Homogenizer."

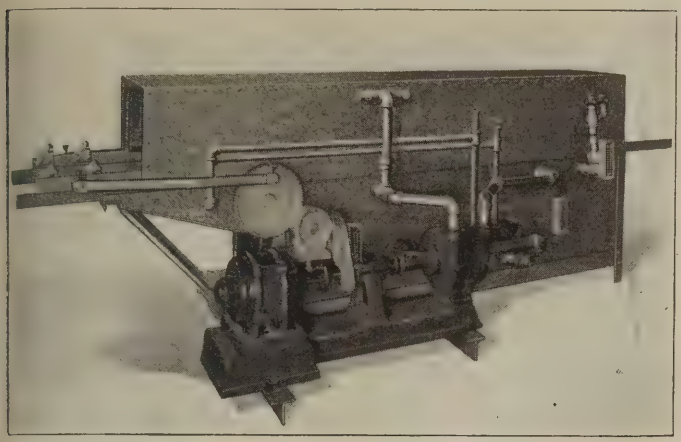
The name "Viscolizer" is a coined and copyrighted one. The machine was thus named because its action increased the viscosity of the product.

The Viscolizer and Homogenizers of different makes do practically the same work—finely dividing the fat and distributing it evenly and inseparably through the mix.

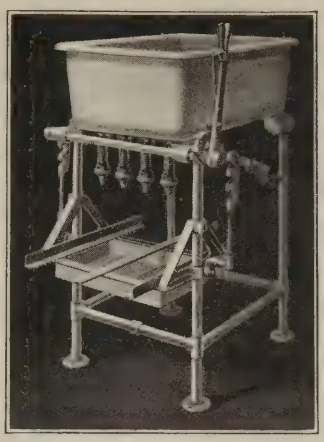
These different machines are all built on the principle of the Triplex or three cylinder pump. The reason for using a pump of this type, as explained by one manufacturer, is that in a three cylinder pump we get a continuous power stroke similar to that given by a six cylinder automobile engine. In an automobile engine the power stroke comes every other revolution of the crank shaft, while in the pump it comes every revolution. Therefore, a three cylinder pump is the same as a six cylinder engine in its relation to overlapping power.

The cloud of mystery which surrounded these machines when they were first brought out has largely been cleared away. There is a sanitary, continuous power pump, built for heavy duty—then a back pressure valve called the Viscolizing head or Homogenizing head, so arranged that the liquid going through the pump is forced through a very small aperature, between surfaces of sufficient depth to break apart the fat globules.

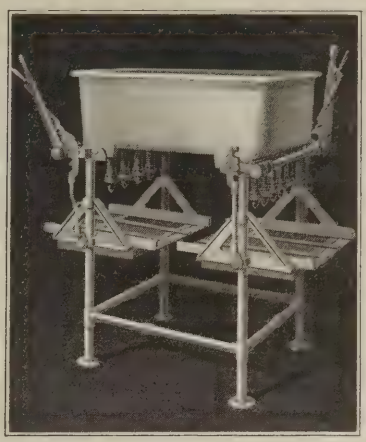
By microscopic examination we find that raw cream contains butterfat globules which vary greatly in size. In jersey cream the globules are larger than in cream from Holstein cows. These globules are in groups more or less, small ones being hooked onto large ones, two or three globules of the same size, etc. If this cream is run through a centrifugal or steam jet emulsor the large globules disappear, going into globules of smaller



Davis Pressure Bottle Washer



Davis Milk Bottle Filler





Dairymen's
Cotton Strainer

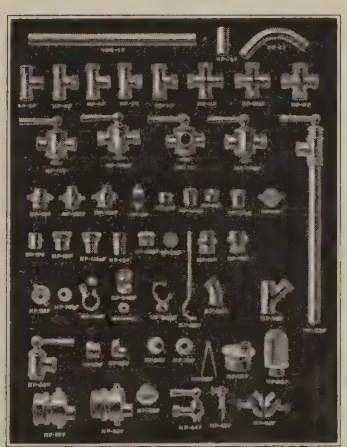
DAIRY EQUIPMENT
DAVIS-WATKINS
DAIRYMEN'S MFG. CO.

Makers of the Famous Dairymen's Cans



Dairymen's
Sediment Tester





Progress—Sanitary Fittings—Davis



Davis Milk Bottle Cases

Send for Davis-Watkins Catalog No. 6

Davis-Watkins Dairymen's Mfg. Co.

JERSEY CITY, N. J. CHICAGO, ILL. KANSAS CITY, MO. DENVER, COLO. SAN FRANCISCO, CALIF. SEATTLE, WASH.

RUNNING A WORN-OUT MACHINE IS FALSE ECONOMY.

size. The general effect on the globules is to distribute them, and the groups are broken up.

If this product is put through a viscolizer or homogenizer at approximately 150 pounds pressure the same effect is obtained. As the pressure is increased the globules are broken up to a greater degree and thus made more uniform in size.

Several men to whom I have talked have said that viscolizing or homogenizing improves any mix, but the greatest improvement is noticed in the mix of low butterfat content, say 8 per cent. As the percentage of butterfat increases the improvement is less noticeable.

From the answers to questionnaires sent out to a great many plants I find that most manufacturers prefer to viscolize or homogenize the entire mix. Inasmuch as the mix must be heated to pasteurizing temperature or very near to it, raw cream and milk can be used and the pasteurizing done in the one operation, which saves fuel. The commonly used plan is to put the cream, milk and condensed in the mixing vat, heat to the desired temperature, when the sugar and gelatine are added. Some manufacturers mix the gelatine with the sugar, dry, before adding to the mix. While there is no objection to this, I do not think that it is necessary. We have had very successful results by adding the gelatine, dry, when the mix has reached 140.

Original instructions issued with the Viscolizer advised heating to 145, holding for thirty minutes, cooling down to 110 to 125 before viscolizing. It has been found, however, that plants making mix for their own use where they do not desire to sell it, get satisfactory results without cooling down before operating.

Manufacturers differ on the temperature to which the batch should be heated, but the average I have found is 145. The acidity of the mix is a factor to be taken into consideration and it has been our experience that a mix slightly high in acidity is greatly improved by heating to 160 or 165, holding for thirty minutes and viscolizing at the same temperature.

The operating pressure used by different plants varies, but the average for plants using the viscolizer is about 2,000 pounds. Users of homogenizers report using higher pressures, averaging 3,000 pounds. This difference can be accounted for by the explanation that the surfaces of the viscolizing valve are larger than the surface of the homogenizing valve. Where the viscolizing valve in operating is usually open 3/1000 of an inch, the homogenizing valve is open from 7/1000 to 10/1000 of an inch. Experiments by manufacturers show that a viscolizing pressure of 1800 to 2000 pounds is about equal, so far as results are concerned, to a homogenizing pressure of 3000 pounds. There is, of course, a limit of pressures, and we have found that after a pressure of 2000 to 2500 pounds is reached on the viscolizer, there is no need of going higher because it is simply a waste of power, wear and tear on the machine, with no apparent results obtained.

The tubular cooler is in general use for cooling the mix after viscolizing or homogenizing. Separation is possible unless the mix is promptly cooled. This is particularly true when reconverted cream is made from sweet butter, powder, etc.

Ageing improves a viscolized or homogenized mix just like it improves any other mix. Where the mix is held less than 24 hours a commercial ripener can be used with good results. This should be added after viscolizing.

Whether existing formulae need to be altered when one installs a viscolizer or homogenizer is a natural question. Most users say that no change was necessary. As a viscolized mix of low solid content is likely to make fluffy ice cream, the overrun on which is hard to control, the change in any case where it has been necessary has been the addition of more solids to the mix. It is also possible that the greater viscosity of the mix will permit of a reduction in the amount of gelatine used by 10 per cent.

I have said very little about one of the largest uses of the viscolizer, the reconverting of cream from sweet butter, milk powder, etc. This is very satisfactorily done, and I know of cases where an entire mix of fairly good quality has been made from these products. There is no doubt, however, that better ice cream can be made from fresh cream, milk and condensed when they are procurable.

There is one more point which I have been requested to mention and which has an important bearing on the satisfactory operation of both the viscolizer or homogenizer. That is with regard to the location of the machine. These machines should never be placed above the level of the vat supplying them. While they are positive pumps and will lift the mix three to five feet it must be taken into consideration that the mix is coming through sanitary pipe and fittings which are not air-tight. When the machine is started and a vacuum is put on the suction line, air is drawn in and traps in the viscolizer or homogenizer. Air, as you know, is a cushion where liquid is concerned and when it is trapped through the pump, the pressure varies greatly, causing a fluctuation of the gauge hand and making it hard for the operator to tell what he is doing.

If it is necessary to place the machine at a point higher than the mixing vat, it is well to provide a centrifugal sanitary pump at the vat and force the mix to

PURE VANILLA EXTRACT

ATLANTIC IMPORTING CO.
617-623 Eleventh Ave., New York City
B4

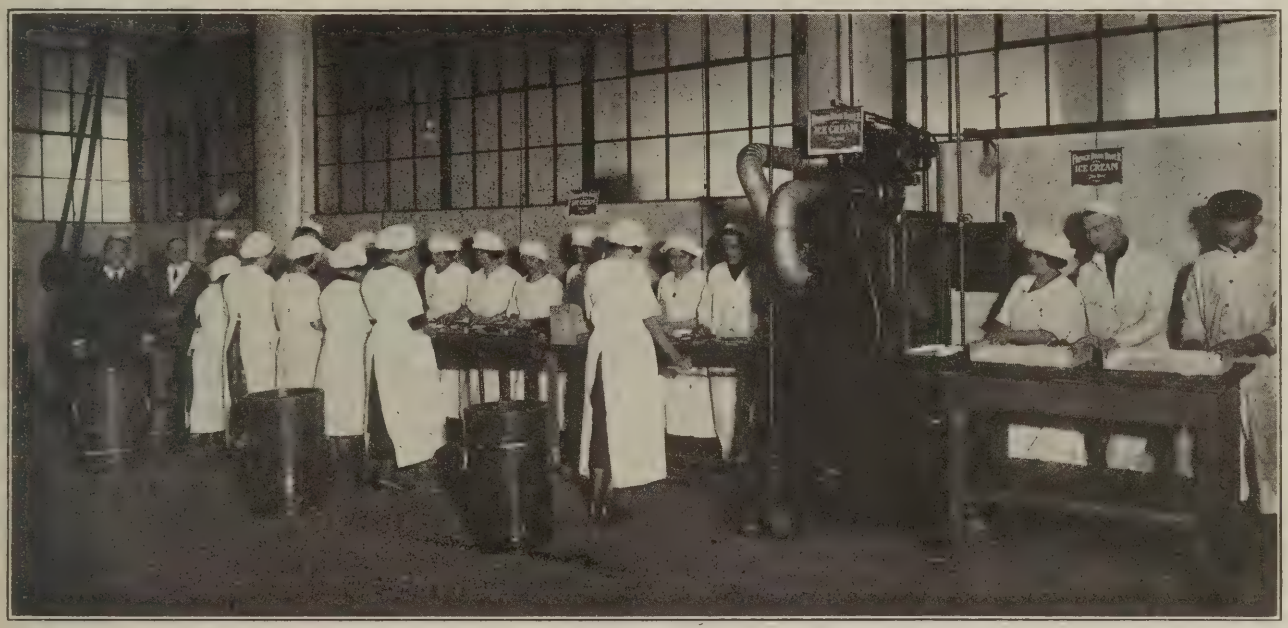
ATTENTION!

Your troubles are over.

Hand Dipping Eliminated

ESKIMO PIES

successfully coated automatically on our
LIBERTY Chocolate Coating Machines



Standard Koater coating Eskimo Pies at plant of French Bros. Bauer Co.

Built in Four Sizes

Baby Koater
Junior Koater No. 1
Junior Koater No. 2
Standard Koater

Special Electric controlled blower system regulates the amount of chocolate wanted on the Eskimo Pies.

Baby Koater—Capacity 300 - 800 dozen per day.
Junior No. 1—Capacity 1000-2000 dozen per day.
Junior No. 2—Capacity 2000-3000 dozen per day.
Standard —Capacity 3000-5000 dozen per day.

These Koaters are now operating in large Ice Cream plants.

Start with the right Chocolate Coating Machine and win the market while others are thinking about it.

Special designed conveyor built exclusively to cover

Eskimo Pies

The Liberty Chocolate Machine Co.

Cincinnati, Ohio

the machine, keeping it well supplied. Inasmuch as the viscolizer operates against terrific pressure, the elevation of the discharge does not matter.

The one thing which impresses me with my investigation is the enthusiasm with which practically every ice cream manufacturer speaks of his machine. All of them, whether viscolizer or homogenizer users, were boosters for the process, statements being made that in some cases the mix was improved 100 per cent. While this figure may be extravagant, yet I believe we will all admit that viscolizing or homogenizing the ice cream mix improves it.

* * *

Chairman Courtright: The next on our program is by our good friend Professor Ruehe, Urbana, "Where Does the College Stand in the Ice Cream Industry?"

Prof. Ruehe: Mr. Chairman, members of the Illinois Association of Ice Cream Manufacturers, and friends. I have enjoyed the privilege of meeting with you for the past nine years, and I assure you that I do deem it a privilege. Each meeting seems to be an improvement over the previous one. Each meeting seems to be not only instructional, but inspirational, and I certainly always enjoy meeting with you.

* * *

WHERE DOES THE COLLEGE STAND IN THE ICE CREAM INDUSTRY?

I have chosen as my subject, "Where Does the College Stand in the Ice Cream Industry?" and by the term "college" I refer to both the college and experiment station.

As one interested in the ice cream industry, I should like to ask whether or not the ice cream industry is interested in the college. I do not mean just interested to the extent that colleges are a good thing and necessary in the same sense as movie shows and penitentiaries, but do you consider that the college is essential to the development of the ice cream industry, and if so, what place in this development should the college take. Is it going to work with you, or are you going to say "you go your way and I will go mine?" In reality, should not our paths converge? Specifically, other industries have their scientific laboratories, why not the ice cream industry?

All of you know that there are many problems confronting this business. Every one of you has "hit a snag" some time or other, and in most cases you have tried to work out your own salvation. Why not take advantage of the opportunities which this association affords, and also the opportunity which the state university affords. The state university could in many respects serve as your research laboratory. To be sure, there would be some problems, perhaps, that it could not properly handle, but I believe it could offer great assistance in most cases. That institution belongs to you. You help to support it. Are you getting your share of good from it?

The duties of the Department of Dairy Husbandry, as far as the ice cream industry is concerned, are two-fold. First, the teaching of dairy students, in other words training men that will make desirable employees in the ice cream industry; and secondly, the carrying out of investigational work along the line of ice cream making and the making of other dairy products. This is and should be one of our main activities. However, if we are to do anything worth while along this line, we must have your co-operation. And by co-operation, I do not mean merely agreeable associations, which are a great help and greater consolation, but we must have your suggestions, advice and your criticisms.

It seems to me that this association might well have a committee on research, just as you do have a committee on transportation, etc. When problems arise, let them be reported to this committee, who in turn might seek help in solving the difficulty. I assure you that the Department of Dairy Husbandry would be only too willing to co-operate with such a committee to the fullest extent.

Such a method of working together would be a benefit to us both. Because if one concern has a problem confronting it, others have the same problem, or sooner or later will have it, and a solution of a difficulty which one ice cream maker has will be a solution of possible problems common to all. And the experiment station will be doing its duty by serving its constituency.

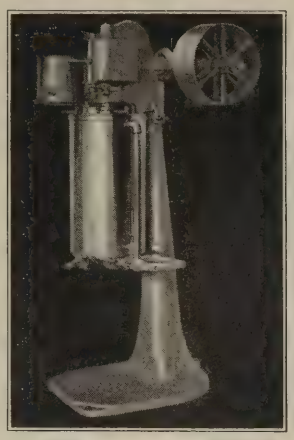
Investigational work is, as a rule, expensive and time consuming, varying of course with the problem under consideration. It usually requires specially trained men and well equipped laboratories. For that reason, the state institution, with its corps of trained workers and well equipped laboratories, might well serve your needs. Too frequently investigational work is misunderstood. Many people feel that if so much money is appropriated to do the work, certain definite results should be forthcoming promptly. They look at it in much the same way as they would a slot machine for gum. You drop your penny, turn the lever, and a piece of gum of definite size and the usefulness of which is definitely known, is kicked out; that is if the machine is working properly; and if not, it gives you back your penny. On the other hand, in the case of research work, you deposit your money and after a laborious task is performed, you get results which may be worth many times the cost, or it may give results which mean but little. But in any case, you get at the truth of the matter and that is the main thing.

Now ice cream is a food, but it is not a necessity from

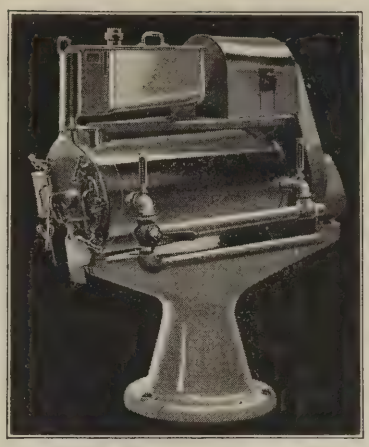
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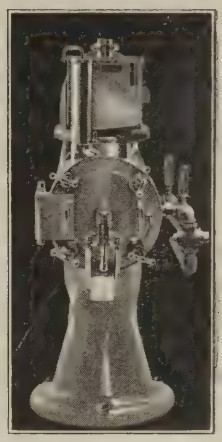
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(Imported and Domestic)
Featuring
EASTER DAY
Leaves, W/Stem, Lace Papers
Imported Fruits and Pulps
SCHALL & CO.
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Progress Vertical Freezers.





Progress Horizontal Freezers.



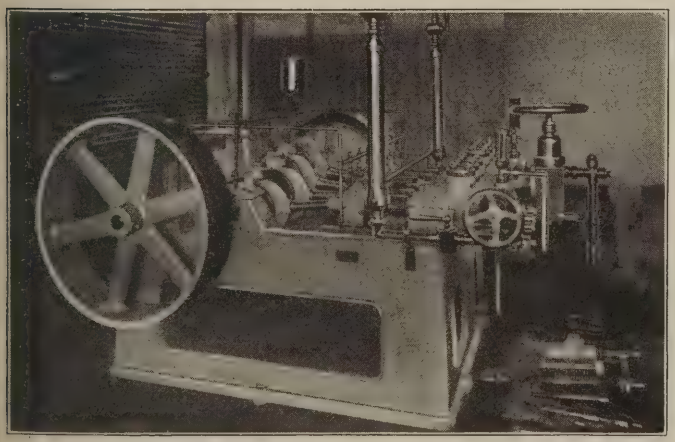
Dairymen's Memphis Can.

DAIRY EQUIPMENT
DAVIS-WATKINS
DAIRYMEN'S MFG. CO.

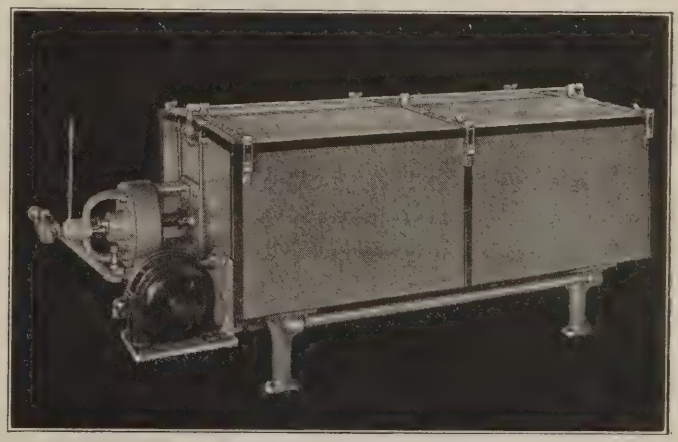
Makers of the Famous Dairymen's Cans.



Dairymen's Memphis Can.



Progress Homogenizer.



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Send for Davis-Watkins Catalog No. 6.

Davis-Watkins Dairymen's Mfg. Co.

JERSEY CITY, N. J. CHICAGO, ILL. KANSAS CITY, MO. DENVER, COLO. SAN FRANCISCO, CALIF. SEATTLE, WASH.

COATED ICE CREAM BARS HELPED TO TAKE STING OUT OF PROHIBITION.

the food standpoint, because there is nothing in ice cream that cannot be obtained in other food products. However, ice cream is a necessary article of trade in that there is a demand for it. Are you as ice cream makers interested in the healthfulness and food value of your product? In other words, are you interested in your consumers, or are you only interested in finding out how cheap, how foamy, you can make your ice cream and still "get by" with it?

This reminds me of the story of a man who went into a restaurant and ordered a ham sandwich. He started to eat it and after a few bites asked the waiter where the ham was, and the waiter said, "You haven't come to it yet." When the man had eaten about three-fourths of the sandwich he said, "I have eaten most of this and haven't seen any ham yet." The maiter replied, "You've bit over it."

To be perfectly frank, I've eaten ice cream that was nearly as hard to find as was the ham in that sandwich.

If we are going to keep up and increase the demand for ice cream, we should be interested not in how cheap we can make it, but we must make our product so good, so wholesome, so satisfying, and so enticing, that the consumer will not only want it, but will demand it.

Chairman Courtright: Is Mr. Nivling of the Rochester Ice Cream Company with us this morning? We would like to have a few words from Mr. Nivling. He is the ex-president of the National Association, as I understand it.

Mr. Nivling: Mr. Chairman and gentlemen, and ladies,—when Mr. Loewenstein wrote me and asked me to prepare something for the association I said for once I would like to be able to listen and not talk, but I see he has got after me again.

DULUTH COOPERAGE COMPANY
Duluth, Minn.

Fir Ice Cream
Tubs



Durable, well finished tubs, painted your distinguishing colors, are a good advertisement for your ice cream.

Our Fir Tubs
cannot be equalled in quality, finish and workmanship.

Save Money by Dealing Direct with the Manufacturers.

Write Today for Prices

When I came here and looked over the program I saw that John Knobbe was down here for a few words, and I said, "Well, that is good, that will take a long time." (Laughter).

In considering what thought I could bring to you today the thing that occurred to me was the insatiable scramble for gallonage. The lady will excuse me,—the driving all over Hell's half acre for business. It strikes me, gentlemen, that some of you are losing money. I think you are making serious mistakes on these things, and I think you should study your costs very carefully. There is a point, to use an example which is exaggerated, where you lose money in going after business. You cannot manufacture ice cream in Chicago and deliver it by auto truck profitably in Cleveland. There is a point where you are at the zero, and beyond which you lose money. The result of going too far means that you are getting a less average return per gallon than good business dictates, and I am simply going to suggest to you today that in your sectional meetings you take up this question of—how far can we profitably go in selling ice cream? That can be worked out by figuring carefully about how many days per year you will run an auto truck in an outlying section say. What is your cost for that truck? Figuring all your costs on the yearly basis, and then dividing it by the number of days during the year that you will drive that truck. If your cost is $20 per day and if you are, we will say, using it 150 days during the year, you have to figure what you can afford to pay as a delivery expense. I think that you will find unless you average about 100 gallons per day on a route you will be losing money.

You have to figure also, how far that route can be. I imagine you will find that somewhere about 50 miles for the round trip will be the limit. And so I think if you take and study this subject, I think it is going to be very valuable to you, because you should have a satisfactory average return on your investment.

You will find that for every gallon of new business you put on it requires a dollar of investment, and unless you can get a satisfactory return on that increased investment, it is poor business. If you have money to put into investments you can get a good investment today in the neighborhood of 8 per cent, so why take the danger of business if you can get a secure investment for that amount of money?

Now in business your return should be very much better than the underlying securities, and I am just giving these few things to you so you can give the subject consideration and see if you are not stretching the point too much, you are not bringing down your average return to the gallon to the point where it is really poor business to you.

That is about all I have to say. I assure you that I have enjoyed this meeting very much. I am very glad to be with you and I believe it is one of the best investments the ice cream manufacturers make, is coming to these conventions and visiting around the other plants.

Another point that occurs to me is competition. Gentlemen, I think you are missing one of the best selling propositions if you don't get and keep in touch with your competitor, if you don't sell your competitor the idea that you are there to do business and do it on the fair basis and treat him fairly. I think that is one of the most profitable ends of your business, is to get in touch with your competitor, treat him absolutely on the square, and then remember the three points, to treat the competitor right, treat the consuming public

"The Package Sells the Goods"

The Imprint of Quality

There's a positive selling appeal in an attractive Carton. Not only does an attractive package influence individual sales where there is competition and an opportunity for comparison, but it also *sells* the consumer on the business concern that respects its product enough to market it in a modern and attractive package.
It's logical for buyers to assume that the product inside an attractive high grade carton is of the same high grade and quality.



In numerous instances MENASHA specially designed Ice Cream Cartons have built up brick cream sales far beyond expectations. No doubt there is room for an increase in sales in your field. It's a certainty that a specially designed MENASHA carton will do much in helping you to accomplish your sales purpose.

We are also equipped to reproduce your three color carton design on pails.—Wire or Tape Handles or Tapeless.

MENASHA PRINTING & CARTON COMPANY
MENASHA, WISCONSIN
CHICAGO-1606 Conway Bldg. NEW YORK-200 Fifth Ave. CLEVELAND-755 Hippodrome Bldg. Annex LOS ANGELES-421 I W Hellman Bldg. KANSAS CITY-301 Scarritt Arcade Bldg.

GOOD FLAVORS ARE ABSOLUTELY NECESSARY IN MAKING GOOD ICE CREAM.

right, and treat yourself right, and get legitimate profits per gallon on your product.

I thank you. (Applause).

Chairman Courtright: We thank you, Mr. Nivling. The next on our program is the subject, "The Association's Exhibit at the State Fair," by Professor Ambrose. We probably will be quite interested in this, because there were only a few that got there, and we want to know some of the particulars of that exhibit, and whether it did us any good or not.

The Association's Exhibit at the State Fair.

Prof. Ambrose: The exhibit of the Illinois Association of Ice Cream Manufacturers at the state fair this year was an entirely new idea and, I believe, something which had never been attempted before by any state association.

A complete ice cream factory, with ice cream freezers, ice cream hardening rooms, and refrigeration plant, was installed and operated in the Dairy Products building at the State Fair Grounds. The people could see the ice cream made and sample the finished product.

Whenever an element of secrecy is maintained in any manufacturing process, the general public often views it with suspicion. But when your plants are open to them, when everything is clean and in ship-shape condition, when they can see and understand the processes, the safeguards employed for their protection, and find everything is being done to serve them with the best quality products, it creates a good impression and stimulates a demand for these products. This is to your advantage and to the advantage of the entire industry. That this is recognized is universally demonstrated by the fact that plants of all kinds welcome inspection parties and visitors. Some go to the extent of maintaining guides to conduct tours of inspection, but the general public, in every day life, is too busy to take the time to inspect your plants. On the other hand, when they go to the State Fair it is to have a holiday, to see all there is to be seen. Many would see an exhibit at the fair when otherwise they might not get inside of an ice cream factory. The exhibit was, therefore, of an educational nature. The purpose was to demonstrate to the public the methods of making ice cream and to impress them with the care exercised by the industry to serve a good, clean, wholesome, and healthful product.

Another purpose was to bring before the public the fact that ice cream is not only a luxury but a real food. People are realizing this more and more every day, but the "good word" must be kept before them constantly.

The exhibit itself occupied a space about 30 feet square. The Union Insulating Company of Chicago built a sectional insulated hardening room. The Westerlin & Campbell Company of Chicago set up the hardening room, equipped it with expansion coils, and installed a five-ton York refrigerating machine to cool the hardening room and to furnish refrigeration for the freezer. The Davis-Watkins Dairymen's Supply Co. of Chicago loaned a 50-quart direct expansion freezer. The Illinois Dairy Company of Springfield supplied ice cream cabinets and packing cans. Models and charts, obtained from the National Dairy Council, were used to show the comparison between the food value of a quart of ice cream and other food substances. A huge sign, 50 feet long and 6 feet high, hung over the exhibit. This sign read,

" A Tribute to the Dairy Industry by the Illinois Association of Ice Cream Manufacturers in Co-operation With the University of Illinois and the State Department of Agriculture."

A formula furnished by the association called for an ice cream mix containing 36 per cent total solids and 8½ per cent butterfat. This mix was prepared daily by the University of Illinois and shipped to Springfield.

The J. D. Roszell Company of Peoria and the Champaign Ice Cream Company of Champaign loaned the services of Mr. Walter Lauren and Mr. Grover Kisner to operate the freezers.

Samples of ice cream were served to the spectators by four girls dressed in white aprons and caps. An attractive little booklet, setting forth the merits of ice cream, containing information concerning its manufacture, together with a list of the members of the Illinois Association of Ice Cream Manufacturers, was presented with the samples of ice cream.

The serving of ice cream was discontinued while the ice cream was being frozen to permit the visitors to watch the process. The freezing process in itself was a revelation to many.

The exhibit was extremely popular. The space surrounding it was literally packed daily from 9 o'clock in the morning until 4 o'clock in the afternoon with people of every description all waiting for a chance to sample the ice cream. It would be safe to say that more of the consuming public visited the exhibit than would visit all your plants combined over a considerable period of time.

More ice cream was served on children's day than on any other one day. The news "ice cream for nothing" spread like wildfire and the children came in a continuous stream. The way the children patronized the exhibit leaves little doubt as to the future of the ice cream industry.

The original plan of the association was to manufacture 100 gallons of ice cream daily and to serve from 10,000 to 15,000 people. However, the size of the dishes was reduced to from one-third to one-half the size origi-

(Continued on page 70)

Mapleine a Popular Flavor

Manufacturers everywhere are finding Mapleine one of their most popular flavors.

Mapleine is keenly liked as a home flavoring and is almost as extensively used as vanilla. Customers knowing its delicious maple flavor in home desserts immediately recognize the superior quality of Mapleine Ice Cream and their appreciation is reflected in increased demand.

Mapleine

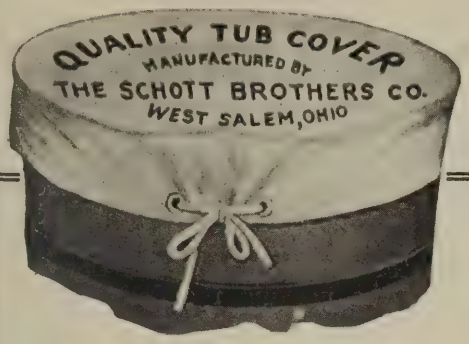


Many manufacturers are cashing in on the popularity of Mapleine as a home flavoring and market their product as **"MAPLEINE ICE CREAM."**

You will find it profitable to do likewise. Write us for attractive hangers and window strips bearing your firm imprint.

Order Mapleine of your supply man or send us $3.00 for a quart trial bottle.

CRESCENT MANUFACTURING CO.
Seattle, Washington



Buy from the Originator

We are the originators and patentees of this quality ice cream tub cover. No royalties to pay—no infringements to guard against. All good reasons why

Schott Brothers
Quality Tub Covers
Are Lower in Price

The fact that after six years as users, original buyers of *Quality Tub Covers* send in repeat orders each season for new tub covers, should be proof enough for you to investigate the quality, price and serviceability of Quality Tub Covers.

THE QUALITY TUB COVER COMES TO YOU COMPLETE WITH STAPLES, TIE STRINGS AND YOUR ADVERTISEMENT

Write for Prices Now

THE SCHOTT BROS. COMPANY

"If Made from Canvas We Make It"

WEST SALEM OHIO

Lawrence Ice Cream Co. Experienced Marvelous Growth*

WHAT is it that makes men successful? The psychologist tells you it is one highly developed faculty which dominates its possessor and backed by an indomitable spirit to "carry on," regardless of obstacles, those things and purposes for which he is best qualified to prosecute.

In other words the successful man—he who achieves big things, gets on a single track, drives on it and stays on it.

This story is about a successful man who upsets this formula on this one point at least. He is a man of many talents each one of which seems to be developed in equal power.

Louis B. Olin, who guides the destinies of the Lawrence Ice Cream Company, 937 W. 21st Street, Chicago, not only is a big man in physique, but a big one in "doing things." Of the aggressive, dominant type, he is what is frequently referred to, but seldom seen, a "human dynamo."

Mr. Olin has not been in the ice cream business so very long, as one measures some of his mighty Chicago competitors, and the Lawrence company only dates its history from 1911 when, as Olin explains with a smile, "It was merely a one-horse concern."

However, Olin has achieved wonders in those few years, and his achievements are not due to just one highly developed faculty which marks the big successes of most big men.

Olin is a man of many geniuses. He is an administrative man. The rapid growth of the Lawrence plant from a 10,000-gallon annual capacity in 1911, to one of 2,000,000 gallons in 1921, proves that.

He is a merchandising genius, as the city-wide distribution of the Lawrence products he has obtained, the wonderful newspaper and billboard publicity he uses and the sudden rise to popularity of "Golden-Rod" cream among the consumers attest. But there is more.

He also is an inventive genius, as the many inventions which bear his name attest and which have revolutionized several departments of the Lawrence plant, particularly in the packing the delivery end of the business.

The Lawrence plant as equipped today is declared by experts in the industry to be one of the best models in the United States and exactly what a Twentieth Century ice cream factory should be.



PHOTO COURTESY OF CANDY FACTORY

This Man Does Many Things Well and Upsets the Rule.

From the time the raw cream enters the receiving room from the railroad cars until it is delivered as a finished product to the city merchant, it never comes in contact with human hands.

The factory, which was recently constructed at a cost of half a million dollars, is equipped throughout with the latest wrinkles in methods and machinery.

The building covers a triangularly shaped block and is of the flat-iron variety, and is of brick and concrete. In the manufacturing end of the plant, not a piece of wood has been used in the construction work. The floors are composed of cement and the walls of marble.

All the machinery is propelled by direct motor which eliminates all belting. This was deemed necessary in

*Reprinted from "Candy Factory."

Packing Tubs That Will Last



Tubs of Washington Fir are recognized to be absolutely the best for ice cream packing use. Fir is used exclusively by the Government for tanks, flumes and all other purposes where water comes in contact with wood construction. It will not deteriorate under moisture. Experienced shippers are showing preference for these tubs that will give the longest service.

"ECONOMY" PACKING TUBS

are fast replacing the less durable makes. They are built from carefully selected, clear staves, with strongly constructed bottoms, and are strongly hooped. Stock tubs are green, but can be furnished in any color, stenciled and branded as desired.

"ECONOMY" ICE CREAM CABINETS



can be had in any style, Metal Lined, Tub, or Brick. All linings, cylinders and brick containers are made of galvanized Armco Ingot Iron. They are strongly built, well insulated, and highly finished, in mahogany.

Write or wire for complete catalog and prices.
Tell us your needs and let us advise you.

Homer Manufacturing Company
Homer City Penna.

INSEPARABLE COMPANIONS—THE KID AND THE ICE CREAM CONE.

order to make the plant absolutely sanitary as leather belting gathers dust.

A battery of ten new model Miller type freezers capable of solidifying 2,000 gallons of ice cream an hour handle the raw cream as it is poured from the vats.

An ice plant which turns out 200 tons of ice a day furnishes the cooling material used by the plant and the customers of the company.

The loading and receiving platforms are inside the factory proper and the loading platform has sufficient space to allow ten five-ton trucks to load all at the same time. The crushed ice is conveyed by automatic carriers to a position directly above the trucks when they are backed up to the platform and all that is necessary to ice a truck is to open a side door in the chute which releases the cracked ice which flows directly into the vacuums of the special truck bodies used by the Lawrence Company.

One man does the icing while the truck is being loaded from electric conveyors which bring the packed cans of ice cream from the refrigerator room, which is but a few feet removed from the loading platform.

Neither operation interferes with each other, and with the Olin system of truck loading and ice packing 525 gallons of ice cream are put into a truck and it is on its way ten minutes after backing up to the loading platform.

Shocking!

A young lady from the Grand Avenue Telephone Exchange recently told us that one of her friends was electrocuted last week and was in rather a critical condition. The mishap took place when she accidentally ate a piece of coffee cake with a current in it.

Boxes for packing

ESKIMO PIES

AND OTHER CHOCOLATE COATED ICE CREAM, CARRIED IN STOCK.



Ice Cream Boxes of "Distinction"

OUR SPECIALTY



BRICK BOXES
in all styles
Plain or Paraffined

PAILS
SENATE—EASY CLOSING
JACK FROST
Tape and wire handles

THIS
"CHICAGO"
CAN LINER
has many features you should investigate

Send for Samples and Prices

Ferguson-Lander Mfg. Co.
1733-1737 W. Austin Avenue CHICAGO

ILLINOIS ASSOCIATION OF ICE CREAM MANUFACTURERS.

(Continued from page 66)

nally planned, at the request of the fair officials, so that actually 400 gallons of ice cream were made during the fair. This was served to approximately 80,000 people.

The exhibit was, in reality, an advertisement. Now a successful advertisement must accomplish three things. It must attract and hold attention, it must create good will, and it must sell goods. There is no question that the exhibit attracted and held attention and that it created good will. It is impossible to determine the value of the exhibit to the members of the association with regard to increasing sales.

The association had no precedent to follow in planning the exhibit. It was more of an experiment and the experience gained should make a more effective exhibit possible if attempted again.

A number of suggestions were made in this connection. Some of these were:

First—To display a series of signs of an educational nature to supplement the large one used this year.

Second—It would be better to use an ice cream freezer of smaller capacity than the one used this year to permit the freezing of smaller amounts of ice cream at a time and at more frequent intervals during the day. This feature was one of the most important parts of the exhibit and attracted much attention.

Third—It would probably prove of considerable interest to show the evolution in methods of freezing ice cream.

Fourth—Some means should be provided to prevent "repeaters." It has been suggested that small tickets be issued at the entrance to the fair grounds when admission is paid; these tickets to be presented for a sample of ice cream. This procedure would insure only one dish to a person, would be a means of making actual count of the number of people served, and would act as an advertisement directing more people to the exhibit.

Doubtless other criticisms and suggestions have occurred to the ice cream manufacturers who were in attendance.

In conclusion let me say that the dairy department of the university will be glad to co-operate with the association by rendering assistance in any way it can to promote the welfare of the industry.

Mr. Schwindeler: Prof. Ruehe has been a mighty good friend of the association for many years, and I want to move you that a vote of thanks of the association be extended to Professor Ruehe and Professor Ambrose for their part, not only in the exhibit at the state fair, but their interest in our industry at all times.

Duly seconded and carried.

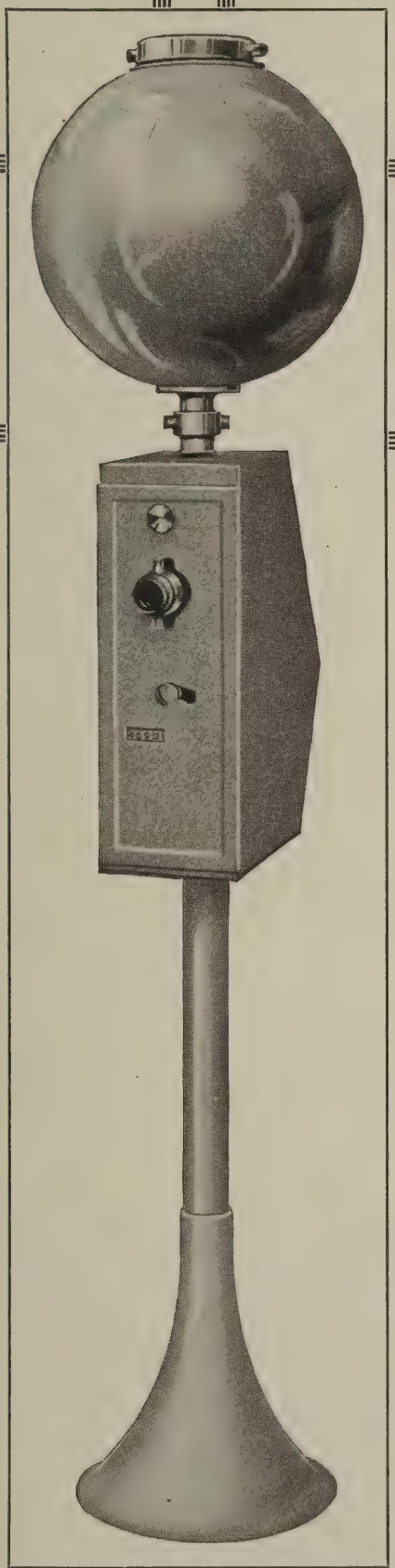
(To be continued in April issue)

PIONEER IN DAIRY INDUSTRY DIES.

Alfred Easter, retired ice cream manufacturer and one of the most prominent dairymen in the United States, died February 1st, in Los Angeles, Cal., where he came in 1918 after retiring from business.

Mr. Easter was born in England in September, 1844, coming to this country in 1862 and settling in Detroit in 1870. He was a pioneer in the dairy industry in Michigan and in 1900 formed the Detroit Creamery Company by merging fourteen creameries and ice cream companies in that city. For fourteen years he was general manager and during that time the company became one of the largest in the world.

A widow and four children survive him.



TRADE MARK

The WEIBATCH
It Weighs

Mr. Ice Cream Manufacturer:—

What per cent of the mix that you pay for reaches your freezer room? What per cent of the frozen product from the freezers do you get paid for? Can you check the handling of the ingredients which go into your ice cream from the invoices of raw material, to your receipts of ice cream delivered?

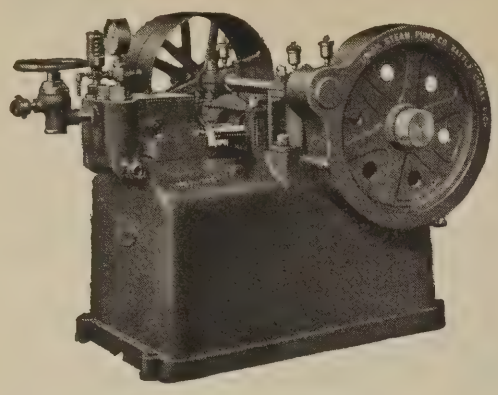
The Weibatch used as an ice cream batch control not only saves time and prevents waste, but it gives an absolute and reliable check on the number of pounds of mix delivered to the freezers, and tells the amount of frozen cream that should be in the hardening rooms if the mix has been properly handled in the freezing process.

There is a Weibatch made for every purpose. If a liquid can be pumped from one vessel into another there is a Weibatch that will weigh and record it.

What the cash register is to the retail counter, the Weibatch is to the freezer room. And remember, you are losing many times their cost by not equipping your battery of freezers with them. For complete information ask your nearest jobber or write us direct.

Manufactured by

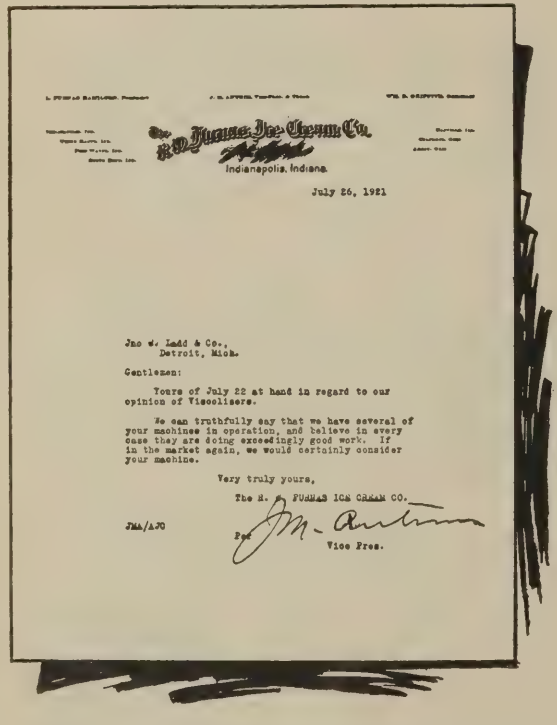
WILLIAM G. FINCH CO., Inc.
45 Division Avenue, S.
GRAND RAPIDS MICHIGAN



The
Viscolizer

Only another Viscolizer can satisfy a Viscolizer owner

Another reason why the ***Viscolizer*** stands as the leader in its field.


R. W. Furnas Ice Cream Co.
Indianapolis, Indiana.
July 26, 1921

Jno W. Ladd & Co.,
Detroit, Mich.

Gentlemen:

Yours of July 22 at hand in regard to our opinion of Viscolizers.

We can truthfully say that we have several of your machines in operation, and believe in every case they are doing exceedingly good work. If in the market again, we would certainly consider your machine.

Very truly yours,
The R. W. FURNAS ICE CREAM CO.
Vice Pres.

100% in the estimation of the R. W. Furnas Ice Cream Company, who have a ***Viscolizer*** in every one of their seven plants.

"There is a Viscolizer jobber near you"

John W. Ladd Company
DETROIT - CLEVELAND

Cherry-Bassett Winner Co.
BALTIMORE - PHILADELPHIA - PITTSBURG



PROF. BAER'S INQUIRY DEPARTMENT

Dear Sir:—I would like to find out something about ice cream, as I am just starting up. This is the formula that the person used that I bought out. Is it up to the standard?

Three gals. 22% cream; 2 gals. 8% condensed; 4 gals. 3½% milk; 14 lbs. sugar; 6 oz. strong gelatine; 4 oz. Kreamo ice cream powder; 4 oz. vanilla; 2 spoonsful of egg yolk; yellow color.

Is 5½ gallons of raw mix enough in a 10 gallon freezer? It is not quite smooth enough to suit me at times. What can I do to make it smoother? I have given you the formula by gallon measure as I am not thoroughly posted on weights. Also let me know what per cent butterfat it contains, and also solids. If this formula is not O. K. I wish you would suggest me one for 8% ice cream. J. A. Y.

Reply: I am glad to give you below, in Table No. 1, the calculations showing the analysis of your mix:

Table No. 1.

Ingredients	Fat	Serum Sol.	Total Sol.
3 gal. 22% cream—25.2 lbs....	5.54	1.75	7.29
2 gal. 8% cond.—18.0 lbs.....	1.44	3.24	4.68
4 gal. 3.5% milk—34.4 lbs.....	1.20	2.95	4.15
Sugar, 14.0 lbs.	....	....	13.30
Filler and vanilla, 1.0 lb.....	....	....	.75
Total weight, 92.6 lbs.	8.18	7.94	30.17
Per cents	8.8	8.5	32.5

You will notice that your mix figures out 8.8% butterfat and 32.5 total solids. I would suggest a slight improvement in your mix by increasing the percent of serum solids from 8.5 to 10%. You can easily do this by using 1.7 lbs. less of 3.5% milk and substituting an equal weight of skim milk powder. In case you do not desire to do that you can increase the serum solids also by adding ½ gallon more of condensed milk. In that case you could use about one quart less of sweet cream and a quart less of your 3.5% milk, that will still make your ice cream test slightly better than 8%.

You stated that at times your ice cream was not as smooth as you would like. Increasing the serum solids as above indicated would help to make a smoother ice cream. It is also possible that you are freezing your mix too soon after making it at times. A freshly made mix will not make as good a product as one that has been aged from twenty-four to forty-eight hours at a low temperature.

* * *

Dear Sir:—Would be pleased if you would let me know my milk solids, butterfat, and total solids in the formula below.

I use the 30% emulsified cream. I get my milk from the dairy here. It will test 3%. This is my mix: 168 lbs. 3% milk, 84 lbs. 30% emulsified cream, 34 lbs. sugar, 10 lbs. milk powder, 2¾ lbs. gelatine in 1 gal. water, 6 oz. extract, 5 oz. egg yellow.

Respectfully, A. M. & CO.

Reply: I have analyzed your mix for you below, in Table No. 1:



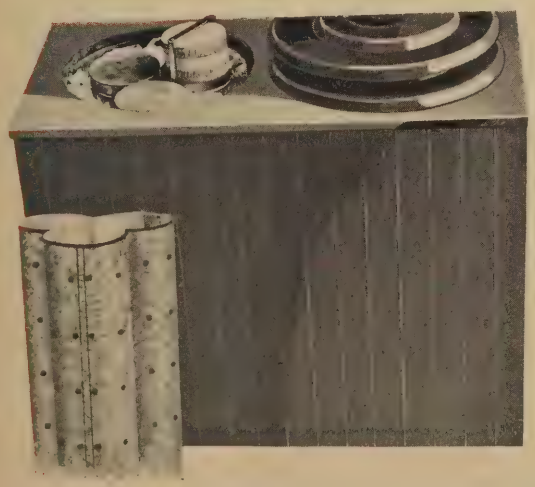
For

Eskimo Pies

Paper cans of correct size and height to hold one dozen pieces.

Diameter is same as quart size package. Each metal can will hold six packages of one dozen each.

A practical way of handling Eskimo Pies



Overcoming Competition

If you are having trouble keeping peace among your dealers—

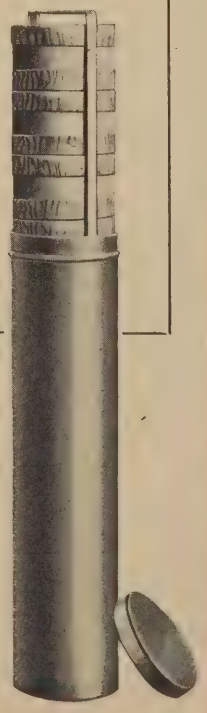
If the number of your dealers is not sufficient to give your product a good distribution—

If you want to increase the volume of your bulk business

Use the H-C Bulk Package System

Your present equipment can be adapted to this system and the many advantages of selling ice cream the H-C Bulk Package way are fully explained in our booklet. Write for it.

THE
Hunt-Crawford Co.
Manufacturers
Coshocton Ohio



A Trial Order

of H-C equipment will soon convince you of its trade getting possibilities

Containers made in pint or quart sizes.

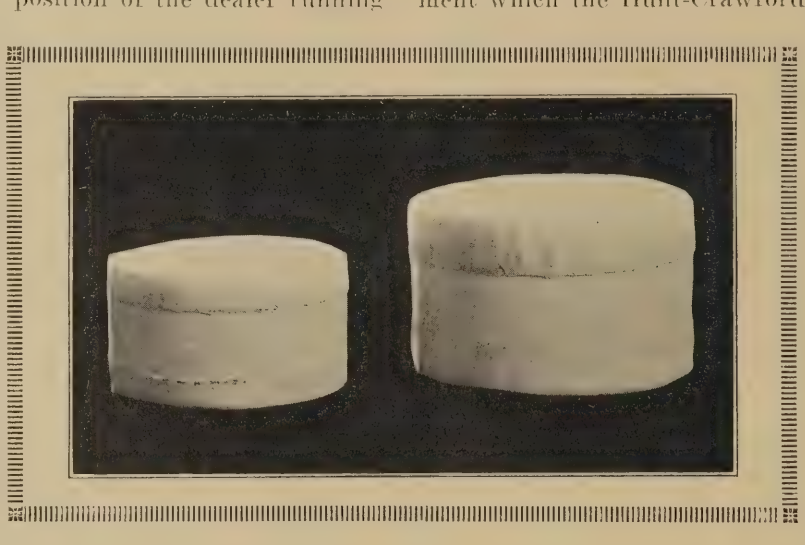
A New Package System for Bulk Ice Cream

A Handy Means of Selling Bulk Ice Cream Packages that should appeal to every Dealer and make the Field a bigger one for the Ice Cream Manufacturer

IT WILL no doubt be conceded that bulk ice cream is the main-stay of every ice cream manufacturers' business,—it is the one thing that creates the volume which makes a reasonable profit possible. The specialties are a great incentive to promoting trade and opening up new outlets, but bulk ice cream in volume is the one thing that the ice cream industry has grown up on and the one thing more than anything else that has helped to make the industry worth while for those who are in it.

Manufacturers have done much to promote sales of ice cream. Many means of advertising have been tried to reach the consumer and create a desire for **more** ice cream. It would seem, however, that enough stress has not been laid on the attitude of the dealer toward the distribution of larger quantities of bulk ice cream. And why should not the dealer be indisposed to boost the sale of bulk ice cream for home consumption?

Place yourself in the position of the dealer running a community store who handles ice cream as a side line and has a number of customers waiting for regular lines of merchandise. One of them, however, asks for a quart of bulk ice cream. Other customers become impatient and all the while he thinks of his ice cream profits shrinking as the warm air settles down the volume of the cabinet. Naturally a dealer in this frame of mind has little inclination to make suggestions to his customers about taking home a quart of bulk ice cream. Of course he may have the brick packages, but if you will take a census of many of the average dealers' customers for ice cream, you will find that many prefer ice cream in bulk for a good many occasions.



What a better feeling the dealer would have if he could just reach into his cabinet and hand out a pint or quart package of good, sanitary, packed in the factory, bulk ice cream. Think of the time it would save, how much more sanitary it would be, how much more the product would be like the fine piece of goods it is as it leaves your factory, and the incentive for the dealer to want to push a package of this kind for home consumption. Practically everything the community store handles is put up in packages by the manufacturers,—crackers, prunes, raisins, sugar, potato chips. The consumer gets correct measure,—the dealer suffers no shrinkage, and the product is delivered as the manufacturer made it.

With this tendency toward packages for all food products, why should not the sale of bulk ice cream advance with the elimination of the cumbersome dipping and the addition of the sanitary feature of being "packed at the factory."

The Hunt-Crawford Company of Coshocton, Ohio, have developed something new along the line of selling bulk ice cream in packages. They are manufacturers of cellular paper products and in addition to making a bulk package for pints and quarts as shown in the illustration—also a container for chocolate coated ice cream bars,—they have developed a complete and novel system of handling these packages.

The system consists of converting the regular cabinets into a series of three galvanized iron cells of cloverleaf design around which the ice is packed, perforated so that the brine can circulate around the cans going into the different cells. Each can holds seven quart packages or a corresponding larger number of pints. With three individual cans,—one can being used for pints, one for quarts and the other for counter trade. Or, the quart section will accommodate several quart packages and several containers holding one dozen each of chocolate coated ice cream bars. This big variety can be had with a very simple and inexpensive equipment which the Hunt-Crawford Company also supplies.

And the packages are easy to remove, because each cylindrical can is fitted with an "elevator" which will bring the last package to the top just as easy as the first one with but a slight upward pull. This elevator does away with the difficulty of getting out packages when very cold or frozen. The packages are filled directly from the freezer or can be used on the Mojonnier automatic filler. No special forms are required, and no cutting is necessary to get the ice cream into the desired shape to fit the packages.

Special hardening room equipment is unnecessary with this system as the packages as filled direct from the freezers can be placed into the tin cans that slip into the cabinets just the same as you would handle your regular bulk cans for hardening. When making deliveries these same cans are taken from the hardening room, packed three into a five-gallon packer, if for shipping, or handled as you would any other bulk container for local truck deliveries.

If more than one flavor is desired for the same package it is possible with a little care in filling, to first fill the containers half full with the one flavor from one freezer and then pass directly on to the other freezer for filling with a second flavor.

This style of package can also be printed with the usual attractive advertising. It is light in weight and lined with a sanitary vegetable parchment paper.

The manufacturer using this system saves the washing of cans, uses his same cabinets and packages and has a wonderful selling argument for developing trade with new dealers. This should be a big aid where competition is keen. The idea commands attention and is no doubt another forerunner of the rapid strides being made in the ice cream industry.

Table No. 1.

Ingredients	Fat	Serum Sol.	Total Sol.
168 lbs. 3% milk	5.04	14.34	19.38
84 lbs 30% cream	25.20	5.25	30.40
34 lbs. sugar	....	....	32.30
10 lbs. skimmilk powder	....	9.50	9.50
2.75 lbs. gelatine	....	....	2.60
8.34 lbs. water	....	....	....
.70 lb. extract and color	....	....	.30
307.79 lbs.	30.24	29.09	94.48
Per cents	9.80	9.4	30.6

Per cent sugar, 11.03.

You will notice that the butterfat content of your present mix is below 10%, and also that your total milk solids are a little below 20%, the total solids being 2 or 3% lower than should be for a good ice cream. You will also notice that the percent of sugar in your mix is only 11%. You should use at least 12% sugar. In order to bring up the butterfat in your mix you would have to use a little more cream and the milk solids can then be brought up by adding a little more skim milk powder. I presume that you are pasteurizing your entire mix, and I would further suggest that instead of dissolving your gelatine in water you mix the dry granular gelatine with some of your sugar and introduce this into your milk and cream when you have it up to the pasteurizing temperature. The skim milk powder can then be thoroughly mixed with the remainder of the sugar and introduced into your milk and cream at a temperature of about 110 degrees, or before it has reached the pasteurizing temperature.

* * *

Dear Sir:—Will you please work out a formula for us of about 100 gals. Mix to contain 12% butterfat, 35% total solids, 11% serum solids. This mix to be made out of skim milk, milk powder and sweet butter, gelatine and sugar. T. A. C. CO.

Reply: I am giving you below, in Table No. 1, suggestions how you could make up a mix which would comply with your standard of 12% fat, 11% serum solids, and 35% total solids:

Table No. 1.

900 lbs. mix, 12 per cent fat, 35 per cent total solids.

Ingredients	Fat	Serum Sol.	Total Sol.
108.0 lbs sugar	....	....	102.60
4.5 lbs. gelatine	....	....	4.05
129.0 lbs. butter, 84%	108.36	....	108.36
52.0 lbs. skimmilk powder	....	49.40	49.40
606.5 lbs. skimmilk	....	53.98	53.98
900.0 lbs.	108.36	103.38	318.39
Per cents	12.04	11.48	35.67

I trust that this will serve your purpose, and at any time that I can assist you further I shall be very glad to have you write again.

* * *

Dear Sir:—Would you figure out the total solids and butterfat in the following mix, which I have been using for some time and has proven satisfactory: 30 gals. 36% cream, 30 gals. 7% condensed, 60 gals. 3.5% milk, 7½ lbs. gelatine, 6 gals. water to soak gelatine, 156 lbs. sugar, 8 oz. flavor and color concentrate vanilla.

If you could suggest and changes would like to have you do so. I emulsify my whole mix. This makes 24 batches. I get from 246 to 250 gallons of finished cream.

Yours, E. C. N.

Reply: You will find the calculations for butterfat and solids below in Table No. 1:



Send for this Bulletin

Every Ice Cream manufacturer should read this bulletin, especially if you are using ice for freezing and hardening your cream.

It contains interesting information — facts about better refrigeration—how to reduce manufacturing costs—how to eliminate spoilage and shrinkage — how to improve factory conditions.

BAKER SYSTEM
Mechanical Refrigeration

Baker Systems are designed by expert refrigerating engineers to meet individual requirements in the most efficient and economical manner. There are hundreds of Baker Systems giving their owners genuine service —perfect refrigeration in the general storage room—mixing room, machinery and vats —for the freezers—and a zero temperature in the hardening room, as well as the manufacture of ice for packing and shipping.

Baker expert refrigerating engineers are at your service—glad to talk over your problem without obligation.



Ask for Bulletin 65-D
It's Free

Baker Ice Machine Company Inc.
Omaha, Neb.

BRANCH OFFICES IN THIRTEEN CITIES

Table No. 1.

Ingredients	Fat	Serum Sol.	Total Sol.
30 gal. or 426 lbs. 36% cream	88.50	14.07	10257
30 gal. or 270 lbs. 7% condensed	18.90	48.60	67.50
60 gal. or 516 lbs. 3.5% milk	18.06	44.33	62.39
156 lbs. sugar	....	....	148.20
7.5 lbs. gelatine	....	....	7.12
.5 lb. vanilla	....	....	.10
50 lbs. water	....	....	....
1246 lbs.	125.46	107.00	387.88
Per cents	10.06	8.58	31.13

You will notice that your mix figures out 10% butterfat and 8.5% serum solids which makes a total of about 18.5%. In my judgment this is not quite enough milk solids for a well balanced ice cream. You undoubtedly have read some of the material which I have published on this subject. I have always maintained that in ice cream there should be at least 20% milk solids. An ice cream testing 10% butterfat should have at least 10% serum solids and at least 32.5 to 33% total solids.

The estimated yield of your ice cream as I have figured it out should not be over 250 gallons for your mix, which allows for an overrun of 70 to 80%. You could, by increasing the milk solids and total solids of your mix increase your overrun to 90 or 100% and still make a most satisfactory ice cream.

Dear Sir:—We would like a little information regarding our ice cream mix and will be greatly obliged if you will supply it.

The following is our mix as used the past season. From this mix we have drawn from 425 to 435 gallons of finished ice cream of very good quality. We would like to change this mix and cut out the condensed and use skimmilk powder in place of it to build up solids. We would like to have you figure out a formula for us on this basis.

The mix used the past summer is as follows: 360 pounds of condensed, 12 per cent fat; 192 pounds of butter, 82 per cent; 280 pounds of sugar, 115 pounds of skimmilk powder, 255 pounds of skimmilk, 7½ pounds of gelatine, 784½ pounds of water, 6 pounds of flavoring, color and ripener.

This makes a total of 2,000 pounds or 40 50-pound batches. Kindly analyze this mix for us, also figure out a new mix, substituting skimmilk powder for the condensed milk for which we will be greatly obliged.

G. C. Co.

Reply: I have your letter of recent date with request to work over your ice cream mix. I have a short course class in ice cream making at the present time and I have asked the class to work over your mix and I am giving below in Table No. 1 the analysis of your present mix and I am suggesting below in Table No. 2 how this mix could be worked over to eliminate the condensed milk and substitute additional butter and skimmilk powder. All of these calculations were made by the short course class. I thought perhaps that you would be interested in knowing this illustrates the kind of work we are doing in short courses.

Table No. 1.

Ingredients	Fat	Serum Solids	Total Solids
360.0 lbs. condensed	43.20	79.20	122.40
192.0 lbs. 82% butter	157.44	.....	157.44
280.0 lbs. sugar (14%)	....	.....	266.00
115.0 lbs. skimmilk powder.	....	109.25	109.25
255.0 lbs. skimmilk	....	22.70	22.70
7.5 lbs. gelatine	....	.....	7.13
6.0 lbs. flavor, color and ripener	....	.....	.90
784.5 lbs. water	....	.....	.....
2,000 lbs. mix	200.64	211.15	685.82
Per cent	10.03	10.55	34.29

Table No. 2.

Ingredients	Fat	Serum Solids	Total Solids
280.0 lbs. sugar	....	.....	266.00
255.0 lbs. skimmilk	....	22.70	22.70
7.5 lbs. gelatine	....	.....	7.13
6.0 lbs. glavor, color and ripener	....	.....	.90
198.37 lbs. skim powder	....	188.45	188.45
244.68 lbs. 82% butter	200.64	.....	.....
1,008.45 lbs. water	....	.....	.....
2,000 lbs. mix	200.64	211.45	685.82
Per cent	10.03	10.55	34.29

* * *

Dear Sir:—I wish to thank you very much for your help in the past and to ask your assistance again. Your department in The Ice Cream Review is one of the best parts to that magazine as your answers to other's questions have helped me very much.

In using a certain brand of skimmilk powder I have been compelled to mix it with water and strain before putting in the pasteurizer as there is a considerable amount that will not dissolve. I did not do this with my first batch and it had a chalky taste that was very displeasing. Should this be necessary with a good brand of powder? Out of each pound there would be almost a handful of powder that would not dissolve.

In adding gelatine to the mix, I have been adding mine dry at 145 degrees and find that it incorporates in the mix in fine shape. Has the cooking any advantage over this method?

In a mix balanced as to food value do you think that about 11 per cent milk solids, 12 per cent sugar and from 12 to 14 per cent fat would be right?

In making a mix with butter and skim powder would

28 BARS

ICE CREAM

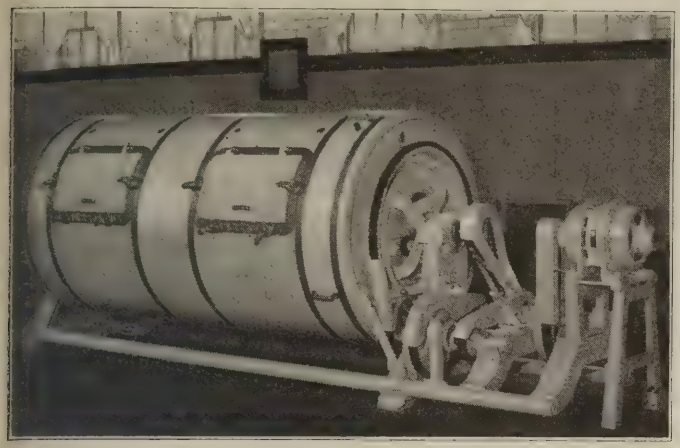
MAY BE COVERED
WITH ONE POUND

Forbes

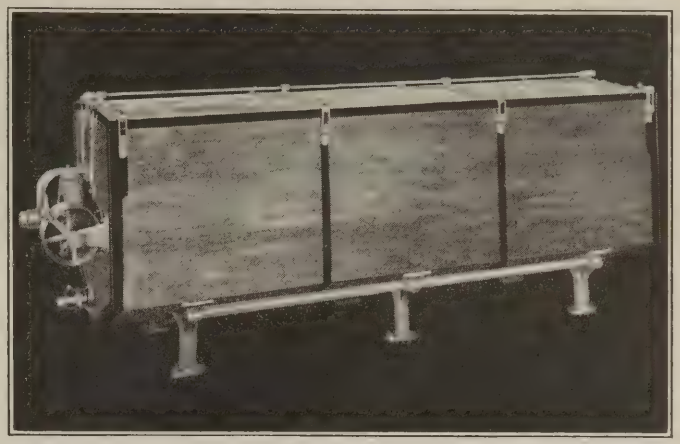
NORTH POLE
COCOS-COATING

Guaranteed to contain only the purest ingredients. Write for 1 lb. free sample, stating plant capacity.

The Forbes Chocolate Company
Coating Department
CLEVELAND OHIO



Disbrow Churn and Worker.



Progress Cream Ripener.



Dairymen's Cleveland Can.

DAIRY EQUIPMENT
DAVIS-WATKINS
DAIRYMEN'S MFG. CO.

Makers of the Famous Dairymen's Cans.

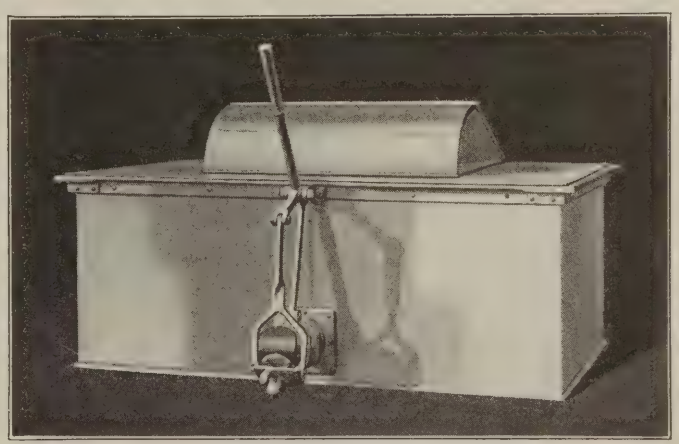


Dairymen's Ohio Milk Can.



Progress Starter Cans.





Davis Weigh Can.

Write Postal or Letter for Large Catalog.

Davis-Watkins Dairymen's Mfg. Co.

JERSEY CITY, N. J. CHICAGO, ILL. KANSAS CITY, MO. DENVER COLO. SAN FRANCISCO, CALIF. SEATTLE, WASH.

QUALITY PAYS BEST AND ENDURES LONGEST—MAKE QUALITY YOUR MARK.

you advise pasteurizing to about 145 degrees before adding condensed, sugar, etc.?

D. H. B.

Reply: I have your letter stating that you have had trouble in dissolving skimmilk powder for your ice cream mix. You undoubtedly have an ice cream powder which is old and partly insoluble or hardly fit to be used in ice cream. A good ice cream powder should be perfectly soluble and it should not be necessary to strain it.

In the matter of adding your gelatine dry into your mix at 145 degrees I am glad to state that there is absolutely no objection to this and it has every advantage over the cooking method. In making up a mix 12 per cent sugar along with 11 per cent mlik serum solids and 10 to 12 per cent butterfat, you will have a mix which should make a satisfactory ice cream in every respect.

There is no advantage in using 12 to 14 per cent butterfat unless you desire to do so. It is not necessary to wait until you have your mix up to the pasteurization temperature of 145 degrees before you add your condensed milk and sugar. This can be added at any time while your mix is heating and before it gets up to that temperature. I trust that these few suggestions will assist you.

* * *

Dear Sir:—We are using the following mix and would kindly ask that you analyze it and state where we could improve. We have had a few complaints with our ice cream not being just exactly right, but can find nothing wrong with our process.

740 pounds, 3.5 per cent milk; 62 pounds skim powder, 75 pounds sweet butter, 120 pounds sugar, 7 pounds gelatine, 4 pounds flavor and color.

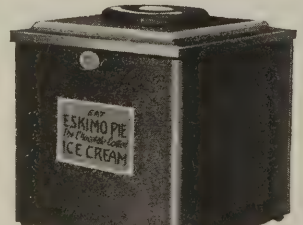


STOUT

Schroeder Perfection Cabinets

Our Eskimo Pie Special

Assures proper distribution of this new delicacy



1922 Cabinets now ready for shipment.

"Insulation is the thing"

JOHN SCHROEDER LUMBER CO.

"A Dozen Cabinets or a Dozen Carloads"

WALNUT ST. --- MILWAUKEE, WIS.

We pasteurize this mix, with the exception of the flavor and color, at 145 degrees for 30 minutes, run it through the viscolizer at this temperature nad hold at 40 degrees for 18 hours before freezing with 8 degrees brine. We are getting 220 gallons finished product from this mix.

St. C. D. Co.

Reply: I am glad to give you the analysis of your mix below in Table No. 1.

Ingredients	Fat	Serum Solids	Total Solids
740 lbs. 3.5% milk	25.90	63.19	89.09
62 lbs. skimmilk powder	....	58.90	58.90
75 lbs. 84% butter	63.00	.....	63.00
120 lbs. sugar	....	.....	114.00
7 lbs. gelatine	....	.....	6.65
4 lbs. flavor and color	....	.....	.60
1,008 lbs. mix	88.90	122.09	332.24
Per cent	8.82	12.2	32.2

You stated that you were pasteurizing the entire mix at 135 degrees for four minutes and then running it through the viscolizer and also that you were getting 220 gallons of finished product. All these processes are carried out above right and you should have no trouble in getting a satisfactory ice cream from that standpoint.

You will find on looking over the table above that you are using a little better than 12 per cent of milk serum solids in your mix and you are also using .7 of 1 per cent of gelatine. It is possible that the complaints which you state that you have had are due to too high a per cent of gelatine which makes your ice cream a little sticky; or the high per cent of milk serum solids may be responsible for the complaints. You did not state in your letter just what the complaint was. If you will do that I shall be glad to give you further advise.

* * *

Dear Sir:—Wish to produce a good ice cream that will give a butterfat content of 12 per cent.

We desire to use: Sugar, gelatine, condensed milk, 4 per cent; cream, 26 per cent; milk, 4 per cent; vanilla per cent. Please favor with a 100 pound mix.

W. E. & SON.

Reply: I am glad to suggest below in Table No. 1 how a satisfactory ice cream mix can be made from the ingredients suggested in your letter.

Table No. 1.

Ingredients	Fat	Serum Solids	Total Solids
14.0 lbs. sugar	....	.....	13.30
.5 lbs gelatine	....	.....	.47
39.0 lbs. 26% cream	10.14	2.56	12.70
14.28 lbs. condensed	.57	3.71	4.28
32.22 lbs. milk	1.28	2.75	4.03
100.0 lbs.	11.99	9.02	34.78

Trusting that this is the information that you desire, I am.

* * *

Dear Sir:—What yield should one get out of the following raw mix to equal 100 per cent over-run? 115 gallons cream, 140 pounds sugar, 4 pounds gelatine.

W. I. C. CO.

Reply: In order to get 100 per cent over-run you should secure 250 gallons of ice cream from your mix. You can arrive at that figure in the following manner: 115 gallons of cream at 8.3 pounds to the gallon will weigh 954.5 pounds; add to this 940 pounds of sugar and 4 pounds of gelatine makes a total of 1,098.5 pounds. Your ice cream with 100 per cent over-run should weigh 4.4 pounds to a gallon. Dividing 1,098.5 by 4.4 pounds will show the yield you should get, amounting to 250 gallon.

WARNER-JENKINSON CO. RED TRADE MARK SEAL ST. LOUIS

The Flavor Sells Your Ice-Cream

Here are 4 Types of Vanilla Flavoring that will sell your product

GIANT VANILLA COMPOUND
is all that the name implies.

MAMMOTH VANILLA COMPOUND
Different to Giant but equally strong.

VANILLA AND TONKA
Moderately priced. Hundreds of ice-cream makers swear by it.

STRAIGHT VANILLA BEAN EXTRACTS
Mexican, Bourbon, All Bean and Suva.
Contain 1 lb. of beans in a gallon of extract.

Inquire about our contract prices.

—o□o—

RED SEAL COLORS

Prices for 1922 are materially reduced. Our pure certified colors excel in strength and brilliancy.
Powder, Liquid or Paste.

—o□o—

RED SEAL RIPENER

Helps age the mix. Improves your ice-cream.

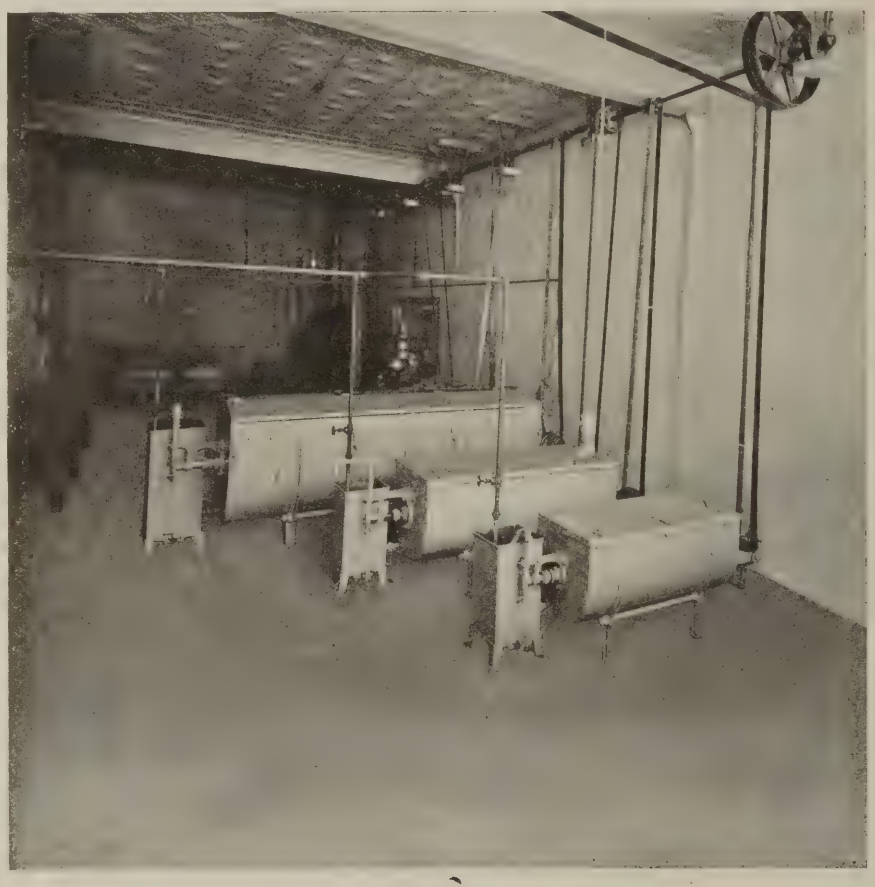
WARNER-JENKINSON CO.
ST. LOUIS

Six Times Original Size

Texas Plant Shows Remarkable Growth in the Short Time It Has been in Operation

That service is its own reward is shown by the thriving business of the Velvet Ice Cream Company, Paris, Texas. In 1919 in three small rooms—today housed in their prosperous home shown here. With service the keynote, with A. H. Cox as superintendent and R. L. Bryant as general manager, equipped throughout with the most modern machinery this plant has met with spectacular success from the very beginning. It is one of the finest in the entire southwest.

Always "the customer first," and no expense spared in producing the highest grade produce possible. No other food is perhaps quite so delicate as ice cream and exquisite pains must be taken to safeguard it in all stages of its manufacture. Dietitians are beginning to realize that one of the most healthful forms of taking milk into the system is as ice cream, provided, of course, that scrupulous care is given to details. The Velvet Ice Cream Co. has considered the effort well worth while. During the calendar year 1921 they spent for cream and milk some $100,000. Most of this will go into ice cream, to be sure, but there will be a development of the butter business as fast as it can be consummated.



In the Milk Pasteurizing Room of the Velvet Ice Cream Company Where They Are Using 500-Gallon, 150-Gallon and 50-GallonPasteurizers, All Steel Body, Belt Driven.

Note the neat arrangement of the three Cherry batch mixers, also the cuts of the freezing room showing two Perfection freezers and viscolizer, and finally the room where the milk cans are sterilized with a Perfection ice cream can washer. Just outside a fleet of trucks awaits to expedite deliveries. Not a hitch anywhere along the line—nothing to mar the complete arrangement—nothing to cause a customer to call up and complain of the service.

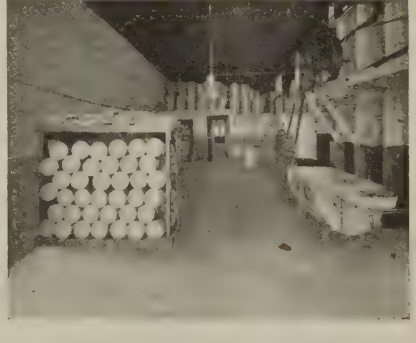
A plant like this not only reflects credit on the local management, but is a distinct asset to the industry in general. It is visiting just such concerns as this that makes the public believe in ice cream and want more of it. It is the best kind of propaganda going.

The company's brand of "Velvet" butter has become as well known as that of their ice cream, and the demand for their butter far exceeds their output, which is somewhat retarded by their inability to get sufficient butterfat from the farmers. Their butter is marketed in Northern Texas and Southern Oklahoma.

Their advertising is done direct to the customer, through personal letters and house to house canvassing. This results in the consumers' demand upon the merchants for the Velvet products.



The attractive exterior of the Velvet Ice Cream Company's Plant.



Where the Cans Are Washed.



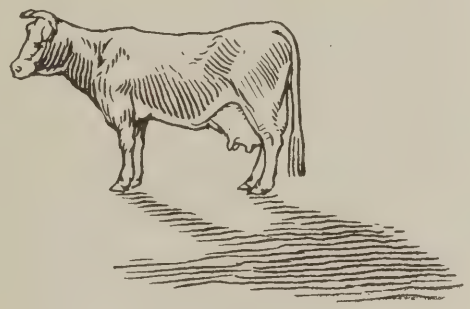
The Freezing Room in the Plant of the Velvet Ice Cream Company.

Their delivery service is thorough and unique. Each local order is written up, and timed on the face of the blank the hour and minute received, and in case of any delay in returning the customer's receipt for delivery, or the amount due in case of a cash purchase, the delivery man has an explanation to make.

THE C-B-W CALENDAR



Cherry Machinery
Viscolizers
Thomas Batch Measures
New Era Brick Cutters
Hendler Can Truck
Superware



A NEW SIGN

AN individual's photograph gives you a visible concrete image of that person, no matter how many miles separate you. But one photograph cannot picture for you a *business* and its organization such as ours. A hundred photographs would have to be employed to show you the many factories, the offices and warehouses. Many more would be necessary to show you each individual member of this complex group of workers. Even then you would have no pictures portraying the *accomplishment* of quality, of service, of progressiveness and all the other factors that breed respect and good will for a business organization. And so we use a SIGN. Whenever you see our octagon-shaped emblem you will learn to know that it stands for our new firm name, our entire line of equipment and our organization.

Our sign is not totally new. Many will recognize the "Bestov" it. The old Bestov trade mark represents forty years of service to the dairy industry. We expect to make it the symbol for "best of all" equipment and service.

When you see this new trade mark remember it is the sign of:

We are successors to:

Dairymen's Supply & Construction Co., Pittsburgh.

Philadelphia Farmers' & Dairyman's Supply Co., Philadelphia.

Cherry-Bassett Company, Baltimore-Philadelphia.

Cherry-Bassett-Winner Company

1918 Market St., Philadelphia

1139 Penn Ave., Pittsburgh 33 So. Charles St., Baltimore

The Manufacture of Gelatine

By CARLETON BATES of the United States Gelatine Co., Milwaukee, Wis., before the Michigan Association of Ice Cream Manufacturers at Saginaw, February 15 1922

IT IS with regret that the proposed illustration by cinematograph of the manufacture of gelatine could not be effected. Such illustration would probably more graphically describe and impress you as to the magnitude of the gelatine industry, but if you will bear with me for a short time I will try to describe how gelatine is manufactured, the raw materials employed, etc.

It is probably of great interest to the majority of you to know how one of your ingredients is manufactured and what care is taken by the gelatine manufacturer to insure a uniform product for your use in ice cream. You probably all ask, "What is the difference between glue and gelatine?" These two terms, glue and gelatine, like many commercial terms are not strictly defined. Gelatine comes from the Latin—glare, to congeal; while glue comes from the Latin—glus, which is akin to gluten, from gluere, to draw together.

Gelatine is met with in slightly amber or nearly colorless thin sheets and is used for purposes in which the absence of taste, odor and color, with firmness of jelly, easy solubility and ability to act as a binder are required. You, however, are more familiar with gelatine in the powder form which has the appearance of being a bright light colored crystalline substance.

There are two kinds of gelatine on the market, vegetable and animal. The vegetable gelatines are made from Irish Moss, Japanese sea weed, etc. This product is used for candies, ice cream, technical laboratory work, etc., but is not used as extensively as is the animal gelatine. Of the gelatines of animal origin there are three classes.

(a) Skin gelatine from carefully cleaned and treated intercellular connective tissues.

(b) Bone gelatine, from crushed acidulated bone.

(c) Fish gelatine, from bones, skins and bladders of fish. Fish gelatines are met with in the form of isinglass and are rarely, if ever used for food. Bone and calf skin gelatines are, therefore, the only ones we are concerned with.

The bone stock consists of bone from which the fat has been extracted and the mineral matter removed by treatment with acid. It is known as osseine, from crushed bones, dentelles from scraps of bones left from the manufacture of buttons, knife handles, etc., and horn piths from the bony piths of horns.

Of the calf stock there are two kinds, green and salted stock from domestic tanneries, and dry imported stock. Both consist of pates, the face of calves including the ears and splits. Splits are the inside pieces of hides split off before tanning.

The stock, either bone or calf, is prepared for extraction by treatment with milk of lime. Previous to this treatment the stock is first washed free of salt and dirt in washmills especially constructed for this purpose. In the treatment of milk of lime the time varies from 4 to 5 days in the case of some bone stocks to fourteen weeks in the case of calf pates. Three or four treatments with milk of lime are necessary in order to cleanse the stock properly. In order to keep a plant operating you can readily see the amount of raw material and space necessary to have the stock in process fourteen weeks.

After the liming treatment the stock is acidulated to remove all traces of lime and then washed to a neutral point. It is then ready for extraction which is carried on in large cook kettles. Several extractions are made from the raw material, each extraction at a higher temperature than the previous one.

From three to seven extractions are made, depending upon the practice of the various manufacturers, the digestions varying from 155 degrees Fahrenheit to boiling. After extraction the liquors are filtered to remove coagulated albumen, some peptone and foreign matter, and may be condensed by evaporation when the liquors are then poured upon endless belts and set up in the form of jelly. The jelly is then spread on nets and dried in currents of warm air into the sheet of gelatine.

In order to conform with all food laws and factory regulations gelatine liquors are never allowed to come in contact with prohibitive metals such as copper, zinc, etc. For this purpose glass enamel tanks and pipes are employed for holding and conveying the gelatine liquors, and in order to reduce the bacterial actions double lines are often employed so that one may be sterilized while the other is in use.

The grade of gelatine produced depends upon sanitary and sterile conditions as much as upon the raw materials employed. After drying, the sheet gelatine is broken into chips and then ground for the consuming trade. It is practically impossible to manufacture gelatine day in and day out of a given grade and for this reason gelatines are not graded until after a final test has been made as with regard to the viscousness of the gelatine and the strength of the jelly when set. By the viscousness of the gelatine is meant the ratio of the time of flow of the gelatine solution to the time of the flow of water through a given orifice at a given temperature. The jelly strength is measured by the weight or pressure which a jelly will withstand without breaking.

In connection with these tests the appearance and color of the sheet gelatine are also used in determining the final grade of gelatine. The method of testing the viscosity and jelly strength of gelatines varies with the different manufacturers, but all methods are really a ratio reading of the gelatine as compared with water.

The highest testing gelatine produced are extracted at the lowest temperatures because the more heat applied the greater you are forcing the gelatine liquors out of the raw material and you therefore reduce the strength of the resulting jelly. This does not mean that the later extractions are not as pure as the extractions at the lower temperatures, because they are. They are

FOR YOUR INFORMATION

Our Ice Cream Manufacturers, Milk Plant and Creamery catalogue will have illustrations and give full information on machinery and supplies, and be ready for mailing about March 15th, 1922, with up-to-date prices.

We will not send these catalogues out promiscuously, but only to our customers or bona fide applicants, who are interested in receiving our catalogue and request us to place their name on our mailing list. **If interested write today.**

DAIRYMEN'S MFG. & SUPPLY CO.
403 North Main St. ST. LOUIS, MO.



B. Riley Hauk
President



Pat. 6-29-1920—Pat. Pndg.

HERE IT IS!

The Frick Bottom Hoop

For Ice Cream Tubs

With this hoop you can replace bottoms that are out or repair weak bottoms, making them stronger than when new. In either case, your tubs if equipped with Frick Hoops will last two or three times longer than a new tub of the present type.

This Hoop is made of No. 12 gauge, rust-resisting ARMCO INGOT IRON—hot galvanized after manufacture — rivets are made of rust-resisting metal.

Bung, Tube and Nut made of cast iron—heavily galvanized. Notice the construction — this hoop is not driven on, but PUT ON SNUG.

The Hoop comes up side of tub far enough to hold bottom of staves secure—the lugs are riveted to staves, making it impossible to weaken or knock the bottom out by rough handling. The bottom end of staves are not exposed in any way. Our Bung insures a *tight* bunghole.

Equip all your tubs with Frick Hoops

Made in all sizes for average 20-quart ice cream tubs

Write Us Today!

FRICK HOOP COMPANY

CORSICANA, TEXAS

made from the same raw material in exactly the same way but are generally a little lower testing.

One of the most important points for the control in the manufacture of gelatine is to control the action of putrefactive liquefying bacteria upon the liquors during the course of manufacture. Since these liquors contain besides gelatine, the peptones and proteoses which are degradation products the liquors constitute an admirable nutrient media for the growth of most organisms. That the action of the nutrient media has considerable influence on the growth and development of bacteria is a fact well recognized by chemistry.

The course that most naturally suggests itself is to keep the liquors at a reaction and temperature least favorable for the propagation of bacteria. It is not well known what happens, when owing to the influence of bacteria or chemicals, gelatine refuses to jell. Bacterial liquifaction of gelatine invariably leads to ultimate putrefaction, but the converse is not true, since a solid gelatine may turn putrid without liquifaction. It is common knowledge that the liquifaction of gelatine is due to the proteolytic enzymes secreted by certain bacteria which split up the gelatine molecule into its ultimate products of disintegration; amines, amino, acids and very often ammonia. To the manufacture of gelatine the percentage of gelatine in the liquors is a matter of vital importance and it is therefore, necessary to pay the best attention to the conservation of the gelatine molecule as much and in no way permit the growth of bacteria.

The drift of gelatine users has been toward the highest testing gelatine possible. Such continued use has made the purchase of the highest testing gelatine costly. There are certain lines in which none but the highest testing gelatine can be used and it is therefore necessary to use a medium test of gelatine for other lines.

I want at this time to leave with you the idea that lower testing gelatines are of the same high purity as are the higher testing gelatines. If the stock is properly treated before extraction there will be no odor to the second and third extraction gelatines which are the lower testing. These gelatines contain no more of the heavier metals, suphite, etc., than do the first extraction gelatines and the clarification would be equally as good. I do not want you to go away with the idea that only high tseting gelatine is odorless but that all extractions of gelatine from the same raw material are of equal high grade guaranteed purity the only difference being in the strength of the jelly obtained from each. By using slightly more of the lower testing but otherwise equally high grade gelatine you may be able to show a saving of the manufacturing cost of your product with an equally good article.



ANOTHER CLAIM TO THE FIRST ICE CREAM.

The President of the National Association of Ice Cream Manufacturers, Mr. S. T. Nivling, is reported as authority for the statement that the first ice cream was made in Italy by an Italian, living near the foot of the Alps Mountains, seventy-five years ago.

The original ice cream man carried a bucket of sweet cream up above the frost line on the side of the Alps and surrounded it with snow. He kept stirring the cream with a paddle and scraped away the "ice cream" as it froze to the sides of the bucket. This was the earliest recorded method of making ice cream and was kept up for years, accidental experiments gradually changing the making of ice cream to simpler yet crude ways, until fifty years ago ice cream making started in a commercial way in England before it was attempted in the United States.—Ice and Refrigeration.



DEVICE TO TEST FREEZING TEMPERATURE.

To facilitate the study of problems in ice cream making, such as sandiness, viscosity, and the rate of crystalization, the dairy division of the United States Department of Agriculture has made a new application of devices for taking and recording temperatures electrically. The apparatus is known as a rotating thermocouple and cold junction, and by its use it is possible to take temperatures continuously in the interior of power ice cream machines while the mixing is being done, the readings being taken several hundred feet away, where the accuracy of the recording instruments is not disturbed by machinery in the plant.

The use of mercurial thermometers for this purpose is obviously impracticable, says a bulletin of the department in explaining the device, not only because it would be necessary to stop the mixer to read the temperature but also for the reason that a glass thermometer can not be used under such conditions. With the new apparatus the stage of freezing in the "mix" can be ascertained at any time as the process goes on, and the temperature may be obtained with accuracy within one one hundredth of a degree centrigrade.

"The temperature measurement is based upon the principle that if two electrically conducting wires of dissimilar materials are connected at their ends and one end has a different temperature from the other an electric current will be caused to flow through the wires," continues the bulletin. "The difference in potential between the ends will be very nearly proportional to the difference in the temperatures between them. In the ice cream freezer five such pairs of wires are connected in such a way that the normal effect is multiplied. One set of the wire junctions extends into the 'mix' from the shaft, while the other set is located in an ice pack which rotates with the shaft outside of the mixing chamber. The current is transferred from the revolving shafts through copper disks that rotate in baths of mercury. An original part of the apparatus is the manner of maintaining the ice pack or cold junction on the moving shaft.

"Although the apparatus was designed for use in scientific investigations of problems in ice cream manufacture, it is expected that it may find application in commercial plants."



A man may succeed in making a fool of himself without exciting envy, but success in any other object always brings some detractor to the front.

INCREASE YOUR GALLONAGE FOR 1922
ORANGE-CRUSH ICE CREAM SHERBETS and ICES
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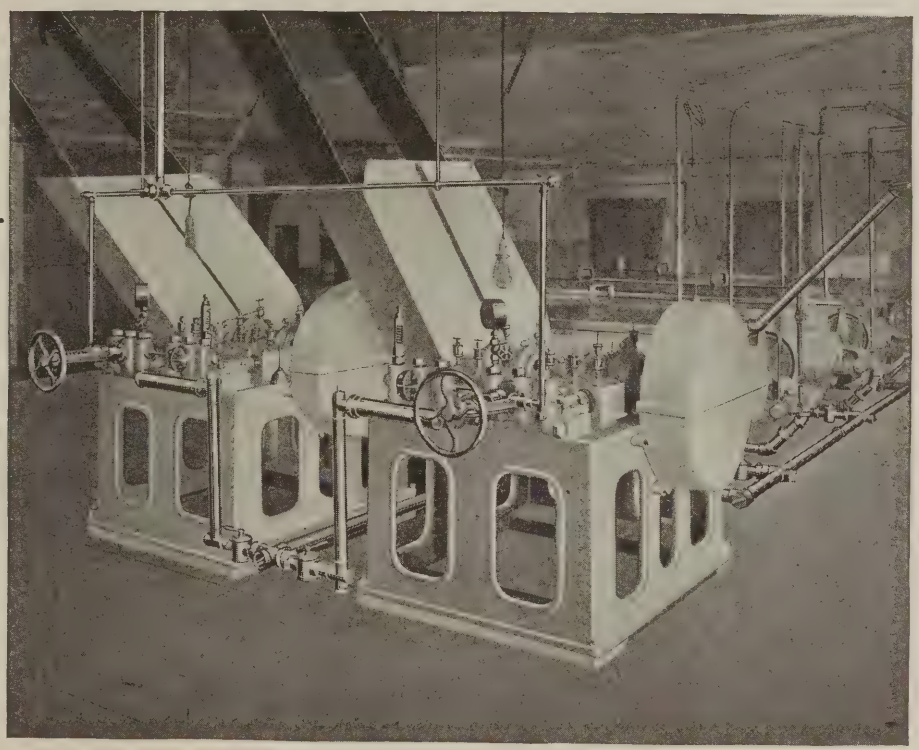
PUMPS
If you have any liquids to handle, from gasoline or water to molasses or tar, get free expert advice from our engineers. It costs you nothing and is sure to save you money. Write today.
Blackmer Rotary Pump Company 314 SHERIDAN ST. PETOSKEY, MICH.

PLEASE MENTION THE ICE CREAM REVIEW WHEN WRITING TO ADVERTISERS

Breyer's Homogenizing Plant

Includes Two

GAULIN Homogenizers



A FEW may equal but none can surpass the quality of ice cream produced by the Breyer Ice Cream Co., Philadelphia. After experimenting with others they have standardized on Gaulin Homogenizers and every ounce of the mix producing 4½ million gallons of ice cream in a year goes through these two machines.

The Breyer Ice Cream Co. has the reputation of being one of the most efficiently managed plants in the country and their decision in favor of the Gaulin was based on careful tests. It speaks volumes for the efficiency of this homogenizer.

Most of the other plants in America producing quality ice cream have also standardized on Gaulins. They have learned that while a good ice cream maker can produce good ice cream with ordinary equipment, the same man can produce better ice cream and do it easier with a Gaulin. Every particle homogenized in the Gaulin must pass through the Gaulin Spring Homogenizing Valve which crushes it under a pressure of 4,000 lbs. Furthermore, the spring valve feature prevents clogging of the valve as is the case with rigid valves as found on ordinary machines purporting to do what the Gaulin does.

Manufactured by The Manton Gaulin Mfg. Co., 11 Elkins St., Boston, Mass.

Distributed by

THE CREAMERY PACKAGE MFG. COMPANY

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Portland, Ore., 6-8 N. Front St.
San Francisco, Cal., 699 Battery St.
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ICE CREAM MAKING MACHINERY
REFRIGERATING SYSTEMS
DAIRY MACHINERY AND SUPPLIES

Opportunities in Refrigeration Engineering

By GEO. G. HOECKER

FEW, if any industries, present to the earnest and diligent engineer, the many splendid opportunities offered by the refrigeration industry.

A comparatively young industry, refrigeration has, during the last generation or so, grown into a gigantic enterprise that has spread all over the globe and has brought with it a most remarkable demand for men of technical training, who are capable of visualizing the important relationship of the ice industry to almost all other phases of the world's commercial work.

Step by step, the refrigeration industry has kept pace with the magic development of electricity, and it has expanded under most favorable circumstances. It would indeed be impossible to set a limit to the prospects which this industry offers to the man who is willing to make it his life work and supplement his efforts by intelligent and progressive methods.

Science rules the universe and technic governs practice. Experience has taught the modern manufacturer and producer the need of competent men at the head of his various departments who, aside from being well acquainted with the practical work, have a technical training which admits of taking up lost motion in the general operations as well as to inaugurate economics.

This is true of the progressive ice and cold storage plant owner. He desires to keep his plant astride with scientific developments in his industry. He is always glad to have a man at the helm of the practical operations who has been fortunate enough to have had a technical training and is therefore in a position to cooperate in maintaining modern economical methods.

As far back as 1907, the Siebel Institute of Technology, realizing the urgent need of a complete course in refrigeration engineering, decided to conduct such a course which would also include all kindred subjects, such as steam, electrical, mechanical, and chemical engineering.

As it was evident that the practical engineer who would be most interested in this course would be unable to absent himself from his plant for any considerable length of time, it was necessary to devise a training system which would eliminate all unnecessary details and yet afford thorough and complete instruction in all essential features.

Through its many years of experience in other courses of instruction, the faculty of the institute was able to devise constructive methods providing for the personal training of each individual student. While this naturally limited the class to a small size, the method permitted the covering of a vast field of subjects, equivalent to years of training under ordinary conditions. The duration of the course was set at three months.

In 1907 the first course started and its attendance indicated plainly the demand for technically trained men on the part of both engineers and plant owners. Accordingly the course was conducted yearly since that period with ever increasing success.

With the coming of the world war, the course was necessarily suspended. The great conflict brought with it too many sudden and radical changes in every industry, especially in the refrigerating industry and the institute was confined to keeping a close check on all new developments so as to be able to incorporate them in the curriculum when the refrigerating engineering course was again resumed.

In this work, the institute was effectively aided by its affiliation with the largest engineering associations and publications in the industry, and it was at the instance of Mr. J. F. Nickerson, editor of "Ice and Refrigeration," that on January 23rd, another class in Refrigeration Engineering was started.

It was decided to insure the success of this first engineering class, training under the revised and completed curriculum, by limiting it to twelve members, which necessitated turning away quite a number of late applicants. It will be noted that these men came from various parts of the country as follows:

Dave Ablon, Ablon Cold Storage Co., Dallas, Texas.
Jos. J. Dannehy, Chicago, Ill.
Paul Duffey, Chicago, Ill.
Chas. E. Garrison, Flint, Mich.
Wm. C. Griesser, Pittsburgh, Pa.
Vallie N. Hale, Chillicothe, Ohio.
Cornelius D. McMonagle, Chicago, Ill.
Fred W. Pratt, Wichita Ice & Cold Storage Co., Wichita, Kans.
John F. Stone, Junius F. Stone & Co., New York, N. Y.
R. Werner, Jr., Melbourne, Australia.
Lester Bradfield, Springfield, Mass.
Bror P. Ulander, Butte, Mont.

Since the opening of the course was first announced officially, Siebel Tech has been flooded with inquiries from all over the United States and Canada for a summer course and it has therefore been decided to start another similar course Tuesday, May 2nd, 1922.

As in the case of the course at present in progress, the curriculum will be a very thorough and complete one, including such subjects as Mathematics, Physics, Chemistry, Mechanical Drawing, Mechanics of Machinery, Experimental Engineering, Mechanical Engineering, Electrical Engineering, Thermodynamic Principles, Production of Refrigeration, Refrigeration Plant Design, Plant Excursions.

The small class limit will also be again a feature, which together with the splendid faculty in charge of the course, is certain to insure maximum results for the student.

Engineers who are interested in securing further particulars about the course should not fail to put themselves in prompt touch with the registrar of Siebel Institute of Technology, 960 Montana St., Chicago, Ill.

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ST. LOUIS, MO.
PEERLESS
Gelatines
Pure White India Gum
PERFECTION Ice Cream Powder
ODORLESS
UNIFORM





The kind of ice cream that builds business

Richness, smoothness, the way it stands up—these three qualities mark the most popular ice cream in any community.

The last two are largely dependent upon the quality of the GELATIN used.

For GELATIN of the highest quality, graded to your requirements, delivered when you want it and at a reasonable price, get in touch with Swift & Company.

We are particularly well equipped to serve you. Ask for prices and complete information on our product.

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WAREHOUSES:
Chicago Cleveland Cincinnati Philadelphia
Minneapolis St. Louis Baltimore
Atlanta Buffalo

PACKAGING MACHINES HAVE REVOLUTIONIZED THE PACKAGE ICE CREAM BUSINESS.

Ice Cream With a Punch

Ice Cream Review Reporter Interviews Famous Pugilist

One of the staunchest believers in ice cream as a body-builder and strength-producer in the country is Richie Mitchell, one of the World's best known pugilists.

For the benefit of our readers, who are not conversant with present day fistic happenings, we might add that Mr. Mitchell is one of the three leading lightweight battlers of the country and the youth, who all but lifted Benny Leonard's crown in their last meeting at Madison Square Garden, New York, when he had the world's champion down for the count of nine.



Richie Mitchell

To those who never have had occasion to personally meet a modern, top-notch pugilist and who are laboring under the impression that they are in a class with toughs and bullies, as was the average prize-fighter of the olden days, would receive quite a shock upon entering the new $20,000 bungalow, the Mitchell's home, situated in Milwaukee's fashionable suburb, Shorewood, often referred to in the press as the "Gold Coast."

The writer, who was ushered into the beautifully furnished parlor by the maid, was quite surprised to find the youth who Benny Leonard admits gave him the hardest battle of the latter's career, on the floor romping with his two children, Geraldine, aged 3, and Patricia, who celebrated her first birthday last month.

As the writer's mission was on the subject of ice cream, he immediately flung this question at the boxer, who had excused himself for his mussed-up appearance, which had resulted from his "work out" with the babies.

"Mr. Mitchell, we have been informed that you are very enthusiastic regarding the virtues of ice cream as a health builder."

"I give ice cream much of the credit for my success in the ring," he replied, "and there isn't a day passes that I do not consume at least two dishes and often times more. You know in our business we have to be pretty careful what we put in our stomachs, particularly so when preparing for a fight, and ice cream is one of the few things that my trainers have not put on the 'blacklist.'

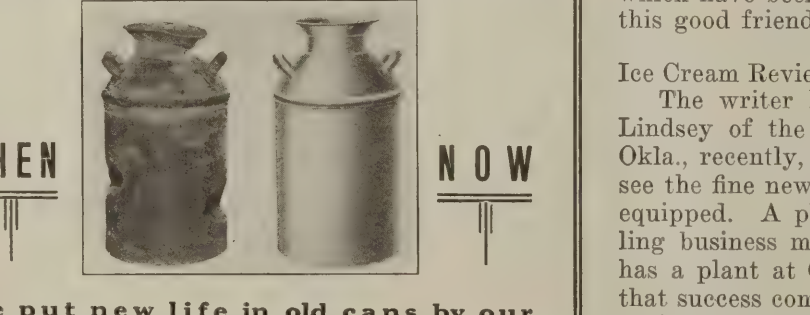
"In fact, ever since I was a kid, I have been a regular fiend for it and while the other kids were sneaking around alleys smoking cornsilk cigarettes I would be pestering my dad for a nickel to get a Sundae. He often remarks about it to this day. It was always my ambition to gather up enough of the worldly goods to purchase a whole quart and sit down and eat it all myself. Fortunately, I have had my wish.

"Both my babies have been practically brought up on ice cream, Patty wasn't hardly a month old when we caught Geraldine feeding her some of her ice cream one day—it didn't seem to hurt her either.

"If I don't bring home a brick of ice cream every night for dinner, there's 'war.' I can see Geraldine sitting in the sun parlor, for at least a block before I reach the house, anxiously waiting for her 'Ise Cream' as she calls it.

"And I doubt whether there are two healthier and stronger kids in Wisconsin than they are," he concluded, with true parental pride.

As a parting shot, he added: "You can say for me, that in my opinion, there would be fewer sickly, puny people on this earth if more ice cream was eaten."



We put new life in old cans by our

TRIPLE TINNING Process

Let Us Prove It.

DALLAS TIN PLATE CO. 2836 N. Haskel Ave. DALLAS, TEXAS



Wolfhounds

J. WILL CARPENTER, Pres.
Haines-Carpenter Dairy Products Company, St. Louis, Mo.
OTIS B. WITTE, Secretary
N. A. Kennedy Supply Company, Oklahoma City, Okla.



SUCCESS FOR THE HUSTLER.

From time to time, news of the success of some hustling business man comes to us through our good friend boosters, the supply men of the great ice cream industry.

The following news comes to us from Mr. C. R. Hauk, who is now affiliated with the B. Heller & Company of Chicago, Ill., and who travels the territory out of Oklahoma City, Okla. Mr. Hauk is a staunch booster for the ice cream industry and is among the best known Wolf Hounds of Oklahoma to the readers of The Ice Cream Review through the many interesting letters which have been published in its columns, coming from this good friend.

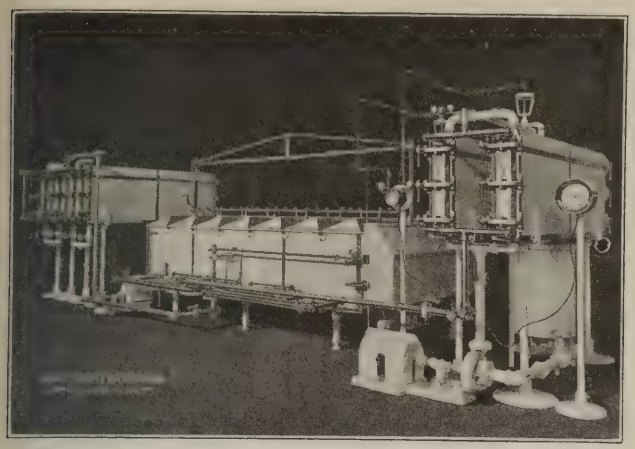
Oklahoma City, Okla.

Ice Cream Review:

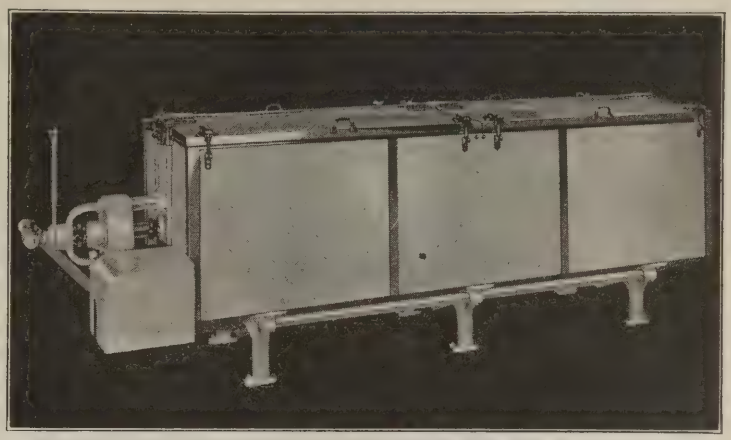
The writer had the pleasure of calling on Mr. E. Lindsey of the Lindsey Ice Cream Co., of Okmulgee, Okla., recently, and was sure surprised and pleased to see the fine new plant that Mr. Lindsey has put up and equipped. A plant that this young wide awake, hustling business man can be proud of. Mr. Lindsey also has a plant at Chickasha, Okla., this all goes to prove that success comes to the hustlers who apply themselves to the task before them, in a clean sensible business manner. A credit to this great industry is Mr. Lindsey. Go to it, Mr. Lindsey, more power to you. We wish you every success in the future as in the past; hop to it old pal; all the WORLD loves a hustler; make this 1922 your banner year.

Yours with a BOOST,

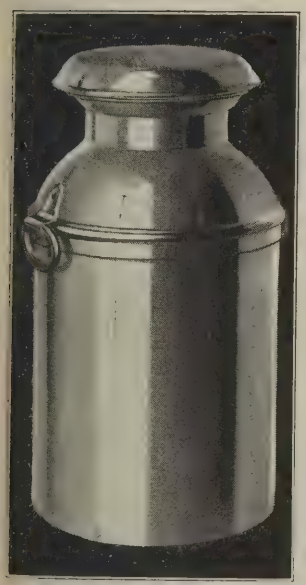
C. R. HAUK.



Davis Pasteurization.



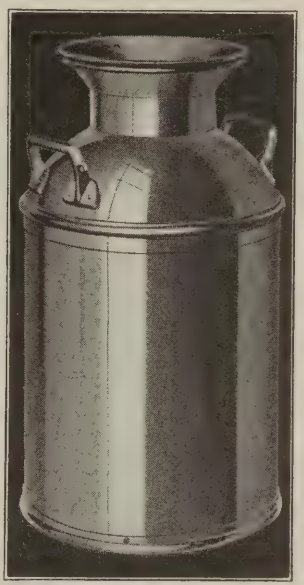
Progress Batch Pasteurizer.



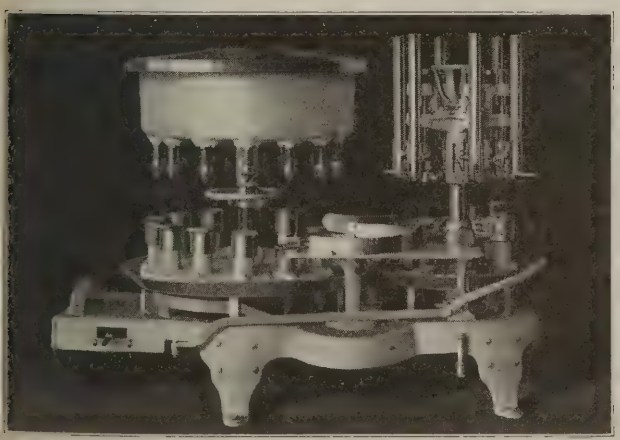
Dairymen's
New York Milk Can.

DAIRY EQUIPMENT
DAVIS-WATKINS
DAIRYMEN'S MFG. CO.

Makers of the Famous Dairymen's Cans.



Dairymen's
Tiger Milk Can.



Davis Rotary Filler and Capper.



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Your Request for Large Catalog will have Quick Attention.

Davis-Watkins Dairymen's Mfg. Co.

JERSEY CITY, N. J. CHICAGO, ILL. KANSAS CITY, MO. DENVER, COLO. SAN FRANCISCO, CALIF. SEATTLE, WASH.

A GOOD CABINET AT A GOOD "STOP" IS A GOOD INVESTMENT.

WASHINGTON—MAINE

News From Far and Near

CALIFORNIA—FLORIDA

Fairhope, Ala.—The Farmers' Co-operative Ice & Creamery Co., Fairhope, Ala., recently organized, is planning for the erection of a one story ice manufacturing plant. Leonard Payne is president.

Fairhope, Ala.—J. Caldwell will start an ice cream making establishment.

Pine Bluff, Ark.—Messrs. Laurence and Collato are planning to open an ice cream factory.

Newman, Cal.—The National Ice Cream Company is having plans prepared for a $40,000 ice cream plant of one story.

Santa Barbara, Cal.—By May 1st there will be in operation a large new ice cream plant which will supply ice cream to the vicinity around Santa Barbara. This is a $125,000 enterprise; the chief promoters are T. P. Dalzell and L. R. Philips.

Kinston, N. Car.—Harvey Hines contemplates erecting a large ice cream plant here.

Raleigh, N. C.—L. A. Corning, of the Buttercup Ice Cream Company of Hamlet now holds the controllong interest in the Pine State Creamery of Raleigh.

Charlestown, S. C.—The Ashley Ice Cream Company has been incorporated for $25,000. J. G. Sherrer, K. N. Freyschmidt and J. H. Heinsohn are interested parties concerned.

Greenwood, S. Car.—The Greenwood Ice Cream Co. has increased its capital stock to $10,000.

Spartanburg, S. C.—The Spartanburg Creamery will immediatley begin the manufacture of ice cream, milk and cream and butter.

Wilmington, Del.—The Miller Ice Cream Company has incorporated for over a million dollars.

Brighton, Ia.—Louis West, of Burlington, Ia., has now located in Brighton and is opening an ice cream factory.

Forest City, Ia.—F. R. Ballantyne, proprietor of the Forest City Ice Cream Factory, attended the short course at Ames. Mr. Ballantyne has opened his factory. The public is welcome to visit the plant at any time while they are operating.

Hamburg, Ia.—Roy Chiames of the Hamburg Candy Kitchen has purchased equipment to manufacture ice cream.

Muscatine, Ia.—Leu & Stein are erecting an ice cream factory.

Scranton, Ia.—Messrs. Coleman Bros., who are running the creamery here, report that business is good with them and that they are buying lots of cream. This firm is going to be prepared to do a land office business this season in the ice cream business, as they have just finished packing and putting away about four hundred tons of ice. Nearly every-





one learned a lesson about the ice situation last year and are getting better prepared.

Wallace, Idaho.—The Kolloge Dairy and Creamery Company will install an ice cream plant and butter factory. Arrangements are being made for the purchase of the machinery and the addition to the dairy will total an expenditure of approximately $3,000, it is stated.

Weiser, Idaho.—The Weiser Ice & Cold Storage Co. will add the manufacture of ice cream to their business the coming season, according to plans decided upon recently. The company also contemplates putting in a first class plant for handling butter, eggs, milk and cream, in addition to the manufacture of ice cream.

Chicago, Ill.—The National Ice Cream Co., 7401 W. Madison St., has been incorporated for $150,000. They will manufacture ice cream. M. Code, A. J. Versilles and E. H. Lowe are interested parties.

Chicago, Ill.—The Seven Links Ice Cream Co., 53rd and So. State St., is enlarging its plant.

Chicago, Ill.—Max Tauber & Sons are to erect what is reported to be the most complete ice and ice cream manufacturing plants in the city, at 2217-59 Wabansia avenue, with a 450 foot front and 109 feet on Oakley boulevard. The capacity is announced at 800,000 gallons of ice cream annually, 100 tons of ice daily, with ice storage space for 10,000 tons. The land is valued at $80,000 and the building to be erected there at $350,000.

Chicago, Ill.—The Big Four Artificial Ice Co., 2004 No. Keystone Ave., have capitalized at $100,000 to manufacture and deal in ice, ice cream, etc. The incorporators are Titus W. Stahsch, Alb. Ulrich, Jul. Bittmann, Henry Kronen, and Attila J. Heizer.

Rockford, Ill.—Russell Smith will be superintendent of the New Oak Brand Ice Cream Company.

Waukegan, Ill.—Plans for the $20,000 addition to the Co-operative Trading Company's dairy department at 1105 McAlister Avenue, and work on the new building will be pushed forward at once.

The new structure will be a two-story brick affair adjoining the present store of the company. All of the equipment will be the most modern obtainable. The creamery besides handling milk, will be equipped to make butter, ice cream, cheese and other dairy products.

Valparaiso, Ind.—The Vincennes Milk and Ice Cream Company has filed a petition to change its name to the Tip Top Creamery Company with the idea in mind that this name will cover all products manufactured.

Colby, Kans.—The arrangements have been completed for a new business enterprise in Colby. It is to be an ice cream factory and the management will also retail ice. It is sponsored by the Golden Belt Creamery and Ice Co., of Hays. Asa A. King is one of the officials of the company.

Manhattan, Kans.—The Chappel Ice Cream Company of Norton, Kansas, has erected a $50.000 ice plant and ice cream factory at Manhattan, and will have it open for early spring trade.

Wichita, Kans.—Amended articles of incorporation have been received from the secretary of state by the Steffen-Bretch Ice and Ice Cream Company, where the name of the corporation is changed to Steffen Ice and Ice Cream Company. C. M. Beachy is president of the company; John Olinger is secretary. The company operates ice and ice cream plants in Wichita and Oklahoma City.

Somerset, Ky.—The Danville Ice Cream Company of Danville, Ky., contemplates opening a small plant at Somerset.

Monroe, La.—The Orvin-Kent Ice Cream Co. is incorporating for $5.000. C. A. Kent, of Kentwood, La., is the president and J. H. and Mrs. W. M. Orvin, of Monroe, are secretary and treasurer, respectively.

Hagerstown, Md.—William Hankey, the well known ice cream man, has established a factory at 46½ East Franklin Street, and has instlaled a freezer capable of making 400 gallons daily.

Fitchburg, Mass.—A new plant is being built by the Ideal Ice Cream Co.

Cadillac, Mich.—The Cadillac Ice Cream Company, with plants here and at Mt. Pleasant, has been purchased by the Freeman Dairy Co., of Flint, Mich., a corporation already operating in a number of Michigan cities.

Coldwater, Mich.—Coldwater and Clark intend to begin the manufacture of ice cream about April 1st.

Flint, Mich.—Mr. Van Dyke is the new manager of the Powers Ice Cream Company. The company has changed ownership.

Cheboygan, Mich.—The Freeman Dairy Company of Flint, Mich., has purchased the Jackson Ice Cream Company here.

Lansing, Mich.—John A. Davis, veteran ice cream maker



Have Your Tubs This Protection?

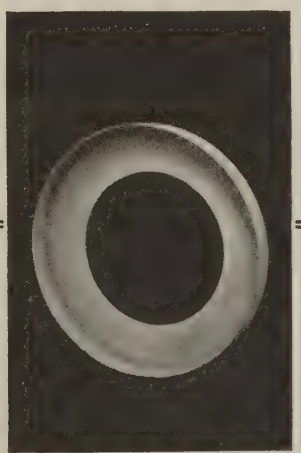
When your packers are dragged along over rough concrete floors—flung around as so much junk by the express companies, and given innumerable severe bumps when unloading from trucks,—what is there to protect the bottom against the "springing" this vicious abuse sooner or later must cause?

The Roman Reinforcing Hoop Ice Cream Tub Protector is ample protection. A substantial metal rim that needs no tools to apply except those illustrated.

These Protecting Hoops have proved their worth wherever employed. They will do the same for you.

Write for circular and prices.

The B. L. Roman Mfg. Co.
608 Cherry Avenue, N. E.
Canton, Ohio



A PRETTY PACKAGE PROVIDES PLENTY OF PURCHASERS FOR YOUR PRODUCT.

of this city, and for thirty years engaged in the manufacture of ice cream, announced his plan to build an ice cream factory on land owned by him at 229 and 301 S. Cedar St. Mr. Davis hopes to be operating about the first of April providing that weather does not interfere with building plans.

The Davis factory will be 30x80 feet, and will be built of cement and brick. Mr. Davis says he will equip his plant with the most modern machinery and will make it a model of cleanliness and sanitation. He purposes to create a manufacturing capacity of 700 gallons of ice cream daily.

Menominee, Mich.—The new Dairy Products Co., the first creamery to be located in Menominee, is going to be an up to date plant, equipped with the latest machinery. The floors of the plant will be made of tile and will make it one of the most attractive creameries of the upper peninsula.

The plant is owned by the Bomber Bros. and George J. Bomber, a well known creamery man of the Twin Cities, will be manager. Mr. Bomber had years of experience in the creamery business and understands every branch of it.

They have purchased a large 100-quart brine freezer and intend making 300 to 500 gallons of the very best ice cream daily. The new 1000-pound churn and a 400 gallon pasteurizer have arrived. Two new motor trucks have also been purchased.

Petoskey, Mich.—The Petoskey Ice Cream Co. has been taken over by the Freeman Dairy Company of Flint, Mich.

Sault Sainte Marie, Mich.—The Saulte Sainte Marie Creamery Company is just completing a new plant for the manufacture of ice cream.

Ypsilanti, Mich.—The Connor Ice Cream Co. will establish a branch here.

Durant, Miss.—The Durant ice plant and creamery burned completely. A $40,000 loss was sustained.

Meridian, Miss.—Seale-Lily Ice Cream Company has purchased a building in a very choice location and will install a modern ice cream plant as soon as the building is vacated.

Hattiesburg, Miss.—The local plant of the Purity Ice Cream Company has been acquired by purchase of real estate and machinery by the Hattiesburg Produce and Creamery Company from T. L. and J. M. Pearsons, according to announcement by Hugh F. McWilliams, head of the purchasing concern. J. M. Pearson will be a stockholder and employe of the creamery.

Hattiesburg, Miss.—Mr. McWilliams, head of the Hattiesburg Creamery Company, has purchased the branch plant of the Harris Ice Cream Co., of New Orleans, La., and plans on building a modern plant on this site, in which he will handle whole milk, manufacture butter, continue the operation of his condensery and branch out into the manufacture of ice cream.

Marysville, Mo.—The Purity Ice Cream Company is contemplating the enlargement of its ice cream plant. J. Fitzgerald and Ralph and Roland von Riesen are the proprietors.

Kansas City, Mo.—The Linwood Ice Cream Company has taken over the Peerless Ice Cream Company.

Shelbina, Mo.—Floyd Tuttle and Walter Harrison are preparing to open up an ice cream plant here.

St. Louis, Mo.—The Ideal Dairy is equipping the plant for the manufacture of ice cream.

Superior, Nebr.—The Superior Ice Cream Company has installed machinery and equipment for the manufacture of ice cream.

Auburn, N. Y.—Dairymen's League ice cream is now being manufactured at the Auburn plant of the Co-operative Association. This product is made from the best quality cream and is being shipped to dealers within a radius of 100 to 150 miles from Auburn.

Brooklyn, N. Y.—The New York O. K. Ice Cream Co. has erected a new building.

Canandaigua, N. Y.—A building is being remodeled for L. W. Johncox & Co. for the purpose of an ice cream making plant.

Ransomville, N. Y.—C. Crambo has built a new $40,000 ice cream factory.

Syracuse, N. Y.—The Syracuse Ice Cream Company has now increased its capital stock to $100,000 from $50,000.

Syracuse, N. Y.—The Syracuse Ice Cream Company has increased its capital stock from $100,000 to $150,000.

Barnesville, O.—A new building, which will be used as an ice cream factory by the Damsel Ice Cream Co., is now in construction.

Canton, O.—The Noaker Ice Cream Co. has purchased the New Philadelphia Ice Cream Co. They will enlarge the plant.

Canton, O.—The Crane Ice Cream Company of Columbus has taken over the Noaker Ice Cream Co.

Cleveland, O.—The Doan Ice Cream Company will open a new plant.

Columbus, O.—More than 850 members and women guests of the Kiwanis, Lions and Optimist Clubs, were entertained by the Furnas Ice Cream Company at a dinner dance on the second floor of the Furnas Co. garage. One of the features of the dinner was corn on the cob preserved by a process originated by the company. Everett Antrim traced the growth of the Furnas Co. from 1905, up to the present. Ice cream manufactured has increased from 46,000 gallons to 425,000 gallons annually, he said.

Geneva, O.—The Geneva Creamery Company will remodel its plant.

Marietta, O.—A recent fire is estimated to have caused $25,000 damage. The Imperial Ice Cream Company, which occupies a part of the building is a heavy loser. The blaze resulted when tar being used in coating the floor and walls of a refrigerating room caught fire.

Sidney, O.—The entire stock of the Sidney Butter and Ice Cream Company has been sold to the Jackson Milk and Butter Company of Jackson Center. A new company will be incorporated under the name of the Jackson Center Cooperative Creamery Company with offices at Jackson Center. Leo Sollman will continue as manager of the new company.

Toledo, O.—The Franklin Creamery Company is starting an ice cream plant.

Anadarko, Okla.—The Washita Valley Ice Cream Company will open up an ice cream factory here soon.

Astoria, Ore.—H. R. Hoefler has sold his ice cream business to J. C. Wilson and P. L. Cover.

Eugene, Ore.—The Weatherly Ice Cream Co., of Portland, is contemplating the erection of an ice cream factory here.

Butler, Pa.—B. H. Demit, O. K. Bingham, C. E. Reed, M. A. Gibson, and C. R. Humphrey have applied for incorporation papers for a corporation to be called Slippery Rock Dairy Association. They will manufacture butter, cheese and ice cream.

Connellsville, Pa.—A Connellsville company, capitalized at $300,000, has been organized for the manufacture and distribution of the new coated ice cream confection, the sundaeette, the territorial rights to which have been secured for the states of Pennsylvania, New Jersey, West Virginia and Maryland and the District af Columbia. The board of directors is composed of H. L. Carpenter, R. D. Henry, Frank A. Tarr, C. E. Wilson, William Wishart, J. H. Richter and S. J. I. Morningstar.

Dorranceton, Pa.—The Fadden Ice Cream Company is erecting a plant to cost $200,000 and to be completed by April 1.

Hazelton, Pa.—The Leichtman Ice Cream Company has increased its capital stock to $150,000.

Perkasie, Pa.—At a meeting of the board of directors of the Crescent Ice Cream Company, at Perkasie, at which I. P. Mensch was unanimously re-elected president, it was announced that the capital stock of the concern had beei increased from $50,000 to $150,000 and that extensive additions will be made to the present plant.

Plans have been received and approved for a three story brick and steel addition that will house an ice manufacturing plant of a capacity of 30 tons daily and provide storage facilities for 500 tons.

Philadelphia, Pa.—The Breyer Ice Cream Co. is erecting a four-story building to cost $50,000. This will be used in addition to the present plant of the firm.

St. Marys, Pa.—James G. Shaffer, formerly with the Nelson Ice Cream Co., of Portage, has moved to St. Marys where he will establish himself in the ice cream business.

Tarentum, Pa.—A corporation, to be called the Ganoe Ice, Ice Cream and Dairy Company, will be in operation in the near future. W. G. Ganoe, F. P. Kennedy and M. J. Ganoe are interested parties.

Titusville, Pa.—Wilbut D. Metcalf and Ralph M. Kerr now control seven-eighths of the stock of the Titusville Butter and Ice Cream Company. At the annual meeting Harry Cassedy was elected president; Ralph M. Kerr, vice-president; and Wilbur D. Metcalf, secretary and treasurer and general manager. The reorganized company is contemplating numerous improvements and the erection of an addition to the main building.

Washington, Pa.—The Imperial Ice Cream Co., with general offices at Clarksburg, W. Va., has purchased from A. L. Paul & Son, the White Dairy Ice Cream Co. plant on Chartlers street. Possession has been taken, and this company will now manufacture ice cream here. The Imperial Ice Cream Company operates in four different states, has a number of plants, and is at present erecting four new plants.

York, Pa.—P. M. Bupp expects to have his new ice cream plant completed by April 1st.

Big Spring, Tex.—An addition 20x50 feet is being built to

Exquisite Chocolate Coatings

SUPREME TO ALL

Prepared especially for Coating Eskimo Pie and any other Ice Cream Delicacies.

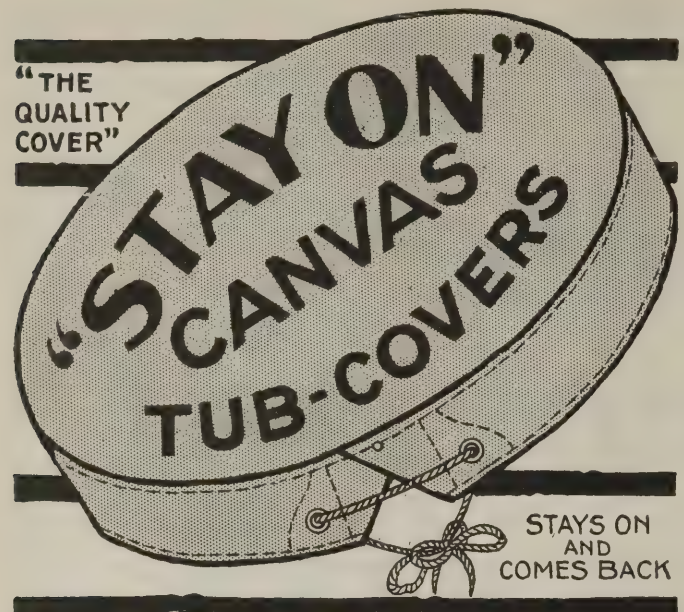
If you want to be in a class by yourself for the coming season —use our Coatings.

BRADAS AND GHEENS

LOUISVILLE, KENTUCKY

Established

1833



The "STAY-ON" is made right by men who know how, and have studied the requirements of the Ice Cream manufacturer and shipper.

Thats why the "Stay-On" today is the biggest seller, and enjoys the widest distribution.

Get the information from your jobbers' salesman or address below.

Canvas Products Corporation
BOX 66
FOND DU LAC, WIS.

the Big Spring ice cream factory. Robert Boatle, the owner, is installing new machinery for bottling works.

Nashville, Tenn.—The Union Ice Cream Co. is erecting a new plant here.

Mt. Worth, Tex.—The Perfection Ice Cream Company is closing and selling all machinery.

Cleburne, Tex.—S. H. Starling and Miss Glatzert of the M. B. Ice Cream Company, of Waco, have bought the Seeley Ice Cream plant at public auction, and have taken possession of same. They are installing machinery.

Cleburne, Texas.—The Seely Ice Cream Factory has been sold to S. H. Staling and Miss Glatzert of Waco. They will install new fixtures and add more machinery to the plant.

Corpus Christi, Tex.—Ground has been broken for the new concrete building which will be occupied by the Cloverdale Ice Cream Company's creamery department. Plans call for large cold storage department. Sanitation will be made easy by the installation of concrete floors. The building is to cost $20,000. Equipment, modern in every detail, will be installed. The plant is to be in operation by April 1, it was announced.

Corsicana, Tex.—The Frick Ice Cream Company is making preparations to meet their growing business for the coming season. The contract has been let for the immediate erection of an addition to their plant, the size of which will be 45 feet.

Lampasas, Tex.—L. H. Rutledge contemplates erecting an ice cream factory.

Marysville, Tenn.—The Chapin-Sacks Corporation of Washington, D. C., will begin operation of their new plant here about May 1st.

Sherman, Tex.—The Lyon Farm Creamery Company and the Jenson-Erkee Ice Cream Company have consolidated and are discontinuing the Lyon Farm plant to open a branch in Denison in its place.

Yoakum, Tex.—Louis Pleeger, owner of the Pleeger Bottling Works, of this city, is having installed a modern ice cream plant, which will be conducted under the same management as his bottling works.

Richmond, Va.—The Abel Velvet Ice Cream Company has capitalized for $5,000. C. J. Schuh, E. J. Leen and C. W. Abel are interested parties.

Richmond, Va.—The Horn Ice Cream Company, of Baltimore, Md., is erecting a factory and installing equipment to cost approximately $500,000.

Richmond, Va.—The Horn Ice Cream Company is erecting a new plant. The company also operates a large plant in Baltimore.

Fairmont, W. Va.—The Diamond Ice Cream Co., has incorporated for $50,000. E. C. Frame, H. T. Sharp, J. W. Preston, Carl Riggs, and B. W. McClure are interested parties.

Fairmont, W. Va.—The Fairmont Ice Company will manufacture ice cream, beginning in spring.

Fairmont, W. Va.—The Imperial Ice Cream Co. has purchased the business of the Robinson Ice Cream Co.

Fairmont, W. Va.—A charter was granted to the Diamond Ice Cream Company of this city. The authorized capitalization of the company is $50,000. The incorporators are E. C. Frame, H. T. Sharp, J. W. Preston, Carl Riggs and B. W. McClure, all of Fairmont.

Morgantown, W. Va.—The Morgantown Ice Company has obtained a permit from the city council for the construction of a large ice cream manufacturing plant on Third street.

Morgantown, W. Va.—R. A. Wilbourne Company will build an addition to its ice cream plant which is to cost approximately $55,000.

Appleton, Wis.—Karl B. Mory, of the Mory Ice Cream Company, and George Mory, of the company's Stevens Point branch, attended the seventh annual convention of the Wisconsin Association of Ice Cream Manufacturers in Milwaukee.

Berlin, Wis.—Prospects for starting up business by the middle of February in their new quarters seemed bright when the stockholders of the Berlin Ice Cream and Dairy Products Company held their first annual meeting. Between thirty and forty stockholders attended the meeting and heard the reports. The directors of the company, who are also the officers are: President, Fred R. Scobie; vice-president, W. E. Cavanaugh; secretary, Nic Muckerheid; treasurer, Jos. Dolliver; manager, Geo. Bobzin.

Janesville, Wis.—The Shurtleff Ice Cream Company has postponed the new $65,000 addition to its plant which was contemplated last fall. The addition will be erected next year.

Madison, Wis.—An $80,000, two story building will be erected by the Kennedy Dairy Co., 618 University Ave., and will be used to handle milk and for the manufacture of ice cream.

HOOTON'S

Milk Chocolate Coating

Specially Made For

ESKIMO PIE

DELICIOUS FLAVOR BEAUTIFUL COLOR

READY FOR USE

PURE CHOCOLATE WITH PURE COCOA BUTTER ADDED

We also manufacture high grade dark color COCOA POWDER

HOOTON CHOCOLATE COMPANY

(ESTABLISHED 1897)

NEWARK NEW JERSEY

Peshtigo, Wis.—The Peshtigo Dairy is making several changes in its Main street business home. A new boiler is being is being installed by the Marinette Boiler Works. More room is necessary on account of the ever-increasing business. Due to the great demand for ice cream, a new service truck for ice cream dealers has been ordered. Three thousand cords of ice have been put up.

Puyallup, Wash.—The Puyallup Ice Cream Company has capitalized with a capital stock of $50,000. W. C. Robb, Edith A. Robb, H. W. Austin, Lucy P. Austin and Genette Miller are interested.

Reedsburg, Wis.—The Sorge Creamery is installing new ice cream equipment. The manufacture of ice cream has reached enormous proportions amounting last year in dollars and cents to $86,722.77.

Seattle, Wash.—Announcement of the formation of a new manufacturing concern in Seattle, under the name of the Maplewood Ice Cream Co., which in reality is the consolidation of the ice cream department of the Pure Milk Dairy and the Paramount Ice Cream Co., was made.

Seattle, Wash.—The Paramount Ice Cream Company and the Pure Milk Dairy's ice cream department have consolidated. The name has been changed to The Maplewood Ice Cream Company. Otto Eccles of the Paramount Company, is manager of the new company. The business will be done through the Pure Milk Company.

DEATH OF J. FRANK KLINE.

Mr. J. Frank Kline, former owner of the Creamery Dairy Co., San Antonio, Texas, passed away at the Sherman Hotel, Chicago, Saturday morning, Feb. 25th. Death was due to heart failure. His remains were sent back to his home in San Antonio for burial.

Mr. Kline was about 50 years old and was connected with the dairy and ice cream industry all his life. He was Past Exalted Ruler of the Benevolent Protective Order of Elks, San Antonio Lodge. He is survived by a widow.

"Simplicity"

is a most essential requirement in a successful refrigerating system for Dairy Manufacturing plants.

Here is simplicity—

York

Refrigerating Equipment



is in a class by itself for simplicity.

Let us show you why. Write

WESTERLIN & CAMPBELL CO.

CHICAGO, ILLINOIS

J. G. HAMMERSCHLAG, ***Wisconsin Manager***

1016 Majestic Building Milwaukee, Wisconsin



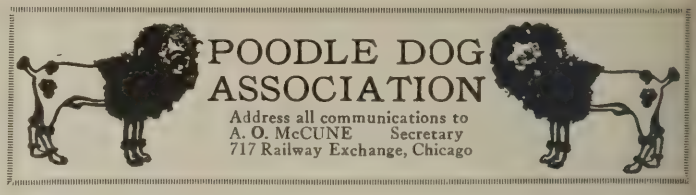
Our aim has always been to produce Tubs and Cabinets that would stand up under any and all circumstances

THAT we have succeeded has been demonstrated by our steadily increasing business and the fact that we are, and have for many years, enjoyed the exclusive business of many leading firms throughout the United States. In all these years that these products have been identified with, our leadership has never seriously been challenged.

WE HAVE been engaged in the cooperage business since 1877—Our experience has dealt with this industry in every phase—tubs—tanks—barrels—casks, and in recent years ice cream tubs and cabinets. After carefully studying all the tubs and cabinets being sold today and by this investigation and experiments by expert engineers, we are now offering perfected products that are second to none in the world.

Ask Your Jobber
OR WRITE US
and we will be pleased to send you complete information and quotations.

GAMBRINUS
COOPERAGE WORKS
920-940 Mason St. Louisville, Ky.



Among the many words of appreciation sent us in expression of pleasure derived from reading the January issue of The Ice Cream Review, comes a few from a brother Poodle Dog—F. Rose—who is a representative of the Swift & Co. Gelatine Department. Mr. Rose writes:

Ft. Dodge, Ia.

Olsen Publishing Company: Just want to say your January issue of The Ice Cream Review was a knockout. I am already feeling like a brother of the family circle. Have had several customers and prospective ones identify me, upon entrance to their place of business. Can say that your so-called art gallery has helped me, as well as the other brother peddlars, to become closer acquainted with the ice cream manufacturers.

F. ROSE.

* * *

TO THOSE MANUFACTURING OR DISTRIBUTING ANY PRODUCT USED IN THE MANUFACTURE OR DISTRIBUTION OF ICE CREAM.

A salesman values his personal acquaintance or friendship with his customers most highly. If you are selling a product used in the manufacture or distribution of ice cream, can you think of any place where your salesmen can meet their Iowa trade to better advantage than at the annual convention of the Association of Ice Cream Manufacturers of Iowa?

At conventions supply men usually spend some money in entertaining their trade. The Poodle Dog Association was organized several years ago with the idea that each attending supply man should contribute an equal amount of money in that direction and the total amount spent for intelligent entertainment. Each year we have charge of all entertainment at the Ice Cream Manufacturers' annual banquet. We think that our efforts are appreciated by all of the attending manufacturers and that many of them place orders with our members because of this entertainment, or because of an acquaintance or friendship formulated at the convention.

Whenever occasion arises we write letters to the Ice Cream Manufacturers. Below is a copy of one sent Feb. 21st. You will note that the names of your salesmen and their connection appears on the back of the letter.

We hope that this little organization meets with your approval and you will be well represented at the annual convention of the Association of Ice Cream Manufacturers of Iowa at Des Moines in January, 1923.

A. O. McCUNE, Secretary.

* * *

To the Ice Cream Manufacturers of Iowa:

May we take this opportunity to thank you for courtesies extended at the annual convention of Association of Ice Cream Manufacturers of Iowa at Cedar Rapids, January 24th and 25th, 1922. It is the object of the Poodle Dog Association to co-operate with you to make your conventions most enjoyable and we trust that our efforts meet with your approval.

The 1922 ice cream season is almost upon us and we are all looking forward to a big business. Conditions

COAT ESKIMO PIE

WITH

ALASKA CHOCOLATE COATING

A High Grade Milk Chocolate READY TO USE

Prepared especially for Coating Eskimo Pie and any other Ice Cream Delicacies

If you want to build up a lasting trade use ***this*** Chocolate Coating.

It eats right, Looks Better, Dips Easy, ***Coats*** more Bricks, costs less when quality is considered.—Contains ***more*** milk Solids, and more ***Pure Cocoa Butter***.

Made only by

Ambrosia
REG. U.S. PAT. OFF.
CHOCOLATE CO.

331-333-335-337 Fifth Street - - MILWAUKEE, WIS.

Write or Wire for a SAMPLE CASE of 110 Lbs.

indicate that your business will be big. Therefore, you will need to purchase heavily of supplies that are offered by members of the Poodle Dog Association.

We do not wish to boast, but if you will look over the list on the back of this sheet, we think that you will agree that our members represent firms that are leaders in their various lines and are worthy of your patronage. Every member of the Poodle Dog Association is indeed a booster for the Iowa Ice Cream Manufacturers' Association and you may count on us to serve you to the best of our ability.

POODLE DOG ASSOCIATION,
A. O. McCune, Secretary.



IMPERIAL ICE CREAM COMPANY SUFFERS FIRE.

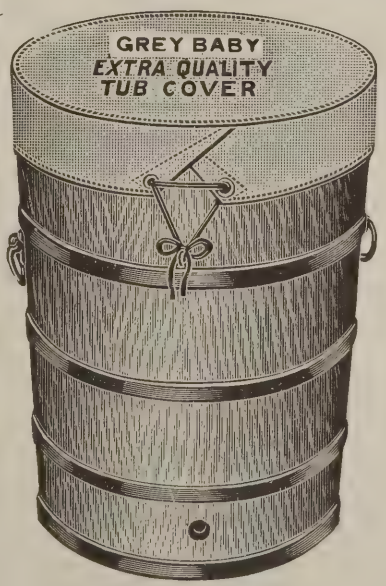
The Imperial Ice Cream Company of Clarksburg, W. Va., suffered a fire loss recently at their Marietta, Ohio, plant.

The damage to the building and plant was in the neighborhood of $30,000 and luckily is fully covered by insurance. Fortunately the money loss was small, but the inconvenience and delay of erecting a new plant will work some hardship with the company. Building operations have already been started and some of the material is now in transit.

The fire started in a peculiar way—the cork contractor has just finished the hardening room and carried in the last bucketful of hot asphalt needed. There was a little material in the kettle and he decided to throw that in for good measure. The kettle was hot and the top of it touched the asphalt which ignited, causing the damage.

W. M. B. Sine is general manager.

Match these Covers for Quality—



"Grey Baby"
"BrownPansy"
"White Rose"

Three Styles of tub covers, each designed for a specific requirement and tested to give maximum service.

Write us for prices and details

ST. LOUIS AWNING & TENT CO.
ST. LOUIS, MISSOURI

Why Is A Barrel Round?

If you know why a barrel is stronger than a box then you know why the Manning Batch Mixer with its well built, round body is stronger than any square built vat.

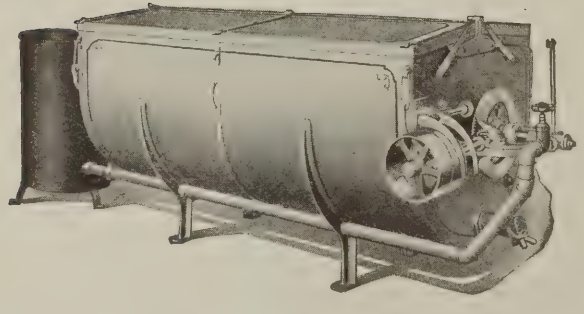
More sanitary, too, for there are no corners —just a single smooth surface that is easy to clean.

The Manning coil follows the natural lines of the vat and gives a more thorough agitation and consequently a more even temperature distribution.

MANNING EQUIPMENT

MANNING MANUFACTURING COMPANY

Rutland Vermont U. S. A.



The Following Dealers Carry The Complete Manning Line

CHICAGO, ILL.—A. H. Barber Creamery Supply Co.
MINNEAPOLIS, MINN.—The Dairy Supply Co.
ST. LOUIS, MO.—Dairymen's Mfg. & Supply Co.
DETROIT, MICH.—Detroit Dairy Supply Co.
CLEVELAND, OHIO—Ohio Creamery Supply Co.
MASON CITY, IOWA—Hawkeye Supply Co.
LINCOLN, NEBRASKA—Liebers Equipment Co.
WASHINGTON, D. C.—The E. B. Adams Co.
NEW YORK CITY—Wisner Manufacturing Co.
NEW YORK CITY—National Dairy Equipment Co.
UTICA, N. Y.—National Dairy Equipment Co.
POTSDAM, N. Y.—Ira H. Kendall.
BALTIMORE, MD.—A. E. Kaestner.
TAMPA, FLORIDA—Miller-Lenfesty Supply Co.

OHIO CONVENTION.

By C. J. Yunker.

Mr. R. E. Everett, secretary, and Mr. T. J. Stewart, president of the Association of Ice Cream Supply Men's Club of New York City, attended the Ohio Ice Cream Manufacturers' convention at Columbus, O.

Among the firms represented at the Ohio convention were:

Mansfield Pure Milk Co., Mansfield, O.
Dickson Creamery Co., Mansfield, O.
Dairy Products Co., Bucyrus, O.
White Mountain Dairy Co., Lima, O.
The Ohio Toledo Ice Cream Co., Toledo, O.
Isaly Dairy Co., Youngstown, O.
J. V. Mast Creamery Co., Newark, O.
Licking County Creamery Co., Newark, O.
Isaly Dairy Co., Marion, O.
Bryan Ice Cream Co., Bryan, O.
D. A. Heckler Ice Cream Co., Napoleon, O.
Furnas Ice Cream Co., Akron, O.
Heaton Ice Cream Co., Urichsville, O.
Glauser Ice Cream Co., New Philadelphia, O.
Chillicothe Bottling & Ice Cream Co., Portsmouth, O.
Seamon Ice Cream Co., Lexington, O.
Esmond Dairy Co., Sandusky, O.
Noaker Ice Cream Co., Canton, O.
Harrison Ice Cream Co., Kenton, O.
Glen Preston, Urichsville, O.
J. Smith, Dennison, O.
Telling Ice Cream Co., Columbus, O.
Moore Ross Milk Co., Columbus, O.

Crane Ohio Ice Cream Co., Columbus, O., and its different branches.

Furnas Ice Cream Co., Columbus, O.
Gibson Ice Cream Co., Oberlin, O.
Smith Bros. Ice Cream Co., Orville, O.
Telling Ice Cream Co., Cleveland, O.
Furnas Ice Cream Co., Akron, O.
Gem City Ice Cream Co., Dayton, O.
Springfield Pure Milk Products Co., Springfield, O.
Monti Ice Cream Co., Marion, O.
Sanitary Milk Co., Canton, O.

* * *

SONGS SUNG AT THE ANNUAL BANQUET.

Written and Led by L. V. Busche, Canton, Ohio, Who Is an "Ice Cream Eater."

1. "CONVENTION PALS."

Tune—Beautiful Ohio.

Chumming with my pals in this convention's work,
Planning with them, working with them, not a shirk,
While the stars on high, twinkle in the sky,
Tenderly we'll labor and with love sublime,
Beaming with a radiance from a work divine
This convention's good pals are a privilege to me,
Dear old Pals, how I love thee.

2. "CREAMS."

Tune—Smiles.

There are "creams" that make us happy,
There are "cones" that make us blue,
There is "ice" that "freezes" all the tear drops,
There is "salt" to keep it from the dew,
There are "solids" that have a tender meaning,
"Butterfats" at "eight per cent," you see?
But the "cream" that fills my heart with sunshine
Is "Eskimo Pie" that they buy from me.

FOR OVER 20 YEARS

We have ***specialized*** on
Vanilla Extracts
and **Vanilla Compounds.**

We guarantee to improve your Flavor with a saving in cost

Proprietors of "VANOLEUM." The *Original Concentrated Vanilla Flavor.* We warn the trade against worthless imitations having similar sounding names claiming to be "the same as *Vanoleum.*"

MEMBER

Corrizo Extract Company

211-215 West 20th Street **NEW YORK, N. Y.**

4. "THE QUESTION."

Tune—Long, Long Trail.

There's a great big burning question
In every "ice cream man's" heart:
Will he join the association,
Or will he stand apart?
We will gladly give our service
You need us, and we, need you,
And we'll show our worthy patrons
What the "Ice Cream Makers" can do.

5. TITLE—"ORDERS."

Tune—"Bubbles."
Place—"Office and Plant."
Time—"In the good old summer time."

We're forever filling orders,
Orders come from everywhere;
They pile so high, nearly reach the sky,
Then when it's hot—Oh me—Oh, my!
"Your oder's on the truck, sir,"
"It will soon be there."
Gee! It's fun to fill the orders,
"Rush" the orders here and there.

6. "OUR OWN."

Tune—Auld Lang Syne.

Should "Ross," our President, be forgot
And overlooked by us?
You bet your bottom dollar, not,
The energetic cuss.
Then there is "Antrim," he's the Vice,
"Cline and Schmidt," the Treasurer,
They're hustlers, all of them, you bet,
Our thanks we now confer.

CHORUS.

Now, listen, boys, 'twill never do—
There's one we know quite well,
He's on the "Secretary's job"
And his name is "Art Burkell."

(Concluded on page 102, second column)

You Need It In Your Business



If you have never used a Smith's Butterfat Computer you can't imagine what a big help it is. All drudgery of figuring and checking done away with.

In buying all kinds of farm produce it is indispensable to the man who has used it.

Just Turn Over a Page and There's the Answer.

It's the correct answer, too. We want you to have one. Send us $2.00 and we will put one in the mails for you at once, postage prepaid. Your money back any time within 10 days if you don't like it. Address:

THE OLSEN PUBLISHING CO.

210 Sycamore St. **Milwaukee, Wis.**

Experts Needed in the Ice Cream Industry

Address of E. K. SLATER before Michigan Association of Ice Cream Manufacturers

AMONG other punishments which I have endured is that of sitting in a convention and listening to a paper prepared by some fellow who couldn't raise the necessary expense money to attend the convention. It's bad enough when the writer of the paper reads it himself, but when a second man reads it, it is an "abomination in the sight of the Lord."

This is the first time I have ever perpetrated this crime, and I do so just to keep a promise made to your secretary that I would at least contribute an "editorial" if I couldn't raise the necessary funds to attend your convention.

I have attended so many Michigan dairy conventions, and had such good times, that I regret exceedingly that I can't be there. So much in the way of an apology for what follows:

"Are you an expert in your business?" May the Lord help you if you are not, or at least making progress in becoming an expert. Men in business who do not make a study of their particular business, so as to become expert in it, are all headed in the same direction, and when their obituaries are written their loving friends will lightly pass over their records as business men.

Webster gives as one of his definitions of an expert," "**one instructed by experience.**" Possibly ice cream manufacturers should all be considered experts in the light of this definition. They get a lot of experience crowded into a short period, but the trouble is, many of them learn a lot that isn't so. Experience is an efficient teacher, but not always a reliable teacher. To learn to do a thing wrong is worse than not learning to do it at all.

The ice cream business is a comparatively new business, consequently it is not to be wondered at that inefficiency is rampant. The demand for expert ice cream information has exceeded the supply for several years. Many ice cream makers are "second hand" or "made over" men from other lines of business. A man goes to bed at night a creamery buttermaker and gets up in the morning an ice cream maker because the proprietor has decided to manufacture ice cream. The product he puts out is "ice cream," and it's "ice cream" regardless of quality. So long as the man who makes it can mix a lot of ingredients together and freeze them he is an ice cream maker, and there is no one to challenge him.

The ambition to become an expert ice cream maker is a laudable one. There was a time when the seeker after knowledge along this line had to work out his own problems and to let experience be his teacher, but now ice cream making is an established science. There is an abundance of expert information available to the man who wants to learn.

We need more expert ice cream makers in our factories. More men are needed who do not know all there is to know about the business. Too many makers are satisfying themselves instead of satisfying the folks who buy their product.

So much for the man who actually makes the ice cream in the factories. Experts in the management of these factories are needed quite as much. In fact, the expert manager will soon have an expert maker in the factory one way or another. As a rule the ice cream factory that is turning out good, uniform ice cream is in the hands of a **bunch** of experts.

Men who know their business are, as a rule, successful in business if they work hard enough. Expert knowledge cannot successfully supplant hard work in conducting an ice cream business but the two qualities in the same person can work wonders.

Men who attend conventions are either experts in their business or are on the road to becoming experts. Thirsting for information is the best sign that can possibly appear to distinguish the expert from the commonplace man in the business. Becoming an expert simply means striving to the utmost to attain efficiency. There is a danger, however, in being accepted as an expert. It's all right for other folks to take you seriously but it is dangerous to accept yourself as an expert.

Custom permits various kinds of experts, and accepts their testimony as authoritative except when they appear before juries. There are expert doctors, expert chemists, and this, that and the other thing. The term is almost in disrepute as applied to many of life's activities. It isn't that kind of expert knowledge that I would urge upon ice cream manufacturers. Being an expert in your business means being efficient in your business—at least that is the construction I am placing upon it.

We need more experts of this kind. We need greater efficiency in the ice cream business—more men who recognize that quality and service are the foundation stones upon which the superstructure of the industry must rest if it is to develop and endure as we would have it do.

None of us needs to look far to find where and how we can serve the industry. We can serve it in no better way than to make every effort to become expert in the work in which we are engaged—to do it just a little bit better than any other man in the world could do the particular job we are doing.

The ice cream business needs more men who are experts in doing things well. The world needs more such men.

OHIO CONVENTION.

(Concluded from Page 101)

We are a bunch that's hard to beat,
And we never, never fail;
We are not the old cow's tail.

CHORUS—Faster.

Old Kaiser Bill went up the hill
To take a look at France.
Old Kaiser Bill chased down the hill
WITH BULLETS IN HIS PANTS.

7. "BUSCHE'S FAREWELL."

Tune—'Til We Meet Again.

Smile the while we bid you all adieu,
And sometime we'll meet again with you.
May good luck be yours 'til then,
We'll be better "Ice Cream" men
For having met you in convention here,
And your friendship, we will hold most dear,
So, we'll say, good luck, farewell,
"Till we meet again."

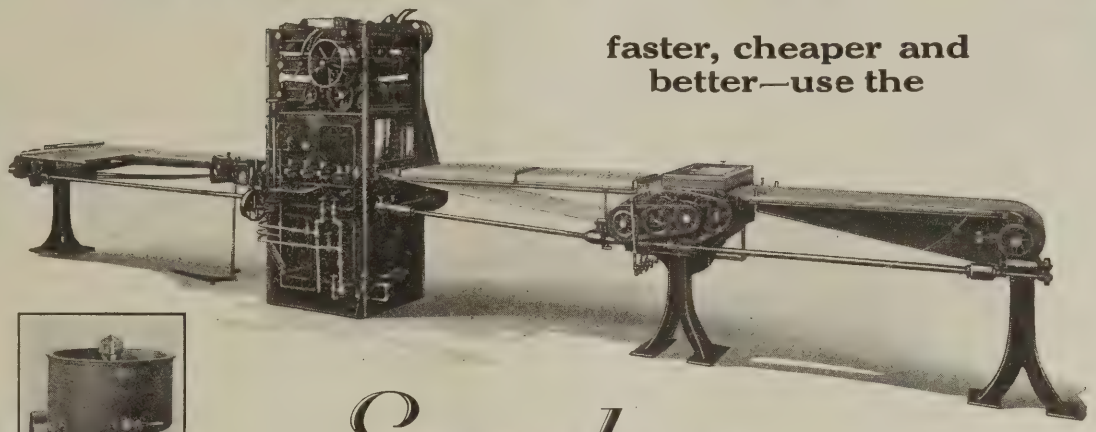
"THE ICE CREAM GANG."

Tune—Harry Lauder's "Oh, It's Great to Get Up In the Mornin'"

Oh, it's great to belong to the "ice cream gang"
And serve your fellow man.
He profits best who serves the most
Ice cream in a nice clean can.
Around the world it's going,
We're never, never slow.
Oh, It's great to get up in the mornin', boys,
And find you're an "ESKIMO."

To Chocolate Coat Ice Cream

faster, cheaper and better—use the



Enrober

A National Equipment

You can coat ten dozen a minute, of the popular ice cream confection with one complete Enrober, and one 1000 pound Chocolate Melting Kettle.

The Enrober is a substantial, economical machine. Does the work of from 15 to 40 dippers, more efficiently, uniformly, sanitarily, and at a substantial saving of time and space.

We are prepared to give immediate service. Wire for particulars.

NATIONAL EQUIPMENT CO. *Largest Manufacturer of Candy and Chocolate Machinery in the World* **SPRINGFIELD, MASS., U.S.A.**

ESTABLISHED 1879

Gelatine is the most efficient of all stabilizers for Ice Cream

WHITTEN'S GELATINES Are Standard

Guaranteed to Comply with all National and State Pure Food Laws

STRENGTH, PURITY AND UNIFORMITY GUARANTEED

MANUFACTURED BY

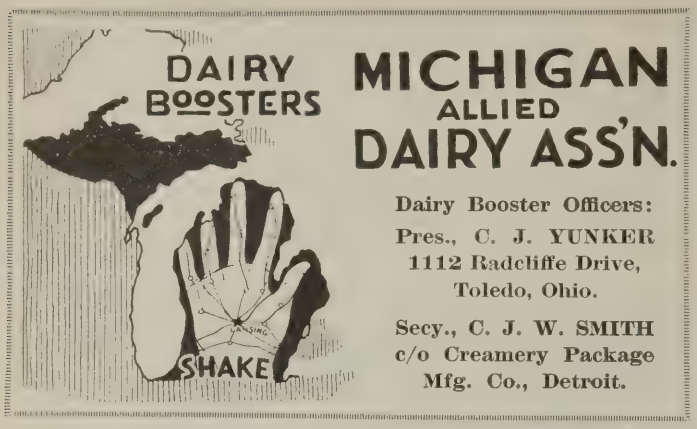
J. O. WHITTEN COMPANY

Main Office and Works

Woolworth Bldg.
NEW YORK CITY

Winchester, Mass.

20 E. Jackson Boulevard
CHICAGO, ILL.



PROCEEDINGS OF ANNUAL MEETING.

General meeting at Auditorium, Saginaw, Feb. 15, called by President Ellwanger.

Well attended. All officers and directors present.

Reading of previous meeting and reports ordered dispensed with by motion on vote. Discussion as to reorganization for coming year. Lack of information as to what action Allied Association would take called for motion made and seconded and voted affirmative the committee of three be appointed to confer with Allied Association and report at 10:30 tomorrow.

Committee as appointed—Henry Stern, W. E. Stewart, O. E. Harwood.

Vote of thanks given to Mr. C. J. Yuncker for his Booster spirit and activities in behalf of the association during past year.

Vote of thanks also given Olsen Publishing Company, of Milwaukee, Wisconsin, for the very liberal space donations to boost Michigan Show, etc.

This and other resolutions and votes of thanks referred to Resolutions Committee consisting of Howard Black, C. J. Yuncker, J. B. Hill, to report at meeting the following day with resolutions drawn up for action.

Secretary-Treasurer requested Auditing Committee be appointed to audit books and report at February 16th meeting.

Committee—H. W. Stern, C. A. Beigle.

Meeting closed with very interesting talk by Henry B. Stevens on Salesmen's Manner.

C. J. W. SMITH, Sec'y-Treas.

* * *

General meeting at Auditorium, Saginaw, February 16th, called to order by President R. J. Ellwanger.

Good general attendance and all officers present.

Auditing Committee reported Secretary-Treasurer books have been examined and found correct.

Resolution Committee read several resolutions which were adopted and which were ordered spread on minutes and copies sent to all interested. Committee agreeing to attend to this.

Committee to confer with Allied Association had no report as Allied Association had taken no action on which to base report.

Discussions on stand Boosters would take for ensuing year resulted in motion to withdraw from actual affiliation with Allied Association, with amendments to make Boosters dues $10 per year. Also that officers of Boosters act and confer with Allied Association directors and take what action they deemed best for ensuing year as to policy.

Election of Officers.

Decided by acclamation, Secretary casing ballot, resulted as follows: C. J. Yuncker, 1112 Radcliffe Road, Toledo, Ohio, president; Howard D. Black, Cleveland, Ohio, vice president; C. J. W. Smith, 561 Continental Avenue, Detroit, Mich., secretary-treasurer; John Keating, 16 W. Buckley Street S. W., Grand Rapids, Mich., and D. W. Shiel, Hillsdale, Mich., directors.

The Allied Association reported election of R. J. Ellwanger as third member on Allied Board of Directors.

A vote of thanks given to retiring board for work done during past year.

Registration cards were distributed for filling out and returning to secretary.

Meeting adjourned.

C. J. W. SMITH, Sec'y-Treas.

* * *

Constitution.

Article 1. Name.

This organization shall be known as "The Michigan Dairy Boosters."

Article 2. Objects.

To promote the welfare of the Dairy Industry of Michigan. Good fellowship among its members and to co-operate with the Michigan Allied Dairy Association.

Article 3. Memberships.

Section 1. Accredited salesmen and sales managers of firms or corporations, members in good standing of the Michigan Allied Dairy Association shall be eligible to membership.

Sec. 2. The annual dues shall be $10.00 per year for each firm or corporation represented.

Article 4. Officers.

Section 1. Officers shall be: President, Vice President, Secretary-Treasurer, two directors, to be elected at each annual meeting. Such officers shall be called the Board of Directors and shall continue to hold office until their successors are duly elected.

The office of Secretary and Treasurer may be held by the same person.

Sec. 2. The government of this body shall be vested in said Board of Directors.

Sec. 3. The meetings of the Board of Directors may be called by the president at any time, and the president may at any time lay propositions by mail before the board of directors, individually, for action by majority vote.

Sec. 4. The duties of each officer shall be those customarily attendant upon the bearers of such titles.

The Secretary-Treasurer shall have custody of all money collected, defray expenses, and shall keep proper records and duly account for same.

Article 5. Annual Meeting.

The time and place shall coincide with the time and place of the annual meeting of the Michigan Allied Dairy Association.

Article 6. Expulsions.

Section 1. The commission by any member, of an act which discredits or otherwise injures this body, shall be cause for the expulsion of such member by the Board of Directors.

Sec. 2. A member charged with the commission of an act, or acts, which if proved, would warrant his expulsion, shall be duly notified in writing of the charge or charges against him, and he shall be given a fair opportunity to be heard at a meeting of the Board of Directors; or, to submit his defense in writing if he so elects.

Sec. 3. To expel a member, a majority vote of the Board of Directors shall be necessary.

(Continued on page 106)

Will Not Freeze Out *No Alcohol*

Vanilla Exquinta

TRADE-MARK

FINER, STRONGER AND BETTER THAN VANILLA EXTRACT

Economical *Pure*

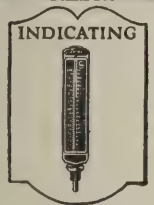
Write today for prices and particulars

CROWN FRUIT & EXTRACT CO., Inc.

418-420 WEST BROADWAY

New York City, N. Y.

Tycos temperature instruments







Every ordinary and extraordinary temperature need in the Ice Cream field met successfully by instruments of *proven* dependability.

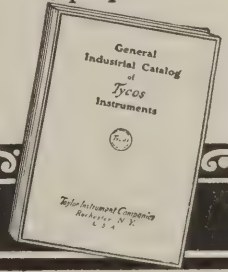
Taylor Instrument Companies

Rochester, N.Y., U.S.A.

Theres a *Tycos* and *Taylor* temperature instrument for every purpose

Your request for literature, taking advantage of Tycos assistance through our advisory service is respectfully solicited.

310



Article 7. Vacancies.

Should a vacancy occur by reason of death or resignation of a member of the Board of Directors the vacancy shall be filled by the majority vote of the remaining members of the Board of Directors.

Article 8. The Fair Practices Code.

This code adopted by the Association of Ice Cream Supply Men shall be a part of this constitution and a copy of same shall be attached thereto.

Article 9. Amendments.

Amendments to the constitution or by-laws of this body may be made at any annual meeting and adopted by a two-thirds vote of those present.

By-Laws.

Article 1.

Section 1. No firm represented shall have more than one vote.

Sec. 2. Any member may be authorized to vote as proxy for any other member or members.

Sec. 3. Any member may demand a roll call on any vote.

Sec. 4. The reports of officers, directors and all committees shall be written reports.

Article 2. Order of Business.

For all meetings shall be:

1. Call of roll.
2. Reading of minutes of previous meeting.
3. Report of officers.
4. Report of committees.
5. Unfinished business.
6. New business.

Secretary-Treasurer's Financial Report to Feb. 1, 1922.

Receipts	$444.02
Expenditures	216.12
Cash on hand, Feb. 21, 1922	$227.90

* * *

There surely must be something in the name, "The Michigan Dairy Boosters," which was chosen by the supplymen in Michigan as the name of their organization. Judging from the number of exhibits at the Saginaw convention, they surely are boosters. The interest and optimism displayed by individual members augurs well for the business of today and for the future.

A spirit of goodfellowship prevailed at the business meetings and at the banquet and smoker. It surely must be very gratifying to the officers and committees to have their work so well rewarded, and it goes to show that the right spirit of co-operation can put on a good show and convention. The machinery and supply exhibits put Michigan on the map, and she is there to stay. Plans are in order for still greater exhibits in 1923.

One of the features which caused much favorable comment during the show was the closing of the exhibit hall while different associations held their meetings. These meetings were held two hours in the morning and two hours in the afternoon. The exhibit hall was open the rest of the time, and then the dairymen and dairy supply men made good use of the time. The supply men gladly co-operated in this plan, and joined in the meetings of the different associations. This created friendliness, and the salesman had a much better chance of getting acquainted with his trade.

The first meeting of the Boosters was held Tuesday morning while other associations were in session. President Ellwanger called the meeting to order, and said some very nice things about the show. The boys then unburdened themselves of some toasts to their favorite trade paper as follows:

"Here's to the Ice Cream Review,
We wish much luck to you.
We wish you wealth,
We wish you success;
What more could we wish to you?"

And another:

"Here's long life to the Ice Cream Review,
With all its freaks and capers,
And without our pictures once in a while,
What would become of the ice cream papers?"

BY THE MICHIGAN DAIRY BOOSTERS.

To these must be added one that came to us by mail, and credited to the Michigan Allied Dairy Association:

Here's to those who like The Ice Cream Review,
And here's to those who don't.
A smile for those who are willing to,
And a tear for those who won't.

BY THE MICHIGAN ALLIED DAIRY ASS'N.

Then, after the dust had settled, several announcements were made in regard to the different meetings and the banquet, followed by a short talk by Mr. C. J. Yunker of the Rex Extract Company of New York. Here it is:

"Mr. President and Gentlemen: We are all proud of this convention and the exhibits displayed. I hope that next year we will all unite again in helping to make it even larger and better than this year. I trust we will all leave this floor satisfied with the results we have had here and that from today on, you will all boost the Michigan Dairy Boosters' organization. Remember that we should all help each other and work hand in hand to get good results, and always remember that we have adopted as many of the by-laws as we could, of the organization of the Association of Ice Cream Supply Men's Salesmen's Club of New York and also their Fair Practice Code, which, if followed, will bring us closer together, and we will get results for our firms as well as ourselves.

I trust that you will enjoy the smoker given by the Michigan Dairy Boosters. The entertainment committee has worked hard to try to please you and we trust that you will all have a good time, and all those attending will go home well satisfied and tell their friends how the traveling men entertained them at this convention. I hope it will mean closer friendship among the traveling men and their customers.

I want to thank you Michigan Boosters for your photos sent me upon request, for The Ice Cream Review. I trust you are all pleased with the January issue, boosting this convention. I am only sorry that we did not have the photo of each and every man belonging to the Michigan Dairy Boosters, then it would have been 100 per cent. I did my part in getting them, in order to boost this show, but some did not answer my letters in regard to these photos.

We should extend our thanks to The Ice Cream Review for their good will and the advertising and boosting which they gave us, and in return to them, and I think we can all derive many benefits from The Review, we should all subscribe for it. I know I have several times found "tips" in The Review which were to my advantage, and no doubt you can find the same. The price of a subscription would not break us. Quite a number of salesmen are now taking it, but let's make it 100 per cent strong and all take it.

We also give our thanks to Fred Hollweg of the

Bewitching Ice Cream

Bewitching Ice Cream, laden with Fruit and irresistible—The Most Tempting and Delicious that ever graced a Soda Fountain or Family Table, can be made by adding

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Suite 240 Hansford Block
268 Market Street

Thos. W. Dunn Co., of New York City, for his entertainment at the piano.

I will now close this little talk to you, hoping we will all meet again at the next Michigan convention.

Matters of business were then transacted, and the nominating committee and the resolution committee were appointed.

In the forenoon of the second day the Boosters held their second meeting. After a few items of business were taken up the resolution committee was called upon and asked to give its report. The only resolution presented was as follows:

"Whereas, the Michigan Dairy Boosters realize the efforts put forth by The Ice Cream Review in advertising this show, in furnishing song sheets for the banquet, and

"Whereas, Mr. Olsen and his staff have always labored in the interests of the Supply Men, and in the interests of the Ice Cream and Dairy Industry, therefore

"Be it Resolved, That the Michigan Dairy Boosters extend a unanimous vote of thanks to Mr. Olsen and to his entire staff and send our best wishes for their success."

(Signed)

H. W. BLACK,
C. J. YUNCKER,
J. B. HILL,

Resolution Committee.

Then the nominating committee was called on to give its report, and officers were unanimously elected as follows:

President—C. J. Yuncker, Toledo, Ohio, The Rex Extract Company.

Vice-President—H. W. Black, Cleveland, Ohio, The Widlar Company.

Secretary and Treasurer—C. J. Smith, Detroit, Mich., The Creamery Package Manufacturing Co.

Directors—D. W. Theil, Hillsdale, Mich., Solar-Sturgis Manufacturing Co.; John Keating, Grand Rapids, Mich., A. H. Arnold & Bro.; R. J. Ellwanger, Grand Rapids, Mich., John W. Ladd Co.

* * *

THE SMOKER.

During the last evening of the convention the Michigan Allied Dairy Association members were the guests of the Michigan Dairy Boosters at a smoker. The entertainment committee is to be congratulated on the very fine program they arranged. During the entertainment the newly elected officers of the Boosters' Association were presented to the audience so that everyone had a good chance to see the good looking bunch of fellows who are going to lead the Boosters this year. President Yuncker surely made a hit, while his associate officers were crowding him all the time in the race for honors.

Then John W. Ladd was called upon and got the whole bunch enthusiastic and ready to boost for the next Michigan show wherever it is held. A number of other speakers were called on after which "Billie" Burke, a well known stage star, entertained the boys with some of his famous stories and wit.

The main part of the program was the minstrel show featuring the Mueller Brothers Trio, who entertained with songs and jokes.

After the program was completed the bar was opened, and hard cider and fresh doughnuts were served. The bunch then got together, indulged in singing, wished each other good luck, and hoped that they would all, be together again in '23.

The "Boosters" kept The Review folks blushing all the time and we deeply appreciate the many expressions of good will offered. It will make us try harder than ever to merit their confidence and support.

* * *

NOTES OF THE CONVENTION.

By C. J. Yuncker.

The Michigan Dairy Boosters, an organization composed of supply men, gave a smoker and minstrel show, with good story tellers, plenty of speakers, lots of cigars and cigarettes, a five-round boxing match, and plenty of cider and doughnuts. The attendance was large, and everyone was feeling happy.

The Michigan convention was better and bigger in every way than ever before. Everyone was happy, and selling was good. It was the greatest thing ever put over by any one state, and next year it will be still bigger and better. Exhibits were very fine and plentiful, and almost everything pertaining to the business of machinery and supplies was shown there.

Fred Hollweg, of the Thos. W. Dunn Co., New York, attended the convention, and put every one in good spirits by his piano playing. He has made lots of friends in Michigan, and cannot afford to miss coming next year. Many thanks, Fred.

Jerome E. Long, 4700 North Artesian Avenue, Chicago, Illinois, is now representing the Hughes Gelatine Company, Detroit, Michigan. He seems to be a hustler, and we wish him success.

Who said we could not give a big show at the Michigan Allied Dairy convention? Leave it to the Michigan Dairy Boosters—they all work hand in hand, and this show proves it. Now let's all get together and prepare for the 1923 show.

The banquet at the Saginaw convention was attended by about 400 persons. A good toastmaster, some good speakers, good singers, a fine vaudeville show, dancing to the strains of fine orchestra music, and plenty of songs were in evidence at this enjoyable affair.

The Wilson Ice Cream Company, Port Huron, Mich., has installed a new ten-ton ice plant, with a hardening room capacity of 7,000 gallons.

The Alpha Creamery, Muskegon, Michigan, has built a new tile building at 148 Otto Street for their business. It is a one-story structure, 38x72 feet. This form is coming right to the front. They own several other creameries in different localities.

* * *

WILL WORK AND WORRY AGE A MAN?

Editor The Ice Cream Review: I have lived in Michigan all my life and along about the first part of January rumors of a dairy convention to be held at Saginaw reached our farm. We didn't pay much attention to these rumors until the rural carrier left an Ice Cream Review in our box by mistake. We found this magazine chuck full of boosts for the Michigan Allied Dairy Show, and also pictures which appeared to be, or which were claimed to be, photographs of some very fine looking young men, and the "Review" claimed that these men would all be at the convention.

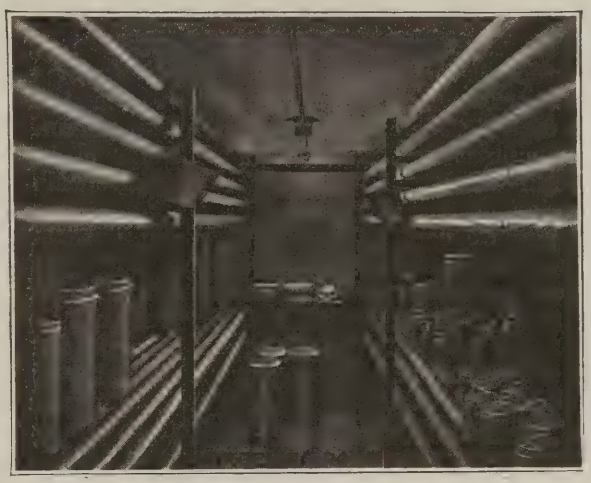
Right at the top of page 44, in the upper left-hand corner was the portrait of a very keen looking man appearing to be about 30. Well, 30 was a little old for me, so I passed Mr. Ellwanger by and spent a few minutes studying the portrait of C. J. W. Smith, but finally decided that he was too much of a heavyweight to suit

(Continued on page 126)

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THOMAS W. DUNN COMPANY

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MICHIGAN CONVENTION AND SHOW BIG SUCCESS.

(Continued from page 16)

The American dollar seems to be rapidly getting bigger, and just now the injustice is in too low prices for farm commodities, and the lack of employment for thousands who really want to work, the last is, of course, a serious condition and is largely produced by the first, and it is a hopeful sign that we are nationally beginning to realize this.

When the margin above cost of production of agricultural products is barely sufficient to pay taxes and actual living expenses, there is not much to spend elsewhere. Low prices for farm products closes factories, causes unemployment and destroys all kinds of business. The knowledge of this is already bringing about the correction.

Years ago we used to hear a lot about pure bred sires, individual records, balanced rations, cow testing associations, herd improvement, economical handling and manufacture of butterfat, and the similar things that have to do with satisfactory production and distribution of milk products; then came unreasonably high prices and inflated values, with the results that we are all having a highty hard time getting back to a normal basis; but whether we like it or not, we are all going to have to get back to the old fashioned, time-enduring proposition of giving value received, with the rewards going to those who excel.

With a temporary over-supply of dairy products, and prices much less than they should be, just what promise does the future hold for the deiryman?

If everyone used all the milk and milk products that they ought to use, and every cow paid a profit, what incentive would exist for improvement? And there is centainly room for improvement in the production manufacture, distribution and consumption of milk.

When the average person consumes less than one-half pint of milk daily, when it ought to be one quart; when in return for feed, barn room and labor, the average cow produces only 4,000 pounds of milk annually, when she should produce twice this amount; and when the margin between what the producer gets and what the consumer pays is twice what it should be, there is indeed plenty of room for improvement.

Unless milk is worth more, it must be produced for less; unless there is sufficient demand for the milk that is produced, a greater demand must be created, both can be accomplished, but not without considerable effort.

We must get together on plans for increasing milk consumption, we must get together on plans for decreasing production costs; we must get together on plans for reducing the manufacturing and distribution costs, and upon the successful working out of these plans depends the happiness and prosperity of all of us.

Two years ago we were much alarmed over the certain shortage of food products, a year ago we felt that the solution of the difficulties then confronting us was an enormous publicity campaign to increase the consumption of dairy products, to be carried on through the schools, our boards of health, our state department and college, and our different associations.

The increased demand for their product that publicity campaigns have brought to the orange growers, the walnut raisers and the canning organizations, have been presented to us, and it seemed as though the only logical thing for us, was to go and do likewise.

But it seems to me that the production and manufacture and sale of so vital a human necessity as milk foods will never be similarly promoted or exploited, and should not be.

The problems of decreasing the cost of production and handling are so vast and so far reaching in their benefits to everyone, that they will need our best, most conscientious and sincere efforts.

Now let's for a minute consider some real facts and figures, and as the welfare of the whole dairy industry depends upon the welfare of the man who milks the cow, let's start with the milk producer.

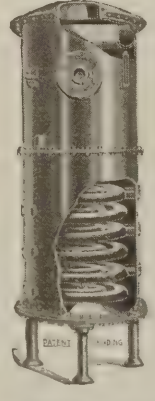
Practibally 3,600,000,000 pounds of milk were produced in Michigan last year from 900,000 cows, this gives us an annual production per cow of around 4,000 pounds of milk, or 150 to 160 pounds of butterfat.

Ten years ago our State Dairy and Food Department estimated that the average American cow produced about 3,600 pounds of milk annually. While the number of cows and pounds of milk have increased enormously, apparently the kind of poor cows we keep have remained much the same, only we have a lot more of them.

When we realize that one cow has produced over 33,000 pounds of milk in one year, and that there are thousands of good cows in Michigan producing from 8,000 to 10,000 pounds, what a lot of poor cows we must have to pull the average down to 4,000 pounds.

And the tragedy of this is, that a lot of our good folks own these 'less that average cows,' and are trying to pay taxes and live on the profits that their less than worthless cows can never make. Careless, indifference, on the part of the owners of these cows is the only reason why so many of them continue to exist.

We all know just how poor the average scrub cow is, just how small the average dairy profits are, and altogether too many cow owners have these average cows, with little or no profits, and are apparently satisfied with both, but there are lots of dairymen who sensi-



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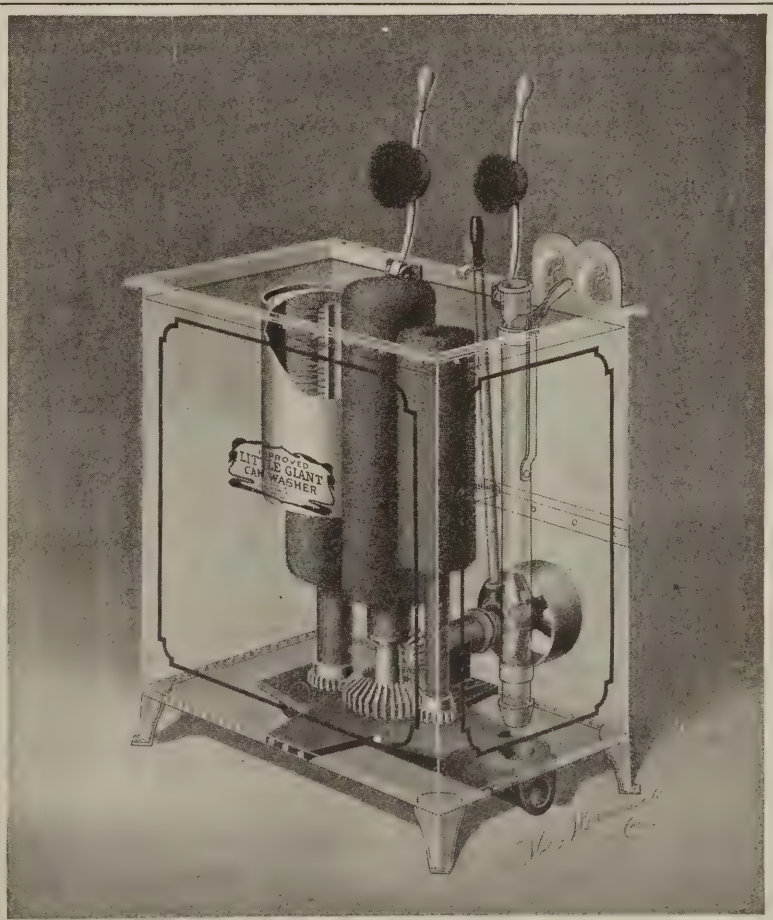
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bly realize that the days of big prices and big profits are gone, and if they get anything now they will have to really earn it, who are making some real, earnest efforts toward giving better cows better care.

What, then, is being done and what can we all do to make this average cow a better and more profitable cow for her owner? Like every other method of improvement of conditnons, it seems to be a matter of education.

We have all heard on various occasions how much one dollar invested with R. E. Olds or Henry Ford would have amounted to, but I want to refer to something that is open to everyone in the dairy business, and there is no chance of a loss.

Six or eight years ago some Alpena county men organized a co-operative bull association, and starting with their original herds, and building up by pure bred sires, some wonderfully fine grade cows have been developed by this continual use of good pure bred sires; the increased production of the 800 cows in this association amounted last year to about $40,000 per cow for the association average, or a total amount annually of around $32,000, all from an outlay of less than $1,000,

In addition to this, there is the increased value of the surplus stock, and the fact that these men have found out exactly how to make dairy cows profitable; and would not think of using the methods that seem to satisfy altogether too many present day dairymen.

Pure bred sires and individual cow records are sure methods of making Michigan cows better and more profitable to their owners.

A lot of educational work of this kind has been done, and is now being done in Michigan.

Our railroads, agricultural college, and our pure bred cattle association co-operated in a trip over twenty-five northern Michigan counties, coming in contact with over 14,000 interested farmers. Seventy pure bred sires were placed as a direct result; the special train used carried the right kind of dairy cattle, as well as the average kind to show the contrast, particular attention was given to their care, as dairy cattle must be properly handled, and their food must be economically produced.

This work has been followed up by intensive milk and alfalfa campaigns, covering a county at a time and holding eight to ten meetings daily, over a period of ten days. This has already been done in many counties, with wonderful results.

Present conditions are almost forcing the producer to adopt better methods or go out of business. In one of the best dairy counties in the state during one of these ten day campaigns, over 1000 actual cow owners received a lot of plain, hard, unvarnished facts about the conduct of their own business, right in their own barns on their own farms.

Seventy-two cow keepers made a request for pure bred sires, and seventy-four dairymen made application to join cow testing associations, and over one-half of those attending these meetings confessed to the use of scrub sires.

Likewise Michigan is rapidly making progress toward the complete elimination of tuberculosis in cattle. The antagonism that was at first somewhat apparent toward herd inspection has now almost entirely disappeared, with the result that practically all of the large dairy herds in Michigan have been tested, and are now free from all disease, and in many counties every animal has been inspected and disease completely eliminated. It is impossible to estimate the value of this most vitally necessary work, and while all of us realize the need of continuing this educational work to obtain better care of better cows, what are the manufacturers and distributors of the product from these Michigan cows doing to eliminate unsatisfactory conditions surrounding their job of giving better service to the producer and consumer?

While much has been done, greater efforts are necessary in the elimination of wasteful and unnecessary handling and manufacturing costs.

If it is necessary to increase the consumption and give the consumer a square deal, for the producer to lower his cost, then it is equally necessary for the manufacturer and distributor to lessen their expense. Of course, some manufacturers say that this is an impossible thing to do, or at least a most difficult one, and while this is doubtless so, yet the many co-operative ventures into the manufacture and selling game by producers can't help but have beneficial results to all concerned. No manufacturer of dairy products need have any concern about his business, if he be rendering a real service at the lowest possible cost, to both producer and consumer.

The future of this most important Michigan industry is largely up to us, and when men in any business post themselves regarding the conditions affecting their business, and size them up in the right proportion, they have what the world calls good judgment, and this good judgment will allow them to make plans for the future, with fairly certain results.

It may help us in working out our future policy regarding dairying to carefully consider that profitable agriculture is absolutely essential to the permanence of this country; successful and permanent agriculture must include live stock, and dairy cattle are practically the only cattle that can be profitably maintained on

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high priced land. Milk and milk products are becoming more and more recognized as an absolutely essential human food.

Every child should be receiving one quart of milk daily, instead of less than one pint. The average dairy cow should produce twice as much milk as she now does; but during the past ten years there has apparently been very little increase in the average production.

There are lots of pure bred cows available to anyone at reasonable prices. There are thousands of high producing herds making a profit, even at present prices; and it is up to the dairy producer, as well as the manufacturer to increase the consumption by sane, productive, educational publicity; to decrease the cost of the handling of dairy products by elimination of a lot of wasteful methods; and decrease production costs with better care of better cows.

Things are, after all, just about as they should be, with the world always ready to pay well for good work.

Why is it necessary to have good cows, well fed and cared for in good barns, and the product properly handled before there is much of a profit?

Why is it necessary for the manufacturer and distributor to render real service to both the consumer and the producer, by fair, economical methods?

Why do any of us do anything?

Because we just have to, if we want to get anything worth having or amount to anything ourselves.

Apparently only a few ever find out how to do anything very well.

What incentive would we have for improvement, if it was not absolutely necessary to do things better to get the things that are worth while?

This old world of ours can't run on any other plan, and there is plenty of opportunity for all of us to do things better. If we haven't the desire to improve, nor the will and energy necessary, we just naturally continue our present condition until something comes along and wakes us up, and forces us to put the necessary factors to work.

It would rather seem that present conditions in the dairy business should cause us all to wake up immediately, to the absolute necessity of improving methods and conditions, if we are to expect satisfactory results.

Of course, it won't be easy, but are we entitled to a reward of any kind for doing the easy things? Too many of us are doing things the easy way now.

In concluding I want to say just a word about the future of our association. It must be apparent to all of us, that there is plenty of work to do, and while other organizations, as well as the State Department and College are doing their part, the organizations definitely represented in this association, certainly have their definite work to do, and every organization that expects to accomplish much, needs a competent, well paid secretary or manager.

It would be a serious and grave mistake if this association were to lessen its future activities, instead of increasing them.

While our associations has been instrumental in getting much of this great work under way, that now bids fair to make Michigan the leading dairy state in the Union, there is still plenty of work for this association.

The last few years have brought all of us in closer touch with each other. Our erstwhile competitor and our mistrusted co-worker is rapidly becoming our brother and partner. Co-operation and brotherhood will be civilization's outstanding accomplishment in the present century. Not only co-operation among producers and co-operation among manufacturers, but co-operation between producers and manufacturers, everyone co-operating with everyone else.

Conditions that are not good for everyone are not good for anyone. Our individual and national happiness and prosperity and the future peace of the world will depend entirely on how well we, each of us, individually, practices the Golden Rule.

Better conditions are ahead of us, let's all help bring them about.

* * *

SECRETARY'S ANNUAL REPORT.

Realizing that secretaries' annual reports at their best are but dry and gruesome affairs, and particularly so after listening to such addresses as has been our privilege to do in the last two days; yet notwithstanding this seeming gruesomeness you men who have been paying your dues for the maintenance of an organization, are justified in expecting not only a report, but more or less actual, tangible, vivid results, because of there having existed within your midst this organization that is "bone of your bone and flesh of your flesh."

Viewed from the lookout of unconquered and unaccomplished achievements, our heart grows faint when the great field of opportunity opens like a Sunday paper before our mind. As compared with the work yet undone, we plead to the charge, if charge there be, that accomplishments are meager when stood over against need for the same. But, like the "fighting parson," we believe in our cause, and as we look out over the oncoming season with its more than usual uncertainties, we are glad to recall that within our family fold, the state's most stanch and prosperous, and we believe as a whole, most unselfish creameries of all classes, be they individual, co-operative or central, have enough of "Father"

CLARKSON BRAND
TRADE MARK
GUARANTEED

CHICAGO
NEW YORK
PHILADELPHIA
BUFFALO
ST. LOUIS
MILWAUKEE
LOS ANGELES
SAN FRANCISCO

Clarkson Gelatine Works
Manufacturers of
FOOD GELATINES
Write Us Regarding Our Supreme Pure Food Gelatine
No Better Stabilizer
Superior in Purity *Odorless and Tasteless*
Economical in Price *Uniformity Always*
WE GUARANTEE TO SHOW YOU A SAVING

DO YOU SELL

CARAMALA ICE CREAM

The Flavor Compelling Flavor

PRICES Per Gal.	
1 gallon	$7.00
5 gallons	6.75
10 gallons	6.50
25 gallons	6.25
50 gallons	6.00

Use 4 oz. to 10 Gallon Freezer
Use 3 oz. with Nut Meat to 10 Gallon Freezer

CARAMALA ICE CREAM is always the smoothest and most firm, in comparison with any other made from the same stock mix and handled under identical conditions.

THE ASSOCIATION OF ICE CREAM SUPPLY MEN MEMBER

Sample cheerfully sent on request

REX EXTRACT COMPANY

257 Pacific Street Brooklyn, N. Y.

Order direct or through any of the following well-known firms:

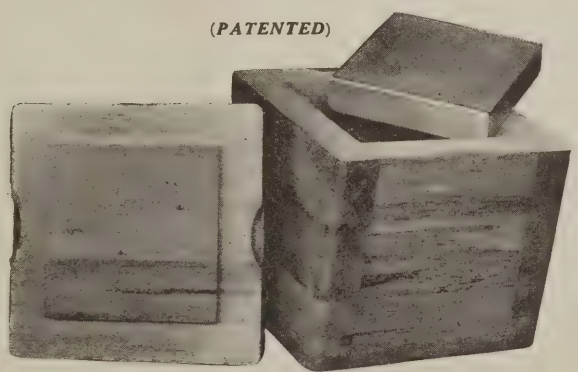
J. G. CHERRY CO.....Cedar Rapids, Ia.
MEYER DAIRY EQUIPMENT CO.....St. Louis, Mo.
BEATRICE CREAMERY CO.....Denver, Colo.
ENTERPRISE DAIRY & CRY. SUP. CO..Cincinnati, O.
CENTRAL OHIO SUPPLY CO.....Columbus, O.
DAIRYMEN'S MFG. & SUP. CO.....St. Louis, Mo.
BLANKE MFG. & SUP. CO.....St. Louis, Mo.
E. B. GALLAGHER & CO.....Detroit, Mich.
HAZELWOOD CO., LTD.....Spokane, Wash.
RICHARDSON & HOLLAND, Inc.....Seattle, Wash.
MANNING MFG. CO.....Rutland, Vt.
W. L. KNORR CO.....Pittsburgh, Pa.
CHERRY-BASSETT-WINNER CO.....Baltimore, Md.
CHERRY-BASSETT-WINNER CO...Philadelphia, Pa.
FERRIS-NOETH-STERN CO.....Baltimore, Md.
N. A. KENNEDY SUPPLY CO.....Kansas City, Mo.
CHERRY-BASSETT-WINNER CO.....Pittsburgh, Pa.

Serve **ESKIMO PIES** *From*

BALSA BOXES

(*PATENTED*)

Can be set on the counter and the Pies served as easily as cigars



No cabinet required. Balsa Boxes hold dry low temperatures without ice and salt.

Half Gross Capacity

VARIOUS SIZES TO FIT YOUR TRADE

AMERICAN BALSA CO., Inc., 305 Vernon Avenue Long Island City, N. Y.

Made Entirely of Possessing Real BALSA *the Only Insulator Structural Strength*

MAKE THE PUBLIC HUNGRY FOR ICE CREAM BY POSTERS AND DISPLAYS.

Marple's Golden Rule religion within their heart of hearts, that they are willing to contribute "blood money" as it were, to the support of this Association, for the perpetuation of that instinct in the soul of business, that has lived in the hearts of great men and in the life of truly great business, there being a striking resemblance between the extent of possession of this qualification and the real "size" of the individual and of the business he represents.

If this association accomplishes nothing but the burning of the "Honor of Business" or the "Golden Rule idea" a little deeper into the calloused souls of the men of our profession, it will have paid dividends on the investment for the stock holders. Preaching and teaching are arts in themselves, and are as foreign to the ability of your secretary, as the strains of music are foreign to the fish of the sea, but could I, with a magic stroke, write in letters of fire across the office wall of every creameryman of Michigan, a motto for the coming year, and for all time, that motto would contain just four short words, and as you men bend arduously over your task at the desk, or with mouth to long-distance telephone directing policies, instructing men, guiding minds, the heat of those words on yonder wall should burn their impression so consciously upon the soul, that "The Honor of Business" would be paramount to every other issue originating from within that business sanctuary.

I would not infer that Business Honor is not a prominent policy with most of you men. I have lived close enough to you and to your business to know that **in your mind** you are practicing what you consider good business honor. But pardon me for saying "in your mind." I cannot refrain from emphasizing those three words, for therein lies not only the possibility for attainment of the highest degree of Business Honor, but also in this clause can be couched selfishness, subtleness and unfairness. Summed up, is it not safe to say that about the only true measure that can be applied to an individual or to his firm in their extent of possession of genuine business character, when speaking in terms of competitive conditions, is the measure to which this individual or firm are willing to sacrifice personal pride and personal gain for the sake of harmony and general good.

The work that we have been intrusted with for the past two years, has brought us very close to many of the creamerymen of the state and these relations in their various stages of complexity, are valued sacredly.

Though the days have been all too short and the months have conspired each with the one just ahead to deprive us of good intents and ambitions accomplishment, yet today as we stand in the even-tide of another year and review together some of the accomplishments, we would remind you that the list below, in our judgment, represents only the grosser activities of your organization. Men frequently ask, "What is your Association accomplishing?" and to the critical-minded, I confess it is a hard question to answer in a few short syllables, but if a combination of the saliane parts of church, of school, of law, of lodge, of society, could be combined and incorporated into not only your business and the business of every other creamery operator in the state, but into the very heart of that business owner, I ask you, "Would not the effort be worth the while?" To what extent we have succeeded in this, we are unable to measure. Neither can man measure the value of the precepts taught by the lowly Christ and heralded down through the ages from His time to ours.

Regardless of display of literal, visible, tangible results, I believe this Association has a field of endeavor and accomplishment that is very real to those of our members who have attended most zealously our meetings and have participated in our efforts in various lines.

In partial answer as to what the activities of the Association are, the following summary is made up from our daily reports. I might state also that the board of directors get a semi-monthly report in much fuller detail than is possible to give here, but which divulges no information regarding individuals or their business that could be made use of by a competitor to the disadvantage of another.

The following report covers the past fiscal year of February 1, 1921, to February 1, 1922:

Number of regular meetings held.....11
Number of special meetings held..... 6
Number of conferences held.....17
Number of directors' meetings..... 7
Number of farmers' meetings in which the secretary has taken part..... 4

Have attended one meeting in Washington.

Have attended four meetings in Chicago.

Have attended one meeting in Marion, Ind.

Have attended one meeting in Des Moines, Iowa, aside from numerous other meetings.

We have provided each of the regular meetings with a full program.

Have written a weekly letter to each creamery in the state; have written eight general cream buyers' letters to each of our 1200 cream buyers. In our cream improvement campaign we have circularized the bigger part of the cream sellers of the state, eight different

SOUTHERN TINNING COMPANY
Johnson City RETINNERS Tennessee

We solicit your correspondence and business on the basis of PROMPT SERVICE, BEST OF WORKMANSHIP AND MATERIAL, REASONABLE CHARGES AND THE SAVING WE CAN MAKE FOR YOU. We will gladly retin a sample can for you, free.

"WE MAKE NEW ONES OUT OF OLD ONES"

PURITY
STRENGTH
UNIFORMITY

ARE STANDARDS COVERING THE PURCHASE OF GELATINE

BOSTON
CRYSTAL GELATINE

IS STRONGEST - IS GUARANTEED PURE UNDER ALL PURE FOOD LAWS - IS ALWAYS UNIFORM

A TRIAL ORDER WILL CONVINCE YOU

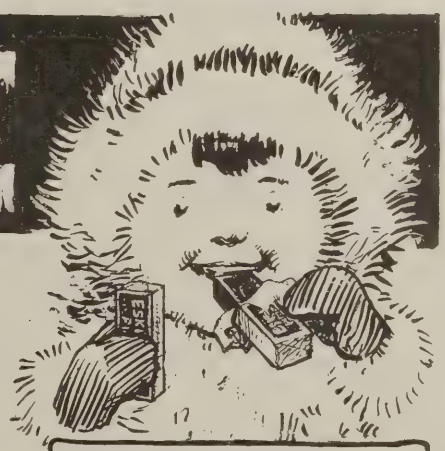
CRYSTAL GELATINE COMPANY

121 BEVERLY STREET BOSTON, MASS.

Branch Stores

New York	Philadelphia	Chicago	St. Louis	San Francisco
14 Ferry Street	418 Arch Street	3630 Iron Street	408 Elm Street	Fairfax Avenue and Rankin Street

ESKIMO PIE



Q. Who Introduced it?
A. The Russell Stover Co., Mallers Bldg., Chicago.

Q. Who makes it?
A. More than 700 ice-cream manufacturers, licensees under the Russell Stover franchise.

Q. Who makes a tin-foil wrapping worthy of Eskimo Pie?
A. The Conley Foil Company, makers of foil for more than forty years.

Q. Who eats Eskimo Pie?
A. Everybody who likes ice-cream and milk chocolate.

Foil is the ideal wrapper for Eskimo Pie.
There is no better foil made than CONLEY FOIL.

Conley Foil
TRADE MARK

The Conley Foil Company
541 West 25th Street ~ New York City

GET THE CORRECT WEIGHT RECORD FROM AN ACCURATE CONTROL.

times with Money Talks bearing on the need of care, and how to care for cream.

We have written approximately 3000 personal letters on as many individual subjects.

Have burnt $260 worth of long-distance telephone and Western Union wire.

Have, in the past year, spent 138 days of an average of 10.8 hours per day in the office and have spent 161 days on the road.

Our reports show in the time spent away from home, we have made 232 creamery visits, 301 cream station visits, 14 ice cream plant visits, 4 condensary visits, 7 cheese factory visits, and 4 dairy farm visits. We have gained 18 new members, and have lost 14. Of the 14 members lost, 4 were through non-payment of dues, 3 through withdrawal, 4 through financial failure, and 3 through sale of business. We have personally checked 59 cream stations for accurate testing, have issued 12 insanitary notices, condemned 6 cans of poor cream and have made one arrest getting a prosecution on the same. Have had one operator to Lansing before the commissioner, the operator admitting to embezzlement of the company funds.

We have secured evidence and submitted same to the Federal Trade Commission on two counts.

We have traveled 9051 miles by rail and 7024 miles by car.

We have put into this work unstintedly, our heart, our time, our energy, our brain, our very life, but the response from you men and others in different acts and words of appreciation, the loyal sacrifice of time of the directors and others, as well as the material support from President Overton, and the co-operation from the Department at Lansing, have made our work a joy; and to whatever extent results have, the splendid harmony and co-operation of you people are a large contributing factor.

But pleasant, and we believe profitable, as has been the past, we must soon turn our back to the yesterdays, for within two weeks will mark the opening of another epoch and the beginning of another year. We would be disloyal to our cause and untrue to the God-given impulse of real men if we did not aspire to make this coming year more resourceful and abounding in the fruits of business integrity, as well as benefiting the industry from the humble cow to the hungry consumer.

Our March meeting has a program of action is now well under way with a definite policy along this line. The extent to which the policies for improved conditions will be cashed in, will depend upon our business honor, our belief in our competitor, our attendance at the meetings and our dead earnest effort to locate wrong in ourselves before accusing a neighbor.

I thank you.

R. F. FRARY,
Secretary.

* * *

HOW CAN THE DEPARTMENT OF AGRICULTURE BEST SERVE DAIRYING?

By H. H. Halladay, Commissioner of Agriculture, before the Michigan Allied Dairy Association, Saginaw, Feb. 14, 1922.

Michigan is one of the foremost agricultural states in the Union, and dairying is one of its most important branches of agriculture. To know the importance of the dairy industry it is necessary to study the conditions affecting it, and also its development. It is true that this branch of agriculture has developed very rapidly in our state during the past few years.

During the last year the dairy farmer has—comparatively speaking—been much better situated than the average farmer. It has been found that by feeding corn, oats and barley to the dairy cow the net returns could be increased more than 40 per cent than by feeding the same to other live stock or marketing the grain direct. This is indeed a strong argument for the dairy farmer.

According to a circular printed by the University of Illinois last December, good cows were returning 85c a bushel for corn, $24 a ton for hay, and $9.50 a ton for silage, when butterfat was worth 35c. These results were obtained from carefully compiled individual feed records for 528 cows. The cows varied in size, breed, production and time of freshening, but were good cows. It is also pointed out in this circular that reasonably heavy feeding is profitable under existing conditions.

According to the United States Bureau of the Census reports on agriculture for Michigan, the farmers of Michigan received for milk, cream, butterfat, dairy butter and cheese during the year of 1909, $26,727,538, and for the same products in 1919 the farmers received $71,074,727. This shows a marvelous increase in receipts for dairy products, but the increase has been to a certain extent due to increased prices. The total number of dairy cattle in Michigan, including calves, is reported to have been on January 1, 1920, 1,256,141, and of this number 802,095, or about 65 per cent, were milking cows. The government reports 196,447 farms in Michigan for 1920 and that of this number of farms 167,641 had dairy cattle. This means that 85.3 per cent of all the farms of Michigan keep one or more dairy cows.

The total production of milk for 1919 was 383,822,631 gallons. It is evident also that Michigan is rapidly be-

A Magic Transformation

A better description in so few words is hardly possible for our process of

Retinning Ice Cream and Milk Cans

But differing from magic, the results of the sanitary triple coating process are lasting.

Send us a sample can for retinning and let us show you what we can do and how profitably for you.

SANITARY TINNING & MFG. CO.
3753-63 E. 93rd Street CLEVELAND, O.

Custards *Flavors*

Maraschino Cherry Custard
Mothers Egg Custard

"Acme" Custards	An exact reproduction of the EGG or CHERRY.
Egg or Cherry	Contains all of Nature's delicate FLAVORS and BLENDED COLORS. A delicious Ice Cream of quality distinction. Working sample for 40-qt. freeze, 36 cents.
Bisque Ice Cream	An imitation of the real Walnut or Shelbark with a nutty flavor. Served to social and banquets as a special. Working sample for 40-qt. freeze, 60 cents.
Perfecto *(Trade-Mark)*	A tested smoother of special value in the making of smoothe and tough Ice Cream. Never fails to give satisfaction.
Concretes	Orange and Lemon Concretes are made from the finest fruits that grow in Northern Sicily.
Extracts *(Non-Alcoholic)*	36 different kinds of fruit extracts. Special blends of Vanilla.
Colors	Certified colors of all shades, highly concentrated.

ACME EXTRACT & CHEMICAL WORKS

Extracts HANOVER, PENNA. *Colors*

Eskimo Pie Boxes

Any kind of folding box for every kind of business

PEERLESS BRAND CLEVELAND

A TWO-PIECE folding box especially made to hold this new frozen product. Shipped flat, weight ninety pounds to the thousand.

We are also glad to quote on wire handled or tape handled ice cream pails and one and two-piece brick boxes.

Our service department will be glad to send samples and quote prices

The Peerless Paper Box Mfg. Co.
1137 West 6th Street : Cleveland, Ohio

ESKIMO PIE BOXES

coming one of the leading states in the manufacture of dairy products. For instance, in 1909 the farmers sold 18,297,691 pounds of butterfat in the form of cream to be used for butter making, and in 1919 the sale of butterfat, as such, amounted to 31,647,906 pounds, a marvelous increase for the ten years. This increase in the sale of butterfat for butter making purposes is also expressed in the fact that during 1909 only 13.9 per cent of all the farms sold such butterfat, while in 1919, 29.7 per cent sold butterfat to creameries and cream stations. It is no wonder then that the Department of Agriculture is vitally interested in the dairy business of the state, and that it has been found necessary to have laws regulating the industry.

As I see it, there are really three important considerations for the improvement in the production of milk at this time:

First. We need better sires to improve the quality of our herds, and I am glad to say that a great amount of good has already been accomplished, especially with the grade herds, by introducing better sires.

Second. We need a better selection of cows. It has been found that the profit rendered by individual animals varies greatly and in fact it is known that a great many of the cattle being fed today do not pay for their feed. Now, when we have a large supply of milk and when we must economize like we have never economized before, is the time, it seems to me, to call out the boarder cow and keep only the better producers.

Third. We need better feeding methods. It is not sufficient to feed a cow alone for her maintenance but we must feed her also for milk production.

The average production for cows in Michigan is about 470 gallons per cow, and it is the belief of many that this could well be increased from 20 to 40 per cent. By proper selection and feeding, etc., this can be done, but it never will be done until the great majority of dairymen are willing to use their pencil finding out exactly where they stand as concerns profit and loss in their business. In this country we want more dairies operated on a permanent basis. European families have been long-time breeders of good stock, and European cattle are now celebrated for their quality, and this is so because of the fact that for generation after generation they have adhered strictly to the production of better animals. We need a stronger effort to build up dairy herds and we need more pure bred stock, although a great amount of improvement can be made by merely raising the standard of our grade animals.

During the first 11 months of 1921 there were 126 million more pounds of creamery butter made in the United States than during the same period for 1920. During these first 11 months of 1921 the storage stock of creamery butter decreased so that on November 1st we had 20 million pounds less butter in storage, and on December 1st, 15 million pounds less in storage than at the same time the year previous. In other words, the people of the United States consumed 140 million more pounds of creamery butter during the first 11 months of 1921 than during the same period for 1920. An increase is also reported for the consumption of milk and ice cream with a small increase for cheese. When butter sells cheaper the consumption is increased, and we must remember that the people cannot afford as much butter now as they formerly could.

The Bureau of Dairying of the Department is endeavoring to assist the dairy industry of the state as much as possible. It should be remembered, however, that one of the main functions of the whole Department of Agriculture is to protect the consuming public, and to assist agriculture, and this cannot be done without a good system of inspection. The dairy business in certain respects needs standardizing and the Bureau of Dairying is attempting now to bring about standard conditions. In connection with the testing of milk and cream, especially, we are endeavoring to bring about conditions which will justify us in saying that milk or cream sold on the butterfat basis is tested correctly in practically all cases. The Babcock test used in calculating the amount of butterfat in milk or cream is thoroughly accurate and reliable when operated under the right conditions. We intend to prescribe these conditions and to give this part of the work a great amount of consideration. It is not good enough to test approximately correct—but operators licensed under the laws of Michigan must test according to certain regulations and must show accurate tests. Those who do not test correctly—of which there are a few undoubtedly—should not be allowed to continue testing.

We intend to be especially thorough with this part of the work, not only for the protection of the producer, but the manufacturer also should be protected. We believe that the producer wants only what is due him, and that the manufacturer will be entirely satisfied with the correct test. At present, arrangements are being made for the giving of testers' examinations under practical conditions and where the ability of an applicant for a license can be judged accurately. The co-operation of the creameries, producers and all others interested in the testing of milk and cream in the state is asked for the purpose of bringing about the best possible conditions in testing for Michigan.

The quality of the dairy products manufactured in the state is equally important and we have already

"Doc" says:
"Every time some people try to think, they make a noise like a boiler shop. Maybe that's why some people in the dairy industry don't try to think. Otherwise they would surely adopt the modern, scientific and economical method of disinfecting and sterilizing by the use of Germ-X—Dairylands Greatest Disinfectant. One ounce of Germ-X to a gallon of water positively kills all bacteria in separators, bottles, pasteurizers, vats, refrigerators, etc. A $3.00 gallon will make 5 barrels-ful. Send for "Directions for Sterilizing." It's free.



Distributed by:
The Creamery Package Mfg. Company
General Offices: 61-67 W. Kinzie St., CHICAGO
Branches in All Principal Cities
Prepared in Laboratories of
North Star Chemical Works, Lawrence, Mass.

DO NOT MAKE

GELATINE CONTRACTS FOR 1922

until you have investigated

Chalmers PURE FOOD Gelatines

Unexcelled for PURITY and STRENGTH

Standard in Ice Cream and Candy manufacture for fifty years

DON'T TAKE OUR WORD FOR IT!

Write for sample and test it for yourself.



James Chalmers Sons
WILLIAMSVILLE, N. Y.

Chalmers Gelatine Sales Corp.
RICHMOND, VA.





Regular Standard Style
With Double Bottom

TITAN

Ice Cream Packing Tubs

GUARANTEED
to withstand severe conditions to which tubs are subjected

Staves 1 3/16 in. thick, Tongued and Grooved.
Heavy 1⅛ in. Galvanized 18 Gauge Hoops,
2½ in. Hoop at the Bottom.

Inside Diameter Top	Inside Diameter Bottom	Inside Depth	PRICES
15 in.	13 in.	26 in.	F.O.B. St. Louis, Mo. " Topeka, Kan. " Memphis, Tenn. " Dallas, Tex.

Special Size Tubs Made To Order
Also Ice Cream Cabinet Tubs

PRICES ON APPLICATION

MEYER DAIRY EQUIPMENT CO.

3rd and Vine Sts. St. Louis, U. S. A.

found that by requiring better conditions in respect to the manufacture of such products, that the quality of the products themselves was automatically improved. It is not good business to use poor equipment in a creamery or other manufacturing plant, and expect to put out a first-class product. The sanitary conditions of any manufacturing plant are very important and have a direct bearing on the quality of the product manufactured. The dairy products themselves must be standardized. One firm should not be required to sell butter containing at least 80 per cent fat and another allowed to sell butter with 75 per cent fat. Standards are also necessary for ice cream, whole milk and all of the other dairy products.

For the protection of the livestock of the state, it is absolutely necessary to pasteurize skimmed milk, butter milk and whey returned to farmers to be fed to livestock. It is not only necessary to heat these products but they must be pasteurized correctly. That is—at a temperature of 145 degrees Fahrenheit for 30 minutes, or at a temperature of 185 degrees Fahrenheit by the instantaneous method. I believe that any manufacturing plant should consider the welfare of the producers and the consumers. Only recently we found a locality where skimmed milk had been returned unpasteurized and upon testing the cattle in this locality a great many reactors were found. In this one township the indemnities that will have to be paid by the state and government will amount to a very large amount. It is very evident that this condition has been caused through the negligence of one creamery in respect to pasteurization. Most of you are thoroughly aware of the necessity of eradicating bovine tuberculosis and you no doubt realize your responsibility towards the consumer of milk as well as the producer. The success of the dairy business in any locality will depend upon the factors affecting its development and we all have our part to play. The factors that I have referred to are the ones that we consider foremost at this time but they are not by any means the only factors that we have to consider. New problems arise continually and we hope to have capable men at all times who can meet the situation.

* * *

REPRESENTED AT SAGINAW.

The show held at Saginaw, Mich., by the Allied Dairy Association, February 14-15-16-17, was the best ever exhibited to the dairy interests of Michigan. More space could have been used than there was available, showing that the supply men are behind the association. This was the largest of its kind in Michigan, and it was said that it was the largest ever held in any state.

Following is a list of the exhibitors and their representatives:

A. H. Barber Creamery Supply Company, Chicago, Ill.
O. E. Harwood
O. C. Slickenmeyer
A. C. Compton

Diamond Crystal Salt Company, St. Clair, Mich.
James B. Hill
S. A. Von Jasmund
A. E. Hoffman

Creamery Package Manufacturing Co., Chicago, Ill.
C. J. W. Smith
H. J. Kibby
Geo. D. Petrie
A. B. Kuemmin

Stout Crate Company, Milwaukee, Wis.
M. R. Ford
B. W. Davidson

United States Gelatin Company, Milwaukee, Wis.
C. Bates
R. P. Driscoll
E. W. Stewart

Thatcher Manufacturing Co., Elmira, N. Y.
H. L. Beebe
M. E. Cramer

Blackmer Rotary Pump Company, Petoskey, Mich.
J. H. Oldham

Louden Machinery Company, Chicago, Ill.
C. A. Dunning
H. E. Weir

A. Daigger & Company, Chicago, Ill.
Henry W. Stern

John W. Ladd Company, Detroit, Mich..Cleveland, O.
John W. Ladd
F. Harwood
R. J. Ellwanger
Geo. M. Rohrbeck
W. G. Mason
C. A. Grove
Austin Drysdale

A. H. Arnold & Bro., Chicago, Ill.
J. K. Keating
S. T. Sheffield
A. H. Arnold
Fred Fredericks

Baker Ice Machine Company, Inc., Omaha, Nebr.
A. G. Traeder

W. G. Finch Company, Inc., Grand Rapids, Mich.
W. G. French
Frank Parch
C. A. Beigle

David Michael & Company, Philadelphia, Pa.
E. Rosenbaum
H. C. Silcox

Cream Production Company, Port Huron, Mich.
O. C. Ruff
Melvin Spencer

The Manitowoc Plating Works, Manitowoc, Wis.
W. J. Wachowitz

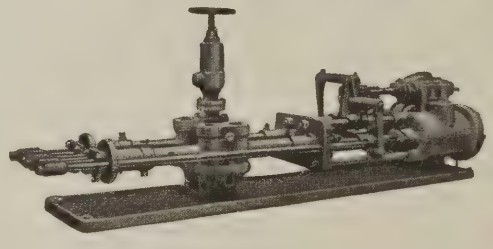
Menasha Wooden Ware Company, Menasha, Wis.
E. H. Hagen

John Wood Manufacturing Company, Conshohocken, Pa.
E. L. Jenness

Mojonnier Bros. Company, Chicago, Ill.
Roscoe Moon
A. T. Macomb

(Continued on page 124)

Durable



Dumores

They last a life time—as efficient when old as they were when new. Ideal in recombining dairy products and making a perfect homogeneous mass of the Ice Cream mix. Eliminates operator, mechanic, repair bills, motor and belt troubles, delays and possible accidents.

Write for the proof today!

ELYRIA ENAMELED PRODUCTS CO.
Elyria, Ohio

The Strongest Can Truck Made!



Floor Truck Specialists for 30 years

THAT'S what ice cream men who have made comparisons say about the Nutting Ice Cream Can Truck—and they are backing their assertions with repeat orders.

Nutting

Ice Cream Can Truck

has a frame built of heavy structural angle iron, entirely galvanized and rustproof. Massive 8¼ inch main wheels, cold rolled steel axle, heavy axle collars and boxes and strong bracing throughout give you a truck that will stand years of hard daily use and freedom from repairs.

Ask your jobber about the details and our low prices

Nutting Truck Co.

1143 Division St., W. Faribault, Minn.

Pure Vanillas

Atlas Pure Vanilla Extracts are guaranteed to be of Highest Quality and Purity and to give absolute satisfaction in each and every case.

Before placing your next order, let us send you a trial quantity

Manufactured by

H. KOHNSTAMM & CO.

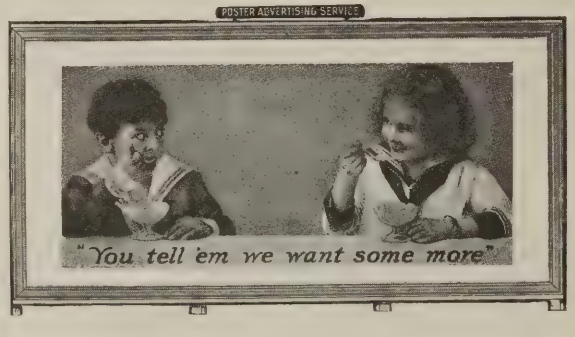
NEW YORK *Established 1851* **CHICAGO**

83-93 Park Place **11-13 E. Illinois St.**

(Continued from page 122)

Abbott Laboratories, Chicago, Ill.
J. W. Ranson
Miss L. Youngquist
Westerlin & Campbell Company, Chicago, Ill.
Toledo Scale Company, Toledo, Ohio.
C. C. Hoffman
B. J. Sheeler
Detroit Ice Machine Company, Detroit, Mich.
G. A. Sterling
Mr. Morgan
Geo. Ziegler Company, Milwaukee, Wis.
Herbert G. Ziegler
Beatrice Creamery Company, Chicago, Ill.
J. E. Skidmore
L. Hannon
W. W. Marple
Fred Atkinson
Frank Werner
Sanitary Tinning Co., Cleveland, Ohio.
A. J. Miller
Rex Extract Company, Brooklyn, N. Y.
C. J. Yuncker
The Widlar Company, Cleveland, Ohio.
Howard W. Black
Massey & Massey, Chicago, Ill.
L. A. Kline
National Paint & Varnish Company, Cleveland, Ohio.
A. A. Senor
Chr. Hansen's Laboratory, Little Falls, N. Y.
Martin H. Meyer
Quirk Crate Company, Milwaukee, Wis.
W. M. Quirk
Cauffman Pasteurizer Company, South Bend, Ind.
R. M. Cauffman
C. A. Ross
Jac. De Vries
Menasha Printing & Carton Company, Menasha, Wis.
Elmer Mack
Earl Engel
Solar Sturges Manufacturing Company, Chicago, Ill.
D. W. Shiel
G. W. Bull & Company, Chicago, Ill.
H. E. Vroman
Hunter, Walton & Company, Chicago, Ill.
G. E. Jenks
Grand Rapids Manufacturing Company, Grand Rapids, Mich
B. A. Yarrington
H. V. Walsh
The De Laval Separator Company, New York, N. Y.
E. F. Boowin
F. B. Vilheimer
Otto Grove
Chas. Starke
E. L. Gardner
Davis Cooperage Company, Martinsville, Ind.
L. D. Ault, Jr.
F. D. Bray
Thomas W. Dunn Co., New York, N. Y.
F. E. Hollweg
Grand Rapids Cabinet Company, Grand Rapids, Mich.
Frank W. Lohr
Harold Hawn
Harold A. Sinclair, New York, N. Y.
L. O. Thayer
Colonial Salt Company, Akron, Ohio.
Richard Warner
J. B. Ford Company, Wyandotte, Mich.
H. J. Provonche
Bill Horn
Paul Bombenek
Elyria Enameled Products Company, Elyria, O.
John Hickey
Garrett & Company, New York, N. Y.
Walter Murray
Archie J. Verville Co., Hancock, Mich.
J. R. Patton
United States Foil Company, Louisville, Ky.
H. D. Harter
Grand Rapids Table Company, Grand Rapids, Mich.
C. Bolthouse
Geo. L. Stone
Emery Thompson Machinery Company, New York, N. Y.
R. J. Decy
S. Gumpert & Company, New York, N. Y.
C. G. Ort

Twenty-six of the exhibitors are members of National Association of Supply Men.



HERE is just one of the Big 6 Nordhem Ice Cream Posters for 1922. There is generous space on these giant 24-sheets for the imprint of your name and brand.

Full-color miniatures of this whole successful advertising series, with prices, will be sent you on request.

NORDHEM SYNDICATE SERVICE
Advertising and Selling Service for Ice Cream Manufacturers
8 West 40th Street NEW YORK

NOVEL FLOAT.

Big Ice Cream Brick Featured in Pageant Attracted Wide Attention.

Conspicuous among the many attractive and nov floats that were featured some time ago in the pagean at Columbus, Ohio, was the float entered by the Telling Belle Vernon Co. The float represented a gigantic bric of Telling's ice cream resting upon a saucer of equa mammoth proportions. The big special Telling's ic cream brick was executed in the natural colors of th three-color "surprise brick" featured each week by Tel ing dealers throughout Columbus and central Ohio.

In the Telling-Belle Vernon plant it is said that Co lumbus has one of the most complete and up-to-date ex clusive ice cream manufacturing establishments in th state. The factory, at present occupied by the firm, wa entirely rebuilt a little over a year ago and at that tim all of the newest and most modern machinery known t the art of ice cream production, was installed. Charl T. Cawrse is general manager of the company.

Real Confidence.

In the sweet silence of the twilight they honey spooned upon the beach.

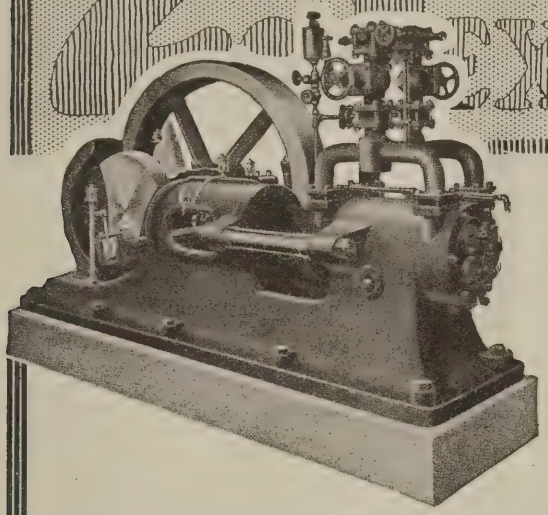
"Dearest," she murmured, trembling, "now that w are married, I—I have a secret to tell you!"

"What is it, sweetheart?" he asked, softly.

"Can you ever forgive me for deceiving you?" sh sobbed. "My—my left eye is made of glass!"

"Never mind, lovebird," he whispered, gently; "s are the diamonds in your engagement ring!"

25 YEARS EXPERIENCE



Is the proud record of the *CP* Master-Built line of mechanical refrigeration machines. Naturally our engineers and production experts have learned during this long period, how a refrigerating machine should be built to best serve the dairy industry.

CP Refrigerating Machines are obtainable in vertical and horizontal types, in sizes ranging from 1 ton upwards. The vertical machine can be equipped with automatic regulation when desired. May we send you free our new booklet, "How Mechanical Refrigeration Increased Brown's Bank Account?" Address

THE CREAMERY PACKAGE MFG. COMPANY

SALES BRANCHES—(Write to nearest one)

Chicago, 61-67 W. Kinzie St. **Kansas City, Mo.,** 1408-10 W. 12th St. **Philadelphia,** 1907 Market St. **Toledo,** 119 St. Clair St.
Boston, 140 Washington St. N. **Minneapolis,** 318-320 Third St. N. **Portland, Ore.,** 6-8 N. Front St. **Waterloo,** 40 6-408 Sycamore St.
Buffalo, N. Y., 133-7 E. Swan St. **Omaha,** 113-115-117 S. Tenth St. **San Francisco,** 699 Battery St.

USE

MEXOCINE

High Grade Concentrate

A Compound Bean Vanilla, Vanillin, Coumarin and Tonka Flavor

FOR ICE CREAM AND CONFECTIONS

Impossible to freeze out its true flavor
Forever dependable

Use ¼ oz. (or dessertspoonful) to flavor 10-gallon batch ice Cream.

Use ¼ oz. (or dessertspoonful) to flavor 100 pound batch candy.

Sample cheerfully sent on request

PRICES
Per Pint

1 pint	$7.00
5 pints	6.75
10 pints	6.50
25 pints	6.25
50 pints	6.00

TERMS: 2% 10 days, 30 days net.

REX EXTRACT COMPANY

257 Pacific Street Brooklyn, N. Y.

Order direct or through any of the following well-known firms:

J. G. CHERRY CO.....Cedar Rapids, Ia.
ENTERPRISE DAIRY & CRY. SUP. CO..Cincinnati, O.
CENTRAL OHIO SUPPLY CO.....Columbus, O.
DAIRYMEN'S MFG. & SUP. CO.....St. Louis. Mo.
E. B. GALLAGHER & CO.....Detroit, Mich.
W. L. KNORR CO.....Pittsburgh, Pa.
CHERRY-BASSETT-WINNER CO.....Baltimore, Md.
CHERRY-BASSETT-WINNER CO...Philadelphia, Pa.
N. A. KENNEDY SUPPLY CO.....Kansas City, Mo.
CHERRY-BASSETT-WINNER CO.....Pittsburgh, Pa.

MICHIGAN ALLIED DAIRY ASSOCIATION.

(Continued from page 108)

me, when in the right-hand corner I spied the photograph of what appeared to be a man of about 21 years of age, Mr. C. J. Yuncker. I immediately put him at the top of my list as the young man I was going to catch at the convention. But then I began to wonder what I should do in case he was unable to be at the convention, if his mother might not let him go so far from home, etc., etc. So I went down the line to get a list of second, third, fourth and fifth choice.

Down in the lower right-hand corner I saw a very good looking man by the name of D. W. Shiel, so I put him on the list as second choice with Mr. Von Jasmund and Mr. Hughes as substitutes if Mr. Shiel failed to qualify. Now I turned over to page 48 and found that I would have to revise my list and place Mr. Miller, Mr. Grove or Mr. Keating in second place as I believed that they were all as good looking as Mr. Shiel. I made a very careful study of all the pages where supplymen, salesmen, etc., were listed up under the head of Badger Flyers, and Poodle Dogs, but I decided that the Michigan Dairy Boosters were the best looking crowd in the lot. Alas, I did not understand nor know the wiles of these boosters, nor the methods they would use in attracting the crowd to the convention. After a good deal of trouble I at last persuaded dad to take me along with him to the show. I arrived early on the morning of February 14 at what is called Michigan's greatest dairy convention, and with my photographs set out to make the round of the booths and get acquainted with the heroes I had read so much about.

One of the first booths I stopped at, the Rex Extract Company, I looked around for Mr. Yuncker was expected to attend the convention. This fat old gentleman informed me that he was the only living representative of the Yuncker family who was allowed in Michigan, and that he was the Yuncker whose photograph I had seen in The Review. So I looked up Mr. D. W. Shiel and was disappointed to find him a man who looked even older than Mr. Yuncker. I went all through the list, visiting every booth in the show, and left the exhibit entirely convinced that the Michigan Dairy Boosters were an unscrupulous bunch of deceivers, for I failed to find one who did not look at least ten years older than his published photograph.

But the show itself was wonderful. Before I left the building, I made some inquiries of a young man by the name of O. E. Harwood, of Chicago. This boy informed me that all the boosters were young men in appearance when they started the work of putting over the 1922 Michigan Allied Dairy Association convention, that their age and appearance was caused entirely by their anxiety, work and worry of getting a convention together that would be the best ever, and that some of the most aged looking old fossils still had young ideas.

Now, I do not believe this boy knew what he was talking about. I really believe the entire bunch to be unscrupulous deceivers who had pictures published of themselves which were taken from ten to twenty years ago, and I, for one, wish to protest against the use of this paper or the United States mails to aid them in deceiving the public any longer.

(MISS) IMA BOOSTER.

Saginaw, Mich., R. F. D. No. 5.

* * *

WHO WAS THERE.

By C. J. Yuncker

The following is a partial list of Ice Cream Manufacturers who had representatives at the Michigan Allied Dairy Convention:

Kelley Ice Cream Co., Grand Rapids, Mich.
Hoekstra Creamery, Grand Rapids, Mich.
Alpha Creamery, Muskegon, Mich.
Piper Ice Cream Co., Kalamazoo, Mich.
The Consumers' Ice Cream Co., Battle Creek, Mich.
The Adrian Ice & Ice Cream Co., Adrian, Mich.
Fleming Ice Cream Co., Jackson, Mich.
Parker Dairy, Saginaw, Mich.
Francke Bros., Saginaw, Mich.
A. E. Williams, Saginaw, Mich.
M. & B. Ice Cream Co., Saginaw, Mich.
The Thumb Ice Cream Co., Bad Axe, Mich.
Fleming Ice Cream Co., Bay City, Mich.
Wilson Ice Cream Co., Port Huron, Mich.
Carlisle Ice Cream Co., Port Huron, Mich.
Detroit Creamery, Detroit, Mich.
Consumers Ice Cream Co., Detroit, Mich.
Artic Ice Cream Co., Detroit, Mich.
Birmingham Ice Cream Co., Birmingham, Mich.
Freeman Dairy Co., Flint, Mich.
Freeman Dairy Co., Saginaw, Mich.
J. H. Bechtol, Cairo, Mich.
Findlay Dairy Co., Findlay, O.

* * *

J. V. Mast Creamery Co., Newark, O., has added a new ton truck to its automotive fleet and has also made some extensive improvements to the plant.

* * *

J. H. Doherty has taken a position with the J. C. Matthews Co. of Detroit, Mich., and will travel in Ohio under the supervision of Mr. J. G. Gundlach.

* * *

The convention of Ohio ice cream manufacturers was held in Columbus, Ohio, on January 31st and February 1st. It was well attended, as usual, and the supply men were there also. Everyone seemed to be happy and is looking for good business for the coming season. All manufacturers were interested in chocolate covered ice cream bars and that seemed to be the principal topic. They all say it is a great seller.

* * *

Election of Officers.

The Michigan Allied Dairy Association held their first quarterly meeting in Lansing, Mich., at Kern's Hotel, on Wednesday, March 1st. The attendance was good and they elected officers for the year of 1922, which are as follows:

President—Glen Overton, Allegan, Mich.
Vice-President—M. L. Noon, Jackson, Mich.
Treasurer—Martin Seidel, Bay City, Mich.
Secretary—Martin Seidel, Bay City, Mich. (temporary).
Executive Commttee—Glen Overton, M. L. Noon, Martin Seidel.

The next quarterly meeting will be held in June.

The Michigan Ice Cream Manufacturers held their firse quarterly meeting at Kern's Hotel, Lansing, Mich., Tuesday, February 28th. They had a big meeting.

The Michigan Dairy Boosters held their first quarterly meeting at Lansing, Mich., at Kern's Hotel on Tuesday, February 28th. C. J. YUNCKER.

* * *

YOU CAN'T DOWN AN ELYRIA MAN.

Latest reports from Mell J. Goodwin, the Elyria Enameled Products Company representative, who has been spending some ten weeks in the Elyria, O., Memorial hospital, are more favorable at this writing.

In spite of being very seriously ill, Mr. Goodwin has shown remarkable spirit and fight. He says he fooled his nurse a short time ago, she thought he was going to "kick in" but he didn't like this year's cut of wooden kimonas and besides he was behind in his harp lessons and so he decided to stay with us. He says fur-

ESSEX
Standard Brands
33%
Under Last Year's Costs

ESSEX GELATINE COMPANY

Manufacturers

BOSTON, MASSACHUSETTS

Warehouses for Service

New York Philadelphia Chicago St. Louis San Francisco

Michael's Mexican
The Original
Vanilla Powder
With and without the Bean Showing

For a delicate and delicious Mexican Vanilla flavor, which brings out the butter fat flavor instead of hiding it.

QUALITY PAYS!

Michael's Mexican
The Original
Vanilla Powder
With and without the Bean Showing

Will not freeze out as it is scientifically prepared for use by commercial ice cream manufacturers. — — —

Convince yourself at our expense. Write now for a trial shipment on approval.

MEMBER

DAVID MICHAEL & CO.
INCORPORATED
MILLERS AND MANUFACTURING CHEMISTS
GUMS AND FLAVORING EXTRACTS
RIDGE AVE., GREEN & CLAY STS.
PHILADELPHIA

MEMBER

SUCCESS RESULTS FROM BACKBONE, NOT WISHBONE—AND PROPER EQUIPMENT AND METHODS.

Can You Answer These Simple Questions on Refrigeration?



How may refrigerator machines be classified?

What are the different forms of compressors? What conditions make top expansion desirable and what bottom?

What is the first process in pumping out expansion coils?

Could a single cylinder, double-acting compressor be kept in service while being repaired?

If Not—You Need a Copy of This Book

A practical book that should be handy wherever mechanical refrigeration is employed.

Send $2.00 Today and Get a Copy.

FOR SALE BY

The Olsen Publishing Co.

210 Sycamore Street
Milwaukee, Wis.

ther that he is going to get some "fine-cut," a skull cap and a pair of carpet slippers and join the old soldiers' home if he doesn't get out in a hurry.

If it comes to that, we are going to see that he gets a place in the Old Soldiers' Home at Milwaukee because we feel that a spirit as indomitable as that would be a good one to have in the "home town" so that we could go out often and take lessons from him.

His myriads of friends joins us in hoping that by the time this paper goes to press, Mr. Goodwin will be able to say "Goodbye" to the Elyria hospital for good, and that he will again be seen in his usual good health traveling the old territory for the Elyria Enameled Products Company.

NORTH CAROLINA ICE CREAM ASSOCIATION BULLETIN NO. 5.

The matter of the copies of the Sanitary Law to be distributed to the members has been delayed owing to several conferences with Mr. Allen of the Department of Agriculture. It has finally been decided that the state will pay for these and instead of sending copies of the whole law we have only had that section printed pertaining to the return of equipment, section 12. This will be printed on paper the size of a postal card and can be slipped in bills and letters at intervals. Mr. Allen agrees with your secretary that it would not be wise to send them constantly to the customers, but several times during the season when it will do the most good. As soon as they are received, a supply will be sent you.

It was true about Dixon attending the "Broadway Whirls" again, making the third time. Sly old fox, isn't he?

A late ruling of Internal Revenue Commissioner Blair may be of interest to you: "A general extension of time for the filing of income tax returns was granted today by Internal Revenue Commissioner Blair. Corporations are given to June 15th, under a new treasury decision, for completing returns of income for calendar year 1921, the fiscal year ended January 31, 1922, and the firscal year ending Feb. 28, 1922. The extension is conditioned upon corporations filing tentative returns by March 15th, April 15th and May 15th according to the yearly basis used, accompanied with one-fourth the estimated amount of the tax due."

Up to the present time there has been no exchange of credits made owing to the fact that no one has sent in a list of delinquents. I have been feeling glad of this as I decided you were all collecting your bills and had no bad customers. The decision reached at the convention in Atlanta was that the secretary was to send out these notices on the first and fifteenth of each month from April to October, and thereafter once a month. Please keep this in mind, as it is one of the most important things the association has ever carried through.

A literary gem, by A. E. Dixon—

PIE! PIE! PIE!
Oh! why, why do they cry
For more Eskimo Pie?
Because you're dear,
Good little Pie,
That's why.

The time has not come
For the chocolate to run,
But it will run,
And there'll be some rum fun
Bye and bye.
Good-bye dear Eskimo Pie,
Don't cry, don't cry!

A. E. DIXON, Secretary.

R. B. SCOTT,
President,
care Scott Mfg. Co.
Providence, R. I.

Address all communications to
P. N. MILLER, Jr.,
Secretary,
2913 11th Avenue,
Birmingham, Ala.

Ice Cream Review:

Your kind favor of the 25th of January was forwarded to me here from our New York office; quite a time reaching me, but you know a "Dixie Flyer" has to be on the go in order to hold up the reputation of such a wonderful name, and organization.

I am on a protracted trip through the far west—will cover the Pacific coast next five or six weeks, when I will return to dear old "Dixie Land."

I attended the Kansas convention. No doubt the Review has received full particulars concerning same. Will say, however, for the benefit of the Kansas Ice Cream Manufacturers and the Jack Rabbits in attendance, it was one of the snappiest and meatiest ice cream meetings I ever attended. Too much credit cannot be given to the men who got up the program all the way through.

As I travel westward I find the ice cream men as a whole most optimistic concerning business for '22. In fact they are doing more business this time of the year than they have in several years past. A great deal of this is due to the coated ice cream bars. This has been a life saver to many an ice cream man and, where some of them believe it will die down to a certain extent when warm weather sets in, the fact remains it has helped most materially during the quiet months of the ice cream industry.

The coated ice cream bar will be put before the public in this city tomorrow—a little late getting here, but here I believe to stay, judging from the enthusiasm shown by the two ice cream concerns who will put it out.

I am looking forward to Washington, Oregon and California with much interest. Reports keep coming to me that business in that section is good. Will know more about it a little later and it will be my pleasure reporting same to you in due time.

When I left the South, conditions there were brightening up in good shape, and I know when I return the general conditions will be much better. We are making wonderful strides in the right direction there, where in the past the southern manufacturers have had the reputation of putting out inferior ice cream, this has absolutely been eliminated. It is quality first, last and always. To this I attribute the wonderful forward strides in this line.

The Dixie Flyers are still to the front and the ice cream manufacturer all over the southland is your friend. They freely admit you are their friend, and have done more for them than they ever will be able to repay.

It is indeed a pleasure calling on this class of merchants or manufacturers and I know a great number of the boys will bear me out in this.

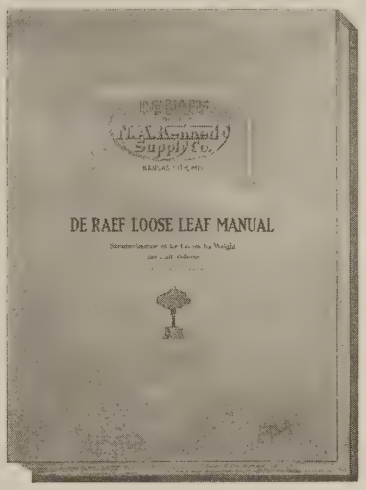
Again thanking you for your very kind favors, with kindest regards and well wishes to yourself and the Ice Cream Review, I am,

Sincerely yours,
PETE MILLER.

The wealth of a nation lies in the prosperity of its people. The power of a Want Add is in the number of subscribers reading them. Do you read The Ice Cream Review Want Ads—regularly?

DE-RAEF LOOSE LEAF MANUAL
FOR THE PRACTICAL
ICE CREAM MANUFACTURER
The only manual of its kind published to date devoted exclusively for the Ice Cream Factory

Copyright April 21 1921 Registration No. 618,893



Copyright July 5 1921 Registration No. 620,254

Written in Plain, Intelligent Language for the Practical Ice Cream Factory Manager and Ice Cream Maker from Several Years of Practical Experience Visiting Plants Throughout the States in the Middle West.

De Raef Loose Leaf Manual, circular sent on application to the Ice Cream Department.

Published by
N. A. KENNEDY SUPPLY CO.
KANSAS CITY MISSOURI

ESKIMO PIE
MANUFACTURERS

We have what you need for dipping Eskimo pies: An automatic, electrically controlled, motor driven machine that will give a production of 100 dozen pies per hour, ONE OPERATOR.

Save time, labor and chocolate

Prices and Particulars on request

HOOSIER MACHINE WORKS
816 Jackson Street
COLUMBUS INDIANA

Our Reference:
FARMERS' TRUST COMPANY
COLUMBUS, INDIANA

Powdered Milk Market Report for February, 1922

By Bureau of Markets and Crop Estimates, United States Department of Agriculture.

Prices Paid for Raw Material Delivered During January, 1922, F. O. B. Factory.

Geographic Sections	Whole Milk			Buttermilk per gallon	Skimmilk per cwt
	Price per CWT	Butterfat Basis	Allowance 0.1 p. c. fat		
New England	$2.19	3.5	3.7	...	..
Middle Atlantic	1.44—2.15	3.5	4—5	...	30
South Atlantic	1.90	3.5	..	...	50
E. North Central	1.35—1.90	3.5	4—5	¾	50
W. North Central	1.60—2.08	3.5	3	.5—.8	..
South Central	....	...	..	...	..
Northwestern	1.43—1.73	3.5—3.8	4	...	..
Southwestern	1.40	3.5	B. F. Basis	...	..

Manufacturers' Wholesale Selling Prices During January.

The wholesale prices given below are based on reports of manufacturers covering actual sales made to jobbers, wholesale grocers, and similar buyers on basis of cash or short time credit with freight included to distributing point in each section.

Prices in the column headed "Range of Prices" are the highest and lowest reported by all firms. Those given under "Bulk of Sales" are the highest and lowest reported by different firms as the "bulk of sales" prices.

Geographic Sections		Whole Milk Powder		Skim Milk Powder		Buttermilk Dried	
		Range of Prices	Bulk of Sales Prices Fresh Goods	Range of Prices	Bulk of Sales Prices Fresh Goods	Range of Prices	Bulk of Sales Prices Fresh Goods
N. E.	Case	.....	60	.....	33	.....	9½
	Bulk	28–29	28½–29	7–11	7–11	6.13–12½	6½–10½
M. A.	Case	.....	60	.....	33	.....	12
	Bulk	25–30	28–29	5½–11	7½–11	5.8–10.6	6¼–10½
S. A.	Case	.....	62	.....	36	.....	11½
	Bulk	28–29	28½–29	8–11	8–11	6¼–10.6	6¼–10½
E. N. C.	Case	31–60	31–60	.....	33	9½–13½	9½–12¾
	Bulk	26–43	26–43	6–11	6–11	3½–12½	3½–10½
W.N.C.	Case	45–60	45–60	.....	33	9½–12	9½–12
	Bulk	29–30	29–30	4–11	4–11	3½–10.6	3½–10½
S. C.	Case	.....	62	.....	36	10½–10.6	10½–10.6
	Bulk	28½–29	28½–29	8–11	8–11	6.35–12½	6½–10½
N. W.	Case	35–62	37–62	.....	36	.....	10½
	Bulk	28–30	28–30	6–12	7–12	6–11½	6–11½
S. W.	Case	40–62	40–62	20–36	20–36	.....	10½
	Bulk	30–35	30–35	7½–12	7½–12	5–11½	5–11½

NOTE: Bulk goods includes that sold in barrels and drums. Case goods includes that sold in tin containers.

NOTE: Skimmilk powder for export trade was reported sold at 9-10c per lb. F. A. S. Atlantic Seaboard and 8-9c per lb. F. A. S. Pacific Seaboard. Whole Milk Powder in barrels at 29¼c ocean freight paid from Atlantic Seaboard.

New England (1)—Maine, New Hampshire, Vermont, Massachusetts, Rhode Island and Connecticut. Middle Atlantic (2)—New York, New Jersey, Pennsylvania. South Atlantic (3)—Delaware, Maryland, Dist. of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia and Florida. East North Central (4) Ohio, Indiana, Illinois, Michigan and Wisconsin. West North Central (5)—Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska and Kansas. South Central (6)—Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, Oklahoma and Arkansas. Northwestern (7)—Montana, Wyoming, Idaho, Washington and Oregon. Southwestern (8)—Colorado, New Mexico, Arizona, Nevada, Utah and California.

(Continued on Page 132)

PLEASE MENTION THE ICE CREAM REVIEW WHEN WRITING TO ADVERTISERS

Condensed and Evaporated Milk Market Report

By Bureau of Markets and Crop Estimates, U. S. Department of Agriculture.

Manufacturers Wholesale Selling Prices of Condensed a nd Evaporated Milk (January)

The wholesale prices given below are based on reports made by manufacturers covering actual sales of condensed and evaporated milk to jobbers, wholesale grocers and similar buyers, delivered at manufacturers' distributing points on basis of cash or short time credit. Foreign prices are given as F. O. B., or F. A. S., points of export in section in which sales were made.

Geographic Sections	Sweetened Condensed, Bulk, Per Cwt. Unskimmed	Skimmed	Unsweetened Evaporated, Bulk Per Cwt. Unskimmed	Skimmed
New England—				
Range	8.18—10.50	3.46—5.50	9.25	3.20—4.00
Average	9.17	4.61	9.25	3.60
Mid. Atlantic—				
Range	8.18—10.10	3.00—5.95	7.75—12.00	2.20—5.00
Average	8.96	4.43	9.04	3.66
So. Atlantic—				
Range	8.18—9.50	4.00—5.95	9.90	2.77—4.00
Average	8.64	4.86	9.90	3.39
E. N. Central—				
Range	8.00—9.50	3.50—5.95	7.00—9.00	2.50—4.30
Average	8.49	4.48	7.75	3.67
W. N. Central—				
Range	8.18—9.50	4.00—6.00	7.02—8.33	6.45
Average	8.79	5.49	7.68	6.45
So. Central—				
Range	8.18—9.50	4.00—5.95	....	....
Average	8.64	5.15	....	....
No. Western—				
Range	8.18—10.00	5.50—7.00	....	4.10—4.28
Average	9.23	6.15	....	4.19
So. Western—				
Range	8.18—9.50	5.50—5.95	....	....
Average	8.84	5.73	....	....
United States—				
Range	8.00—10.50	3.00—7.00	7.00—12.00	2.20—6.45
Average	8.83	4.82	8.35	3.77

New England—Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, Middle Atlantic—New York, New Jersey, Pennsylvania. South Atlantic—Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida. East North Central — Ohio, Indiana, Illinois, Michigan, Wisconsin. West North Central—Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas. South Central—Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, Oklahoma, Arkansas. North Western—Montana, Wyoming, Idaho, Washington, Oregon. South Western—Colorado, New Mexico, Arizona, Utah, Nevada, California.

EXPORT DEMAND FOR CONDENSED AND EVAPORATED MILK LIGHTER.

Despite the continued effort of manufacturers to increase sales, condensed and evaporated milk markets still occupy a position which the trade generally do not yet consider satisfactory. Following the cuts in prices which were made by some manufacturers the past month or so, some increases in sales were realized which in itself served to restore a degree of confidence, but on the whole no material change of much consequence has occurred nor is looked for in the immediate future.

Relief buying at New York has continued to be a factor of importance, although it is reported that with the calls for bids on 75,000 cases of evaporated late in February, the supplying of this demand is nearing completion. Few of the trade anticipate much export demand unless prices continue to go lower, for European countries are said to be getting back to a pre-war basis of production and will be competing for this business. The recent price declines on manufactured goods were partly made possible by lower raw milk costs, but the consensus of opinion seems to be that unless butter prices show material reductions milk prices will not go much below their present level until the spring drop comes later on. Just now butter markets are maintaining a steady tone under an apparent decrease in production and the consequent falling off in receipts at the markets, also because imports of foreign butter have for the time being ceased to be a factor of influence on account of firmer markets abroad. Some condensaries are still closed, others are making butter ,and most of those which are condensing are said to be working on the lowest production possible in order to avoid accumulated stocks, in some cases it having become necessary to cancel contracts with producers or accept only part of the milk contracted for.

January Shipments 40 Per Cent Less Than in 1921.

January export figures show an increase of over a million pounds in the exports of condensed milk, but a reduction of over 5,000,000 pounds of evaporated as compared with the previous month. As will be noted, from the accompanying tables, the combined January exports of condensed and evaporated goods were nearly 12,000,000 pounds less than in January, 1921, during which month shipments totaled 30,191,000 pounds. Of the 10,340,000 pounds of evaporated milk exported in January of this year over 4,750,000 pounds went to Germany, but it is probable that part of this amount was for Russian relief, shipped via Hamburg. Further heavy

(Continued from page 123, second column)

FANCY FORMS MAKE "SPECIAL DAY" ICE CREAM SERVING POPULAR.

MANUFACTURERS UNSOLD STOCKS OF CONDENSED AND EVAPORATED MILK

Includes all stocks held by manufacturers which were not sold or under contract for delivery on unfilled orders.

Commodity	Total Unsold Stocks Feb. 1, 1922		Comparison of Unsold Stocks For Same Firms Reporting			% Inc. or Dec.
	Firms	Pounds	Firms	Jan. 1, 1922 Pounds	Feb. 1, 1922 Pounds	Feb. 1, 1922 over Feb. 1, 1921
Condensed Case Goods	15	15,008,047	15	16,392,040	15,008,047	— 50
Condensed Bulk Goods	44	5,282,447	44	7,402,212	5,282,447	— 56
Evaporated Case Goods	34	107,184,868	34	117,649,890	107,184,868	+ 43
Evaporated Bulk Goods	23	358,706	22	505,489	358,706	— 34
Total	..	127,834,068	..	141,949,631	127,834,068	+ 10

UNFILLED ORDERS FOR CONDENSED AND EVAPORATED MILK

Includes the amounts of each commodity for which orders have been received by manufacturers whose orders were in excess of their unsold stocks.

Commodity	Total Unfilled Orders Feb. 1, 1922		Comparison of Unfilled Orders For Same Firms Reporting			% Inc. or Dec.
	Firms	Pounds	Firms	Jan. 1, 1922 Pounds	Feb. 1, 1922 Pounds	Feb. 1, 1922 over Feb. 1, 1921
Condensed Case Goods	..	.....	..	.....	.....	..
Condensed Bulk Goods	..	.....	..	.....	.....	..
Evaporated Case Goods	1	240,000	1	.....	240,000	—100
Evaporated Bulk Goods	..	.....	..	.....	.....	..
Total	..	240,000	..	.....	240,000	—100

MONTHLY POWDERED MILK MARKET REPORT.

(Concluded from Page 130)

Manufacturers' Total Stocks of Powdered Milk.

Includes all stocks held by manufacturers reporting whether manufactured by them or purchased from others; whether on their own premises; in storage; or in transit (unsold) for warehouse consignment; and whether sold or contracted for sale but not delivered.

TABLE I.

Total Stocks of Powdered Milk Products.

Commodity	Code	Pounds Feb. 1, 1922	Pounds Feb. 1, 1921
Whole Milk Powder	Case	199,664	273,066
	Bulk	855,679	599,093
Skim Milk Powder	Case	112,938	124,523
	Bulk	6,783,009	11,373,445
Part Skim Milk Powder	Case	.....	.....
	Bulk	55,217	3,240
Cream Powder	Case	.....	.....
	Bulk	78,904	33,824
Dried Buttermilk	Case	99,200	.....
	Bulk	1,537,667	1,485,396

Manufacturers' Unsold Stocks of Powdered Milk.

Includes that portion of stocks reported in Table 1, not covered by current sales or future delivery contracts.

TABLE II.

NOTE—Bulk goods includes that sold in barrels and drums. Case goods includes that sold in tin containers.

Unsold Stocks of Powdered Milk Products.

Commodity	Code	Pounds Feb. 1, 1922	Pounds Feb. 1, 1921
Whole Milk Powder	Case	3,769	.....
	Bulk	749,679	53,974
Skim Milk Powder	Case	66,440	.....
	Bulk	6,272,779	5,314,308
Part Skim Milk Powder	Case	.....	.....
	Bulk	55,217	.....
Cream Powder	Case	.....	.....
	Bulk	78,904	.....
Dried Buttermilk	Case	99,200	.....
	Bulk	1,308,858	1,226,567

EXPORTS OF CONDENSED AND EVAPORATED MILK FROM THE UNITED STATES.

	Condensed Pounds	Evaporated Pounds
Total, January, 1922	8,011,020	10,340,515
Total, January, 1921	11,941,560	18,250,201

EXPORTS OF POWDERED MILK FROM THE UNITED STATES DURING JANUARY, 1922.

Total exports, January, 1922 704,587
Total exports, January, 1921 523,027

EXPORT DEMAND FOR CONDENSED AND EVAPORATED MILK LIGHTER.

(Continued from page 131)

shipments of milk purchased for Russian relief during January were made during February on account of clearances not being obtainable in January. Much of this is said to have gone via Hamburg also, although some was to have gone direct.

NEW ICE CREAM COMPANY IN ANADARKO, OKLAHOMA.

The Washita Valley Ice Cream Company, Anadarko, Okla., incorporated under the Oklahoma laws January 9, 1922, with a capital of $10,000, for the manufacture of ice cream.

T. L. Whittaker of Birmingham, Ala., is the president; Leo T. Whittaker of Chicago, Ill., is vice president and secretary, and H. K. Whittaker of Chicago is treasurer of the new company.

The new factory is located next door to the Anadarko Ice Company, and the plant will be opened for business some time in March. It is fully equipped with the latest and best machinery on the market and the new firm will try to make it the cleanest and most up-to-date ice cream factory in the state of Oklahoma. The ice cream will be made wholly from natural milk and cream.

MEMBER THE ASSOCIATION OF ICE CREAM SUPPLY MEN

VANILLA AND BLENDS
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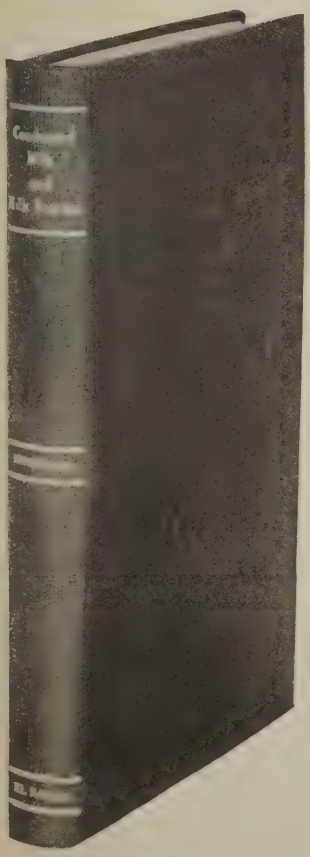
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(BY OTTO F. HUNZIKER)

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This work represents a new book from cover to cover. It contains the description of the latest equipment and of the most improved methods and practices in the manufacture of every marketable line of condensed and dried milk products.

The More Outstanding New Features Are:

New methods for cooling sweetened condensed milk to prevent grittiness and sugar sediment.

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Condensing and drying of buttermilk by commercially practical methods.

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Description of 20 different processes of desiccating milk by the dough-drying principle, the film-drying principle, and the spray-drying principle.

Detailed discussion of the commercial manufacture of powdered milk.

Cost of manufacture, composition solubility, properties, defects and keeping quality of milk powders.

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NEWS ABOUT SUGAR

Items of Interest for the Ice Cream Manufacturer

NO GOVERNMENT SANCTION.

Washington, D. C., Feb. 24.—It was definitely stated in official circles that there is no basis for statements that this government will sanction an agreement providing for a reduction in the tariff on imported sugar in consideration of limitation of sugar exports from Cuba to the United States. No proposal of the kind is under consideration here, it is said, and the report is generally ascribed to propaganda by interests seeking to bring about a reduction of the tariff.

* * *

LOWER FREIGHT RATES SOUGHT.

President J. W. Herscher of the National Wholesale Grocers' Association, in an address recently delivered before the New York Wholesale Grocers' Association, told how the increase in freight rates on sugar since 1914 was just an example of the increased cost of transporting commodities within the United States. "I wish to cite to you the fact that the cost to ship sugar in 1914 from New York to points on the Ohio river was 16¼ cents, while at the present time the rate is 50 cents, a 200 per cent increase in transportation charges in carload lots from the refiner to the wholesaler," said Mr. Herscher, making the argument that freight rates must be reduced before the cost of living can be greatly lowered.

Officers of the association were elected as follows for 1922: President, E. S. Truesdell, Binghamton; first vice president, Arthur P. Williams, New York; second vice president, H. S. Reynolds; treasurer, Howard L. Sills, New York.

* * *

UNLIKELY THAT EXPORTS TO U. S. WILL BE LIMITED.

Dispatches from Havana recently carried the information that a special committee made up of members of the Cuban congress, designated by President Zayas, had reported in favor of limiting exports to the United States of Cuban sugar of the present crop, says Facts About Sugar. Apparently considerable misapprehension has been caused in sugar trade circles as a result of this report, which has been taken as indicating the probability of further governmental control and regulation of sugar. To this the trade, in view of past experiences, is greatly opposed.

Such support as the proposed restriction of Cuban exports to the United States receives in Cuba is based on the possibility that it can be made the means of bringing about a reduction in the tariff on Cuban sugar from the rate of 1.60 cents a pound, imposed by the present law. Unless Cuba receives definite promise of a further concession in the matter of tariff, there is no probability of Cuban legislation restricting exports. Even though a reduction in the tariff rate were certain there is strong opposition in Cuba to obtaining it by a bargain that would limit Cuba's freedom of action in the sale of her sugar. This opposition is particularly strong among the sugar producers of the island who, naturally, are the ones chiefly concerned in the proposal.

In the United States the feeling against the suggested agreement is even stronger than it is in Cuba. Some of the press reports make it appear that the plan for a reduction in the duty on Cuban sugar on the one hand, and a definite limitation to 2,500,000 tons or less of the quantity to be shipped by Cuba to the United States from the current crop on the other, has the endorsement and support of the sugar producers of the United States, or at least of the beet sugar industry. So far from this being the fact, it is our information that this proposal was decisively rejected by the members of this industry when placed before them, and that it has received no encouragement whatever from any association of domestic producers.

Apparently the proposal had its inception in certain conferences held several months ago under the leadership of Secretary Hoover in an effort to bring about an agreement between Cuban and domestic sugar interests on the tariff rate to be imposed on Cuban sugar in the bill now pending in Congress. At that time there was an unsold surplus of 1,500,000 tons or more of old crop sugars in Cuba and it was argued that definite knowledge that imports from Cuba during 1922 would not exceed a stated quantity would have a sustaining influence on prices, to the benefit of holders of unsold sugars in both countries. No agreement was reached at that time, however, and none has been arrived at since. In fact the situation has changed so radically that some of those who favored the proposal at that time are against any action of the sort now. Of the Cuban stocks on hand last December, some 80 per cent has been sold, and while present indications point to a large outturn in Cuba during the present season, confidence exists that the pro-

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Fruit Frost or Water Ice

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WE DO REFINISHING of old ice cream cans in a special department of our plant which devotes its entire time throughout the year to doing this one thing and doing it well.

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This is the time of year to send cans for renewal. Send us a sample can NOW. We will repair and retin it without charge and return it promptly, so you can see the quality of our work. Write us when you ship it, so we will know whose it is, and we will do the rest.

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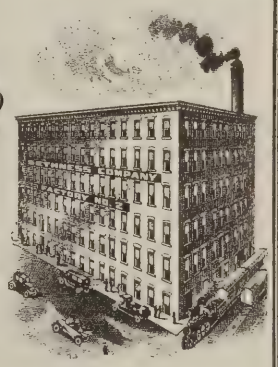
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For a reasonable expenditure per can we give them a new lease on life that in many cases doubles the usual length of service.

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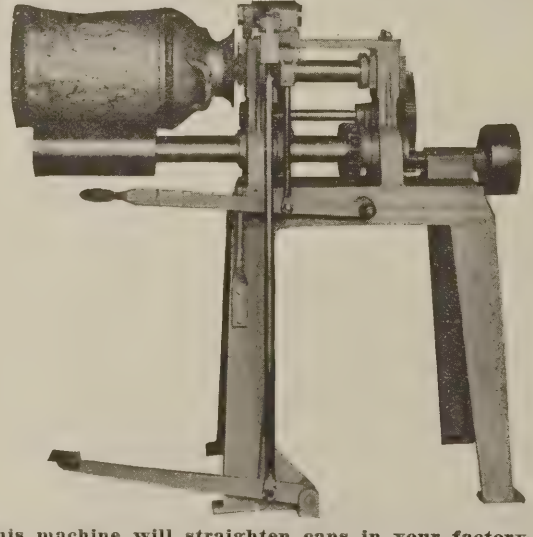
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This machine will straighten cans in your factory—better than one a minute—by just stepping on a lever. No noise—No dirt. Our circular tells all about this machine. Send for one.

duction will all be disposed of, or, at least, that the carry-over at the end of the year will be very small.

The position of the sugar producers of the United States is that the increase in duty which they have asked for is necessary to enable them to continue in business in competition with Cuba. They base their claim upon the relative costs of production in the two countries as determined by official investigations in the past and by present differences in prevailing wages and other items of cost. It is an accepted fact that sugar can be produced in Cuba more cheaply than in the United States ;and the only point as to which controversy exists is the extent of tariff protection required to permit domestic producers to compete on even terms with Cuban and other outside producers. Obviously, the amount of the tariff is the all-important consideration to producers within the United States, and acceptance of a permanent decrease in the Cuban duty in exchange for a temporary limitation of Cuban imports would only defer the destructive competition which they fear, in view of Cuba's demonstrated ability to produce all, or practically all, the sugar required by this country.

Opposition to the plan on the part of Cuban producers, or at least of a large number of them, is based on the ground that an agreement to restrict their exports would be a derogation of the dignity and independence of their country and would place them in a disadvantageous position for the sale of that part of their crop which could not be sent to the United States.

In order to give effect to the proposed plan, it would be necessary to have affirmative action from the Cuban Congress and the Congress of the United States. It is extremely doubtful if such action can be had from either body, especially in view of the determined opposition that will be encountered from members of the sugar industry in both countries. Certainly there can be no doubt that sugar producers within the United States will oppose any reduction of the tariff at this time with all the strength they can muster, and apparently an influential body of Cuban producers is equally against any agreement that would limit the freedom of movement of their sugar.

* * *

TRADING RECORD OF NEW YORK EXCHANGE.

Monday, February 20th, was the biggest trading day in sugar futures in the history of the New York Sugar Exchange, the volume of business recorded being larger even than that produced by the forced liquidation during the war, when the government halted the exchange's activities. At that time some 48,000 tons of raw sugar were sold under compulsion. February 20th the sales aggregated 51,300 tons.

This record, moreover, resulted apparently from the natural growth of the exchange's business. According to members, it represented trading from every part of the country. Not only was business widely distributed, but firms engaged in actual sugar handling took part in the trading on the exchange to a liberal extent.

The rush of business which reached its crest February 20th was first noticeably apparent February 18th, when over 10,000 tons of sugar were sold in the hour and a quarter available for trading in the morning.

February 21st, more than 27,000 tons were sold, representing a volume of business far above the daily average, though not as high as the day previous.

Prices Fall on Heavy Offerings.

Prices during the week beginning February 20th showed a decline, which was most marked on the first day, despite the heavy trading. The weakness appears to have developed in the afternoon and to be due to

heavy offerings at that time, when prices declined about 8 points in a short period.

A slight further decline was registered later, lowest prices being reached February 23rd. The range of raw sugar prices was as follows:

	High	Low	Closing
March	2.30	2.11	2.15
May	2.50	2.35	2.37
July	2.68	2.54	2.57
September	2.81	2.69	2.70
December	2.78	2.67	2.68

* * *

U. S. A. IN THE SUGAR RACE.

By Earl D. Babst, President, American Sugar Refining Co.

Broadly speaking, the United States controls about one-half of the sugar of the world outside the former battle lines of Europe. Since the armistice little progress has been made in reviving the sugar industry within the war area, so there still is little exportable surplus. The world's supplies and demands remain in about the same proportion as during the war.

The United States sugar industry as a great world factor is an incident and accident of the Spanish war. We went to war to save Cuba and by accident got the Philippines. Porto Rico was an accident. Cuba was not so fortunate as either of these.

The signing of the Treaty of Paris, in 1898, at the close of the Spanish war, marks the beginning of a noteworthy period in the sugar development of the United States and of Cuba. The Reciprocity Treaty with Cuba, as well as other organic law, distinctly recognizes a trade alliance. One billion of American capital was invested in Cuba, bringing about an increase in her sugar production. The Hawaiian Islands were annexed early in that year, while Porto Rico and the Philippines were ceded by the Treaty of Paris. Recently the United States has acquired the Virgin Islands and has established closer relations with Santo Domingo and Hayti.

The so-called United States field may be described, therefore, as comprising the beet and cane sugar of the United States, the cane sugar of Hawaii, Porto Rico, the Philippines, Santo Domingo, Hayti, the Virgin Islands, and, by reason of the Reciprocity Treaty and of our investments, the cane sugar of Cuba. The total production of the United States field in the year 1898 is set forth in the following table:

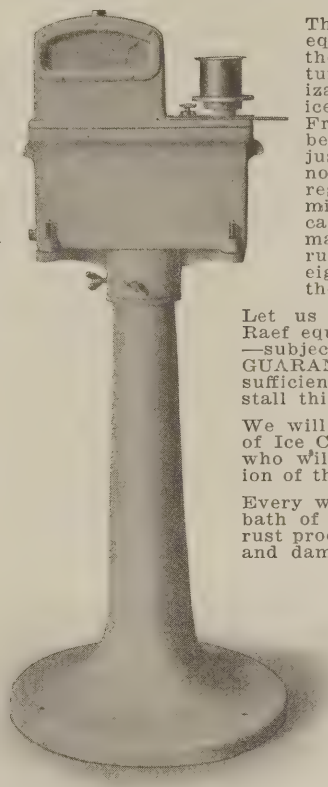
	Tons.
United States Beet	41,000
Louisiana and Texas Cane	310,000
Hawaii	225,000
Porto Rico	54,000
Philippines	150,000
Santo Domingo and Hayti	48,000
Virgin Islands	13,000
Cuba	315,000
Total	$1,156,000

At the outbreak of the European war, in 1914, there had been the large development shown by the following table of production for 1913:

	Tons.
United States Beet	624,000
Louisiana and Texas Cane	153,000
Hawaii	488,000
Porto Rico	350,000
Philippines	155,000
Santo Domingo and Hayti	84,000
Virgin Islands	6,000
Cuba	2,428,000
Total	4,288,000

Continued on next page

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The only patented equipment offered to the ice cream manufacturer for the Standardization of all makes of ice cream — Vanilla — Fruit — Nut — Sherbets—without any adjustments of any kind—no charts—no weights regardless of weight of mix—making it practical in any plant, to make an entire day's run and not to vary an eighth of a pound to the gallon.

Let us demonstrate this De Raef equipment in your plant—subject to sale. We will GUARANTEE YOU A SAVING sufficient to justify you to install this equipment.

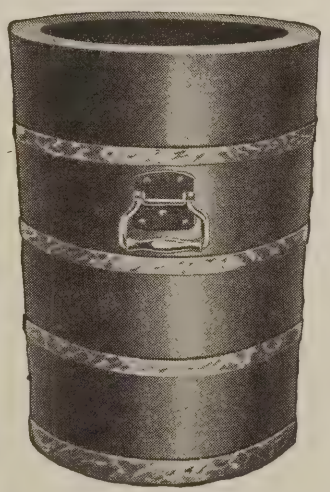
We will send you the names of Ice Cream Plant Managers who will tell you their opinion of this Standardizer.

Every working part works in bath of special oil making it rust proof from the salt laden and damp air.

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Our 29 inch five gallon tub prevents cream from melting at the top. A cream saver.

Specially prepared bottom so constructed as to withstand extremely rough treatment.

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Can make immediate delivery—Write for prices

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Speed Up
Your Brick Cutting Dept. with a "New Era"

Cuts standard ice cream slabs from moulds into quarts, pints or any size desired, as fast as the operator can release the ice cream from the moulds.

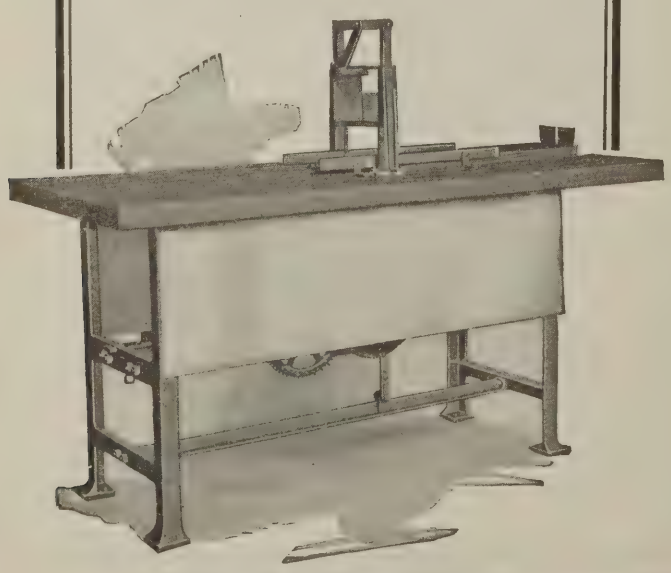
Absolutely Uniform

and unfailingly accurate is the "New Era" Ice Cream Brick Cutter. It's simplicity, speed and accuracy.

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Europe was Big Producer.

Before 1914 almost half of the world's sugar was produced in Europe. The Great War came and one-half of Europe's production was enclosed within the battle lines. What with devastation, neglect and the substitution of other crops, the sugar output of the war area is now 2,000,000 tons less than in pre-war days. The Old World's loss has been the New World's gain, however, for these 2,000,000 tons have been added to the productions of the United States and Cuba. At the present time, therefore, half of the world's production is in the Western Hemisphere, Europe and the Far East together constituting the other half.

The United States and Cuban fields were the only ones available to the allied countries when war was declared. Consequently, at the outbreak of hostilities, Great Britain, France, Italy and other European countries immediately entered the United States and Cuban markets. Prices naturally rose under this forced draft, giving greater impetus to the already increased production of the United States field. In contrast with the foregoing tables, the one below gives the production for that field in the year 1921, which shows an increase since the outbreak of the war of over 2,000,000 long tons, most of which has been in Cuba:

	Tons.
United States Beet	969,000
Louisiana and Texas Cane	157,000
Hawaii	508,000
Porto Rico	437,000
Philippines	252,000
Santo Domingo and Hayti	191,000
Virgin Islands	4,000
Cuba	3,936,000
Total	6,454,000

The United States and Cuban fields are sufficient to meet for some years all the needs of the United States and of Europe. It would have been a wise provision if some commitments, aside from informal assurances, had been secured by Washington before it inaugurated its war program of stimulation of sugar production in the United States field. If, however, the industry of the United States and of Cuba has the continued support of the respective governments, there are many reasons to expect that it will be able to hold a large part of the business which came so unexpectedly during the war. This can be made of special advantage to the consumers of the United States, and that, too, without scrimping on domestic requirements.

High Prices Detrimental.

The recent inflation period has demonstrated once more that high prices are detrimental. A lower range of prices is beneficial, not only to the public, but to the industry. Less capital is involved and hazardous risks are eliminated from the business. A smaller manufacturing margin becomes possible and the consumer and industry benefit equally: the consumer by low prices, industry by increased sales.

During the war the producers and refiners of the United States and Cuba fitted their operations into a world program, making possible a period of moderate world prices and an international division of supplies of boundless benefit to consumers, both domestic and foreign. The initiative of producers and refiners and the investment of hundreds of millions of American capital have made possible in Cuba and the United States a vast increase in the production of a food staple of pre-eminent world importance. The world needs this sugar. The United States has the excess capacity to refine a million tons for export. Not another brick need be laid.

There is bound to be a race for foreign markets. Will

FLAVOR YOUR ICE CREAM WITH

Cremilla

"CREMILLA" is better, smoother, creamier and of richer flavor than the finest grade of pure vanilla; and it's more economical.

"CREMILLA" is so concentrated as to make it the best flavor to use with homogenized cream; one-third to one-half oz. flavors perfectly 10 gallons of cream (one to one and a half pints for 500 gallons.)

Trial gallon by express on request. After fair trial, if you don't like it, send back what's left and pay us nothing.

National Fruit Flavor Co.
NEW ORLEANS, U. S. A.

the ultimate prize go to Cuba and the United States, or will it go elsewhere? Washington can help by giving permission, as proposed, to refine in bond in the manner already accorded by law to other manufacturers, smelters and refiners. The ultimate answer, however, must be made by the industry itself. It had the pioneer courage to invest hundreds of millions in production. Without doubt it will have the courage and the vision to find and to hold foreign markets rather than cut production unnecessarily and so lead to a period of high prices.—New York American, Jan. 9, 1922.

* * *

NEW FREIGHT TARIFF LETS WESTERN BEET INTO EAST.

Effect Is to Lower Rates to Points East of Illinois-Indiana Line—Trunk Lines to Oppose.

Reports current recently that freight rates on sugar from Colorado points to Chicago territory had been reduced 14 cents by a tariff becoming effective March 3 appear to have been based on a misconstruction of a recently filed tariff reducing rates from the same points to St. Paul territory, says Facts About Sugar. The section of the tariff referring to ponits east of the Mississippi, as filed with the interstate commerce commission, reads as follows:

"Sugar, C. L. minimum weight as described in item No. 230. Applies only on traffic destined to points east of the Illinois-Indiana state line, as named in item No. 10, as amended, of W. T. L. territorial directory No. 1 A. E. B. Boyd's I. C. C. No. 797, supplements thereto and reissues thereof."

The tariff sheet goes on to name the points covered by it, for which a 48-cent rate is established, these being Alton, Burlington, East Clinton, East Dubuque, East

(Continued on page 142)

KOKOREKA

The ORIGINAL
and BEST

VEGETABLE BUTTER

FOR

THINNING
CHOCOLATE
COATINGS

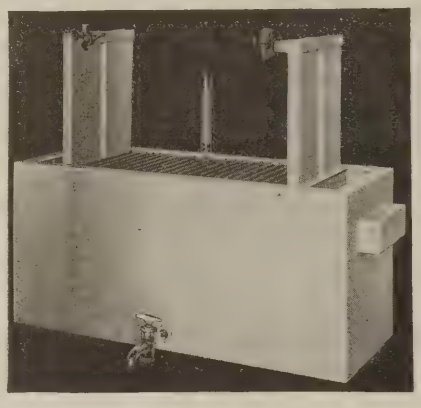
Write for Free Sample

India Refining Company
McKean & Swanson Sts.
PHILADELPHIA

CHICAGO
222 N. Wabash Ave.

SAN FRANCISCO
203 California Street

GOOD TIN FOIL MAKES THE COATED ICE CREAM BAR DISTINCTIVE AND ATTRACTIVE.



Reduce Your Sterilizing Costs the

Electro Chemical Way

WITH only salt, water, and electricity, the above cell will produce sodium hypochlorite in five minutes time, at a cost of a fraction of a cent per gallon at working strength. No cheaper or more effective disinfectant known. In diluted form it has reduced bacterial count from 7,000,000 to 800 in five minutes.

Let Us Tell You How

The

Electro Chemical Co.

Dayton, Ohio

NEBRASKA ASSOCIATION OF ICE CREAM MANUFACTURERS.

The Ice Cream Review:—

Your favor of February 22nd, written on the birthday anniversary of the Father of our Country, was received, and in addition to sympathizing with you for having to work on a holiday, the thought comes to my mind that George Washington and his associates, in their great work for this country, might have had their hardships considerable lightened if they had made the acquaintance of that great dish, ice cream, especially in the irresistible form of the coated ice cream bar. The cold weather around Valley Forge and the abundance of ice in the Delaware river would have furnished them with the means of freezing the ice cream, if they had only known how to make it.

First, I will take up that part of your letter pertaining to the question of holding an annual convention of our association. You will recall that we held a business meeting at Lincoln, January 6th and 7th, and during that meeting transacted about all the business that came up during the year. This included the election of officers and the appointment of the standing committees. At that same meeting it was decided to hold a series of district meetings, which since that time have been held at Norfolk and Grand Island, and last Thursday, the 23rd, the last one was held at Omaha. At the Omaha meeting all the officers and directors were present, and in addition so many of the factories were represented that a canvass showed that about 80 per cent of the ice cream manufacturers in Nebraska were represented. Due to this good attendance, the matter of holding a convention was gone over, and it was the unanimous opinion of those present that, since at the four meetings that had been held almost all the members had attended at least one, and many all of them, it would not be necessary to hold a convention, chiefly for the reason that there would be no business of any nature to transact, and the members would not care to spend their time and money for a meeting of this kind.

For your information will state that our Express Committee was successful in presenting evidence to the Nebraska Railway Commission that convinced them that there should be no change in the present weight of 100 pounds for a five-gallon packer of ice cream.

Our legislative committee, while they were not successful in securing a reduction of the present 14 per cent butterfat standard down to 10.5 to correspond with Colorado and Kansas, they did succeed in getting the present law changed to permit the manufacture of ice cream at lower than 14 per cent when for shipment out of the state.

The Committee on Code of Fair Practice presented a very good and thorough report. At several of the district meetings some very good paragraphs were added, and the matter was left in the hands of the officers and directors to revise, complete and compile, and have printed and distributed among the members. When completed we will see that you are furnished with several copies.

The Credit Committee reviewed the situation, and authorized the secretary to revise and make any changes in the present credit system he might deem proper. It was the unanimous opinion that the credit system not only saved the members a great deal of money, but also was the means of causing the customers to pay up their bills more promptly.

At the Omaha meeting, where the actions taken at other meetings were reviewed and final action taken, the members and officers were so well pleased with the

TIN FOIL

ICE CREAM BAR WRAPPERS

Manufactured and Printed by

THE JOHNSTON TIN FOIL & METAL CO.

6106 South Broadway

ST. LOUIS, MO.

PROMPT SERVICE **ATTRACTIVE PRICES**

Address Inquiries Dept. 2-B

work done by the secretary in the line of credits during the past three years that the name of our association was changed to "Nebraska Ice Cream Makers' Credit Association." Until the present supply of stationery is used up, they will use a rubber stamp on all invoices, statements and letters that will read as follows: "We are all members of the Nebraska Ice Cream Makers' Credit Association." When new stationery is ordered, this will be printed on it in red ink.

The Committee on Marks and Brands presented their report, and gave a list of all the marks and brands that were filed with the secretary of state to this date. The secretary was instructed in the report to have this list mimeographed and a copy sent to each member with the request that it be checked over, and in case his brand and marks were not on file, to make application through the secretary. This was adopted.

The report of the secretary and tresaurer was referred to an auditing committee, who reported it correct, and it was approved unanimously.

Various other matters of interest to the manufacturers came up and were discussed very thoroughly. I am pleased to be in a position to say that during the twelve years of the existence of this association there never has been a time when the general conditions and prospects for the season's business looked more encouraging than at the present time.

Every town, both large and small, has a good supply of fine ice, and many of the retailers who keep their fountains open all the year round are now getting their prices down to 10 cents a dish for plain ice cream and a nickel for the cone, all of which will certainly increase the gallonage this year.

This is about as complete a report of the situation as I can give you for the present. I am sorry that we

TAG HOOKS

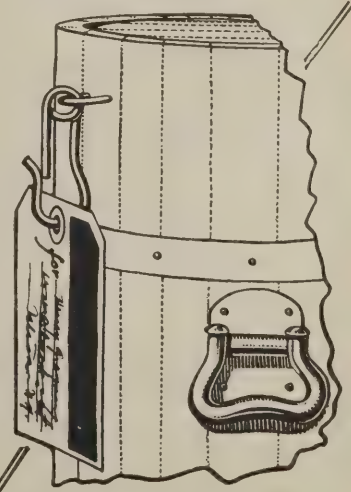
Save Dollars

Why use expensive, untidy, time-losing strings or wires while tagging your tubs or pails of ice cream?

SNAP 'EM ON

and use our rust-proof tag hooks.

SAVE TIME—Figure the cost of strings or wires. Then think of the value of a man's time while tying the tags on your tubs.



CAN'T RUST

Our new type of hooks are made of SPECIAL SPRING BRASS. They sell at $1 95 per hundred, including staples. Besides a 10 per cent discount in lots of a thousand or more. Samples on request.

DALY BROS.

SCHENECTADY N. Y.

SAVE YOUR CANS—USE A STURDY CAN LINER.

will have to disappoint you by not holding a convention, for we would like to have you out here with us. However, there is a strong probability that we will have a picnic later on when the weather gets a little more ice creamy, at some resort either at Omaha or Fremont, and we will see that you get an invitation.

R. W. McGINNIS, Secretary.

NEWS ABOUT SUGAR.

(Continued from page 139)

Ft. Madison, East Hannibal, East Keokuk, East Louisiana, Keithsburg, Moline, Quincy, Rock Island and Savanna, all in Illinois and all comprised in the so-called Mississippi river crossings group.

Substantially, therefore, the rate change would not appear to apply to Chicago, but only to shipments from Colorado to points beyond the Illinois-Indiana line, in which case the 48-cent rate would apply to the Mississippi river crossing and a local rate from that point on.

Opens Central States Field.

The immediate result of this, should the tariff go into effect, would be to open to the western beet sugar factories territory at present served largely by the eastern beet sugar companies and at times by the Atlantic seaboard refiners. Whether the rate will be opposed by the eastern beet companies has not developed.

The trunk lines, it is understood, however, have already decided to fight the new tariff, and it is considered more than likely that some of the eastern refining interests will join hands with them on this issue.

GET YOUR COPY.

We have just received a copy of the new farm and dairy equipment catalog No. F-1 put out by the Dairymen's Manufacturing and Supply Co., of St. Louis, Mo. In this catalog is included a complete line of equipment necessary for a modern creamery, milk plant, ice cream factory and the farm dairy. Mr. B. Riley Hauk, the president of the company, is devoting his entire time to building up a first class organization, handling the best makes of dairy equipment.

Besides Mr. Hauk as president, the officers are J. C. Barringer, secretary and treasurer; E. G. Blankenmeister, vice-president and advertising manager, and Wm. Seifert, consulting and erecting engineer.

You can't afford to miss a single copy of the "Ice Cream Review." Did you send in your renewal?

NO higher standard nor better quality in cream test bottles and glassware can be found than the well known Kimble Brand.

Order from your Jobber or write us direct

Kimble Glass Company
402 W. Randolph Street
Chicago, Ill.
Factories: Vineland, N. J., Chicago, Ill., New York, N. Y.

SEVENTH ANNUAL CONVENTION WISCONSIN ASSOCIATION OF ICE CREAM MANUFACTURERS.

(Continued from page 12)

percentage composition of these various foods arrived at? By the quantative analysis of thousands of authentic samples of these various foods.

Now as to the standardization of manufactured foods, what is to be our guide there? Are we to go onto the market purchase and analyze thousands of samples of this class of foods, tabulate the results and be guided entirely by this data? No. Why? Because the work of man is not like the work of nature. What then is to be the procedure in establishing these standards. A thorough and painstaking study of the processes of manufacture to determine what may reasonably be expected. A thorough study of the definition of the food to be standardized. A just consideration of what the public has a right to expect. Wholesomeness, economy and freedom from fraud, are some of the guiding principles. How are the ends sought accomplished? By hearings at which the trade is represented and the people are represented by food officials and their chemists. Gentlemen, this is precisely what took place when the present standards for ice cream were prepared for consideration at the last session of the legislature. I think this a fitting place to read these standards.

Ice Cream. Section 4601-4a. (10) (Chapter 331, Laws of 1921) (a) Ice cream is a frozen product made from cream, or milk and cream, and sugar, and may contain added milk solids, added milk fat, eggs, natural flavoring, edible gelatine or harmless vegetable gum, and shall contain not less than twelve per cent of milk fat, nor more than one-half of one per cent of the said gelatine or gum, or a mixture of the said gelatine and gum. The volume of ice cream after being melted shall be not less than one-half the volume of the ice cream as manufactured and sold.

This last sentence is in addition to the standardization of ice cream and I will point out a little later the necessity in our laws for this addition.

(b) Fruit ice cream is a frozen product made from cream, or milk and cream, sugar and sound, clean, mature fruit, and may contain added milk solids, added milk fat, eggs, natural flavoring, harmless color, edible gelatine or harmless vegetable gum, and shall contain not less than ten per cent of milk fat, nor more than one-half of one per cent of the said gelatine or gum, or a mixture of the said gelatine and gum. The volume of fruit ice cream after being melted shall be not less than one-half of the volume of the fruit ice cream as manufactured and sold.

(c) Nut ice cream is a frozen product made from cream, or milk and cream, sugar, and sound, nonrancid nuts, and may contain added milk solids, added milk fat, eggs, natural flavoring, harmless color, edible gelatine or harmless vegetable gum, and shall contain not less than ten per cent of milk fat, nor more than one-half of one per cent of the said gelatine or gum, or a mixture of the said gelatine and gum. The volume of nut ice cream after being melted shall be not less than one-half the volume of the nut ice cream as manufactured and sold.

(d) Chocolate or cocoa ice cream and caramel ice cream are frozen products made from cream, or milk and cream, sugar, chocolate or cocoa, caramel, and may contain added milk solids, added milk fat, eggs, natural flavoring, edible gelatine or harmless vegetable gum, and shall contain not less than ten per cent of milk fat, nor more than one-half of one per cent of the said gelatine or gum, or a mixture of the said gelatine and gum. The volume of chocolate or cocoa ice cream or

caramel ice cream after being melted shall be not less than one-half the volume of the chocolate or cocoa ice cream or caramel ice cream as manufactured and sold.

(e) Orange ice cream, lemon ice cream and wintergreen ice cream are frozen products made from cream, or milk and cream, sugar and orange flavoring, lemon flavoring or wintergreen flavoring, and may contain added milk solids, added milk fat, eggs, harmless color, edible gelatine or harmless vegetable gum, and shall contain not less than twelve per cent of milk fat, nor more than one-half of one per cent of one per cent of the said gelatine or gum, or a mixture of the said gelatine and gum. The volume of orange ice cream, lemon ice cream, caramel ice cream or wintergreen ice cream atfer being melted shall not be less than one-half the volume of the orange ice cream, lemon ice cream, caramel ice cream, or wintergreen ice cream as manufactured and sold.

We come down to the last one, which is the standard for maple ice cream. I am picking that out to read because I consider it of special importance.

(f) Maple ice cream is a frozen product made from cream, or milk and cream, sugar, and maple sugar, or maple syrup, and may contain added milk solids, added milk fat, eggs, harmless color, edible gelatine or harmless vegetable gum, and shall contain not less than ten per cent of milk fat, nor more than one-half of one per cent of the said gelatine or gum, or a mixture of the said gelatine and gum. The volume of maple ice cream after being melted shall not be less than one-half the volume of the maple ice cream as manufactured and sold.

As you have noticed the standards for ice creams contain a provision whereby the volume to which the product can be expanded is fixed. For a number of years it has been known that the manufacturer of ice cream could control this expansion quite accurately. In order, therefore, that the public might receive a fixed minimum amount of butterfat in any stated volume of ice cream, it was necessary to provide a means for controlling the swell, or expansion, or we might have radically changed the methods whereby ice cream is now sold, that is by volume, to a requirement that ice cream be sold by weight. The ice cream industry is an important one. It had grown up on a method of sale by volume and to have changed this method of sale to one by weight in my opinion would have hampered the sale of ice cream considerably. I have carefully studied the standards fixed by various states and nowhere do I find this unique method of getting a definite amount of butterfat, the most expensive and important ingredient in ice cream, into a stated volume. I therefore claim that once again Wisconsin leads in the subject of food legislation and food control.

Just as ice cream has been defined and standardized, so have the various products used in its manufacture been defined and standardized with but two exceptions. The exceptions are coloring and vegetable gum, but the purity of these substances are guaranteed by the requirement that they be harmless.

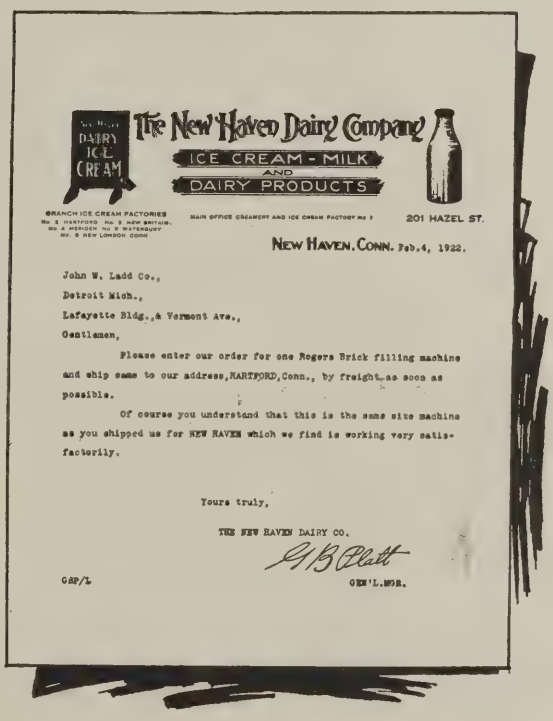
It is not to be wondered at, therefore, that ice cream has grown to be a food of major importance when we consider its composition. It supplies in the diet, with but one exception, all the essential elements of nutrition,—fat, carbohydrate and protein—lacking only iron. With the more recent development of the science of nutrition we have learned some important facts concerning the fat contained in ice cream. Nutritional science used to teach that fat was an essential element, but today scientists go a step farther and teach that a fat rich in vitamines is essential. Milk fat, commonly called butterfat leads all other fats in vitamine content.

Buys Another One!

NEW HAVEN DAIRY COMPANY
New Haven, Conn.
Have Just Purchased the 2nd

Rogers AUTOMATIC
Ice Cream Brick Maker

Because they have found the other one to be Perfectly Satisfactory!


The New Haven Dairy Company
ICE CREAM - MILK AND DAIRY PRODUCTS
201 HAZEL ST.
NEW HAVEN, CONN. Feb.4, 1922.

John W. Ladd Co.,
Detroit Mich.,
Lafayette Bldg.,& Vermont Ave.,
Gentlemen,

Please enter our order for one Rogers Brick filling machine and ship same to our address, HARTFORD, Conn., by freight as soon as possible.

Of course you understand that this is the same size machine as you shipped us for NEW HAVEN which we find is working very satisfactorily.

Yours truly,
THE NEW HAVEN DAIRY CO.
G B Platt
GAP/L GEN'L.MGR.

Rogers AUTOMATIC ICE CREAM BRICK MAKER

Puts Packaged Ice Cream into the hands of the consumer without raising the price—Allows the dealer a larger, safer, surer profit that he cannot get in bulk ice cream.

John W. Ladd Company

"National Approved Ladd Distributors Specialties"

DETROIT CLEVELAND

Ice cream, rich in butterfat, is therefore an important food and deserves protection from adulteration so that it may maintain the place it has made for itself and may become to be known more generally as containing those elements so essential to nutrition.

The standardization of ice cream is the establishment of a basis for a square deal between the manufacturers of ice cream on the one hand, and the dealers and consumers on the other hand.

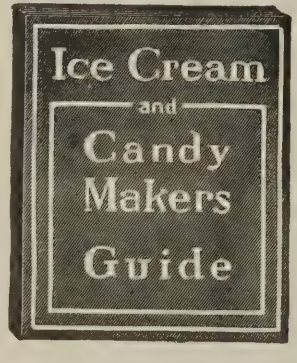
Now a few words about flavors used in ice cream. Misinformation seems to have gone out from some of the dealers in flavorings, to the effect that you can't use synthetic flavors in vanilla ice cream. There never was a time since the passage of the food laws in the state of Wisconsin when you could make vanilla ice cream by the use of any other flavor than vanilla. That is not new to these standards. I think every one of you will agree that it should be so. In buying vanilla extract, would you consider it a square deal if the manufacturer sold you a fifty gallon barrel of vanilla extract made from the crushed shell of the vanilla bean? The consuming public has the same rights in purchasing that you have. So again in the manufacture of maple ice cream, maple and cane sugar is standardized. Maple syrup is standardized. It is an article of food known to the public, and certainly the public has a right to expect maple ice cream to be manufactured with maple sugar or maple syrup. If you cannot sell to your trade that product, if your trade must have a stronger flavored product, if they must have maple ice cream, sell it to them for maple ice cream in the same manner in which you buy that product, mapeline or imitation maple flavor.

In bringing my few remarks to a close, I want to tell you a very short story, and it is about a young protestant minister, who is about to be ordained. There was selected for the ceremony a pious old Scotch Presbyterian minister and he felt the importance of giving the charge to this minister and among other things he said to this minister, "If you lack piety, you can get that by prayer, if you lack knowledgt you can get that from the Bible, but if you lack common sense, the Lord have mercy on you."

Gentlemen, that applies to the ice cream business as well as every other line of business today. If you haven't the courage and the backbone and the integrity to make vanilla ice cream with vanilla extract, maple ice cream with maple syrup and maple sugar, and if your customers like tonka ice cream, or the more strongly flavored ice creams, and you lack the courage to put it in, the Lord have mercy on you.

I thank you.

Applause.



Fifth Edition

MAILED ON RECEIPT OF

$1.65

Contains Single FORMULAS that have made fortunes for the users.

CONTAINS THE WORLD'S EXPERIENCE IN

Ice Cream and Home-Made Candies

FOR THE CATERER — Fancy Ices, Frozen Fruits, Bombs, Sherbets, Parfaits, and Plain and Fancy Creams.

ICE CREAM MAKER — All that is known about Ice Creams, Ices, Fancy Fruit and Nut Creams, Brick Creams, "Condensed" and Gelatine Formulas.

CANDY MAKER — Takes the BEGINNER from the "A B C's" through the whole range of Popular Home Made Sweets.

The Chapter on "BRICK CREAM" shows how to blend Colors and Flavors, and so plainly that it is easy to follow. The "Guide" is used and endorsed by DAIRY AND DOMESTIC SCIENCE DEPARTMENTS, in many STATE COLLEGES, and by the entire profession is accepted as AUTHORITY. Contains 124 pages, copyrighted, and is PRACTICAL. The Formula for "Fortuna" Cream made a fortune for its originator, and has never before been published; the "Guide" is full of SECRETS. Will be sent postage prepaid upon receipt of $1.65. Address:

OLSEN PUBLISHING CO.

210 Sycamore Street Milwaukee, Wis.

SUPPLY MEN WILL HOLD NATIONAL SHOW THIS YEAR.

Continued from page 6

Convention-and-Exhibition in 1922 will do more, in our opinion, than any other single thing.

Very truly yours,

THE ASSOCIATION OF ICE CREAM SUPPLY MEN,
ROBERTS EVERETT, Secretary-Manager.

"The opportunity to hold its convention in conjunction with our exhibition is certainly a courtesy and a convenience which we are happy to have the privilege of offering to the National Association," according to the executive committee of the supply men's organization.

The Association of Ice Cream Supply Men has recently placed application blanks for membership in the National Association of Ice Cream Manufacturers in the hands of every member of the association's salesmen's club together with printed information of the accomplishments, past, present and outlined for the future, of the National Association. According to the president of the association's salesmen's club, Thomas J. Stewart, the "more than 500 members are spreading the gospel of national association to the ice cream industry from Maine to California and are devoting themselves more and more heartily each month to this work."

"Did he moan an' sigh? Did he set an' cry an' cuss the
hurricane sweepin' by?
Did he grieve that his old friends failed to call when
the earthquake come and swallered all?
Never a word o' blame he said, with all them troubles
on top his head!
Not him! He climbed on top o' the hill whar stan' in'
room wuz left him still,
An' barrin' his head, here's what he said:
'I reckon it's time to get up an' git;
Thank the Lord I hain't had the measles yit."

SELECTED.

Tell us what you want, or what you have that you don't want, and we'll fix up a little Ad for you and insert it in the next issue of The Ice Cream Review. You just stay at home and wait for results. You'll soon have your hands full.



ICE CREAM GOOD FOOD AND MEDICINE.

Dr. Royal S. Copeland, commissioner of health of New York City, is a friend of the ice cream industry. We quote from a recent statement by him:

"Have you ever been at your wits' ends to know what food to give a sick person? You feel he needs something to nourish him, but you just can't think what he could take. You want something he would enjoy, but you want to be sure it won't hurt him.

Ice cream is the thing.

During or after almost any fever you may give ice cream.

Of course there are some conditions where milk is bad. For instance, if the stomach is upset, milk should not be taken for a day or two. In the little gastric disturbances of children milk should be omitted from the diet.

Whenever milk is undesirable, ice cream is equally undesirable. But in every condition where milk is a proper thing to give, ice cream may be substituted.

Ice cream is loved by every child. As a dessert no food is better when given in reasonable quantities."

NATIONAL ASSOCIATION GETS INVITATION TO CLEVELAND.

The National Association of Ice Cream Manufacturers has been invited by the Association of Ice Cream Supply Men to hold its 1922 convention in Cleveland, Ohio, in conjunction with a national exhibition to be staged by the latter association. It is the plan of the supply men to put on just one exhibition this year and to make it a big one.

MANNING CATALOG IS OUT.

The spring issue of the Manning Catalog is now being sent to all manufacturers of dairy products who request it. It is a nicely gotten up booklet of 230 pages and is neatly indexed. The cover is done in a pale bisque shade for a background with a fine herd of Holstein cattle browsing on the banks of a creek. The horizon line is broken by hills and trees, altogether presenting a very inviting summer picture.

This handy catalog contains the prices and illustrations of nearly every piece of equipment used by the butter and ice cream manufacturer or milk dealer, and the Manning Manufacturing Company of Rutland, Vt., will gladly send a copy to anyone upon request.

CHAMPAIGN COMPANY PURCHASES MATTOON CREAMERY.

The Champaign Ice Cream Company of Champaign, Ill., has purchased the Mattoon creamery at Mattoon, Ill., and took possession of their new place March 1st.

They will erect a modern plant and will install all new, modern machinery for refrigeration and other machinery that is necessary to carry on the ice cream, buttermaking and milk business.

D. L. Huxtable is manager of the Champaign, Ill., plant.

An advertisement placed in "The Review Want Department will put you in touch with just the kind of help you are looking for. Give "The Review" a trial —it's the best way to get results.

ADEQUATE REFRIGERATING MACHINERY PREPARES FOR THE SEASON'S RUSH.

BALANCE OF TRADE OF THE UNITED STATES IN DAIRY PRODUCTS, 1913-1921.

(Based on Department of Commerce Reports)

Expressed in Terms of Whole Milk.

Balance of Butter, Cheese and Condensed Milk, Taken S eparately.

Yr. Ended June 30	Butter		Cheese		Condensed Milk*	
	Imports Pounds	Exports Pounds	Imports Pounds	Exports Pounds	Imports Pounds	Exports Pounds
1913	.....	50,556,807	458,508,440	.....	.....	36,869,685
1914	85,890,653	.....	620,698,920	.....	.....	3,144,991
1915	.....	129,251,262	.....	72,657,890	.....	9,305,595
1916	.....	268,428,678	.....	129,737,640	.....	353,510,485
1917	.....	552,536,964	.....	513,641,470	.....	599,364,492
1918	.....	334,530,861	.....	344,916,730	.....	1,249,557,753
1919**	.....	525,779,457	.....	28,275,170	.....	2,089,180,437
1920**	419,295,177	.....	.....	2,975,940	.....	968,305,505
1921**	221,476,671	.....	150,944,330	.....	.....	702,642,882

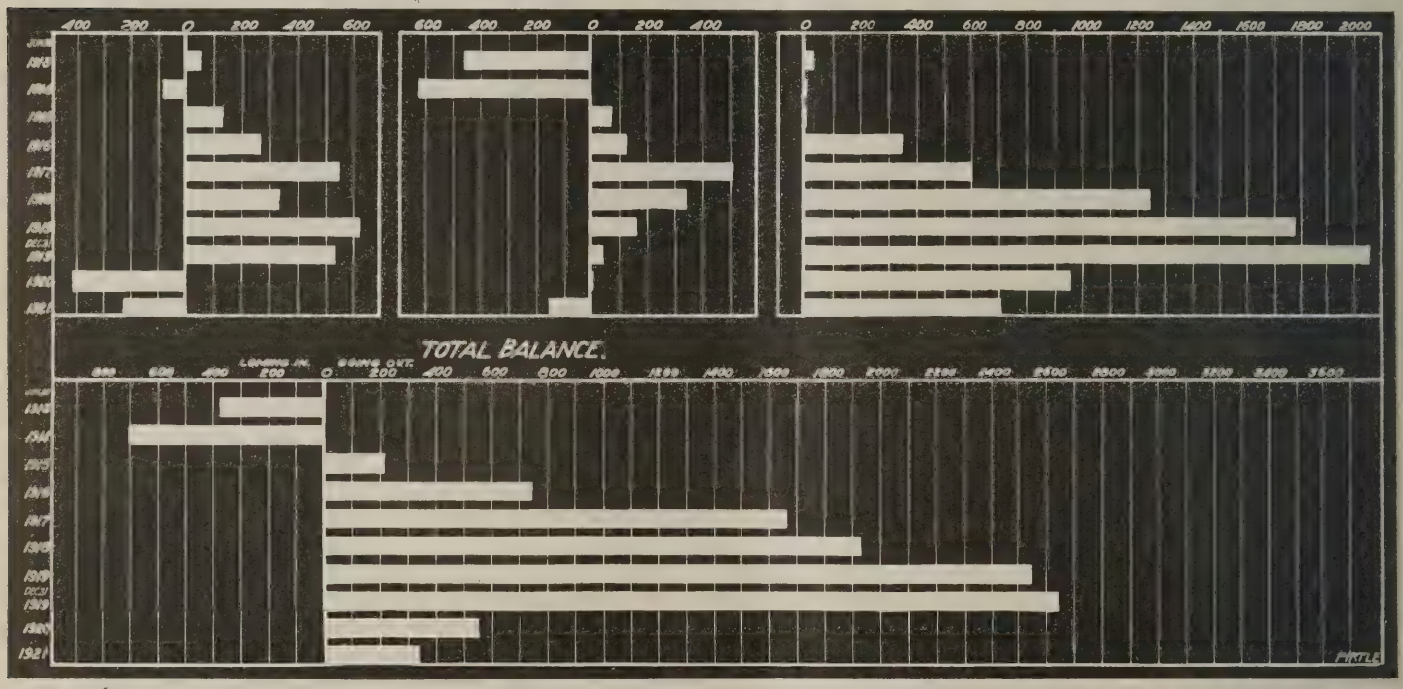
*Including evaporated. **Year ended December 31. Change in fiscal year.

Million Pounds.

BUTTER — Coming In / Going Out

CHEESE — Coming In / Going Out

CONDENSED MILK — Going Out (Including Evaporated Milk)



Total Balance of Butter, Cheese and Condensed Milk, Combined.

Year Ended	Imports Pounds	Exports Pounds
June 30, 1913	371,081,948	.....
1914	703,444,633	.....
1915	.....	211,214,747
1916	.....	751,878,803
1917	.....	1,665,542,926
1918	.....	1,929,005,344
Dec. 31, 1919	.....	2,643,235,064
1920	.....	551,986,268
1921	.....	330,281,981

This chart was plotted from the difference of imports and exports, and includes butter, cheese and condensed milk only. The chart expresses these differences in terms of whole milk, assuming that:

1 pound of butter equals.....21 pounds of milk
1 pound of cheese equals .....10 pounds of milk
1 pound of condensed milk equals...2½ pounds of milk

—Dairy Division, Bureau of Animal Industry, U. S. Department of Agriculture, February 16, 1922. T. R. P.

COST OF ADVERTISING CAMPAIGN ONLY HALF CENT A GALLON.

In the national advertising campaign for the ice cream industry which is being discussed, there are hundreds of details which must be cared for before the campaign proper can be started and considerable hard work is being done in this direction.

We made mention of this proposed campaign in the February issue of The Ice Cream Review in the article entitled "Kansas Ice Cream Manufacturers' Convention Well Attended." We stated that Henry W. Stern of the A. Daigger & Company, had given his views on this national advertising campaign for the ice cream industry. While we had specifically in mind that Mr. Stern had made mention that at an estimated cost of about one-half a cent a gallon and securing the co-operative efforts of 80 per cent of the ice cream manufacturers, an active campaign could be carried on for a year, we worded the article "not to exceed 1 cent per gallon."

You'll make better ice cream if you get the "Ice Cream Review."

Announcing

Lower Express Rates

A distinct saving in some states and on all interstate traffic over the present charges by the tub of **40%**

Lower Factory Cost

A saving in factory cost of 5-15c on every gallon of ice cream shipped in the GLACIFER DRY PACKER Quantity lots . . **$10.00**

The Glacifer Company

102 Merrimac Street **Boston, Mass.**

Bright attractive MASTER METAL wrappers will help your Eskimo Pies to quick success

MASTER METAL makes a distinctive, sales winning wrapper for the wonderful new ice cream dainties, Eskimo Pies. It is the most brilliant, crisp and durable foil that is made.

MASTER METAL foil wrappers are taking an active part in the sweeping success Eskimo Pies are making North, South, East and West—the most phenominal, whirlwind success the ice cream world has ever seen.

We have the resources and equipment to supply you with any quantity of Master Metal wrappers on short notice.

If you are the first to manufacture Eskimo Pies in your locality, Master Metal foil wrappers will start you off strong. If you have competition, these wrappers will make your product the most outstanding in appearance.

Information concerning licensing rights to manufacturer Eskimo Pies can be secured from the patentees, Russel Stover Co., Mallers Bldg., Chicago.

Some one in your city will make big money introducing Master-Metal-wrapped Eskimo Pies. Why not be the one?

UNITED STATES FOIL COMPANY
INCORPORATED
LOUISVILLE KENTUCKY

THE RIGHT KIND OF COLD STORAGE DOORS FIGURE PROMINENTLY IN THE PLANT.

New Davis-Watkins Chicago Headquarters

After April 1st, 1922

IT WILL occupy the whole seventh floor of this splendid building at 710 West Jackson Boulevard, at the corner of Des Plaines Street. Over sixteen thousand square feet of floor space, half of which will be devoted to the executive offices, and the other half to the Chicago Sales Branch.

The rapidly increasing flow of machinery business through the Davis-Watkins organization makes this move imperative and advisable. The management is taking an active interest in the larger affairs of the industry, which necessitates locating these men in Chicago. And the sales branch needs the special advantages of Chicago's facilities in properly caring for the increasing trade of customers.

The location is handy to the famous Chicago Loop district. It is convenient to the hotels and depots. Many supply houses and dairy manufacturing concerns are located in the immediate neighborhood. Halsted Street, the great connecting link between the north side and south side, and running right through the west side, is close at hand. This offers excellent opportunity for the proper service of Chicago customers.



The rapid growth of the Davis-Watkins organization has been due to the co-operative effort of many men, properly directed. It has been steady, and always on the up-grade. Men of accurate vision have planned each move carefully. Then other men have been ready and willing to carry the idea to completion. From a small beginning, just a few years ago, these men have one of the largest and strongest organizations of its kind in the world.

No such concern as this is possible except one which has on its books thousands of satisfied customers. For the most part the business consists of standard dairy machinery and cans. The line includes machines and equipment for practically every purpose in connection with the proper handling of milk. The customers include milk dealers, ice cream factories, creameries, condensories, etc. Some things, such as cans, strainers, small butter churns, etc., are sold to dairy farmers.

The present construction of Davis-Watkins equipment is the result of many years of perfecting and improving on the original inventions of many men. The speed with which this has been accomplished stands as a wonderful credit to the men who have put it over. They have been busy men, who have done a remarkable work for the industry. It has resulted in cutting the cost of handling, and at the same time made sanitation possible in many places where it did not exist before. The benefit and saving to the public has been enormous.

The good selling of the sales organization has made this possible; but the excellent work of the engineers and factory men have accomplished the real job. Without customers they could not do work of this kind; so, it is really fair and right that the many and discriminating customers of this great concern be awarded the real credit, for they have helped by buying the goods. They have made money out of the transaction, but the way has been tedious because of imperfections which have had to be adjusted by the engineers and factory men.

It is funny just how this whole thing runs around in a circle when one tries to analyze it. Who pays, and who deserves the credit, are problems which have dumbfounded the most able minds of all ages. In these days of co-operative effort the problem is even more difficult of solution than ever before. Doubtless we have all contributed, so we all deserve credit and profit.

In opening this new office and sales department, the



E. A. PHILLIPS,
Manager Jersey City.



C. A. WILTSEE,
General Sales Manager.



H. G. DAVIS,
Manager Chicago.



W. C. DAVIS,
President.

EVERY organization is strong in direct proportion to the individual strength of the men directing its activities, and coming into constant contact with its customers.

The rapidly increasing growth of the Davis-Watkins Dairymen's Mfg. Co. is the direct result of the work of these executives whose pictures we show on this page.

Back of these men, and co-operating with them, are many individuals; all intent on the work of serving customers to the best of their ability.



T. L. VALERIUS,
Vice-President.



G. A. CHAPMAN,
Manager Kansas City.



M. A. KESSLER,
Manager Denver.



A. N. HENDERSON,
Manager San Francisco.

Davis-Watkins organization is making another move which must benefit the industry. They are entering one of the greatest dairy centers of the world with the idea of progress ever foremost in their minds. Why are they doing it? Simply from selfish motives, that they may better serve customers and better help the industry. They will profit, and so will the whole dairy industry of the middle states. They will sell more equipment, and this will help more customers to better serve their trade. Even the producer, selling milk to the Chicago market, will receive his share of the profit.

After April first these men will be in a position to welcome you in these new offices. Many new labor saving machines will be on display in the display room. Things of interest will be there for you to see. When you visit Chicago make it your headquarters.

THE IMPORTANCE OF HIGH CLASS FREEZER OPERATORS.

By N. M. Thomas in Cherry Circle.

No department in our ice cream plants is today receiving the same consideration and attention as are the freezing room and those things which are essential to it. Many of our ice cream manufacturers have, in the past, paid very particular attention to their office and to the delivery and mixing departments. They have improved and run them along constantly increasing, efficient lines, while the freezing room has been allowed to run itself. The thing which has been considered essential to a successful freezing department, in the modern plant, has been a white tile room, a well drained floor and a battery of modern freezers. The last mentioned and most essential equipment was apparently purchased with the thought in mind that the manufacturer who made and sold them equipped them with brains, and nothing further was to be done but place them in sanitary, well-lighted surroundings with any pick-up employee, around the plant, as operator in chief.

Laboratories, chemists in charge of same, glass-lined holding vats, high-grade coil pasteurizers and holders, expert blending and testing have become recognized as a necessary adjunct to the production of high-class, uniform ice cream. The result has been that a combination of high-class, modern equipment, combined with expert laboratory work, has enabled the ice cream manufacturer to standardize his mix and blend it in such a manner that from the standpoint of producing a mix ready for the freezer he has left little to be desired.

During the past few years this end of the manufacture of ice cream has developed to a degree, which in many respects is out of proportion to the progress made in other departments. A certain proportion of this has been nullified by careless freezing methods and lack of the same care and scientific methods applied to the freezing of the ice cream as has been given to the preparation of the ingredients before they reach the freezer.

Many manufacturers have had brought home to them, during these days of high costs, that more money is made and lost in the freezing room than in any other department of the factory. Flavor, texture, uniformity, yield, appearance of your package and other smaller but equally as important factors in the production of your finished product are entirely in the hands of your freezer operators. They can nullify all the work of your elaborate equipment in your mixing room. All the work of your laboratory is so much useless effort unless your freezer operator exercises the same care with his process as the chemist did in the laboratory.

There is positively neither sense nor logic in any plan of production in an ice cream factory which standardizes the amount of solids fat and not fat of sugar and flavor in your mix to an exact proportion each day and then allows of a laxity of method in the finishing or freezing process which produces cans of ice cream of equal size, which vary in weight from one to five pounds. Neither is there any excuse for one can of frozen ice cream to have a smooth velvety texture and another to be coarse and grainy, yet both made from the same standardized batch of mix. There is positively as little excuse for one shade of strawberry ice cream on one day and a lighter or darker one the next day or even worse than that—two shades in one can—as there would be for your chemist to have 20 per cent solids not fat one day and 10 the next. Yet all of the things as fixed standard factors in the production of your finished product are necessary if you are to have a trade-winning, trade-holding product. Competition will become keener as the days roll by, and the ice cream man, who stays and grows and whose bank balance stays and grows, will be the one whose product has not only the quality, but who is able to maintain that quality as nearly uniformly as possible.

You would not consider for one moment the placing of a truck driver or ice handler in your laboratory. Then why in the freezing room? A freezer operator today in a large ice cream plant should know not only how to turn on and off certain levers, pull certain valves and put covers on cans—to be an effcient operator he should have the ability to study the production of ice cream as it goes through his department and in its relation to all other departments and also as it affects the ultimate consumer—the one who buys the product he produces and who pays his wages. He must have the ability to search

McLAREN'S Real Cake (DOUBLE RING) CONES

Nationally Known As A Quality Product

NOW PRICED EXTREMELY LOW

McLAREN PRODUCTS COMPANY

DAYTON OHIO

KANSAS CITY MISSOURI

FORTUNE

"NORTH POLE"

Sweet Milk *Chocolate Coating*

Especially Prepared for

ESKIMO PIES

Ready for Use — Nothing to Add

Fortune Products Company

416-422 So. Desplaines St. CHICAGO, ILL.

out the method, in his individual plant, which will produce the best goods under the conditions with which he must operate. Because John Jones makes good ice cream with a 27-quart batch in a 40-quart freezer with zero brine in one plant is not sufficient proof that the same thing can be done in some other plant under different working conditions with a different plant layout, etc. Just as every automobile, every engine—although they may be produced in as nearly uniform method as possible—have their peculiarities which an observant driver or engineer soon discovers and utilizes to his advantage, just so each plant has some feature, some form of layout which requires special attention in order to get the desired result.

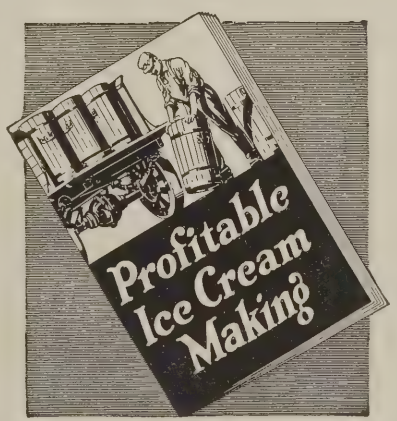
Your freezer operator should have the ability to know refrigeration and its application to and effect on the product he is making. He must know what temperature and what brine pressure produces certain results and why. Why certain temperatures and pressures are better for certain flavors or mixes and not so good for others. A million and one things, affecting the freezing of ice cream, which are of vital importance, will be overlooked by the careless operator, which in the end mean dollars to you and many times are the things which stand between success or failure.

Use the same care and discretion in selecting your freezer operators as you would in selecting a bank president to run your bank. Give him the equipment and other necessary things to produce a uniform, standardized, finished ice cream, and look to him for the same exactness that you expect of your chemist, nad you will have taken one more step toward success.

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Some of the girls nowadays are like Easter eggs—hard boiled and painted.

This Book Tells How



HOW to cut down your percentage of solids fat and at the same time improve the quality of your cream — when and how to most successfully use cream, sweet butter, condensed milk or powdered milk—how to make brick ice cream without re-dipping—how to increase your overrun most successful brine temperatures—best methods of using gelatine—proper sugar proportions in relation to quality and overrun—savings and improvements possible by correct use of ripeners.

These are just a few of the subjects covered in Mr. Thomas' "Profitable Ice Cream Making." Page after page is devoted to this kind of valuable, profitable, useful information. It is a book that you cannot afford to be without. Order yours now.

The price is only $1.00 postpaid

J. G. Cherry Company

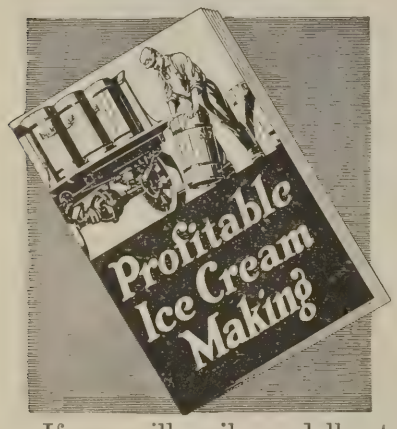
Dept. 301

Cedar Rapids Iowa

A TUB HANDLE PROVIDING A GOOD GRIP IS APPRECIATED BY TUB HANDLERS.

"PROFITABLE ICE CREAM MAKING."

A new and attractive forty page book is just off the press which will undoubtedly prove of great benefit to the ice cream manufacturer, explaining as it does many ways in which he may cut his costs and at the same time improve his product.



The contents consist of nine articles and a number of working tables and simple tests by N. M. Thomas, nationally known ice cream expert, and tell the story of ice cream in a direct style, entirely devoid of frills and theory.

If you will mail one dollar to the J. G. Cherry Company, Cedar Rapids, Iowa, a copy will be mailed you postpaid, promptly.

⚜

BILL FOR FAT STANDARD IN ICE CREAM INTRODUCED.

A bill to establish a fat standard for ice cream in New York State was introduced by Senator Mortimer Y. Ferris, as an amendment to Section 50 of the New Farms and Market Law, which, in its entirety, was enacted at the present session of the legislature.

The sale of ice cream which did not contain at least 10% of milk fat and at least 20% of milk solids was prohibited by the original bill. The bill was referred to the Committee on Agriculture of both houses of legislature. A hearing on the bill was arranged for by a joint committee consisting of Wm. Palmer, Hoefler Ice Cream Co., and president of the New York State Association of Ice Cream Manufacturers; E. B. Lewis, J. M. Horton Ice Cream Co.; V. E. Hovey, International Ice Cream Co.; S. T. Nivling, Rochester Ice Cream Company, and C. E. Kilburn, Kirk-Maher Co., representing the State Association. This meeting was held in Albany on February 22nd. The case for the manufacturers was presented by their representatives, and the legislative committees agreed to report amendments to the bill as suggested by the manufacturers, after a full discussion was held on the subject. The bill is now in its final passage, action having been taken in both the Senate and Assembly. It will undoubtedly become a law and will be effective on July 1, 1922.

The bill as amended, prohibits the sale of ice cream which does not contain at least 8% of milk fat and at least 18% of milk fat and milk solids not fat combined, except when ingredients of ice cream shall include eggs, fruit, fruit juices, cake confections, cocoa, chocolate or nuts, such reduction in the percentage of milk fat and milk solids not fat as may be due to the addition of such ingredients shall be permitted or allowed, provided the product then shall contain at least 6½% of milk fat and at least 15% of milk fat and milk solids combined.

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The Threat.

Overheard—"Yus! an' I says to 'im: 'You shove any more water in my milk an' I'll tike it down ter town 'All an' 'ave it paralyzed by the local Anarchist.'"—Pearson's Weekly (London).

RULES FOR BOARDS OF DIRECTORS.

1. Remember that ice cream can be made in the home, so there is nothing to be known about it.

2. Anybody who says anything about chemistry, bacteriology, engineering, refrigeration, or special machines, is merely talking technical to show off his learning.

3. The less you know about details and processes, the better you will be qualified to pass on important purchases and questions of policy—the detail men "Cannot see the forest for the trees."

4. Do not buy any expensive machinery—the big fellows had none when they started, years ago. They are big enough to afford luxuries now.

5. Remember that "labor saving" machinery is only to let people stand idle part of the time instead of working. You pay for the time while they are looking important.

6. If anybody in the concern asks to have money spent on equipment for the plant, he is in league with the salesmen.

7. Do not buy anything as big as the salesmen tell you to get—they need the commission. If the plant does not make as much stuff as you expect—"fire" the foreman.

8. Do not listen to anybody who tells exact information about the business—listen to the people who talk nice.

9. Buy only bargains in machinery and supplies—all prices are merely a basis for bargaining.

10. Always pay the lowest wages in town—the help won't earn what you pay them.

11. Always require the longest hours in town and drive the men on the run all day, seven days a week—they are "hard boiled" and can stand it.

12. Never go through another ice cream factory, laundry, or large bakery—you might learn what machinery is for.

Moral—Follow these rules and you will surely wreck the business the first year.

A FOREMAN.

⚜

1921 ANNUAL REPORT OF NATIONAL DAIRY COUNCIL NOW AVAILABLE.

The report of the activities of the National Dairy Council during 1921 has been compiled and printed into a very attractive twelve-page booklet, copies of which can be secured by writing to the National Dairy Council at 910 S. Michigan Avenue, Chicago.

This report shows some very wonderful achievements for the dairy industry during 1921. The results accomplished by the council show that the work is rapidly growing and that there is a great need of every person in the dairy industry getting back of the council movement.

The council has proved itself a worthy organization and an organization which every man engaged in the dairy industry will find valuable to support.

BULLETIN OF EVENTS

South Dakota Ice Cream Manufacturers' Association. Annual convention, Hurson, S. D., March 29-30. E. E. Thompson, care Turner Creamery Co., Secretary.

National Dairy Show. Minnesota State Fair Grounds, Minneapolis--St. Paul, Minn., October 7-14, 1922. W. E. Skinner, Secretary, Suite 222, 910 So. Michigan Ave., Chicago, Ill.

NEW EASTERN REPRESENTATIVE FOR MOJONNIER BROS.

Mojonnier Brothers Company, Milk Engineers, Chicago, announce the appointment of Mr. W. E. Larkin as their eastern representative with headquarters at 490 Sanford Ave., Flushing, Greater New York.



W. E. LARKIN.

Mr. Larkin is well acquainted with the milk men in the east having called upon them for the past several years and needs no further introduction.

Mr. Larkin has lived in the east practically all of his life and is well acquainted with the aims and ice cream and milk policies of the eastern men.

PERSONALS.

Chas. M. Anderson, president of the Specialty Brass Company of Kenosha, Wis., and Albion, N. Y., was a welcome caller at The Ice Cream Review office recently.

Mr. Anderson is on the police board in the city of Kenosha, and came up to Milwaukee as one of a committee selecting a new car for the Kenosha police department, and we expect the next time he visits The Review office his Pierce Arrow will lend distinction to our block by being parked at the curbing.

An extended trip to New York and other eastern cities is being contemplated by Mr. Anderson and he expects to leave shortly. Much success and call often.

* * *

Frank W. Lohr, with the Grand Rapids Cabinet Co., Grand Rapids, Mich., was a caller one day recently. Mr. Lohr is an enthusiastic ice cream man and a very pleasant visitor. Come again.

FREEMAN DAIRY COMPANY MAKES EXTENSIVE PURCHASES.

The Freeman Dairy Company of Flint, Mich., has made extensive purchases of several ice cream companies. They have just taken over the Cadillac Ice Cream Company of Cadillac, which operates a plant also at Mount Pleasant.

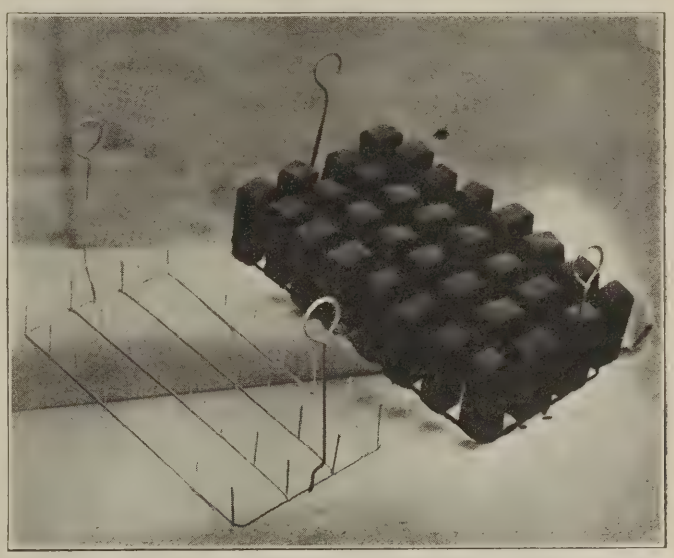
The Petoskey Ice Cream Company of Petoskey, and the Jackson Ice Cream Company of Cheboygan, have also been purchased by the Freeman Dairy Company. Two new plants are being opened at Jackson and Bay City. The company also operates a milk and ice cream plant at Saginaw. The ice cream mix for all these plants is made at Flint.

These extensive purchases will make the Freeman Company among the largest ice cream manufacturers in the state of Michigan. Leonard Freeman is the president of the company.

DRYDEN CORPORATION USES SIMPLE DIPPING DEVICE WITH SUCCESS.

The accompanying photo illustrates a simple device which is effective for dipping coated ice cream bars. This contrivance was effected by E. W. Morrison for the Dryden Corporation of Oakland, Calif., and has been used by them with success.

These racks can be made to hold three or four dozen bars at a time, and cost about 35c each. The illustration shows a sample made of black iron wire, welded by an electric spot welder. The finished rack was dipped in block tin.



The bars are placed on the peg on end, about half way down, and do not touch the frame. This allows the chocolate to completely cover the cream. This simple device has proved to be a rapid method for dipping. The bar is smoothly covered with only one tiny hole which can be easily filled if necessary.

This suggestion may be of help to the manufacturer of coated ice cream bars in working out a similar device, and may be improved in detail to meet the needs.

NEW REFRIGERATION CATALOGUE.

The Creamery Package Manufacturing Company announce the publication of a new 40-page catalogue devoted to refrigeration machinery in general and to the CP line of horizontal machines in particular. This book is abundantly illustrated with various types of refrigeration machines and installation views. In additon, it has several tables of particular interest to present and prospective users of refrigeration and they are invited to write for a copy. It will be sent without charge and without obligation, if this paper is mentioned.

The following story appeared in a recent bulletin of Rochester Credit Men's Association:

"The doctor coughed gravely. 'I am sorry to tell you,' he said, looking down at the man in the bed, 'that there is no doubt you are suffering from smallpox.'

"The patient turned on his pillow and looked up at his wife.

" 'Julia,' he said in a faint voice, 'if any of my creditors call, tell them that at last I am in a position to give them something.' "

Associations of Ice Cream Manufacturers and Affiliated Bodies

NATIONAL ASSOCIATIONS.

NATIONAL ASSOCIATION OF ICE CREAM MANUFACTURERS.
Pres., Charles G. Morris, New Haven, Conn.
Secy., N. Loewenstein, 155 No. Clark St., Chicago, Ill.

NATIONAL ASSOCIATION OF ICE CREAM SUPPLY MEN.
Pres.. Oliver S. Jordan, 29 Broadway, New York, N. Y.
Secy., Roberts Everett, 1328 Broadway, New York, N. Y.

STATE ASSOCIATIONS.

ARKANSAS ICE CREAM MANUFACTURERS' ASSOCIATION.
Pres., Will Terry, Terry Dairy Co., Little Rock, Ark.
Secy., G. A. Meyer, Stuttgart.

ARIZONA ASSOCIATION OF ICE CREAM MANUFACTURERS.
Pres., D. A. Donofris, Phoenix.
Secy., Charles LePine, Douglas.

CALIFORNIA ICE CREAM MANUFACTURERS' ASSOCIATION.
Pres., L. W. Wilson, Benham Ice Cream Co., Fresno, Calif.
Secy., R. J. Dryden, 5702 San Pablo Ave., Oakland.

CONNECTICUT ICE CREAM MANUFACTURERS' ASSOCIATION.
Pres., John Semon, 110 Bristol St., New Haven.
Secy., C. E. McEnroe, 72 West Main St., New Britain.

ILLINOIS ASSOCIATION OF ICE CREAM MANUFACTURERS.
Pres., L. W. Roszell, Roszell Ice Cream Co., Peoria, Ill.
Secy., N. Loewenstein, 155 No. Clark St., Chicago.

INDIANA ICE CREAM MANUFACTURERS ASSOCIATION.
Pres., A. P. Holly, LaFayette.
Secy., C. A. Reeves, Indianapolis.

ASSOCIATION OF ICE CREAM MANUFACTURERS OF IOWA.
Pres., W. S. Wilcox, care E. B. Higley & Co., Mason City.
Secy., B. T. Crowley, 709 Citizens National Bank Bldg., Des Moines, Ia.

KANSAS ASSOCIATION OF ICE CREAM MANUFACTURERS.
Pres., F. H. Meyers, Meyers Sanitary Milk Co., Kansas City, Kansas.
Secy., B. T. Perkins, Pittsburg.

LOUISIANA ASSOCIATION OF ICE CREAM MANUFACTURERS.
Pres., W. W. Campbell, Campbell's Ice Cream Co., Shreveport.
Secy., N. F. Manning, Watson & Aven, Monroe.

MICHIGAN ASSOCIATION OF ICE CREAM MANUFACTURERS.
Pres., Albert Williams, West Saginaw.
Secy., W. H. Bechtel, Caro.

ASSOCIATION OF ICE CREAM MNFRS. OF MARYLAND.
Pres., L. M. Hendler, Baltimore and East Sts., Baltimore.
Secy., J. Z. Davidson, 612 No. Carey St., Baltimore.

MINNESOTA ASSOCIATION OF ICE CREAM MANUFACTURERS.
Pres.,W. W. Dunn, Van der Bie Ice Cream Co., St. Paul, Minn.
Secy., W. M. Paulson, 2830 Colfax Ave. South, Minneapolis.

MISSISSIPPI ICE CREAM MANUFACTURERS' ASSOCIATION.
Pres., P. L. Farrell, Brookhaven.
Secy., N. D. Brookshier, Meridian.

MISSOURI ASSOCIATION OF ICE CREAM MANUFACTURERS.
Pres., George A. Bang, St. Louis.
Secy., H. E. Schottmueller, Carpenter Ice Cream Co., St. Louis.

NEBRASKA ASSOCIATION OF ICE CREAM MANUFACTURERS.
Pres., L. E. Hurtz, Omaha, Neb.
Secy., R. W. McGinnis, Lincoln.

ASSOCIATION OF ICE CREAM MNFRS. OF NEW YORK STATE.
Pres., Wm. Palmer, Suite 6, Buffalo Ins. Co. Bldg., Buffalo.
Secy., A. M. Le Messurier, Box 676, Syracuse, N. Y.

NORTH CAROLINA ICE CREAM MANUFACTURERS ASSN.
Pres., L. A. Corning, Hamlet, N. C.
Secy., A. E. Dixon, Carolina Ice Cream Co., Fayetteville.

NORTH DAKOTA ICE CREAM MANUFACTURERS ASS'N.
Pres., Frank O. Knerr, Frank O. Knerr Dairy Co., Fargo.
Secy., O. A. Amundson, Bridgman-Russell Co., Jamestown.

OHIO ASSOCIATION OF ICE CREAM MANUFACTURERS.
Pres., W. W. Trout, Springfield Dairy Products Co., Springfield, Ohio.
Secy., A. S. Burkett, 415 Spahr Bldg., Columbus.

OKLAHOMA ASSOCIATION OF ICE CREAM MANUFACTURERS.
Pres., J. B. Porter, 310 West 1st St., Tulsa.
Secy., M. T. Cochran, Altus Ice Cream Co., Altus.

ASSOCIATION OF ICE CREAM MNFRS. OF PENNSYLVANIA.
Pres., Robert Crane, Crane Ice Cream Co., Philadelphia.
Secy., James W. Neuman, H. L. Neuman Co., York.

TENNESSEE ASSOCIATION OF ICE CREAM MANUFACTURERS.
Pres., W. M. Sidebottom, 145 Sixth Ave. No. Nashville.
Secy., Geo. A. Decker, John Decker & Son, Nashville.

TEXAS ICE CREAM MANUFACTURERS ASSOCIATION.
Pres., Frank B. Wester, Wester Bros. Cry., Sulphur Springs.
Secy., H. F. Owsley, Crystal Ice Cream Co., Dallas.

VIRGINIA ICE CREAM MANUFACTURERS ASSOCIATION.
Pres., I. H. Fill, Purity Ice Cream Co., Richmond.
Secy., L. K. Shepherd, Richmond.

ICE CREAM MANUFACTURERS' ASSN. OF WEST VIRGINIA.
Pres., W. M. B. Sine, Imperial Ice Cream Co., Clarksburg.
Secy.. C. F. Jamison, Huntington.

WISCONSIN ASSOCIATION OF ICE CREAM MANUFACTURERS.
Pres., C. A. Carver, Carver Ice Cream Co., Oshkosh, Wis.
Secy., Charles Touton, Shertleff Ice Cream Co., Janesville.

REGIONAL ASSOCIATIONS.

NEW ENGLAND ASSOCIATION OF ICE CREAM MNFRS.
Pres., John Semon, New Haven, Conn.
Secy., George W. Kenison, Lawrence, Mass.

PACIFIC ICE CREAM MANUFACTURERS' ASSOCIATION.
Pres., W. V. S. Robb, Seattle, Wash.
Secy., Bert H. Walker, Royal Ice Cream Co., Tacoma, Wash.

ROCKY MOUNTAIN STATES ICE CREAM MNFRS. ASSN.
Pres., H. J. Walsmith, Corbett Ice Cream Co.. Denver, Colo .
Secy., D. W. Thomas, 521 Chamber of Com. Bldg., Denver, Colo.

SOUTHERN ASSOCIATION OF ICE CREAM MANUFACTURERS.
Pres., W. W. Campbell, Shreveport, La.
Secy., J. W. Clopton, Decatur Ice Cream Co., Decatur, Ala.

TRI-STATE ASSOCIATION OF ICE CREAM MANUFACTURERS.
(Georgia, South Carolina, Alabama.)
Pres., M. J. Costa, Costa Ice Cream Co., Athens. Ga.
Secy., John Sancken, Georgia Carolina Dairy Co., Augusta, Ga.

AFFILIATED BODIES.

NEBRASKA CORN HUSKERS (NEBRASKA)
Pres., J. R. Freitag, Boerner-Frey Co., Iowa City, Iowa.
Secy., George A. Lessenhop, G. F. Lessenhop & Sons, Inc., Lincoln, Nebr.

HOOSIER WILD CATS (INDIANA)
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The Ice Cream Review

Volume Five—Number Eight MILWAUKEE, WISCONSIN—APRIL, 1922 Two Dollars a Year



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I. C. R. April

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ICE CREAM REVIEW

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OFFICIAL ORGAN

Ice Cream Division Indiana Manufacturers of Dairy Products
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South Dakota Ice Cream Manufacturers' Association
North Dakota Ice Cream Manufacturers' Association
Oklahoma Association of Ice Cream Manufacturers
Louisiana Association of Ice Cream Manufacturers
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Texas Ice Cream Manufacturers' Association
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National Order of White Caps
The Nebraska Cornhuskers
Michigan Dairy Boosters
Oklahoma Wolfhounds
Kansas Jack Rabbits
Hoosier Wild Cats
Texas Longhorns
Missouri Mules
Badger Flyers
Dixie Flyers

APRIL 1922

BULLETIN OF EVENTS

National Dairy Show, Minnesota State Fair Grounds, Minneapolis--St. Paul, Minn., October 7-14, 1922. W. E. Skinner, Secretary, Suite 222, 910 So. Michigan Ave., Chicago, Ill.

National Association of Ice Cream Manufacturers. 22nd annual convention, Cleveland, Ohio, Hollenden Hotel, October 16th, 17th and 18th. N. Loewenstein, 155 N. Clark Street, Chicago Secretary.

WE HOPE that you will enjoy the colored supplement in this issue devoted to the chocolate coated ice cream subject. We have gone to considerable effort to gather the information contained therein, but we shall feel repaid if it carries to you a message that will help you in your business. There is nothing more interesting to the ice cream manufacturer than the experiences of others. The chocolate coated ice cream industry is so new to most of us that it is impossible to go back very far in drawing upon the experiences of others in the industry. We have been delighted with the co-operation we have enjoyed in our efforts to collect information on this timely subject. We are indeed indebted to the many progressive men in the industry who have so generously responded with the information which they alone possess. When you have read the special supplement lay it aside for future reference.

ANNOUNCEMENT is made in this issue that the 1922 convention of the National Association of Ice Cream Manufacturers will be held in Cleveland, Ohio, in connection with the exposition to be staged by the Association of Ice Cream Supply Men.

Cleveland is admirably located for such a show and we want to tell our readers right now that when they go to Cleveland to attend their annual convention they will find nothing left undone to make their visit pleasant and profitable. The members of the Association of Ice Cream Supply Men will show them a good time, they will see a good display of ice cream machinery and supplies and they will have a good convention.

Inasmuch as the Cleveland Exposition and convention follows so closely upon the heels of the National Dairy Show at the Minnesota State Fair Grounds, opportunity is afforded visitors from the South, East and West to visit both on the same trip. This is particularly pleasing to the traveller from a distance who wants to visit both places. It is going to mean a pretty quick jump for the exhibitor, who wishes to display his wares in both places, but he will find the way of doing it, even if he has to engage an aerial taxi.

We hope that readers of The Ice Cream Review in large numbers will plan to attend the National Dairy Show and also the convention and Exposition in Cleveland. The National Dairy Show will lose none of its interest for the men engaged in promoting the dairy industry in general and the ice cream industry in particular.



KANSAS may support fewer millionaires than some of her sister states, but when is comes to progressive, wide-awake ice cream manufacturers she refuses to take a back seat.

The ice cream manufacturers of Kansas are not content to hold one convention a year. District meetings, similar to those held in some of the other states, are features of the year around work of the Kansas Association of Ice Cream Manufacturers. Such a meeting was held the latter part of February, in Manhattan, at which time an ice cream scoring contest was conducted. The scoring contest was in charge of Professor Olson, of the Kansas State Agricultural College. Forty-one packers of ice cream were entered in the contest and about 50 ice cream manufacturers attended the meeting. You will be interested in reading a report of the scoring contest on page 64 of this issue.



THE ice cream manufacturer, who makes a consistent effort to build up an effective organization, always gets paid handsomely. The delivery man should be more than an order taker. He should be a real salesman. By the right kind of coaching, he can help the sales department build up sales. He can make the retailer like to do business with his company. If he is wide-awake he can give suggestions to the retailer, he knows what other retailers are doing and he knows what methods

are getting the best results. He can make himself so solid with his trade that the customers of his firm will be constant customers and better ones.

Different ways of building up the efficiency of his employees suggest themselves to the progressive manufacturer. Possibly the most popular plan is to hold round table discussions. The different employees contribute their experiences and are able to help solve each other's problems. Such discussions not only improve the knowledge of employees, but they engender a wholesome spirit in the organization. Each man feels that he is employing the best known methods in his work and that he is backed up by his superiors. An occasional banquet and evening's entertainment at the expense of the firm is a mighty good investment.

⚜

IN THIS issue we conclude the report of the Illinois Association of Ice Cream Manufacturers' Annual Convention. Among several good things contained therein are some remarks by Mr. H. J. Credicott, of Freeport, Illinois, to which we invite special attention. Mr. Credicott told the delegates some real facts about the licensing and inspecting of dairy plants in Illinois. "Harley" was at one time a dairy inspector in a state where inspection amounted to something and knows what he is talking about. Be sure to read his remarks.

⚜

IT MAY be of interest to readers of The Ice Cream Review to learn that the subscription price of $2.00 per year does not pay for the paper on which it is printed. This leaves less than nothing, so far as subscriptions are concerned, with which to pay for the printing, postage and other items incident to the publication of such a large magazine. Our advertisers, by their liberal and unprecedented patronage, are making possible the larger and better paper which you are enjoying.

We don't want any one to gain the impression from the above that we are not anxious to get new subscribers. Although it costs more money to buy the unprinted paper than we receive for a subscription, we welcome new subscriptions—the more the better. The more paid subscribers we have the better we can serve the great industry in which we are all interested.

⚜

THE ice cream manufacturer holds a more responsible position in the business and social life of his community than in years gone by. When ice cream was looked upon merely as a confection or dessert, suitable only for extremely hot weather conditions, he carried little responsibility and was considered by other business men as being in mighty small business. The development of his business during the past very few years has attracted the wonder and respect of folks in every walk of life. His manufactured product, while losing none of its popularity as a delightful dessert, has been accepted as an important food article, valuable at any and all seasons of the year. As a producer of this important food his responsibilities have grown in accordance with its larger use, and he is wise who meets this responsibility by making his product as pure and wholesome as it is in his power to make it.

⚜

WE CONGRATULATE the ice cream manufacturers of North Carolina on the resolution adopted at their last convention relative to the use of substitutes for butterfat in the ice cream mix. Here it is:

> "Resolved, That the use of any fat or oil not derived from milk, as a substitute for the whole, or any part of the milk fat in ice cream, is not a legitimate or proper variation of the ingredients which may be used in the ice cream mix. Variation, selection and modification among the usual ingredients, are desirable in our efforts to meet the desires and even caprices of our customers, but we condemn the use of any substitutes for the vitamine bearing milk products."

Not many years ago we attended a meeting in Washington, at which time the Agricultural Committee of the House was considering an oleomargarine bill. Representations were made before that committee to the effect that the interests of the southern states were opposed to the interests of dairying states. To adopt such a resolution as the one quoted above proves that they are not only good business men, but that the old claim that the people of the south are opposed to dairying is unfounded.

⚜

FOLKS in the ice cream business who are sometimes tempted to look with favor upon the practice of substituting other fats for butterfat would do well to remember that ice cream largely owes its claim to favor as a food product to the fact that it is a dairy product. Substituting other materials will render it an entirely different product and it will not be ice cream. This fact, together with their love of fair play, is what prompted the officials of the National Association of Ice Cream Manufacturers to issue a warning several months ago to the effect that a member guilty of such a crime would be expelled. Don't substitute, and don't let anybody else do it. Report any suspicions you may have to the health authorities. Let's keep the business as pure as ice cream should be.

⚜

YOU enjoy reading articles in The Ice Cream Review relative to improvements made in various ice cream plants. You may have made some changes or improvements that would make interesting reading for others. Write us and tell us about them. Have you increased the capacity of your plant? What new apparatus has been installed? What plans are you making for a bigger summer season than ever before? Remember this all makes interesting reading and we will be glad to give it space. Please let us hear from you.

Offering Better Service to Texas Association Members

By A. J. WHITE, Secretary, Texas Ice Cream Manufacturers' Association, Mistletoe Creameries, San Antonio, Texas

WHILE the Association in Texas has been successful in accomplishing great good in the past, we believe that this organization, with the assistance of the Directors and individual members, can be placed on a more efficient basis and contribute in a great measure toward assisting the ice cream industry in Texas to pass through this period of re-adjustment more successfully. We are safe in saying that, as a whole, everyone is of the opinion that the ice cream business in Texas is in a rather precarious condition. If the Association means anything at all, it should certainly be a help to its individual members.

The Mistletoe Creameries are willing to furnish office help and supplies, so the only expense to the association in any undertaking that might be decided upon would be for stationery and postage. As a basis for enlarging the scope of work of the Association, we wish to suggest the following as lines which we can pursue:

To bring about a closer bond and greater confidence between members of the association.

To discuss and emphasize harmful trade practices, with a view of eliminating them.

Exchange of information freely on costs of production of ice cream, with proper depreciation to be charged on delivery and manufacturing equipments.

If possible, standardize certain items of cost methods in various plants.

Analyze costs and expenses, and eliminate the unnecessary expenditures of money, as such items are a burden to the industry as a whole and must be paid for by the manufacturers, through no profit to the manufacturer or by a higher price to the consumer.

To make the Association a medium of exchange of ideas. In order to accomplish this, frequent communication would be necessary to all members, part of which could take the form of a question box if it were deemed best. Any information that we did not have could be readily obtained from outside authorities.

To bring about closer relations between the supply men and members of the Association with, perhaps, the ultimate purpose of inducing the supply men to give discounts on all goods purchased at the convention.

To keep up interest in the Association throughout the year so that the attendance at the convention will be greatly increased, making it possible, perhaps, to secure some hotel concessions and reduction in railroad rates. This would enable some of the manufacturers to attend the convention because of these savings and advantages that would be afforded them. By enlisting the services of the supply men, we could also depend upon them to keep up the interest of the manufacturers throughout the season.

The foregoing are a few of the subjects to which we can afford to give careful thought and attention. They will, no doubt, suggest other questions that would call for the consideration of the Association.

From the trend towards greater economies, the thought has been advanced to bring about a saving in city deliveries where re-icing service is rendered and to prevent loss of containers in country shipments. It has been the policy heretofore to give icing service in the winter at the same cost per gallon of ice cream sold as in the summer. Some stores sell enough ice cream during the winter to justify this expense, while the great majority of stores sell scarcely any cream; but because of the small cost to them they continue it in stock, and the ice cream manufacturers at a great expense serve them in anticipation of their increased business during the coming summer. No doubt these conditions contribute more to the burden that the ice cream industry carries than does any other cause. If this is a great unnecessary expense, someone must pay it, and needlessly. The price of ice cream could be made lower if this re-icing service were rendered on a cost per hole-packed basis or so much per pound ice delivered, including salt. The larger user of ice cream would be benefited thereby, and an expense to the industry reduced.

On country shipments a tub may make only five trips a season, others as high as fifty, while some meet an untimely end on the first trip and disappear completely from the land of the living. Is it just to make a good customer who returns his containers promptly pay for the losses incurred by careless buyers who allow cans and tubs to be used around their towns for garbage cans and kindling wood? A charge, say $5.00 each, can be made for tubs to country shippers, and once the custom is established, a manufacturer who fails to make such charges will find his bank account gone, and his creditors owning the plant, as the price of ice cream would gradually seek a lower level, based on the savings effected through less loss and greater service from the container. If anyone would then refuse to charge for containers on country shipments, he would come to his end that much sooner.

Such a plan would work no hardship on the legitimate dealer who co-operates with the manufacturer, as he would simply render an invoice for $5.00, together with the express receipt attached, bearing the number of the tub returned, and his responsibility would cease immediately. The ice cream manufacturer would then see that the return tubs were properly checked out of the express office. If the express office were negligent in getting the tubs returned, he would have good grounds for registering a strenuous complaint against the District Superintendent of the Express Company. If such a practice were in vogue, you would see no tubs and cans standing around the express offices in small towns simply because the express agent did not seem so inclined, or it wasn't convenient for him to put them on the train. Such a scheme would also bring about a condition whereby the dealer, as well as the manufacturer, would attach more value to a container, and less loss would result therefrom.

The ice cream manufacturers have a moral obligation to the public to eliminate needless expenses in waste wherever they exist. If, by close co-operation, the cost of

ANOTHER MEMBER OF OUR FAMILY.

Mitchell, So. Dak.
March 30th, 1922.

The Ice Cream Review,
Milwaukee, Wisconsin.

Gentlemen:

We hereby wish to notify you that our Association has adopted your paper as their official organ, and that you may, hereafter, place the South Dakota Ice Cream Manufacturers Association's name on your roster.

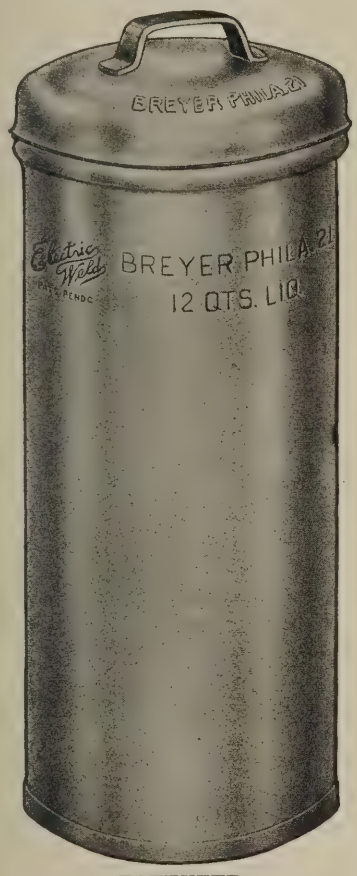
SOUTH DAKOTA ICE CREAM MNFRS. ASSN.
E. E. Thompson, Sec.

Electric Weld

TRADE MARK REG.

No Solder No Rivets =NO LEAKS

RIVETLESS — SOLDERLESS ICE CREAM CANS



PATENTED.
The Electric Weld Ice Cream Can.

should be judged on a basis of the ratio of cost to service. The can that makes the most trips for the least cost is cheapest. We have other important features.

One-Piece Construction

These cans may be retinned at a saving of 20% over the old type soldered can!

THE GUARANTEED CAN

1 This company will guarantee their cans not to leak. We know how reliable welding is.

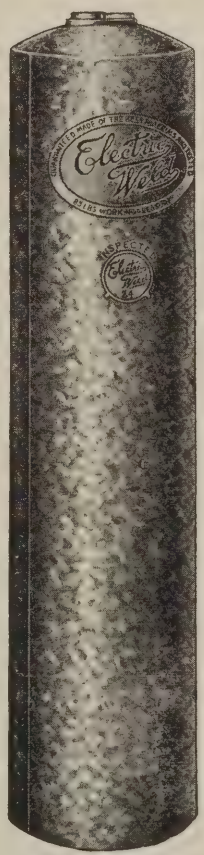
2 They will never require solder.

3 Each can is carefully examined and tested.

THE WEIGHT is in THE PLATE

That due to the better construction of our can and the superior mechanical methods, we save 6 to 8 oz. by not using solder, and save practically the same weight by doing away with laps of metal and unnecessary rivets.

Save weight by shorter and more compact chime construction. Why pay for unnecessary weight? Therefore, when it is claimed we have a "light can" we can answer this by saying the superior mechanical methods of our construction makes this possible.



We manufacture 1000 range boilers a day.

A Cheap Can Only in Price

This is a cheap can in price only. It is cheap because of our efficient methods of manufacture and because of our tremendous production.

NO RIVETS—NO LEAKS, the Electric Weld principle in the manufacture of hundreds of thousands of range boilers, applies to our ice cream cans.

THE ASSOCIATION OF ICE CREAM SUPPLY MEN
MEMBER

Our Competitors Tactics are the Best Compliments to Electric Weld Cans

WHY PAY MORE? WRITE FOR NEW LOW PRICES.

JOHN WOOD MFG. CO. Conshohocken, Pa.

CHICAGO OFFICE (320 E. North Water St.) CLEVELAND OFFICE (2041 Warren Rd., Lakewood, O.) BOSTON (60 Pemberton Sq.)
BROOKLYN (No. 5 Bush Terminal Bld.) OAKLAND, CAL. (335 Cypress St.)

WE CAN MAKE PROMPT SHIPMENT OF EMBOSSED CANS

manufacturing and delivery of ice cream could eventually be reduced, say 20%, the public would be able to buy cream for proportionately less money, and the consumption would be increased to a far greater volume than exists at this time.

NATIONAL DAIRY SHOW SIXTEENTH ANNUAL EXHIBIT SPACE SALE.

The sixteenth annual sale of space to the National Dairy Show exhibitors was held in the Auditorium Hotel, Chicago, Thursday, March 23rd.

One hundred and four people sat down to dinner together, under the auspices of the National Dairy Club, with Mr. W. C. Davis as chairman of the day. After the tables were cleared the chairman announced that as the most important matter before the meeting was the sale of the Show space he would do away with all preliminaries and turn the meeting over to the manager of the Show. Mr. Skinner made some announcements regarding the organizing of Minnesota for helpful work to make the Show a success this year, stating that Governor Preus of that state had accepted the chairmanship of the state organization, and that everyone up there was enthusiastic over the show coming back, and that North and South Dakota and Iowa had asked to have a similar organization perfected in their states, which would be done the week of March 26th.

The manager then proceeded to inform the exhibitors that in conformity with their request of January 10, the exhibitors had all been placed as near as possible with their desires as to location and quantity of space, and that exhibits of kind had been placed in certain sections. He then read from a plat, just where each firm was located, and on concluding the reading of the plat, there were only requests from a half dozen to change from the space assigned to them, which was easily accomplished, and the clean-up showed that practically all the floor space and about half of the Mezzanine floor had been taken. There are some eight spaces still available on the ground floor, which will enable all exhibitors to yet get in near their old locations.

The meeting was harmonious, and everyone seemed to have the one idea of adapting themselves to what would be best for the Show and the industry.

TRANSPORTATION OF EMPTY ACID CONTAINERS.

New amendments are announced to the provisions governing the transportation of empty containers previously used in the shipment of inflammable articles.

Regarding glass containers they read as follows: "Empty Carboys, previously used for the shipment of corrosive liquids, when presented to carriers for transportation in carload and less-than-carload shipments, must be thoroughly drained. Whenever practicable they should not be loaded in car containing valuable or perishable freight."

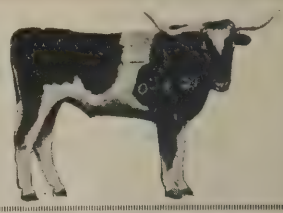
"Empty bottles previously used for shipment of nitric acid or nitric acid mixtures should be securely stoppered."—Bottles.

Tell us what you want, or what you have that you don't want, and we'll fix up a little Ad for you and insert it in the next issue of The Ice Cream Review. You just stay at home and wait for results. You'll soon have your hands full.

TEXAS LONGHORNS

President—J. R. KRAMER, Creamery Package Mfg. Co., Dallas, Texas.

Secretary—J. B. HUFF, Prail-Huff Co., Fort Worth, Texas.



BUSINESS CONDITIONS IN THE SOUTH.

In the South as a whole I believe the ice cream industry will show a keen revival of a satisfactory 1922 season, and may in some sections advance to a very favorable one. The old story more often advanced, that the failure of the agricultural counties to produce a desired or favorable crop seems to be forever in reach of some few, who have found a fond likeness for the use of such phrase more or less as an alibi to twart off a more legitimate reason why their ice cream season did not measure up to expectations.

We see in our own town, as well as in all cities and towns surrounding us, a very lucrative sale at all times on cold drinks, Coca Cola, etc. Of course we all know that this national known drink claims the South as its birth, and it was in the South its popularity gained recognition in a fancied measure as well as in the northwest and east. The theory to be advanced is this. Would it not be reasonable to consider that if the ice cream manufacturers, individually and collectively, were to push the sale of their product with an optimistic view in mind their efforts in such direction would be financially rewarded which would be the incentive of a continued vigorous appraisement which would greatly lend to a more refreshened sale on their product and place it on a much higher level as a refreshment, to say nothing of a far greater point in their favor—ice cream as a food value.

Now since the tax has been taken off ice cream, would not such an action be directed in an opportune time. It is a false idea in the minds of many, a very chaotic one, that good things will come to those who wait, and while some things do, it is largely in a measure of an unceasing energy being rewarded justly for services rendered. If we were to turn on the gas without striking a match, thus inhaling the vapor, death would soon strike us; whereas, what is the use of gassing each other from time to time about what we intend doing, failing everlasting to strike a match to start something. This illustration covers the situation thoroughly. The right idea or solution has been formed but not as yet developed.

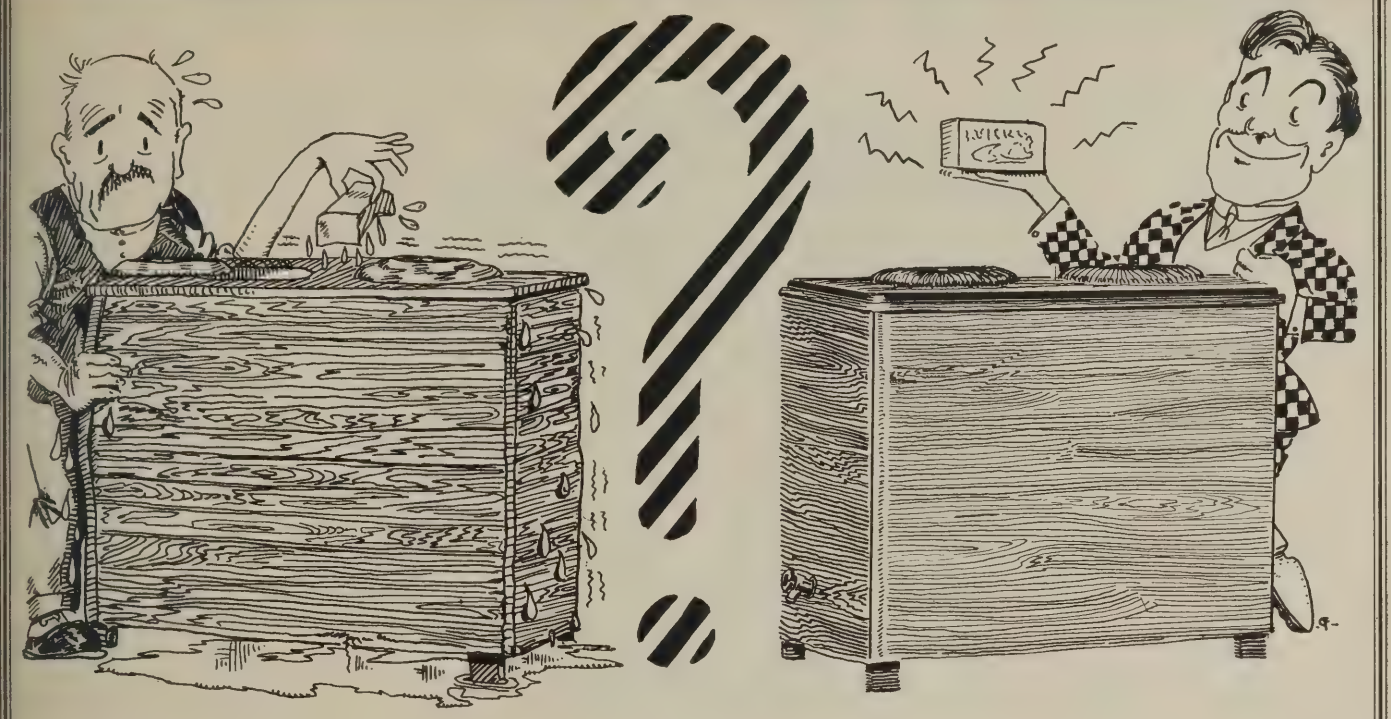
The year of 1922 will reward workers, and while the little bee makes the honey, lets all work like him and make the money. That little word "can't" has been long taken out of the "Webster" soup, and in the event you have cultivated a taste for it, just change your order next time and insist on Mock Turtle. It is not an easy way to kill a turtle since it will inspire you to see the non-dying energy as exhibited in its body which is forever on the move until the sun sinks down.

Lets all keep our heads and also acquire that turtle movement and master it throughout the day until sundown and then gratefully call it **the end of a perfect day.**

F. E. ROBINSON,

Manager New Orleans Sales Office, United Chemical and Organic Products Co.

Laugh and the world laughs with you;
Don't, and it laughs at you.



Manufacturers Everywhere Are Adopting "No-Swet" Cabinets

Do you think anyone of the multitude of "No-Swet" users would go back to the old-style cabinet days? Their answer is emphatically "No!"

The "No-Swet" cabinet has so many vitally important features in the conduct of a modern ice cream business that many of these manufacturers would as soon consider junking their latest machinery and return to hand-freezing methods.

Our Guarantee No. 2

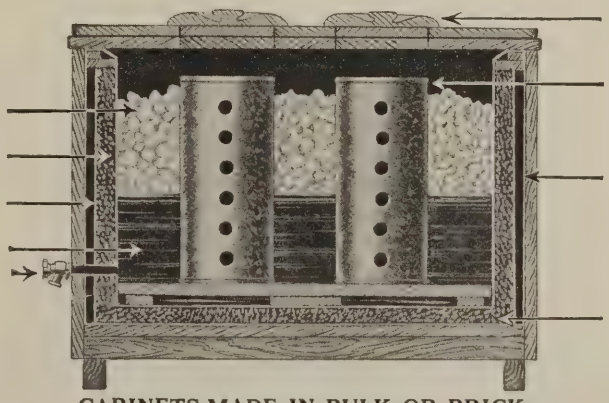
We guarantee the "No-Swet" to keep Ice Cream and Ices in better condition, consuming less ice, than any other cabinet made.

Write today for our interesting circular. It fully explains the principles of this new innovation—yours for the asking.

In a public test at the Buffalo Exposition a "No-Swet" cabinet kept sherbet in perfect condition for 38 hours with one packing—a fact which vindicates our implicit belief that there never was a cabinet so near perfection as the

"NO-SWET"

The Swetless Cabinet



CABINETS MADE IN BULK OR BRICK STYLES, IN 3 OR 5 GALLON UNITS

The Grand Rapids Table Company

GRAND RAPIDS MICHIGAN

Food Products Institute of New Jersey is Organized

Ice Cream Men Taking Part

MANUFACTURERS of food products in the state of New Jersey met in Newark on March 24th for the purpose of forming a state organization. Samuel Mueller, president of C. F. Mueller Co., macaroni manufacturers of Jersey City, presided, and Dr. Frederic Dannerth, Director of the Food Products Laboratory of Newark, was appointed secretary of the meeting.

Mr. Mueller told the representatives present that the demand for a state organization was daily growing stronger as was evident from a large number of letters he had received from prominent firms in the state. More than 24 of the leading firms in the state had expressed their interest in the proposed organization. The chairman said in part: "Among the aims of such an association should be, (1) to better conditions and promote the welfare of the food producing industries of the state; (2) to make possible a practical and scientific study of food values; (3) to limit membership to such firms as can qualify by meeting the standards set by the society; (4) to promote research in the food industry by providing a laboratory for this purpose; (5) to promote the consumption of Jersey made products within the state.

After an extended discussion of the possibilities of the society it was voted to organize it under the title Food Products Institute of New Jersey. The chairman then announced the following as members of the Committee on Organization and Program:

Russel Kingman, pres. Purity Cross, Inc., Food Kitchens, Orange, N. J., chairman of committee.

Adolph E. Fink and L. F. Keller, vice-pres. A. Fink and Sons, Pork Packers, Newark.

Joseph Fischer, pres. Fischer Baking Co. Newark.

Jack Augenblick, vice-pres. Augenblick and Bro., Butter Producers, Newark.

George W. Beardsley, pres. Beardsley Sons, Shredded Codfish, Newark.

Gustav Wiedenmayer, pres. Puritan Ice Cream Co., Newark.

Gilbert Easton, pres. Easton Mayonnaise Co., Newark.

William Jorden, pres. Consumers Dairy Co., Union Hill, N. J.

William Meister, pres. Meister Lullman and Stretch, Dairies, Jersey City.

Thomas Eckerson, pres. Holland Butterine Co., Jersey City.

Samuel Mueller, pres. C. F. Mueller Co., makers of Macaroni and Egg Noodles, Jersey City.

Dr. Frederic Dannerth, director of the Food Products Laboratory of Newark, N. J.

A committee to draft a Constitution and plan for a big turnout of the food men of the state was formed with Mr. Russell B. Kingman, of the Purity Cross, Inc., Orange, N. J., as chairman. The invitation to join the Food Products Institute is being extended to Dairymen; bakers of bread and pie; pork packers, canners of meats and fish; canners of fruits and vegetables; milk producers and ice cream makers; coffee and cocoa roasters; makers of spices, salad dressings and condiments; producers of sugar, honey, glucose and candy; producers of oleo and nut margarins; makers of frozen eggs and egg powders. Firms desiring particulars and invitations for the forthcoming constitutional meeting should send the name of their managing executive to Dr. Frederic Dannerth, The Food Products Laboratory, 96 Academy St., Newark, N. J., the temporary secretary of the Institute.



NATIONAL COMMITTEE ON BOYS AND GIRLS CLUB WORK.

Several thousand dollars will be available for the Boys and Girls' Club Department at the National Dairy Show in 1922, in accordance with the program as outlined March 4th in the general offices of the National Dairy Association, which will be an increase of over 100 per cent more than was used last year in this department. The tentative plan calls for an expenditure of $3,500 by the National Dairy Show itself and the various breed associations will offer special prizes in addition.

The club department will be divided into three parts, namely, the judging contest, the demonstration work and the exhibit of the various herds and individuals. The judging contest will require an expense of $1,500. The demonstration work represents one or more teams from a number of states will require $1,000 and the exhibit will receive $1,000 in prizes plus the specials offered by the breed associations. The tentative plan announced by the Holstein-Friesian Association is to offer the following prizes for county herds composed of seven head of each county for Holsteins as follows:

First—$50. Second—$40. Third—$30. Fourth—$20. Fifth—$10.

A $50 special will probably be offered by the Holstein-Friesian Association for the best state herd, provided it is composed exclusively of Holsteins.

The whole club program is enlarged and will be a great incentive for keen competition among boys and girls in dairy club work which will no doubt have a far reaching influence in increasing the growth of the dairy industry.



HANFORD PRODUCE CO. TO HAVE ICE CREAM DEPARTMENT.

The Hanford Produce Co. of O'Neill, Nebraska, is planning to construct a new creamery to replace the one which was destroyed by fire some years ago.

Plans for the size of the building are not fully matured as yet, but the ice house is already finished and filled with 1,000 tons of ice which is to be used in their ice cream department later.

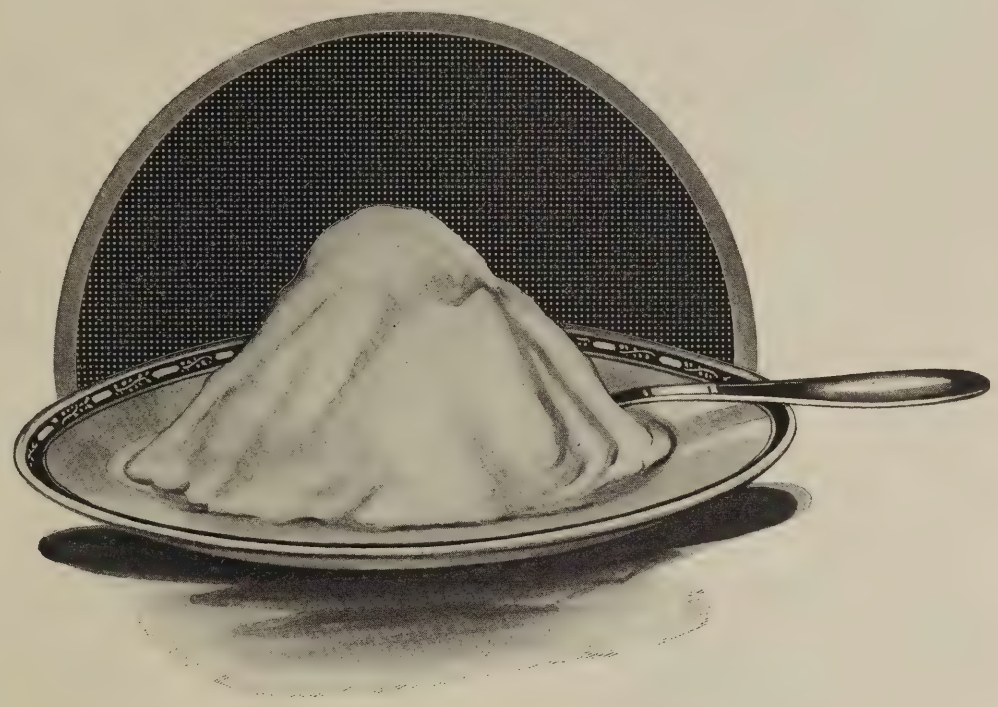
Mr. A. S. Hanford is the president, J. H. Whittemore is secretary and treasurer and J. W. Schunck is general manager of the Hanford Produce Co. The company now deals in high grade creamery butter and eggs.

MAILING FOLDERS
MAGAZINES AND HOUSE ORGANS
BUSINESS CARDS
CONVENTION PROCEEDINGS
LETTERHEADS
CATALOGUES
STATEMENTS
BILL HEADS
ENVELOPES
CIRCULARS

LET US DO YOUR PRINTING

High grade work at reasonable prices. Send us a sample of what you want and we will quote you prices.

THE OLSEN PUBLISHING CO.
210 Sycamore St. Milwaukee



America's Favorite Dish

WHEN we stop to consider how well the ice cream industry, as a whole, has progressively maintained certain high standards of manufacture, it is not to be wondered at that Ice Cream "throughout the land" holds the esteem it does. Of course, in the early pioneer days there were trials and hardships, and the product then was not the delightful, velvety-smooth, delicious and wholesome dessert it is now. But always has Flavor been a very deciding factor — particularly with regard to increased consumption of ice cream. We believe you will agree that to those vanilla extract manufacturers, who painstakingly and continually labored in these pioneer days to perfect their product, belongs considerable credit. Surely, they profited by the "fruits of their labor," not alone in the increased business which steadily followed, but also in the splendid reputation established. Hudson's Vanilla Products for thirty-four years have been known as quality products. And, with a reputation of so long a standing, you can easily understand why we watch quality so closely, for in vanilla extracts it's quality, not price, which determines the value.

HUDSON'S FAMOUS ICE CREAM FLAVOR VANILLA AND TONKA BLEND No. 52 SPECIAL.

$5.00 per Gallon.....in Barrels
$5.50 per Gallon.....in Kegs

HUDSON'S CONCENTRATED VANILLA No. 52.

Six times stronger than Extract

$25 per Gallon. Special prices in quantities.

Both these products are sold on a guarantee of satisfaction backed by a reputation of thirty-four years' standing

The Hudson Manufacturing Company

(INCORPORATED)

GABE S. WEGENER, President — ESTABLISHED 1888

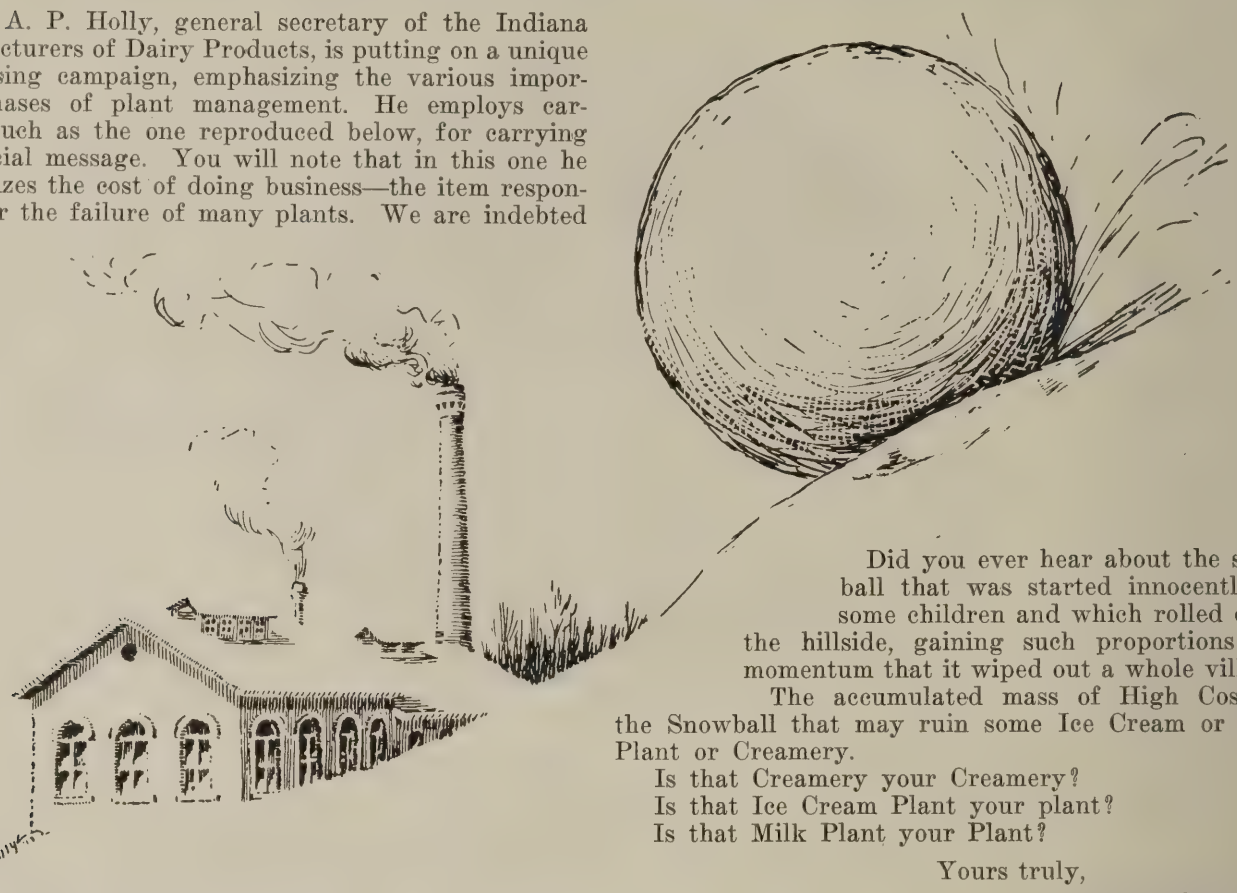
Vanilla Products

119-121 North Union Ave. — CHICAGO, U. S. A.

Branches at Dallas, Texas—Los Angeles, California

A Splendid Campaign

Mr. A. P. Holly, general secretary of the Indiana Manufacturers of Dairy Products, is putting on a unique advertising campaign, emphasizing the various important phases of plant management. He employs cartoons, such as the one reproduced below, for carrying his special message. You will note that in this one he emphasizes the cost of doing business—the item responsible for the failure of many plants. We are indebted



to Mr. Holly for the loan of the cut and we may be privileged to use others. Here is the circular:

Did you ever hear about the snowball that was started innocently by some children and which rolled down the hillside, gaining such proportions and momentum that it wiped out a whole village?

The accumulated mass of High Costs is the Snowball that may ruin some Ice Cream or Milk Plant or Creamery.

Is that Creamery your Creamery?
Is that Ice Cream Plant your plant?
Is that Milk Plant your Plant?

Yours truly,

A. P. HOLLY,
General Secretary.

THE ESTANCIA DAIRY COMPANY ENLARGES PLANT.

The Estancia Dairy Company, of Estancia, New Mexico, is now building a new creamery, installing two Cherry pasteurizers, a dreadnaught freezer and a new 800 pound churn and various other equipment to pasteurize milk and distribute dairy products throughout the state. The company is at present in the butter business, but will add the other departments, ice cream, milk and sweet cream, with the complete installation of the new equipment in the completed building.

The company has an authorized capital of $50,000, but the books have been closed at the selling of $10,000 worth, as it is all that is needed at present to install the machinery and further the business.

The company is in an ideal location, both as to market and milk obtainable. They will install their own ice machinery; and will have a capacity of about 550 gallons of milk per hour.

Mr. D. D. Sharp, the secretary and treasurer, was the promoter of the new enterprise. Mr. Sharp is now also the general manager but Mr. W. H. Greenfield, of the Beatrice Creamery Company, will soon occupy this position.

The appointment of Mr. Greenfield is quite unique. When the new company was organized, Mr. Sharp wired to Denver to both the Davis-Watkins and the Beatrice Creamery Company for a man to come down to sell the equipment. Mr. Greenfield was the first one to arrive and waited the coming of Mr. Kessler. While waiting Mr. Greenfield went into the proposition with Mr. Sharp as to difficulties which might confront the new creamery. After concluding the investigation, Mr. Greenfield remarked that it looked good enough to him to "take a shot at it." Mr. Sharp, hardly believing the good fortune thrown to the new concern, asked his proposition and immediately Mr. Greenfield was advised that the new corporation would grant all his terms and allow him to obtain $2,000 worth of stock in the new corporation. The result was that Mr. Greenfield resigned his position with the Beatrice Creamery Supply Company and will take charge of the Estancia Dairy Company as soon as the building is completed and the equipment is installed.

The officers of the Company are: Neal Jenson, president; Seth Williams, vice-president; D. D. Sharp, secretary-treasurer. Directors: Neal Jenson, Seth Williams, W. H. Greenfield, D. D. Sharp, and D. W. Jennings.

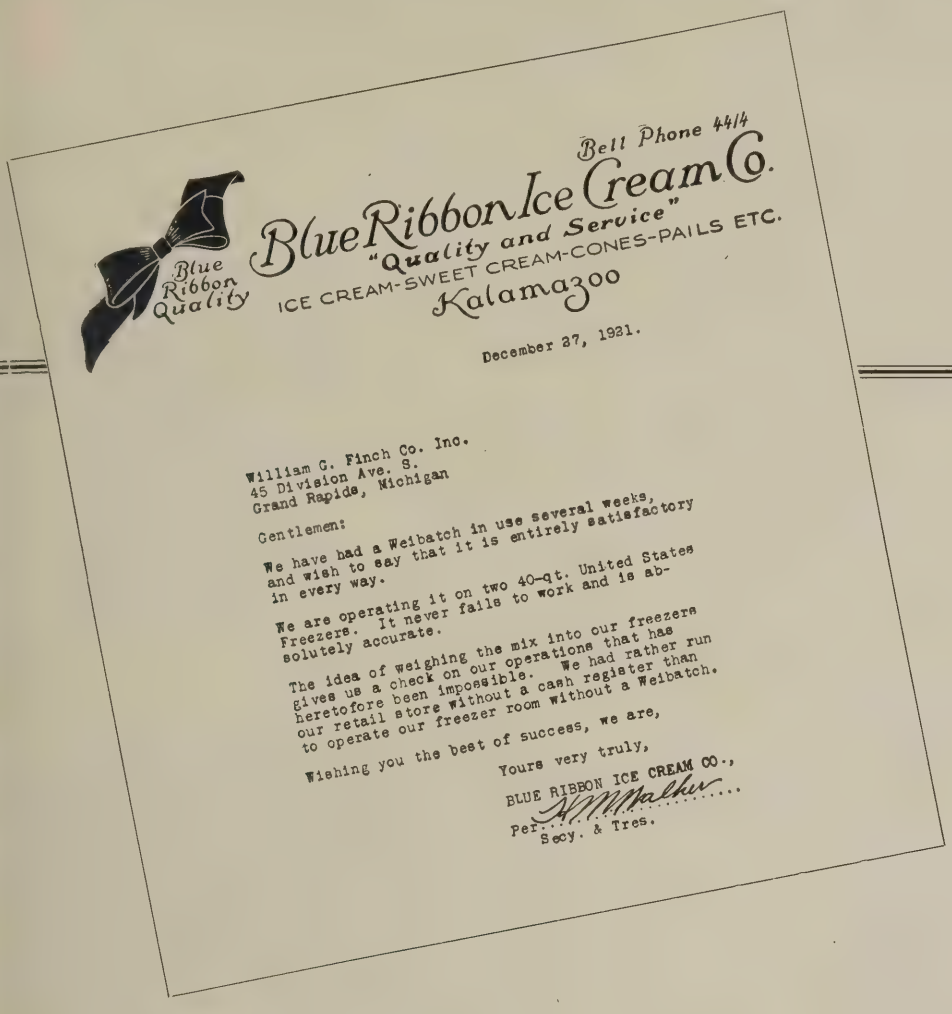
NEW ICE CREAM COMPANY IN LITTLE ROCK.

The Pulaski Ice Company of Little Rock, Arkansas, has incorporated with a capital stock of $25,000.

The officers of the new company are: W. F. Moody, president; Ira H. Stanton, vice president; and Fred Raetz, secretary and treasurer.

The new company plans to erect a plant to supply ice and ice cream to the Pulaski Heights section in the city of Little Rock. The capacity will be 15 tons of ice and 500 gallons of ice cream per day.

The building will be a frame bungalow type of structure, one story, 40 x 80 ft., and the estimated cost of it is about $7,000. It is hoped that the plant will be in operation by June 1st.



Blue Ribbon Quality

Bell Phone 4414

Blue Ribbon Ice Cream Co.

"Quality and Service"

ICE CREAM-SWEET CREAM-CONES-PAILS ETC.

Kalamazoo

December 27, 1921.

William G. Finch Co. Inc.
45 Division Ave. S.
Grand Rapids, Michigan

Gentlemen:

We have had a Weibatch in use several weeks, and wish to say that it is entirely satisfactory in every way.

We are operating it on two 40-qt. United States Freezers. It never fails to work and is absolutely accurate.

The idea of weighing the mix into our freezers gives us a check on our operations that has heretofore been impossible. We had rather run our retail store without a cash register than to operate our freezer room without a Weibatch.

Wishing you the best of success, we are,

Yours very truly,

BLUE RIBBON ICE CREAM CO.,

Per A. M. Walker

Secy. & Treas.



The WEIBATCH

It Weighs

AS AN ice cream batch control, one Weibatch, placed between two freezers, will automatically weigh, record, and deliver to the freezers a definite number of pounds of ice cream mix. It will save time, prevent waste, and give the factory manager a check on the mixing room, freezing room, and hardening room that has heretofore been impossible.

Every ice cream manufacturer knows that the specific gravity of ice cream mix is constantly changing, and that any measuring device, no matter how accurate it may be in volume, is very misleading when checking back against the mixing room or the freezer room.

Eliminate Guesswork—Weigh the Mix

Manufactured by

WILLIAM G. FINCH CO., Inc.

45 Division Avenue, S.

GRAND RAPIDS MICHIGAN

NOTES ON THE NORTH DAKOTA CONVENTION.

The North Dakota Ice Cream Manufacturers Convention, held in affiliation with the North Dakota Dairymens' Association March 7, 8, 9, was heralded as a fine success. The ice cream men gathered in a large room of the Leland Hotel, where their meeting was called to order. Many interesting talks and discussions were given, some of which are noted in the following:

President Knerr told of the happenings at the National Ice Cream Makers' last convention. He said that the keynote of the national convention was Quality. To quote his own words, "Not many other things stand higher than the matter of quality."

Henry Geist, of Grand Forks, talked on "The Association's Code of Ethics and Its Purpose."

R. O. Baird, Chief Deputy Food Commissioner, Fargo, talked on "The Use of Gelatine." He also displayed five grades of gelatine, and showed how to test them for their jellying qualities. The highest grade gelatine thickened rapidly, and was clear and odorless. The lower grade did not thicken for a few hours, was cloudy in appearance, and had an unattractive, somewhat gluey odor.

R. F. Bridgeman, of Grand Forks, spoke on "How the Association can Function so as to be of Service to It's Members."

Mr. Bridgeman said, "Our Association is not large enough to affiliate with the other dairymen, and employ a permanent secretary. We must get along with a volunteer secretary, and we can do it very successfully, if everyone helps as they do over in North Carolina."

"The Association can have a lot to do in accomplishing lower express rates. It is my opinion that an individual complaint to the railroad commission does not carry as well as an organized complaint. A traffic committee should be appointed, to make comparisons and put them up to the commission. I think something can be done along this line."

"We can take a lot of interest in the legislation. We should oppose detrimental legislation and favor good legislation."

Another thing which Mr. Bridgeman brought out was the suggestion that a law should be made enforcing dealers in ice cream to wash the ice cream cans and return them immediately after the contents have been removed, this law to be passed from a sanitative viewpoint, and enforced by the state sanitative commission.

A discussion came up in the afternoon in regard to using cheese color in ice cream. North Dakota has a law forbidding the use of such coloring, because of the false impression conveyed as to the richness of the ice cream. The sentiment of the discussion was, however, that ice cream with a little of the coloring in it appeals to the eye, and will tend to increase ice cream sales.

A discussion on price lowering followed. J. J. Farrell, of St. Paul, suggested being careful and going slowly in lowering prices. "We must think of the rest of the industry, and keep the farmer a-milking and the dairy trade men working," he said. "The reduction in price of wholesale cream is not causing the retailers to lower their prices."

The North Dakota Ice Cream Manufacturers Association elected O. A. Ammundson, of Bridgeman-Russell Co., Jamestown, N. D., as president, and G. B. Caraway, of Midland Produce Co., Fargo, N. D., as secretary-treasurer.

Extract from song sheet at North Dakota State Dairymen's Convention:

NORTH DAKOTA.

Tune: "Beautiful K-Katy."

North Dakota, North Dakota,
You're the only, only state that I adore;
When the cows fill all the milk pails,
You'll be worth a m-m-m-m million dollars more.
North Dakota, North Dakota,
You're the only, only state that I adore;
When the cows fill all the milk pails,
You'll be worth a m-m-m-m million dollars more.

SOUTH DAKOTA ASSOCIATION HOLDS PROFITABLE MEETING.

Another feather in our already much beplumed cap! At a business meeting of the ice cream manufacturers of South Dakota, held Thursday morning, March 31st, at the Marvin Hugitt Hotel, Huron, S. D., The Ice Cream Review was made official organ of that Association. Accept our sincerest thanks, gentlemen, and count on us for all the co-operation in our power to make your Association a success.

At this meeting the following officers were elected: President, I. J. Bibby, Brookings; vice-president, G. W. Arlt, Rapid City; secretary-treasurer, T. H. Wright, Jr., Brookings.

The following men were elected to the Board of Directors: Mr. Langenfeldt, Watertown; Mr. Skoug, Sioux Falls; Mr. Derby, Chamberlain; Mr. Binder, Yankton, and Mr. Mathews, of Aberdeen.

In order to eliminate the losses due to bad accounts incurred when a retailer runs up a large bill with one manufacturer, and then changes to another to do the same thing, it was proposed that each member notify the Secretary at once when it became necessary for him to put a dealer on the C. O. D. list. The names of these firms would then be forwarded to the other members of the Association, so that they might protect themselves by shipping C. O. D.

The practice of equalizing express rates came under discussion, and was condemned by those present. It was brought out that it was unfair to the retailer close to the factory to cause him to pay express charges for the retailer located at a distance.

Another suggestion put forth was that all members send in a list of supply houses with whom they deal. These houses will then be given an opportunity to become associate members. Later it is the plan of the Secretary to get out a list of both active and associate members.

The Board of Directors arrived at a decision to have last year's membership carry over for this year, without additional fees.

SAIS ICE CREAM CO. MAKES IMPROVEMENTS.

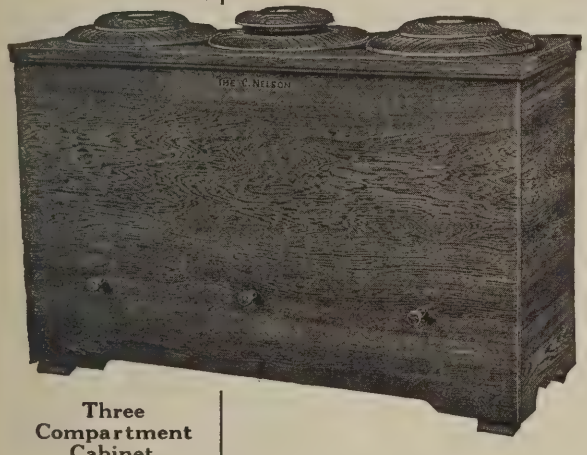
The Sais Sanitary Ice Cream Company, of Bradentown, Florida, have made extensive improvements to their plant. About eighteen months ago they installed a 4-ton refrigerating plant and a second hand Cherry brine freezer. About a month ago a new 60-quart Cherry brine freezer was installed, and they will soon have in operation a 40-quart batch mixer, pasteurizer and emulsifier in one unit, with a small steam boiler for operating it. Mr. R. W. Freyschmidt, formerly of the Freyschmidt Ice Cream Company, and the Freyschmidt Drug Store of Charleston, S. C., is now associated with the company.



Nelson (Patented) Ice Cream Cabinets

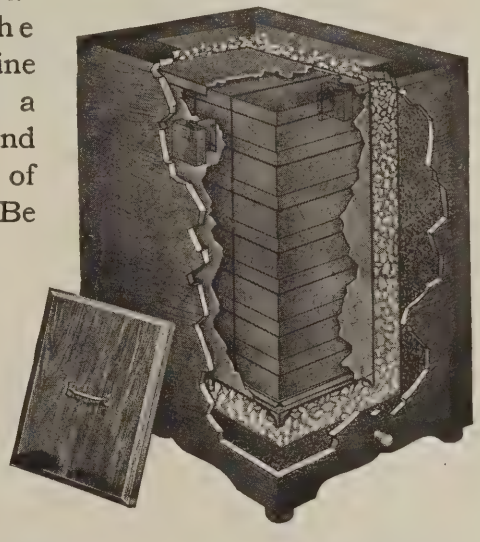
"Confessed The Best When Put to Test"

are constructed along scientific and practical lines to conserve ice and salt supplies and keep the ice cream in perfect condition until sold. The manufacturers have devoted thirty years of study and experiment toward the building of the best possible ice cream cabinets for the manufacturing trade. Each particular make of cabinet of the Nelson line is sold with a guarantee and on a plan of "You Must Be Satisfied"



Three Compartment Cabinet

C. Nelson Brick Cabinet
Patented May 8, 1906



42 Qt. Brick Cabinet with Ice Rail



Patented Nov. 11, 1919—1321120

This Proposition Will Interest You

Any responsible ice cream manufacturer—particularly wholesale ice cream manufacturers and dealers—may order from 1 to 100 Nelson patented Ice Cream Cabinets, place them in practical use, and after 30 days, if not entirely satisfactory, return at our expense for freight, both ways.

Can any manufacturer offer a more liberal or fair proposition? You owe it to yourself to thoroughly investigate the price, merits and construction of the Nelson Patented Ice Cream Cabinets before making any further purchase.

Plan on your season's requirements now, and have your supply on hand when needed.

C. Nelson Manufacturing Co.

2308 Division St. **St. Louis, Mo.**

WASHINGTON—MAINE

News From Far and Near

CALIFORNIA—FLORIDA

Bartlesville, Ala.—Both the Bartlesville Ice Cream Company and the Waukesha Ice Cream Company of this city are making preparations to add creameries to their plants.

Decatur, Ala.—Announcement was made recently by the Decatur Ice Cream & Creamery Co. that branch plants will be opened immediately in Scottsboro, Jackson County, and Athens, Limestone County.

Jonesboro, Ark.—The Scott Ice Cream Company and the Coca-Cola Company suffered damages by fire recently estimated at $10,000. A. J. Scott is the owner of the Coca-Cola plant and manager of the ice cream factory.

Little Rock, Ark.—A company to be known as the Pulaski Ice Company has been organized for the manufacturing of ice and ice cream. The factory will be an attractive bungalow structure. The plant will cost $25,000.

Pine Bluff, Ark.—The plant of the Liberty Ice Cream Co. has been purchased by the recently organized Blue Ribbon Manufacturing Company, of which J. A. Bolin, Geo. H. Holmes, Hall Deer and Chas. J. Kures are incorporators.

Glendale, Cal.—A $20,000 ice cream and candy factory is being established here by J. P. Metheus of Vancouver, B.C.

Los Angeles, Cal.—The L. J. Christopher Company of this city recently opened a branch plant at Long Beach, Cal. They are also building a $30,000 addition to their Los Angeles plant, which will be used as a refrigeration plant.

Santa Ana, Cal.—A new plant, to cost $28,000, will be erected by the Excelsior Creamery Company. They are planning to install $50,000 worth of machinery. It is the intention of the company to use this plant as a creamery, and later to install an ice cream plant.

Visalia, Cal.—The building of an additional plant at Fresno is being considered by the Valley Ice Cream Company of this city, manufacturers of Acme brand ice cream.

Denver, Colo.—A large addition has recently been completed by the Windsor Farm Dairy, which is to be used for the manufacture of ice cream.

Dalton, Ga.—Mr. Emil Hoerth of Creston, Ill., will be placed in charge of the ice cream manufacturing plant of the Dalton Creamery, which was placed in operation recently.

Savannah, Ga.—Fire, getting its origin from a gas heating apparatus, spread quickly over the second floor of the Forest City Ice Cream Company, in an early morning blaze recently. Ladders were quickly raised to the second floor of the building, where the room in which the flames got their origin was located. Before the fire could be controlled it had eaten its way to the roof. The loss will total several hundred dollars, officials of the Forest City Ice Cream Company stated.

Lewiston, Ida.—The Lewiston Ice Cream Company has recently been incorporated with capital stock of $5,000.

Chicago, Ill.—The Hydrox Company of Chicago announces the discontinuance of its commercial grade of ice cream. It is now manufacturing only one grade, the Hydrox-Guernsey ice cream.

Chicago, Ill.—Fire of unknown origin destroyed the interior of a four-story building occupied by the John T. Cunningham Ice Cream Company recently. The loss is estimated at $12,000. The refrigeration system, it is said, was worth approximately $6,000.

Chicago, Ill.—The Goodman American Ice Cream Company announces that it will cover the most of the block, Forty-fifth Street to Forty-fifth Place, and Federal Street to the railroad, with an ice cream plant to be one of Chicago's largest.

The architects will start construction soon on the first unit, to complete it June 1. The initial unit, two stories on 60x170 feet, will cost $75,000, and the entire plant about $400,000.

East St. Louis, Ill.—The Highland Ice Cream & Cold Storage Company will manufacture ice and ice cream. A new plant is to be erected.

Highland, Ill.—Gus. Reichert has recently added to the efficiency of his ice cream manufactory by having built in one of the rooms a large air tight box, 6x12 feet in size, designed and prepared especially for the curing of ice cream.

Oak Park, Ill.—The Traill and Cooling Ice Cream Company are making several improvements in their plant, which include the addition of three 80-quart ice cream freezers, and another 25-ton ice machine. They are also building two new hardening rooms, which will give them a capacity of 1,000 gallons and are adding five new 5-ton gas cars with ice cream bodies to their delivery service.

Park Ridge, Ill.—The Ridge Ice Company, 21 Cumberland Ave., manufacturing beverages, ice, ice cream, etc., was incorporated with capital stock of $50,000. Incorporators are Wm. C. Robinson, Frank Tieman and R. C. McGregor.

Rochelle, Ill.—Mr. Fred Harrison of De Kalb, Ill., recently purchased the Allen Ice Cream Company of this city. This company will retain their plant in Rockford, and are planning to open branches in other cities nearby this season.

Shelbyville, Ill.—A new plant is being erected here by the Fertig Dairy Company of Franklin, Ind.

Anderson, Ind.—The Anderson Ice Cream Company is a new business venture. A building permit was issued authorizing the company to remodel the business block at Meridian and Sixteenth Streets at a cost of $3,000. A plant for making ice cream will be located in that building.

Crawfordsville, Ind.—A new plant will be opened here by the Wray and Ward Ice Cream Company of Lebanon, Indiana, it was announced recently by Messrs. Albert C. Wray and Forrest A. Ward, proprietors.

Elwood, Ind.—The Warren Ice Cream and Ice Company a new concern to operate at Warren, elected the following officers recently: E. O. Ellerman, of Elwood, president; Gorman Trixler, Huntington, vice-president; Orva Sales, Huntington, secretary-treasurer. Mr. Ellerman is president of the Elwood creamery, and the cream for the new plant at Warren and the one at Huntington will be mixed here and shipped ready for freezing.

Fort Wayne, Ind.—An ice cream manufacturing department will be installed in the factory of the Amboy Creamery Company. Ice cream manufacturing equipment has been purchased.

Kokomo, Ind.—The Kokomo Sanitary Milk Company is considering the installation of an ice machine and a freezer.

Lafayette, Ind.—The Chamberlin Ice Cream Company is erecting a new plant.

Princeton, Ind.—Mr. Bell of Richmond, Ind., has purchased the Hallett and Woods ice cream factory.

Rochester, Ind.—An addition is being added to the present plant of O. S. Goss.

Terre Haute, Ind.—The ice cream business of Harkness and Makely has been purchased by Isaac H. and Irwin P. King. The new name of the firm will be King Bros., and it will be in charge of Mr. Isaac King.

Bedford, Iowa.—Walter Evans, local produce buyer, is going to re-open his ice cream plant here ths spring.

Corydon, Ia.—The firm of Nickles & Son have installed an up-to-date ice cream plant, which is now in operation. All the equipment is new and up-to-date, and the plant will have a capacity of 250 gallons a day.

Glendale, Ia.—J. P. Matheus of Vancouver, B. C., is having installed equipment and store fixtures of a candy and ice cream establishment, that will represent an investment of $20,000. He will manufacture his candy and ice cream and have a salesroom in the same building.

Humboldt, Ia.—The Humboldt Creamery Company is preparing to make some rather extensive improvements in their ice cream department which will put them second to none in this part of the state so far as up-to-date equipment is concerned.

Iowa Falls, Ia.—F. B. Toner of Iowa Falls has been engaged by the Howard V. Kratz Dairy and Ice Cream Manufacturing Company at Hampton as buttermaker and ice cream manufacturer. Mr. Toner has been in the dairy products and ice cream trade for about fifteen years, and for some time past he has been manager of the Iowa Falls Ice Cream Co.

New Hampton, Ia.—The Fossleman Ice Cream Factory of Waverly has rented a building on East Main Street, and will put in a first class ice cream storage station.

T. B. Scully is to have charge of the establishment. He says that a refrigerator plant will be installed and the ice cream will be brought here in truck loads to be distributed from here as demanded.

The Fossleman Factory made 90,000 gallons of ice cream last year.

Shenandoah, Ia.—George Louie has remodeled the back part of his store and now has the equipment for a complete creamery and ice cream plant on the floor and most of it ready for use. In addition to the machinery he had a big freezing or cold storage room erected and when all the work of installation is completed, will supply the trade with dairy products as well as ice cream.

Storm Lake, Ia.—The Storm Lake Produce Company is installing new machinery this month for the manufacture of ice cream, representing an investment of $3,000. A viscolizer, a mixing vat and tubular cooler make up the new outfit.

(Continued on page 126)







Fundamentally Right

THE success attending the adoption of the "Sealright Way" —bulk ice cream in package form—is not of a temporary nature, dependent on "the novelty of its newness" or speculative possibilities. Its success is of a permanent nature. The idea back of it originates from an ever-pressing need of long standing—something lacking heretofore, but essentially necessary to complete a satisfactory ice cream merchandising plan.

And for the simple reason that the "Sealright Way" meets this need practically, efficiently and economically for the manufacturer, the retailer and the consumer, because it is so fundamentally correct in principle, it is not to be wondered at that its reception has been so enthusiastically acclaimed and so spontaneously responded to everywhere. The "Sealright Way" bears so important a relation to greater sales possibilities for you, that it is deserving of your most earnest and careful investigation and consideration. You ought to have all the details now—before the rush season is on.

SEALRIGHT CO. INC., Fulton, N. Y.

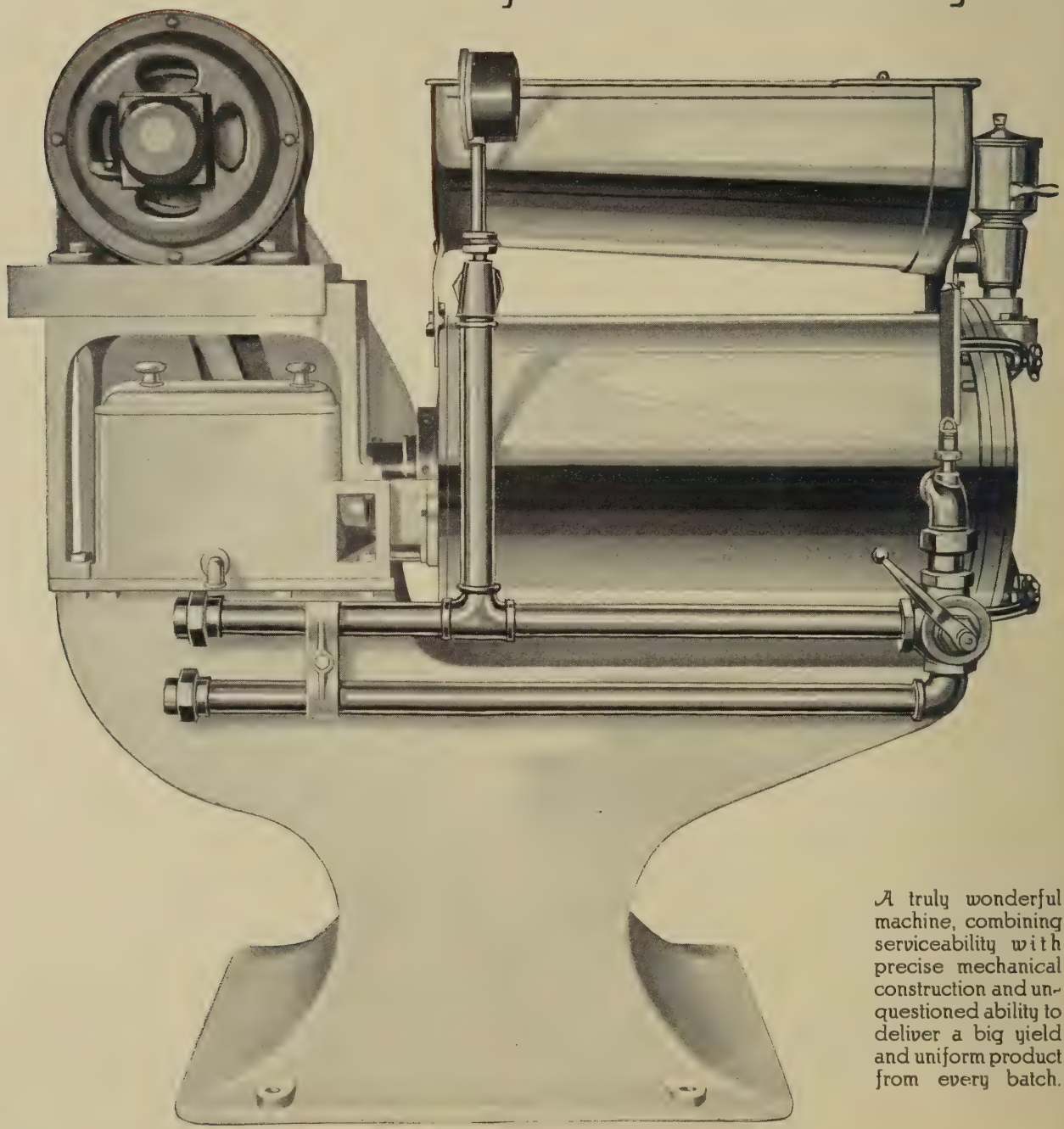
Largest Manufacturers In The World of Cylindrical Liquid-Tight Paper Containers

SEALRIGHT

Will Show You The Way To Greater Sales of Bulk Ice Cream

HERE IT IS!

That New Cherry 80-Quart Freezer you've been hearing about



A truly wonderful machine, combining serviceability with precise mechanical construction and unquestioned ability to deliver a big yield and uniform product from every batch.

Put it thru in '22

J. G. CHERRY COMPANY

CEDAR RAPIDS IOWA

St. Paul, Minn. Tama, Iowa. Peoria, Ill.

Put it thru in '22

These Features—Found Exclusively on the Cherry 80-Quart Freezer will interest you

ALL the engineering experience and mechanical skill in the big Cherry organization was brought into play to design this latest addition to our well-known line of brine freezers.

Some idea of the precision with which this machine is built can be gained from the fact that a variation in dimensions of less than two one-thousandths of an inch is tolerated.

Many of the metals used in the construction of this new freezer are made to our own special formulas. Take for example the dasher: all parts, with the exception of the shaft, are cast bronze or phosphor bronze. The tapered end of the shaft, which fits into the head of the machine, is made from Delhi steel. The outlet gate is equipped with Belleville steel springs (the same as were used in the recoil mechanism of the famous French 75 m. m. guns). The three mitre gears are made from specially selected alloy steel, drop forged and are attached to their shafts with **both** steel keys and set screws. They are designed to wear forever and misalignment is impossible.

There are **five** ball bearings used in the new Cherry 80-quart Brine Freezer. They are the S K F self-aligning ball type. Roller bearings have merit, but ball bearings are admittedly superior.

Special machinery is required for the manufacture of this new Cherry Freezer. It is actually "built like a watch"—both as a piece of mechanism and as a manufacturing unit. It has absolutely no superior in the ice cream field. As a matter of fact it does not **yet** have even an imitator.

In summing up the features of this new freezer, it is well to add that, like the Cherry Dreadnaught 60, this machine is fitted with a swinging head, which affords quick and easy access to the inner freezing cylinder for cleaning; all controls are at the discharge or unloading end and within easy reaching distance of the operator; the inner freezing cylinder is quickly and easily removed by simply loosening six square head bolts, which affords ready access to the brine chamber, if that is ever necessary.

The Bulletin illustrating and describing the new Cherry 80-Quart Freezer is now available. Write or wire us for your copy TODAY!



J. G. CHERRY COMPANY
CEDAR RAPIDS IOWA
St. Paul, Minn. Tama, Iowa. Peoria, Ill.







Use UCOPCO For All Your Cream

UCOPCO Gelatine is not alone adapted for making good chocolate coated ice cream bars but is just as essential for your regular production of bulk cream.

UCOPCO will aid you in your attempts to popularize your brand as its use guarantees smooth, velvety texture and efficient stabilization.

It will be to your interest to investigate UCOPCO merits.

There's a grade for every purpose. Write us.

The United Chemical & Organic Products Co.

4200 S. Marshfield Ave.
Chicago, Ill.

401 E. 45th Street
New York, N. Y.

"UCOPCO Comes Sealed in Red Drums"

Ucopco Pure Food Gelatine

JOHN FERGUSON PASSES AWAY.

Friends of John Ferguson of Detroit—and they are many—will be grieved to learn of his sudden death March 17th, at Kingston, Ontario, following a heart attack.



JOHN FERGUSON.

Mr. Ferguson was the dean of Frederick C. Mathews Company's selling organization. He had represented this Detroit house in every part of the United States and Canada. His dynamic energy and enthusiasm, which would even have been noteworthy in a young man, were phenomenal in a man past sixty. There is no doubt that he gave to many dairymen and ice cream manufacturers a new vision of their business possibilities and pointed their way to greater success. His integrity was never questioned.

He had always said that he expected "to die in the harness," and the end came while he was on a very successful trip. Burial was at Port Huron, Mich., on the 21st, under auspices of the Elks, and was attended by the officers of the Mathews Company and many other friends. He left no family.

PURITY CREAMERY COMPANY RE-ORGANIZES.

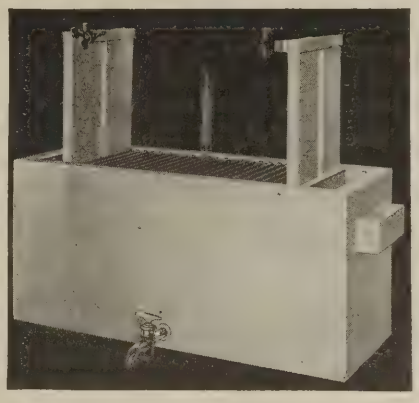
The Purity Creamery Company, of Moscow, Idaho, has been lately re-organized and incorporated with twenty-five thousand dollars paid up capital.

R. G. Wood, founder of the organization, has associated N. Williamson, formerly Moscow's largest merchant, and at this time the most extensive dealer in cattle, with the Purity Creamery and they mean to put this live wire concern on the map.

The company has complete equipment for making ice cream, butter, buttermilk, and chocolate covered ice cream bars. They deal in milk and cream for the surrounding territory. They are now installing a four ton daily ice making plant, with sufficient room for storage. This added equipment, with their nine ton Armstrong machine and Progress horizontal freezer and Davis Watkins equipment, gives them a very modern and efficient plant.

In the near future it is their plan to install a cold storage room 40x80 ft. which will accommodate the Moscow producers of eggs and dealers in storage products and at the same time give the Purity Creamery ample storage space for any needs of the territory.

The company occupies a building constructed by the Moscow Packing and Cold Storage Company some years ago at a cost of $12,000, and realty valued at $3,000 accompanies this property, which is now owned by the Purity Creamery Company without incumbrance. Mr. R. J. Safford is secretary and treasurer of the company.



Reduce Your Sterilizing Costs the

Electro Chemical Way

WITH only salt, water, and electricity, the above cell will produce sodium hypochlorite in five minutes time, at a cost of a fraction of a cent per gallon at working strength. No cheaper or more effective disinfectant known. In diluted form it has reduced bacterial count from 7,000,000 to 800 in five minutes.

Let Us Tell You How

The Electro Chemical Co.

Dayton, Ohio

SELECT QUALITY FOR SERVICEABILITY IN TUB COVERS.

Arkansas Ice Cream Manufacturers' Association

Proceedings of the Fourth Annual Convention

THE association convened at the Marion Hotel at 10 A. M. on Jan. 10, 1922, and in the absence of J. R. Jones, president, and J. R. Bourland, vice president, the meeting was called to order by Mr. Will Terry, who presided as chairman during the convention.

Mr. J. Gilbert Leigh, of the Little Rock Chamber of Commerce, delivered the address of welcome, assuring the ice cream manufacturers of the hearty cooperation of the Chamber of Commerce in the matter of freight and express rates and any other matters in which the Chamber of Commerce could be of service to the manufacturers. This was responded to by Mr. S. S. Summerfield, who told of the increased consumption of ice cream in this state, and of the rapid growth of the industry.

* * *

ADVERTISING ICE CREAM.

By Will Terry, Terry Dairy Co., Little Rock, Ark.

Before giving a thought to advertising one must be sure that the quality of his goods will back his advertising, otherwise it is worse than useless to advertise, for a false advertisement will do much more damage to the reputation of a business concern than if no advertising had been attempted.

First be sure that the quality of the goods you have to offer is such that you believe thoroughly and implicitly in them, in other words sell your goods to yourself before you attempt to sell them to anyone else. This is absolutely essential to a successful selling campaign. Having thoroughly convinced yourself of the superior quality of your goods, the next step is to consider the best method of convincing others of the same thing.

To bring the attention of the public to the fact that you are offering them something that is absolutely good and something that will interest them, it is necessary to consider the different methods of reaching different classes of people. There are various and sundry advertising mediums, some of them possessing real virtue, while others are of questionable value.

The food value and other good features of ice cream should be thoroughly instilled in the minds of the people, trying always to associate your name or your brand with the product, so that when they think of ice cream they think of your ice cream. Persistent advertising is the only thing that will do this, and it takes time and perseverance.

Having accomplished this purpose, the best method of reaching different classes of people is to be considered.

Newspaper advertising is probably the most valuable medium that can be used, for by this means a larger percentage of people can be reached than by any other one medium. Newspaper advertising gives you an opportunity to make special announcements that can reach the public at once.

Street car advertising is read only by those who ride street cars regularly, so you cannot expect to reach any large percentage of people by this method, although it has a certain value.

Billboards properly placed are read by people who ride street cars, by people who walk, and by autoists and I consider this a very good advertising medium providing attractive posters are used, and care and judgment used in securing the proper location.

Attractive window cards, fountain cards and menu cards displayed in your customers' places of business also have their value, but advertising matter of this kind must be of the very highest order—must be artistic, attractive and suggestive—and must be something more than just printed cards and cuts, it must be something that will stand out and attract attention where ordinary advertisements of this kind would be passed unnoticed, it must be such that it will hold the interest of the observer until he had read it entirely through and has created a desire on his part to try the article advertised, and impressed on his mind that it is your product that is being offered. He will then try it, and if it is something absolutely good, he will always associate that good quality with your name or brand in his mind, and will ask for your product.

If you can enlist on your side any considerable number of children you will have a lot of boosters, as a child's mind is quick to receive impressions and associate the makers with his product. Various methods have been devised for interesting children in a particular brand or product, and they have their influence in the homes which is far-reaching in its result. School children can be invited to inspect your plant, in charge of their teachers. Show them through your plant, explaining each operation to them, telling them of the food value of ice cream and demonstrating the cleanliness and sanitary methods used in making your product, and when they are ready to leave present each one with an ice cream cone, and a little circular de-



Good News About CHERRIES
from..... The Cincinnati Extract Works

Glace cherry pieces—red
Glace cherry pieces—green

"Cherry Headquarters."
Complete line of choice fruit now ready:

DRAINED BROKEN MARASCHINO CHERRIES
Packed in 25 lb. pails—without juice. Bright color, fine cherry flavor excellent for fancy ice cream work.

Any Style Container { *Whole and broken Maraschino Cherries* Red and Green / *Crushed Maraschino Cherries* Red and Green

ICE CREAM MANUFACTURERS: Write for latest low price list. Samples on request. Place your contract NOW for complete Summer requirements. *IT WILL PAY YOU.*

422-424 W. Fourth St. **THE CINCINNATI EXTRACT WORKS** Cincinnati Ohio

WARNER-JENKINSON CO. RED TRADE MARK SEAL ST. LOUIS

The Flavor Sells Your Ice-Cream

Here are 4 Types of Vanilla Flavoring that will sell your product

GIANT VANILLA COMPOUND
is all that the name implies.

MAMMOTH VANILLA COMPOUND
Different to Giant but equally strong.

VANILLA AND TONKA
Moderately priced. Hundreds of ice-cream makers swear by it.

STRAIGHT VANILLA BEAN EXTRACTS
Mexican, Bourbon, All Bean and Suva.
Contain 1 lb. of beans in a gallon of extract.

Inquire about our contract prices.

—o□o—

RED SEAL COLORS

Prices for 1922 are materially reduced. Our pure certified colors excell in strength and brilliancy.
Powder, Liquid or Paste.

—o□o—

RED SEAL RIPENER

Helps age the mix. Improves your ice-cream.

WARNER-JENKINSON CO.
ST. LOUIS

scribing your product, various ways of serving it, and your special brands, and request the children to give their circulars to their mothers, and by this method you will send into each home just the information that you desire them to have, and the child will be a good salesman for you.

It is necessary for you to keep your name and your brand constantly before the public by means of the different advertising mediums, and to do this requires persistency.

A few years ago the advertising pages were merely a directory of things for sale, and the places where they could be purchased, but the science of advertising has kept pace with the general advancement, and now a successful advertisement must have a particular message to impart, and must be so vivid that it will at once impress the reader with the idea it is intended to convey, and leave a lasting impression on his mind.

Advertising was formerly considered an expense, but it has been developed and improved until it has really become an investment, and when maintained and cared for as other assets are, it will probably show greater earnings than any other department of your business.

Statistics show that 84 per cent of the business failures of the past year occurred among firms which did not advertise. This fact alone is more convincing than many pages of argument in favor of advertising. You have all noticed that the large mercantile concerns of the United States, those that are nationally known, and those that do a very large percentage of the business of the country, are all regular and heavy advertisers.

In conclusion I will say that I do not believe any business can succeed without advertising of some kind, and that the degree of success attained will be measured by the care and judgment used in your advertising matter, and the medium used to convey this advertising to the public.

No definite and particular plan can be laid down for an advertising campaign that will fit all conditions, but it is necessary for the advertiser to carefully consider the circumstances and conditions surrounding his particular case, and plan his campaign accordingly, then carry it through to a successful termination, bearing in mind always that his goods must fully meet the expectations created by his advertisements.

* * *

The meeting then adjourned to accept an invitation of the Kiawanis Club to luncheon, which was thoroughly enjoyed by every member present.

At 2:00 o'clock the meeting was called to order and listened to a splendid address by Virgil C. Pettie on the "Resources of Arkansas."

COST OF MAKING ICE CREAM.

By Mr. Charles Hooberry, Pine Bluff, Ark.

It is daily becoming a more and more recognized fact that it pays to work together, and at this convention you will meet the largest manufacturers of the state in the ice cream industry, intelligent, friendly men, who are working hard to increase the total production of the industry and keep it established on a sound, straight-forward basis.

Bear in mind that it is the duty of each and every ice cream manufacturer to practice as well as preach the gospel of co-operation, and to work with the other members of his industry to raise the standard of producing and selling.

I have made every effort to place upon the market a product that would stimulate the enthusiastic use of ice cream. The growth of the ice cream industry depends upon the attitude of the public, if it regards ice cream as a confection, as a luxury, the development of the industry is impeded. If it regards ice cream as a food, the industry has a great future.

In attempting to increase our sales we emphasize the food value of ice cream, in our advertisements, and in so doing it we are able to increase our volume, we not only advance the interest of the industry, but we substantially reduce manufacturing cost.

It is through efficiency that we are able to determine manufacturing cost. Efficiency, meaning system, is necessary in every department, system in management, system in the mixing room, system in bookkeeping. It is in reality an indispensable adjunct to good management and the manager armed with the facts and information it affords, properly arranged and instantly available, enjoys a tremendous advantage over his competitors not so fortified, and is able to meet conditions as they come. This is more especially true in uncertain times like the present, when in order to successfully meet varying conditions the ice cream manager must have the results of his previous month's operations available at the earliest possible moment, in other words, he needs these facts while they are still news, not history.

I have with me a mixing room report upon which is listed the items composing a mix giving me the gallons, weight, fat, solids not fat, and total solids and cost of mix. Upon the reverse side of this report I have a report from the freezing room, giving me such data as follows: Total pounds mix, total gallons mix, total gallons finished over-run ratio, average over-run test, number of over-run tests made, temperature of mix, temperature of brine, brine pressure, age when frozen,

THE
Increasing Popularity of
Nafis Scientific
GlassApparatus

ACCURACY PLUS QUALITY — Nafis TRADE MARK — SAVES YOU MONEY

Because of Its ACCURACY and QUALITY

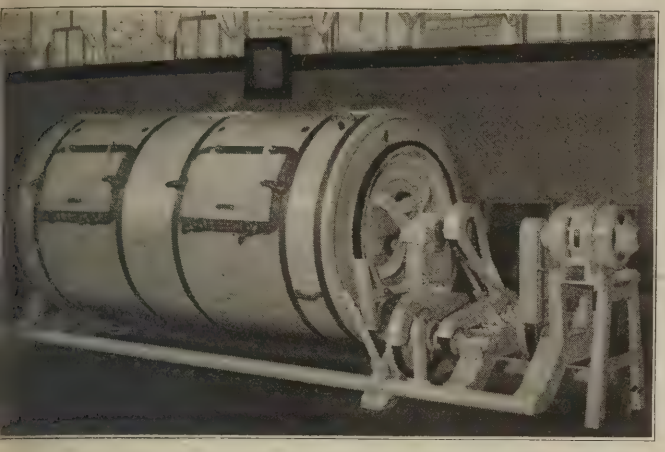


makes it difficult to keep our production equal to the demand. Under these conditions it is wise to anticipate your wants and place your orders as far as possible in advance of you needs.

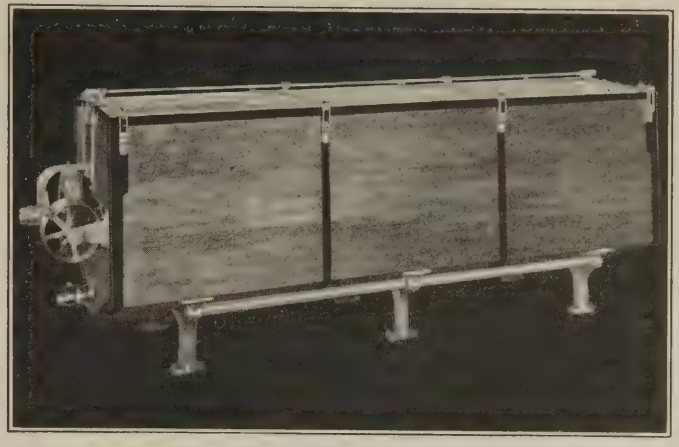
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Disbrow Churn and Worker.



Progress Cream Ripener.

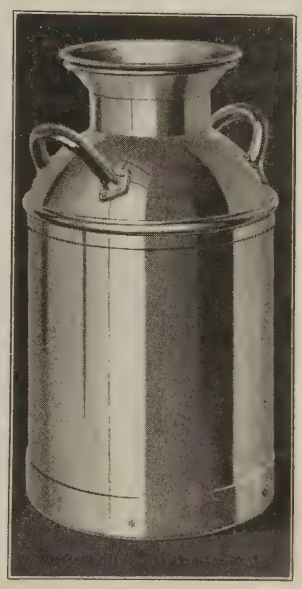


Dairymen's Cleveland Can.

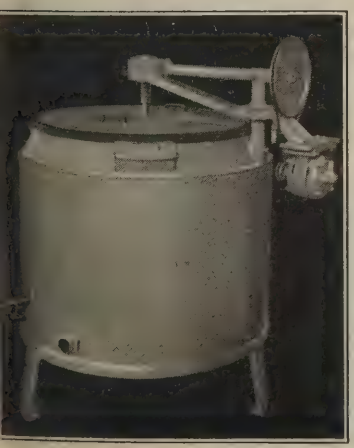
BUTTERMAKERS, the world over, know what you are talking about when you mention the word "Disbrow." It pictures a definite and pleasing thing to their minds. Definite, because the imagination so vividly and accurately presents them with a "Disbrow" which is true to the minutest detail. And pleasing, because of the many pleasant memories connected with it. Making creamery butter in a Disbrow Combined Churn and Worker is a pleasure for the operator, and a money maker for the proprietor.

"Progress" Cream Ripeners are likewise popular with the creamerymen. The excellence of this equipment is properly indicated by the clean sanitary appearance. The solid efficient construction is such as to make a "Progress" booster out of every owner. Many creamery supply houses handle "Disbrow" and "Progress" equipment, knowing full well the advisability of selling their good customers machinery which has proved its real merit among thousands of buttermakers.

If in doubt, ask somebody—anybody. The man may be prejudiced for one reason or another. If he is he'll say, "Oh, yes, those are good machines." If he isn't prejudiced, no doubt you'll have a hard time stopping his rapid flow of conversation.

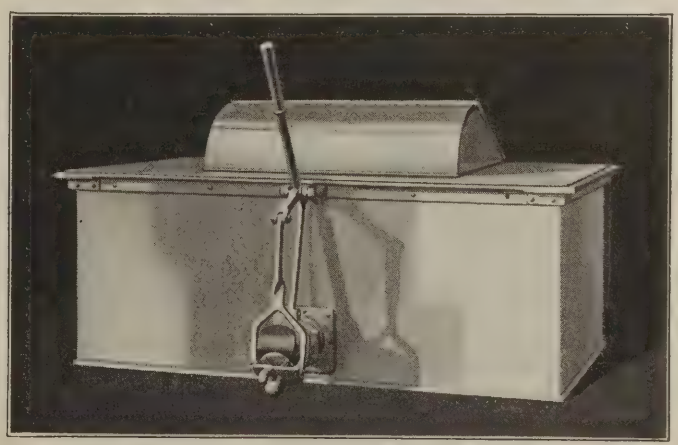


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FREEZE YOUR ICE CREAM IN AN ADVERTISED FREEZER.

time started, time finished, and then the number of gallons finished, itemized in pints, quarts, half-gallons, gallons, brick, etc. From such a report you may be assured that I am in close touch with a department, that the future of my business depends, and it is in this department that special attention must be given, but to stop here in arriving at manufacturing cost would be to lose sight of the real cost in manufacturing ice cream, this cost I shall discuss later.

In addition to my freezing room report, I have a report of my hardening room, an inventory of which I require weekly, and by referring to my report of the first of the month and securing the inventory at that time and referring to my freezing room report and securing the gallons manufactured for the week and adding the same to this inventory, and securing from my accounting department the sales, and deducting these, I am now in position to compare the balance on hand with the inventory on the first of the following week, and in this manner I am in position to ascertain if there are any leaks. I require a record made of every pint of ice cream or ices that go out of my box, and permit me to assure you that it is the possible leaks here that determine largely the manufacturing cost. But taking it for granted that the mixing room and the hardening room reports are coming up to expectation, we will now consider some of the other elements entering into manufacturing cost.

Which are factory supplies, factory labor, power and refrigeration, water, factory maintenance, rent, depreciation, ice and salt.

The general charges that compose most of these subdivisions will be at once apparent. Power and refrigeration expense, however, is a very important item of manufacturing cost that is not always given the attention it deserves. All charges for direct labor, fuel, electric current, should first be posted to a power account so that the actual cost of operatiog the power plant as a whole can be ascertained, therefore monthly transfers are made from the power account to the manufacturing cost account of every department that has used power during the month.

Depreciation is another vital factor that in many cases is neglected because its importance in relation to cost is not always clearly understood. This is more unfortunate owing that it is in many instances one of the largest items of cost, and if disregarded, may easily mislead you in thinking you are making a substantial profit while possibly you are sustaining a loss. The method of handling depreciation used by many concerns not up to date in accounting practices, is to wait until the end of the year and then charge it off in a lump sum. It will be at once apparent that if this should be charged off at the end of the year, it is something that has been entering into the cost of your product every day and every month during the year, so far as your month to month cost is concerned. Therefore you have been in the dark, so to speak, and can only know your real results at the end of the year, when it is usually too late to act.

We have now given consideration to manufacturing cost and have come to the final elements of selling and administrative cost. In some lines of industry no attempt is made to treat such general expense as factors entering into the calculation for determining the cost of the product. In the ice cream industry, however, it is practicable and advisable to apply charges of this kind, not only to cost by departments but also to cost per unit. Expenditures classified as selling cost or administrative cost are of two kinds, direct and indirect. Selling cost comprises all such items charged to these general expense accounts as may be easily classified and readily distributed directly to departments, for example, freight and drayage, delivery expense, salesman salaries and expenses, losses on bad accounts. Indirect selling or administrative cost consist of all remaining general expense items not classified as direct, the main sub-divisions under this heading are: Officers' salary and expenses, general office salaries, general advertising, general office supplies and expense, interest paid, legal expense, etc.

All the elements of cost have now been recorded and the sum of the sub-totals present the total cost per unit, as well as the aggregate amount of money involved. The manager now knows exactly how much he is making or losing per unit, he has permanent records, he is able to refer to previous corresponding periods for comparison, he is able to know weekly or monthly just the progress he is making. He has the merchandise cost, the expense of sales at hand, he knows without guesswork the results he may expect at the end of the year.

There are no pills to cure all ills to which our industry is heir, but there is one remedy at hand and it is labeled, standardization, given a uniform system of accounts generally adopted throughout the industry, given uniform monthly reports based on the uniform accounts, and given composite average reports, based upon these individual uniform reports, then you as individuals, will be able to locate and eliminate waste, when you have done so you can say to the consuming public, and to your critics, here are facts.

A second and closely related step which automatically follows the installation of uniform accounts is arranging for a clearing house for statistical information. Interchange of ideas is of paramount importance. Without inlet or outlet water stagnates. You may put your

This Book Tells How



HOW to cut down your percentage of solids fat and at the same time improve the quality of your cream — when and how to most successfully use cream, sweet butter, condensed milk or powdered milk—how to make brick ice cream without redipping—how to increase your overrun — most successful brine temperatures —best methods of using gelatine — proper sugar proportions in relation to quality and overrun—savings and improvements possible by correct use of ripeners.

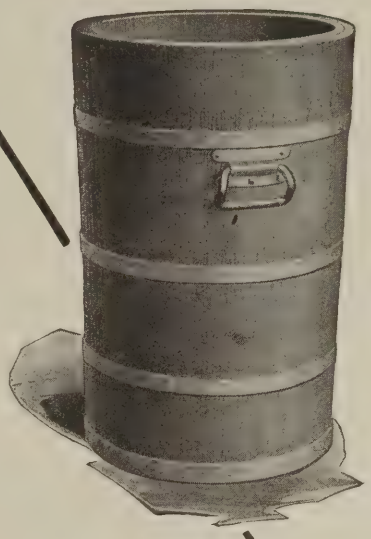
These are just a few of the subjects covered in Mr. Thomas' "Profitable Ice Cream Making." Page after page is devoted to this kind of valuable, profitable, useful information. It is a book that you cannot afford to be without. Order yours now.

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Tubs of Washington Fir are recognized to be absolutely the best for ice cream packing use. Fir is used exclusively by the Government for tanks, flumes and all other purposes where water comes in contact with wood construction. It will not deteriorate under moisture. Experienced shippers are showing preference for these tubs that will give the longest service.



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are fast replacing the less durable makes. They are built from carefully selected, clear staves, with strongly constructed bottoms, and are strongly hooped. Stock tubs are green, but can be furnished in any color, stenciled and branded as desired.

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can be had in any style, Metal Lined, Tub, or Brick. All linings, cylinders and brick containers are made of galvanized Armco Ingot Iron. They are strongly built, well insulated, and highly finished, in mahogany.

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own house in order and your records may furnish you with excellent information relative to your own business, but you are still without a standard yardstick for measuring your operations. Without the yardstick you can only measure the growth of your own shadow, which is unreliable because it changes as you change.

* * *

Mr. J. W. Clopton, secretary of the Southern Ice Cream Manufacturers' Association, then addressed the meeting on the outlook for business conditions for the coming season, expressing the opinion that with proper energy and economy in operating we might look forward to a fairly prosperous year. Mr. Clopton stressed the importance of looking carefully into the matter of credits to the end that no serious loss may be sustained from bad debts.

ADVANTAGES AND CORRECT USES OF POWDERED MILK.

By Mr. N. C. Hoag of the Merrell-Soule Sales Corporation, Little Falls, N. Y.

Quality is, or should be, the aspiration of every manufacturer in the making of his product.

This rule, also applies to ice cream manufacturers, and to secure any claims to this ambition, a thorough knowledge of the ingredients and their proportion one to another, is essential.

The composition of ice cream is made up of certain proportions of butterfat, milk solids—not fat, sugar, binder and moisture (water). Many ice cream manufacturers say "There is no water in my ice cream," or "I don't want any water in my product," yet—the fact remains, that milk, cream and dairy products contain large amounts of water.

Also, some ice cream contains egg, and the time was when corn starch was used extensively, as it gave smoothness and body to the finished product. And thus from the study of this fact, ice cream making has become a scientific proposition.

With the advent of pure food laws, and laws of sanitation, products of this nature have been eliminated and milk products used, so that today ice cream is technically a dairy or milk product.

Butterfat content may be increased, but butterfat alone can not produce quality, or can a lack of it give satisfactory results. It has a certain food value and its caloric content is a little better than twice of that milk solids not fat.

But there are elements in the milk solids not fat, especially the minerals, ash and salt, which are very necessary to building up the body, bone and tissue. It is for this reason that the purest of milk products should be used.

Powdered milk, when properly milk, has all the vital elements in their natural state. The casein remains soluable, the albumin is not coagulated, and the mild sugar is uncarnalized. Such solids added to the mix produce a superior quality of ice cream.

Another good reason for the use of powdered milk in ice cream is that the known amount of milk solids not, fat, will not vary as in the use of condensed or evaporated milks, as generally made. Condensed milk is salvy to the mouth when eaten alone, and imparts this characteristic to the ice cream when used. This trait may also be overcome by the use of powdered milk, this furnishing a clean eating "Give us another dish of ice cream, please," ice cream.

Having given formula with an established per cent of milk solids not fat desired, it is a simple problem in arithmetic to determine the amount of powder to be used, to build up the solids to the required point.

Analysis of milk, condenced milk and evaporated milk, and powdered milk:

Fluid milk contains in this locality 4 per cent of butterfat, and 8½ per cent of milk solids not fat. This means then that the balance (87½ per cent) is moisture (water).

Evaporated milk contains 25 per cent of milk solids (8 per cent fat, 17 per cent milk solids not fat) and 75 per cent of moisture.

Plain skimmed condensed contains 27 per cent of

Sweetened skim condensed contains 28 per cent of solids, 45 per cent of sugar and 27 per cent water.
milk solids not fat, and 73 per cent of water.

Powdered milk contains 98 per cent of milk solids not fat and only 2 per cent of moisture.

It is worthy of note here that where there is less than 3 per cent of moisture, there is no bacteria action, in fact, bacteria tend to die off rather than propagate. Thus, it is seen that powdered milk contains in the most consolidated, pure and sanitary form the greatest amount of milk solids not fat with which to build up the body of the mix. It can be made up into fluid skimmed milk or whole milk, three to one condensed milk, or evaporated milk—by properly mixing with water, and in the case of whole and evaporated milks, by the addition of the proper amount of butterfat.

Much has been said and written about "grainy" or "sandy" ice cream. Let us differentiate between "grainy" and "sandy" ice cream.

Grainy ice cream is produced by the crystallization of the milk sugar and second by the formation of oversized ice crystals. The first is largely due to the use of super-heated, condensed or evaporated or sweetened

NEW ICE CREAM CATALOG

We are now distributing our new up-to-the-minute, fully illustrated ice cream and milk plant catalog, carrying very latest prices. This is an interesting book. Write us to-day for a copy before the supply is exhausted.

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Use your old crates in shipping us your rusty cans. Just mark your tags—

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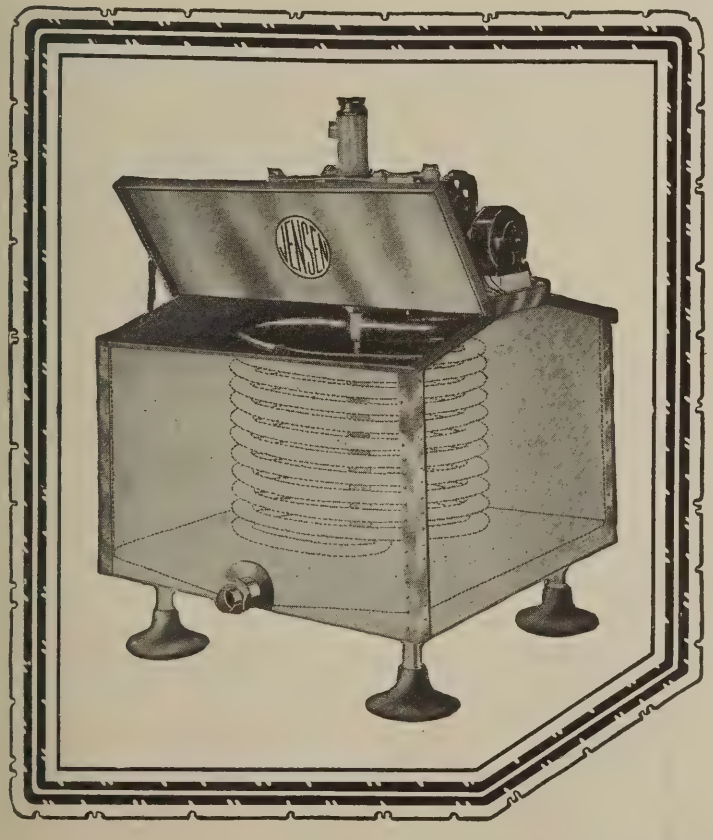
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VATS OF GLASS OR HEAVILY TINNED COPPER—Insulated with corkboard.

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condensed milk, containing a super-saturation of milk sugar. These crystals are formed in the "Pan" before the batch is struck, that is, drawn from the pan; and while pasteurization is supposed to eliminate them by giving a greater amount of moisture for their absorption, it has been proven that there seems to be a nucleus left so when the finished cream stands in the cooler for from four to six days there is a precipitation of these crystals and their size increases with the age of the ice cream and become more predominant and noticeable.

The large ice crystals are caused by a slow freezing both in the freezer and in the hardening room. A low brine at the freezer and a low even temperature in the hardening room, with a package that the cold can penetrate the easiest, will produce ice cream practically free from these crystals. Let it be understood that only about 40 to 60 per cent of the moisture in ice cream freezes and water is all that does freeze in ice cream.

Sandy ice cream, the kind that leaves a powdery, puckery, mealy taste in the mouth, may be better ascribed to hardened casein or coagulated albumen in the milk.

Super-heating milk tends to carnalize the sugar and coagulate the albumen. The housewife, in baking her cake, does not first cook the egg. She puts it in raw. WHY?—it acts as the binder for the gas bubbles that make her cake light. So albumin in ice cream assists as a binder and smoother.

In the beginning we stated that properly made, powdered milk contains all the vital elements in their natural, free state. Thus the albumin is allowed full action when powdered milk is used.

As to the super-saturation of milk sugar by the use of powdered milk: Unless the per cent of milk solids not fat is raised beyond the danger point this super-saturation is unlikely to occur. It may be well to determine how much milk solids not fat will unite with the fat content of ice cream to the best advantage. Take, for instance, 4 per cent milk and 20 per cent cream. After separating the cream from the milk, the milk contains 8 9-10 per cent of milk solids not fat, and the cream 7.13 per cent of milk solids not fat, or a total of 16 per cent. The total butter fat content is 24 per cent. The average of each, when combined, is 12 per cent fat and 8 per cent milk solids not fat; about 4 per cent is milk sugar. Ice cream should not contain more than 5 per cent of milk sugar if one desires to avoid its crystallization.

Since milk solids not fat are about 50 per cent milk sugar, it will be seen that we have a 1 per cent allowance of milk sugar, or a 2 per cent allowance of the milk solids not fat content, which may be added to the total solids of the ice cream.

According to the above formulas we should have not less than 20 per cent of milk solids at all times in our mix. By deducting the per cent fat content from the total milk solid content (12 per cent) will give the per cent of milk solids not fat to be used, which per cent may be increased from one to two per cent, but never more.

The manner of dissolving powdered milk and its addition to the batch is simple.

Many ice cream manufacturers believe that they must have an emulsor, a viscolizer or a homogonizer. Let it be stated here that these machines are necessary only when it is desired to reconstitute butter. But putting the mix through one of these several machines breaks up the molecule to a finer degree and produces a smoother ice cream.

The "Cold Batch" method is the simplest and requires only the dissolving of a powder in a part of a fluid to be used, either water, milk or skimmed milk. It is best to allow this to stand 12 to 16 hours to gain a natural viscocity. There are acids in the milk which are not immediately absorbed by the fluid but are in a few hours. This may then be added direct to the mix.

The pasteurization method consists of dissolving the required amount of powder in part of the fluid—one part powder to three parts of fluid—and then heat up. Let it be a flash heat. If mixed in water, heat to 190 deg. F., skimmed milk 170 deg. F., and whole milk to 160 deg. F. Do not hold at these temperatures, but cool at once by the addition of the rest of the fluid. Many manufacturers are not equipped with boilers of sufficient steam pressure to run their mix, holding the heat continuously. Pasteurization temperature is best.

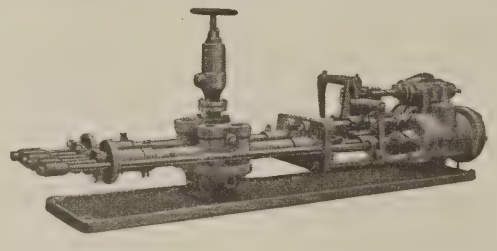
In flash heating, this should be accomplished in from 15 to 20 minutes. If it takes longer, do not go above the temperature reached at the limit of 20 minutes, unless that temperature is below 145 deg. F.

The choosing of a powder then becomes the paramount issue, and every manufacturer desiring quality should test the powder for sediment and albumin especially.

The sediment test is a simple one. Dissolve two teaspoons level full of powdered milk in one-fourth glass of water, and let stand one hour. Observe bottom of glass or tip gently until fluid almost runs out of glass. This will expose a portion of the bottom of the glass when any sediment may be seen adhering to the bottom of the glass. Or, fill a test tube, usually used in the separation of butterfat tests, with the fluid and whirl in a centrifugal for five minutes. This will throw the sediment to the bottom of the tube and its relative amount to the amount of powder used can readily be determined.

The albumin test consists of making a little pattie

Dependable



Dumores

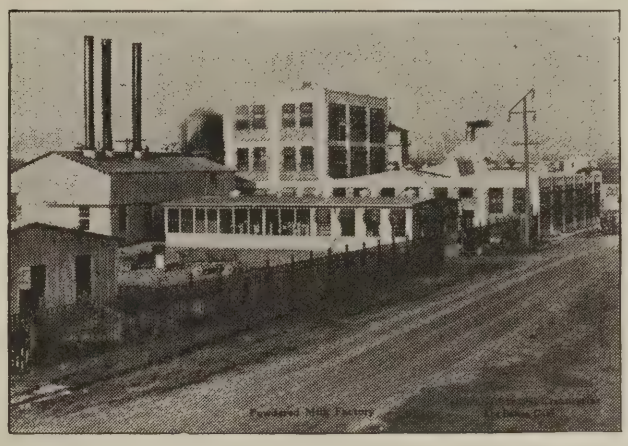
They last a life time—as efficient when old as they were when new. Ideal in recombining dairy products and making a perfect homogeneous mass of the Ice Cream mix. Eliminates operator, mechanic, repair bills, motor and belt troubles, delays and possible accidents.

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Has the flavor of fresh pasteurized milk—

Completely soluble — no sediment or burnt particles—

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of paste with powdered milk and water. Place the pattie on a tin in an oven. If the pattie raises or fluffs up, the albumen is in its natural live state. If it lays flat and assumes a burned or charred appearance, the albumin is dead.

Powdered milk is that portion of milk left after milk has been dehydrated by any of the several processes used, and is no less milk than is evaporated or condensed milk, and has several advantages over the fluid forms of concentrated milk.

It has no bacteria action when properly packed and kept, and, containing no bacteria, is the purest form of milk obtainable.

It will keep indefinitely. It permits of a constant supply of milk at all times, both as a reserve supply and for building up the milk solids not fat content in ice cream.

It saves freight and express bills.

It allows a uniform mix, thus decreasing the losses incurrent of manufacturers, who do not test and standardize their mix.

A lack of milk solids not fat produces an ice cream of large grain, and has a tendency to be icy. An over amount produces an ice cream that, when hardened, breaks with a cleavage of dry putty, while a superamount produces an ice cream salvy and soggy in consistency.

By the following method quoted here, one may correctly gauge this amount and produce that superior, velvety ice cream, which is the desired attainment of every ice cream manufacturer.

* * *

The meeting then adjourned, and all members were requested to assemble in the lobby of the Hotel Marion at 7:30 for the purpose fo attending a theater party at the Kempner Theater, which wos thoroughly enjoyed by all present.

Dr. W. H. Woodley of the Extension Department of the State University at Fayetteville, then addressed the convention on the subject of "Dairying in Arkansas," outlining the rapid advancement made by the industry in the state, and dwelling on the natural advantages offered by our mild climate and long growing season.

Prof. A. C. Baer, of the A. and M. College of Stillwater, Oklahoma, then addressed the meeting. Professor Baer is generally considered the best informed man in the South on ice cream making, and he stressed the importance of sanitary methods in the manufacture of ice cream and expressed it as his opinion that a law requiring the pasteurization of all dairy products should be passed in this state. Such a law is in force in Oklahoma, and has resulted in inestimable good. Professor Baer's address was the feature of the meeting, and was of great value to all those who were fortunate enough to hear it.

The meeting then adjourned to accept an invitation to luncheon with the Lion's Club, at which Professor Baer gave a short talk on pasteurization.

At 1:30 the convention reconvened for a business session, at which time the following officers were elected for the ensuing year:

President—Will Terry, Terry Dairy Company, Little Rock, Ark.

Vice President—Albert Garrett, Purity Ice Cream Company, Russellville, Ark.

Secretary and Treasurer—G. A. Meyers, Grand Prairie Ice Cream Company, Stuttgart, Ark.

The following committees were appointed:

Committee to Draft Constitution and By-Laws—I. O. Hughes, Jonesboro, Ark.; F. N. Price, Russellville, Ark.; F. T. Watson, Little Rock, Ark.

Committee on Express Rates—G. A. Meyers, Stuttgart, Ark.; F. T. Watson, Little Rock, Ark.; Charles Hooberry, Pine Bluff, Ark.; Will Terry, Little Rock, Ark.

Prof. A. C. Baer of Stillwater, Okla., and Dr. W. H. Woodley of Fayetteville, Ark., were elected honorary members of the association.

A general discussion of the conditions affecting the industry was indulged in, and many matters of importance to the members of the association were discussed to the mutual benefit of all present. A resolution was presented and adopted placing the association on record as favoring a compulsory pasteurization law for dairy products used in the manufacture of ice cream.

A vote of thanks was tendered Mr. I. O. Hughes for his effort in behalf of the association, and to Professor Baer and Dr. Woodley for their able and instructive talks to the association.

It was decided to hold the next convention in Little Rock, some time during the month of January, 1923, the president to announce the exact date later.

This was considered the best convention in the history of the association, and all members were urged to be present at the next annual meeting.

Investigation since the meeting adjourned has developed the fact that the express rates on ice cream in Arkansas is considerably higher than in Texas, and the president requests each member of our organization to have his customers immediately write the Arkansas Railroad Commission, requesting them to investigate this matter, and have the rates in this state adjusted so they will be no higher than in adjoining states. This is important, and each member is urged to attend to this at once. A concerted effort on the part of every one will bring this matter forcibly to the attention of the Railroad Commission, and will result in securing better express rates.

Every member of the association is urged to take up with the state senator and representative from his district the matter of having a compulsory pasteurization law passed at the next session of the state legislature. If this is done this fall during the campaign, every member of the legislature can be put on record in the matter, and at the next annual meeting of the association our members can call on the legislature while they are in session, and can probably succeed in getting laws of this kind enacted.

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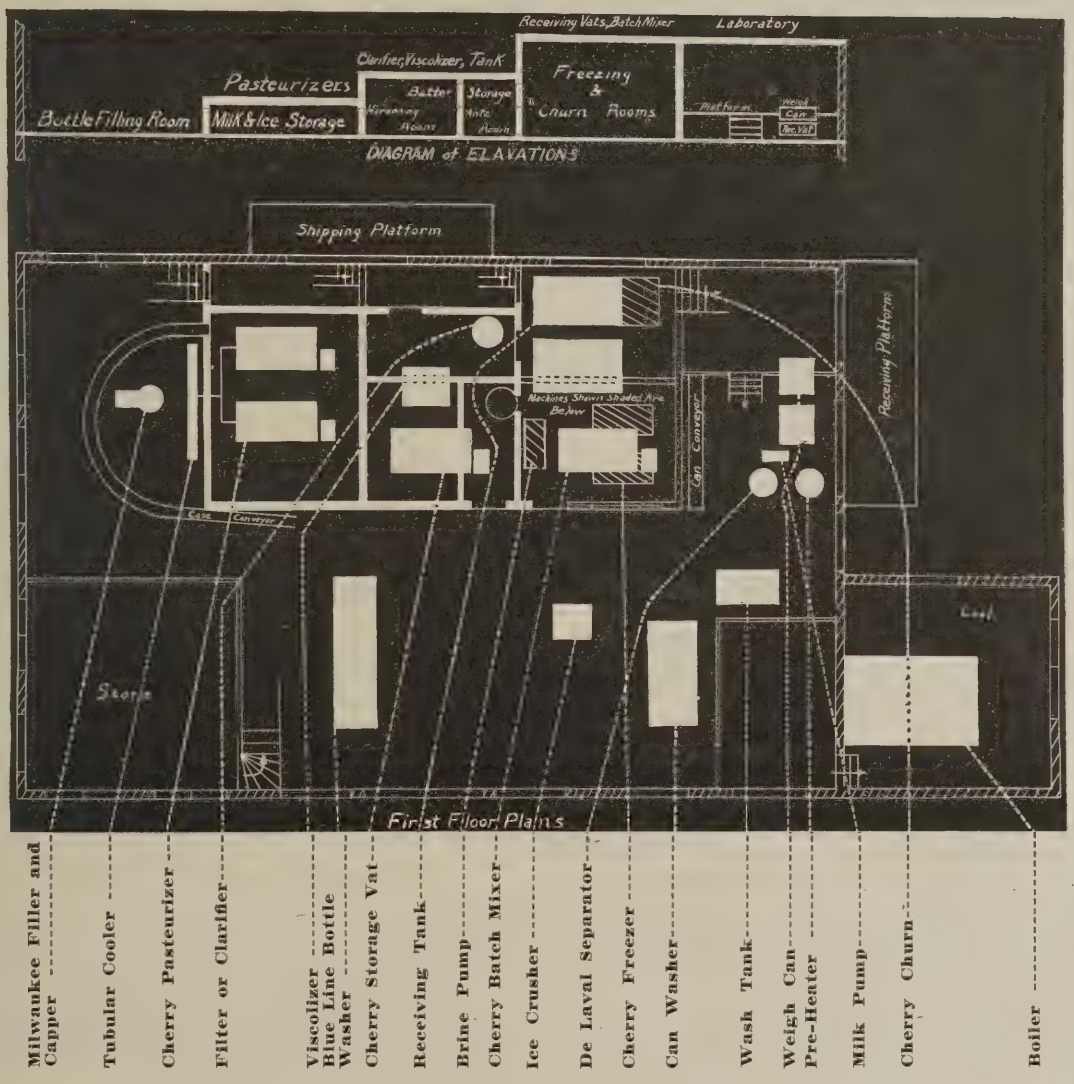
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Preacher (solemnly): Rastus, do yo' take dis here woman for better or for worse?

Rastus (from force of habit): Pahson, Ah shoots it all!

THE C-B-W CALENDAR



HERE is a layout for one of the finest, combined creameries, ice cream and milk plants, possible to build; a plan that may be adapted to any size plant. Every piece of machinery shown is a member of our selected line of equipment. There are many advantages in buying all of your machinery from one house, an organization which can plan with you and help you with your entire installation work. Send for our catalogs; ask for a representative to call on you. Now is the time to buy machinery.

Successors to:
Dairymens Supply & Construction Company

Cherry-Bassett-Winner Company
BALTIMORE PHILADELPHIA PITTSBURGH

Philadelphia Farmers & Dairymens Supply Co.
Cherry-Bassett Co.

A GOOD ICE CREAM BRICK CUTTER WILL CUT IN UNIFORM SIZE.

Fine Work Being Done on the National Dairy Show

By W. C. DAVIS, President Davis-Watkins Dairymen's Mfg. Co.

It is surely pleasing to see how quickly the big men in this dairy industry grab hold of a live proposition. Never in the history of this business has there been so much interest developed in the National Dairy Show at this time of year. We are all getting an early start. The wheels are turning. The plans are growing, and men are working to help our splendid manager in this grand work which is bound to have excellent benefits for all of us.



W. C. DAVIS,

At Washington, our Chief of the Dairy Division, with his efficient staff of experts, is planning their part of the Show on broader lines than ever before. Chief Larson was quick to see the remarkable advantages of this thing. He appreciates just how much good can be accomplished with a larger exhibit, properly placed. Let's furnish them with the best space we have, and plenty of it.

Prof. Van Norman is also enthusiastic over this thing. He knows full well just how much this movement will help him in his work of getting the world to join us in 1923. As President of the National Dairy Association, he is in a position to help us in many ways in putting this thing over big.

Mr. M. D. Munn, as President of the National Dairy Council, needs the help and support of the rest of us. We should see to it that the good work of this "speed" organization is properly placed in exhibit right on the grounds. They are certainly doing wonderful work in helping the demand and consumption of dairy products.

Last month our meeting of the National Dairy Club, in Chicago, was the best we have had so far. It was attended by many of the influential men we have among us. Valuable suggestions and ideas were advanced by milk dealers, ice cream men, creamerymen, cheesemen and producers. All these branches of the business were represented and active in the work. They all know that a bigger and better National Dairy Show will help increase their business.

Committees are meeting almost every day to discuss this problem in real earnest. Col. Skinner is one of the busiest men in Chicago. He is most enthusiastic in this good work. It commences to look as though his "dream" is going to come true. Telephone, write or wire him your views. Perhaps you have some ideas which will give dandy suggestions. Come along and be one of us in this good work, from which you are sure to benefit.

It sure does look as though we are going to wake up those folks in the Twin Cities this year. We are guaranteed one hundred thousand visitors right out of their midst. Let's do our part in putting on a show they will not soon forget. We ought to do this thing up so good that it will double the sale of dairy products in their midst during the following months. It can be done. Our business will thrive in that part of the country as never before.

Can we get those conventions right out on the show grounds? It is important that this be accomplished. The show should be the headquarters for everything in the industry. Let the machinerymen and the breeders shut up shop and attend the meetings. Then let the conventions close shop and see the show. Some fifty-fifty arrangement would benefit all of us. Every member of any association should be provided with a season ticket. Let them come in and out as they please, with no penalty. This is easy, if they will spend their money with the show, instead of at the hotels.

Those working exhibits are being discussed in "dead" earnest. We have simply got to have them. Show people what our work consists of. This will do more to draw our common interests together, than anything else we have done thus far. The only real cause for friction is that of our lack of knowledge as to just what the other fellow does to make his work important. Let him put his work before the rest of us so we will be in a position to understand and appreciate. We need this common knowledge.

And this is the one thing city people need to be educated in. Show them that real cream is used in ice cream. That real cream is used in making our butter. How the cows are cared for, and the work and expense of producing this excellent food. Let them understand about the making of cheese, condensed and evaporated milk. Show them how milk is pasteurized, bottled and handled. These are some of the things that even men among ourselves do not thoroughly understand. Every student of dairying in the world ought to see a Show of this character. They would save and skimp to be able to be with us, and find out how these things are done.

This Show ought to be so big and complete that it would take interested people several days to see it all. How many of us right in this business saw a milking machine take the milk from the cow? And yet we are talking milk and its products every day, and making our money out of them. We think we know this business; but, how much do we really know? Such a Show as we ought to make should be worth good dollars to each one of us, from an educational standpoint alone.

If you and I really knew about cheese, the things we should know, we would surely get busy seeing that the cheesemen of America were at work on this thing. Why not take certain things for granted and get after these men and help them help the rest of us, as well as themselves. Cheese rightfully belong to the diet of every man, woman and child of this great country. The marketing of this product needs our attention.

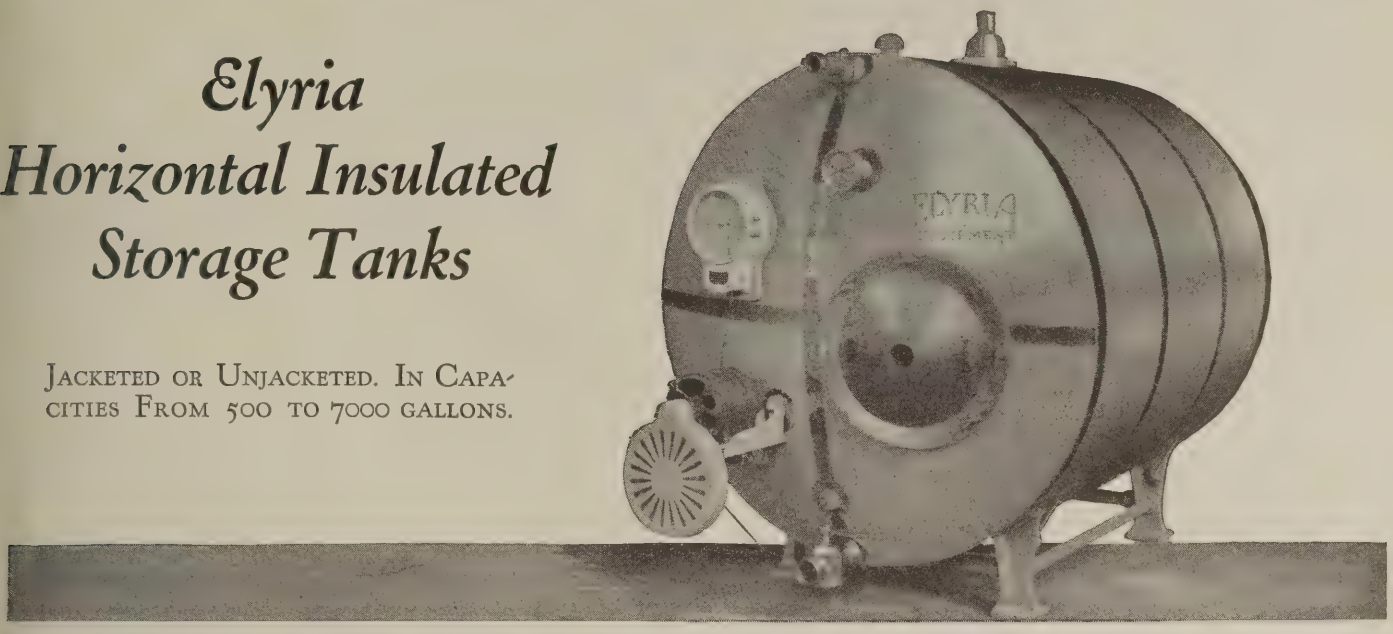
Our associations start work on the standardization of equipment. They don't get very far, largely for the lack of the knowledge these men could get at a show of this character. Let the men on such committees have suitable opportunity to see for themselves all the ways of the work, so they can figure out correct plans which can be adopted without too much cost to anybody. This is truly one of the most difficult problems of our business. It must be solved some time, and all of us working together can do it.

We invite the dairy farmers to our Show each year. And we had a lot of them there last year. How many

A New Development in Storage Equipment

Elyria Horizontal Insulated Storage Tanks

JACKETED OR UNJACKETED. IN CAPACITIES FROM 500 TO 7000 GALLONS.



Designed to fit into any building or any system, under any conditions

Features to think about:

Completely assembled when shipped
(*Installation expense greatly reduced*)

All openings through front of tank
(*No stuffing boxes through jacket*)

All working parts in front under direct control
(*Operating and dismantling made easier*)

Sanitary lines and valves easily reached
(*Nothing under tank*)

Indicating gauge shows liquid level
(*No guess work*)

Absolutely tight insulated manhole cover
(*30 inches from floor, no platform*)

Insulated with 2" covering with light sheet iron
(*Absolutely moisture-proof*)

Finished with enamel paint and metal trimmings
(*Specify your color paint*)

Removable brass spray pipe at top, inside jacket
(*Brine and water inlet at either end*)

Brine and water lines simply arranged in headers
(*Less pipe and fittings*)

No more floor space—less head room required
(*Can be set close to rear or side wall*)

Will hold temperature longer
(*Insulation saves refrigeration when cooling*)

Wire or write for complete details

ELYRIA ENAMELED PRODUCTS COMPANY, ELYRIA, OHIO

New York Chicago Boston Pittsburgh San Fransisco Los Angeles Indianapolis
Minneapolis St. Louis Canadian Milk Products, Limited, Toronto

QUALITY IS NOT SACRIFICED FOR PRICE

CARELESS BUYING IS A LOTTERY—SATISFACTION GUARANTEED BY ADVERTISERS.

of these people have the active interest which would be instilled if they were to be able to take an active part in its workings? There ought to be ways and means of getting these people represented as an important part of the thing. Let dairy farmers show dairy farmers, instead of city people trying to make a whole show for them. Then we city fellows would be shown things by the dairy farmers. It ought to be a fifty-fifty proposition all around.

Agricultural colleges ought to reap a wonderful profit from such a show. It would stimulate activity in their class rooms and make easier the enrollment of students, which would put them in a position to buy machinery and experiment the right way. We certainly do need the results of this good work. Boys from these schools now make some of our best workers. Let's make it easy for more of them to get more knowledge.

I am enthusiastic about this thing because I know full well it will help my business. It will help yours. It is one of the big things all of us can co-operate in doing, from which the benefits to each one of us will be of remarkable importance. Let's go.



High Visibility.

Patron (crossly)—Say, waiter, what are these black specks in my cereal.

Waiter (after a close inspection)—Dunno, sir, unless it's some of them vitamines everyone is talking about now.—Life.

Statement of Ownership, Management, Etc., of The Ice Cream Review, published at Milwaukee, Wis.—required by the Act of August 24, 1912.

The Olsen Publishing Co., Publishers, Milwaukee, Wis.

Manager—H. P. Olsen, Milwaukee, Wis.

Editor—E. K. Slater, Milwaukee, Wis.

OWNERS.—(If a corporation, give name and address of stockholders holding one per cent or more of total amount of stock)—H. P. Olsen, Milwaukee, Wis.; M. Olsen, Milwaukee, Wis.; L. S. Olsen, Milwaukee, Wis.; E. E. Olsen, Milwaukee, Wis.; E. K. Slater, Milwaukee, Wis.; Paul H. Laabs, Milwaukee, Wis.

Known bondholders, mortgage and other security holders, holding 1 per cent or more of total amount of bonds, mortgages, or other securities—None.

Signed, H. P. Olsen, Manager.

Sworn to and subscribed before me this 18th day of March, 1922.

C. J. Linden, Notary Public, Milwaukee Co., Wis.

(My commission expires February 1st, 1925.)

NOTE:—This statement is made in duplicate, both copies to be delivered to the postmaster, who will send one copy to the third Assistant Postmaster General (Division of Classification), Washington, D. C., and retain the other in the files of the post office. The publisher must publish a copy of this statement in the second issue printed next after its filing.

WORTH WHILE READING.

W. W. Marple's Eulogy to the Dairy Cow.

In the mad scramble for wealth and position that comes with wealth, so characteristic of the American people, we have tolerated the dairy cow only because of her revenue. I would remind you that she is a mother, and because of the fact that out of her motherhood we have made merchandise, she has become a wealth producer, but I would not forget that she is still a mother, not only the mother of her own family but the foster mother of about three-fourths of the human family, and for this we have for her a tender and sacred memory and we hold her in grateful remembrance. In India she is more than royalty. She is a God, and as such she is worshipped. She is considered as steps to Heaven—as a part of Heaven. It is not for this I hold her in high esteem. It is not alone for what she has done that I have given her so prominent a part she plays in contributing to our comfort. From the time when our eyes first see the light of day in the morning when we behold the walls that enclose our room, which is made comfortable and attractive by the plastering, which is secured by her hair, her contributions begin. We put on a pair of shoes made out of her skin, we button our clothes with buttons and comb our hair with a comb made out of her horns. We go to a tempting breakfast and find she has provided us with a plate of butter, a piece of cheese, a cup of milk, a pitcher of cream, hot biscuits made delicious with her product, a smoking hot, juicy beefsteak and above everything else, are the sweet, prattling children whose foster mother she is. We go to our place of business and fasten our important documents together with glue made out of her hoofs.

She started on her mission at Plymouth Rock and tied behind the old dust-covered emigrant wagon, hauled by her sons, she followed it to the setting sun. It was her sons that turned the first sod in this country and as she crossed the continent she picked up the straws that blew her way and converted them into milk that filled the mother's breast that nursed the child that became a ruler.



IT CAN'T BE DONE.

We wrote Mr. J. L. Rutherford, Pawhuska, Okla., and asked him whether The Ice Cream Review had pleased him during the past twelve months. He replied, "I'll say she do. Just as soon try to keep house without a cook stove as to try to run an ice cream plant without The Ice Cream Review. Gets better every issue."

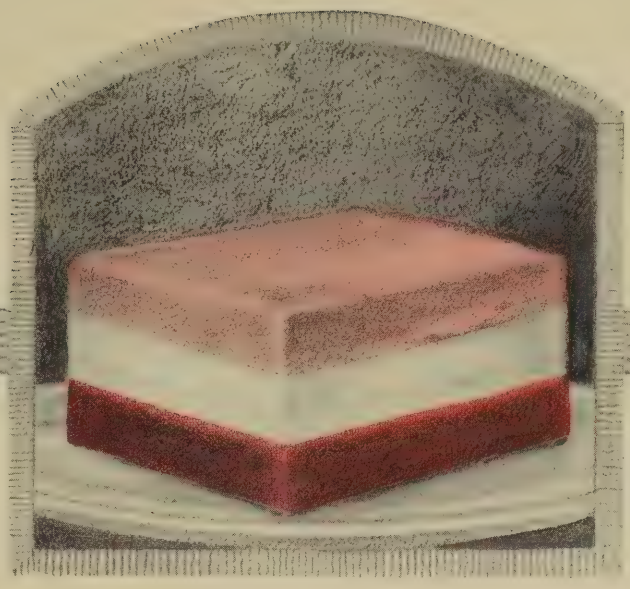
McLAREN'S Real Cake (DOUBLE RING) CONES

Nationally Known As A Quality Product

NOW PRICED EXTREMELY LOW

DAYTON OHIO

McLAREN PRODUCTS COMPANY KANSAS CITY MISSOURI



Year After Year

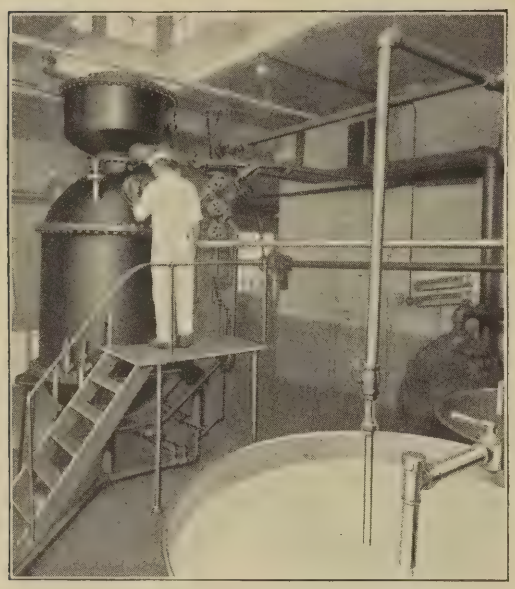
If you could go thru our office records and thereby discover how many ice cream manufacturers have continuously purchased B-F Flavors and Colors year after year, isn't it reasonable to assume that such a revelation would significantly impress you? Moreover, wouldn't you then more thoroughly appreciate why we guard so carefully the prestige established—why we adhere strictly and entirely to the policy of Quality at a Fair Price?

The Boerner-Fry Company

Manufacturers of High Grade Extracts

Iowa City, Iowa

Standardize Your Ice Cream



Mojonnier Vacuum Condensing Unit (5') in plant of Lawrence Ice Cream Co., Chicago. Temperature of milk never exceeds 140° either in hot wells or vacuum pan.

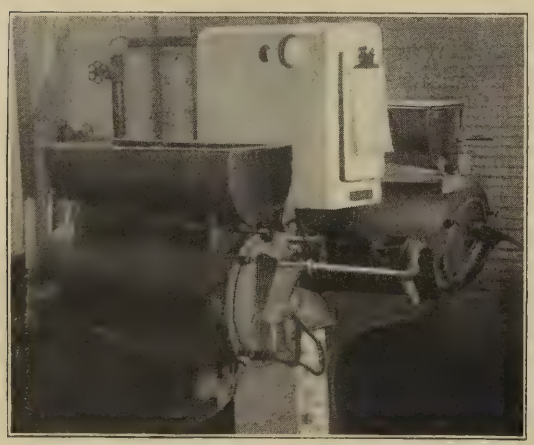
Standardize The Flavor In The Mojonnier Vacuum Condensing Unit

ICE CREAM manufacturers everywhere are fast recognizing the invaluable advantages of the Mojonnier Vacuum Condensing Unit. By displacing the pasteurizer and mixing tank it enables the manufacturer to make his mix from fresh milk direct from the producer and cut the cost of his mix 10c per gallon.

The Mojonnier Vacuum Condensing Unit is a scientifically designed combination of Vacuum Pan, Hot Well, Vacuum Pump, Steam Piping and Traps, steps and all other accessories necessary for a complete Condensing Unit.

Converts waste into profits by converting surplus milk into sweetened condensed milk or other condensed milk products for which there is a ready market.

Compactly built, it takes up little room. Simple and easy to operate.



Overrun Tester in plant of Decatur Ice Cream Co., Decatur, Ala. Mr. Clopton writes it is "one of the most important machines in our plant."

Write for 12 page profusely illustrated circular just off the press.

Standardize The "Swell" With The Mojonnier Overrun Tester

WITHOUT definite means of control, the "swell" or overrun in ice cream is subject to wide variation from day to day and from batch to batch.

The Mojonnier Overrun Tester enables you to control your overrun absolutely. You don't have to guess. You can test it while the cream is still in the freezer and control the factors that affect the overrun.

Each per cent of overrun represents just .4c per gallon of mix. Increase your average overrun only 10% and it means a saving of 4c a gallon, or $4,000.00 a year on 100,000 gallons. It is savings such as these that are attracting ice cream manufacturers to the Mojonnier Overrun Tester.

Used by the largest ice cream plants in the country: Hortons, Telling-Belle Vernon Co., Hydrox, Abbotts, etc. Also by progressive ice cream manufacturers operating two or more freezers.

Write for circular.

EFFICIENCY PRODUCTS Mojonnier

Mojonnier Bros. Co.

MILK ENGINEERS

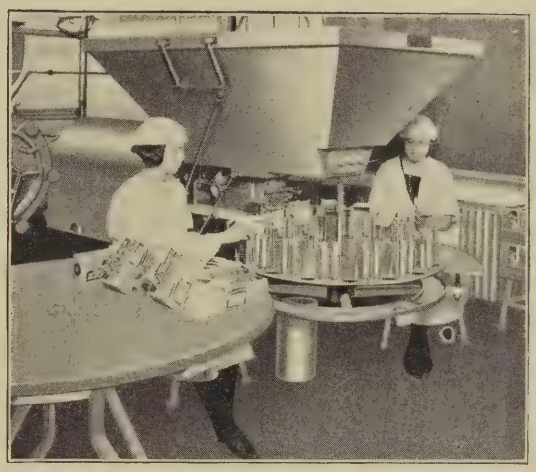
BRANCH OFFICES: FLUSHING, NEW YORK CITY, 400 Sanford Ave. ATLANTA, 301 Bedford Place.

by the MOJONNIER Process

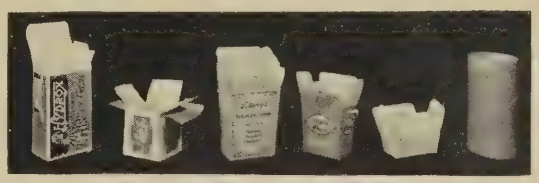
Standardize The Weight With The Mojonnier Packaging Machine

THE Mojonnier Ice Cream Packaging Machine is a LABOR SAVER. In one plant it reduced the labor of packaging from twelve to seven operations; reduced number of helpers from seven to three; has reduced hardenings from three to one. Eliminates pouring into molds, dipping, cutting, wrapping and exposure to heat and air after hardening, improving quality and texture of the brick ice cream. It prevents loss of ice cream and does not reduce overrun.

The Mojonnier Packaging Machine is of the measured feed type. Fills all shapes illustrated herewith—quarts to individuals—accurately. No over-weight; no air-pockets; nothing taken for granted. Fills either one, two or three flavors at the rate of twelve hundred bricks per hour. Used for making quart slabs for Eskimo Pie—no dipping necessary. Write for circular.



Mojonnier Ice Cream Packaging machine in operation at the big plant of the Hydrox Co., Chicago, where they package their entire output of one, two and three flavor bricks.



Fills any of the types illustrated above



Mojonnier Tester in plant of Russ Bros., Harrisburg Pa., where they test all the milk products that are used in the mix, and standardize the mix.

Standardize the Butter Fat and Solids With the Mojonnier Milk Tester

TO BE able to buy your raw materials absolutely on the basis of actual butter fat received—to be able to standardize your ice cream mix to within .05% and eliminate all guess work—these are advantages which you desire for your plant.

With the Mojonnier Milk Tester you can standardize your butter fat and total solids in your mix to within a few hundredths of one per cent. Thus you can control all of the ingredients—butter fat, milk solids (not fat), sugar, gelatine, etc. If your ice cream maker gives your laboratory analyst a sample of the complete mix at 8 o'clock, in just forty minutes the operator can tell him the exact butter fat and total solids content in the mix.

The Great Hydrox Company advise that the Mojonnier Milk Tester pays for itself every month in the flush season.

With the Mojonnier Milk Tester, you can test, check and absolutely control the factors entering into your overrun. And that kind of accuracy pays big dividends. Write for circular.

Further Information Given on Request

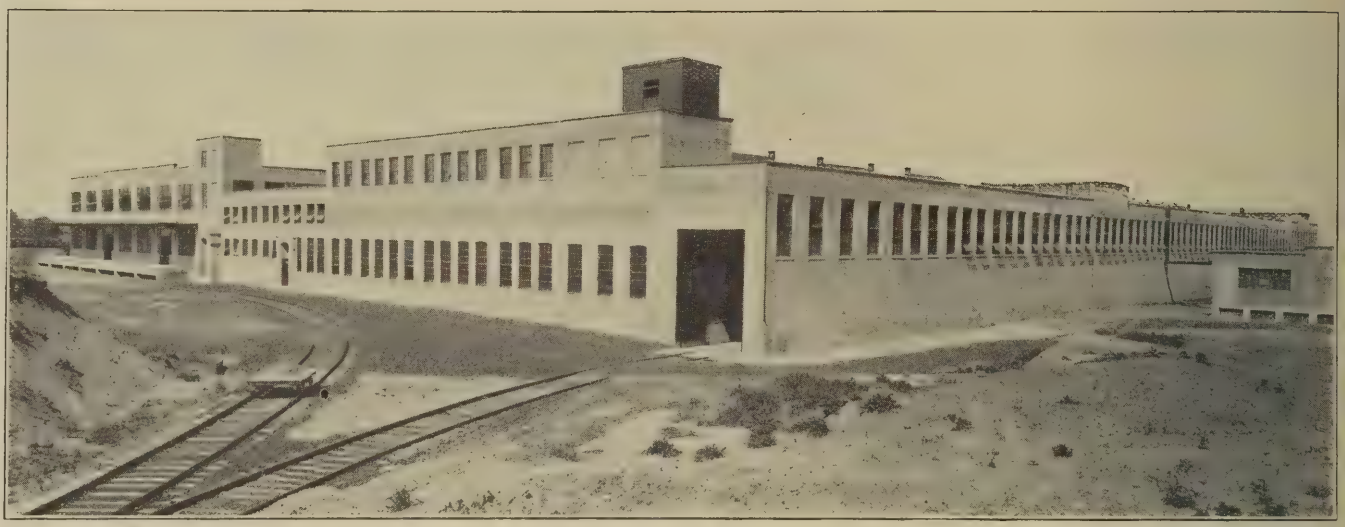
Chicago, Illinois

739 W. JACKSON BOULEVARD

True Servants to the Ice Cream Industry

ST. LOUIS, 4931 Margaretta Ave. SEATTLE, 513 Pioneer Building. COLUMBUS, 123 E. Frambes St.

"U. S. GEL"



WORLD'S LARGEST INDIVIDUAL GELATINE FACTORY

UNITED STATES GELATINE CO.

MILWAUKEE, WIS.

U.S. Gelatine is produced in the World's Largest Gelatine Factory, which means Uniformity, Purity, Strength at the Right Price. Stock used in the manufacture assures a bright, clean, odorless Gelatine. Its use means a smooth, high quality and superior texture Ice Cream.

LET US SEND YOU SAMPLES AND QUOTE ON YOUR REQUIREMENTS

THE WESTERN MARYLAND CITY DAIRIES HAVE DEPARTMENT OF PUBLIC RELATIONS.

The Western Maryland-City Dairies, of Baltimore, have retained J. Hampton Baumgartner, head of the Baumgartner Advertising-Publicity Company, of that city, as director of public relations and also to handle their advertising account.

It is believed that this new policy of the Baltimore milk distributor of co-ordinating its advertising and other matters relating to contact with its patrons and the general public under centralized direction is a forward step in placing the dairy industry upon the same plane as other public servants.

Mr. Baumgartner's connection with the Western Maryland interests carries with it an executive association, for in addition to handling the advertising account he will serve as an advisor to the executives in matters relating to good will, sales development and personnel. His training has been along these lines, as for several years prior to entering the advertising agency field he was director of publicity of the Baltimore and Ohio Railroad System, attached to the executive staff.

The recent merger of the Western Maryland-City Dairies makes the new company the largest distributor in the Baltimore market and one of the larger American dairies.

Irvin D. Baxter, former proprietor of the Western Maryland Dairy, and Asa Bird Gerdiner, former president of the City Dairy, are chairman of the new board and president, respectively, of the new company.

Recognizing that the continued growth of its business will depend largely upon public good will, supported by quality of its products, and good service, plus a comprehensive understanding by the public of the service performed by a dairy, and a thorough knowledge of its methods of doing business, a decision was reached to make its activities an open record and seek the co-operation of the community. In this decision Messrs. Baxter and Gardiner were given the unqualified endorsement of the directors of the company.

An instance of the company's interest in public affairs was apparent at Christmas time when a letter, signed by President Gardiner, was distributed to 2,500 poor children, entitling the bearer to a quart of milk from any delivery wagon or store selling the dairy products. The children were entertained by the Baltimore Advertising Club at a Santa Claus party. Baltimoreans termed the charity a practical illustration of the fact that the "milk of human kindness" flows in corporate organizations. Many of the larger families represented by several children received a week's milk supply free of cost.

Mr. Baumgartner is getting in touch with dairies throughout the country incident to a study of the new work. He will later give the trade the benefit of experiences in articles contributed to this publication upon phases of the business coming under his supervision.



LICKING CREAMERY CO. CHANGES NAME.

The Licking Creamery Company, with executive offices at Newark, Ohio, and branch offices in New York, N. Y.; Jersey City, N. J.; Philadelphia, Pa., and Wheeling, W. Va., has changed its name to The Davis Company, on the Third of March, Nineteen Hundred Twenty-Two.

There is no change in the officers, management or policy. This company manufactures butter, ice cream and handles market milk.

KOKOREKA

The ORIGINAL
and BEST

VEGETABLE BUTTER

FOR

THINNING
CHOCOLATE
COATINGS

Write for Free Sample

India Refining Company

McKean & Swanson Sts.
PHILADELPHIA

CHICAGO
222 N. Wabash Ave.

SAN FRANCISCO
203 California Street

PURITY THE ORIGINAL PAPER CAN



—with the famous "locked crimp" top and bottom construction

FOR USE

1. In conjunction with Automatic Ice Cream Packaging Machines produced by Mojonnier Bros. and other manufacturers of creamery equipment.

2. As a sanitary package filled direct from the freezer.

3. As a "carry-home" sales builder by supplying your dealers with them.

Made in capacities from quarter-pint to half-gallon.

The PURITY PAPER VESSELS COMPANY
BALTIMORE, MD.

The Age of Large-Scale Enterprise—and Advertising

By F. B. WILLIAMS of Nordhem Syndicate Service

OUR grandfathers didn't use soap that was put up at factories hundreds of miles away. They used the soap that their wives made at home.

Nor did they eat for dessert ice cream that was delivered to their door by some one who manufactured ice cream wholesale. Ice cream was a rare and unusual dish—and when it **was** served it was frozen, with much effort and patience, at home.

When grandfather picked up the newspaper of his home city he found it strictly a "home talent" paper. The news articles, the editorials, the jokes—all were written by local men for that particular paper alone. For an evening journal in Baltimore to carry the same "funnies" as an evening journal in Boston—and on the same day— would have been as unheard of as it was impossible.

And when some special event occurred in a distant place, the smaller town papers had to wait for their accounts of it until they could copy it from the big city sheets.

Nationalizing Mutt and Jeff.

But what of the papers nowadays? The homely faces of Mutt and Jeff are as familiar in San Francisco as they are in New York. Mr. Barnes, of Wisconsin, is reading the wholesome advice of Dr. Frank Crane at the same time that Mrs. Johnson is reading it in Philadelphia; and the day after a big sporting event the Associated Press account of the affair appears in hundreds of papers all over the country.

Today we would consider the newspaper our grandfathers read pretty much of a one-horse affair.

The point is that grandfather lived in an age when each individual did an infinite number of things for himself; we live in an age when things are done on a large scale under centralized management—and each individual shares in the results of the large-scale effort.

Advertising's Infancy.

Advertising, one of the mose recent of the world's enterprises, has followed almost exactly the course of the newspapers. We all know, of course, that not so very many years ago anything worthy of the name of advertising was practically unknown.

Then the pioneer advertisers, naturally, "wrote their own." Why shouldn't they? Thew knew as much about the matter as did anyone else—for there were no trained advertising specialists when advertising was young.

The ice cream manufacturer, for instance, took a few minutes spare time and wrote "something to go in the paper" about his ice cream. Perhaps he paid a small price to a nearby young sketcher to make a few drawings to go with this something—and to the local sign painter for painting some bulletins portraying his cream as the best.

All very well. It may have been excellent stuff, and no more to be criticised than were the delicious home-made desserts which Grandmother gave to Grandfather.

Farewell to the "Home-Made" Age.

But the modern trend of things has shown that home-made advertising is no more necessary than is home-made ice cream. Like using a small hand freezer, it can be done, and frequently can be done well—but it isn't necessary, and it isn't the most economical and efficient way of doing things.

Just as Bud Fisher proved that Mutt and Jeff were as much at home in the West as in the East; just as Dr. Frank Crane's philosophy is as true for Chicago as it is for Savannah; just as a whole new world of effective news-telling was opened by the Associated Press, so is the modern manufacturer finding that a brand of ice cream made in Podunk, Iowa, can be kept in public attention perhaps more forcefully—and surely much less expensively—by advertising material prepared in, let us say, New York or Chicago, than by advertisements prepared "right on the ground" in Podunk.

The ice cream man is learning that in these days of centralized big-scale production advertising is not lagging behind.

"Big-Town Stuff" at Small-town Prices.

It is easy to see that a newspaper of the average town could not afford to pay Bud Fisher many hundred dollars each day for the doing of Mutt and Jeff; but since Mutt and Jeff are "syndicated," their daily cost is divided among almost innumerable newspapers, and the small paper of very moderate means can afford to give Mutt and Jeff to its readers.

It is equally easy to see that the average ice cream man—even the "big" one of a city—can't afford to pay the prices demanded by skilled artists and writers for the advertising designs and ideas that are to sell his cream.—or to pay the necessarily high rates of lithographers and printers for the production of his advertising material in comparatively small quantities. But divide these costs among many representative manufacturers all over the country—and presto! the problem is solved.

The syndicate idea in advertising is simply a normal and logical part of our present age of specialization and large-scale production.

Manufacturers of Complete Line of Steel and Metal Products



No. B-85
Patent Applied For

Of Vital necessity
are good

TUB HANDLES

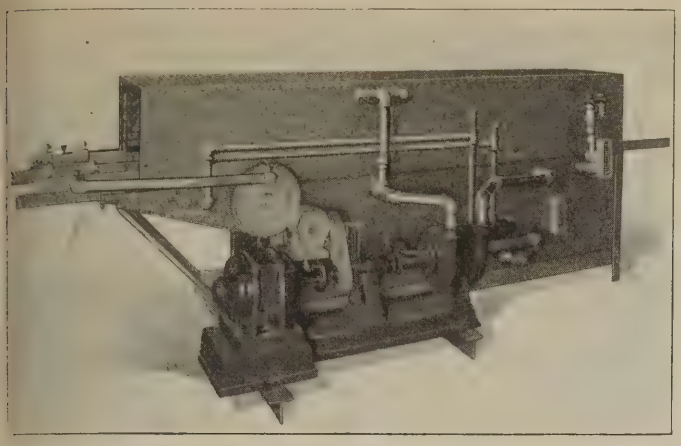
When considering the knocks and rough usage subjected to them in daily use. Hence the necessity of selecting a tub handle that will stand all sorts of abuse and be sure to provide a a handy and positive grip.

Beehler Tub Handles

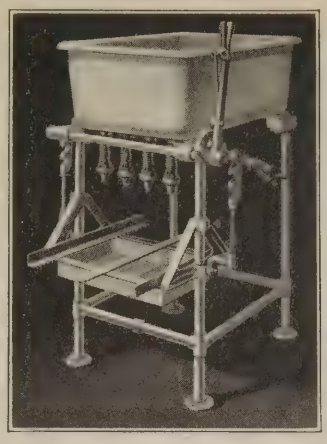
Are made of special steel of a toughness that defies destruction

Beehler Steel Products Company
St. Louis, Mo.

PLEASE MENTION THE ICE CREAM REVIEW WHEN WRITING TO ADVERTISERS



Davis Pressure Bottle Washer





Davis Milk Bottle Filler



Dairymen's Cotton Strainer

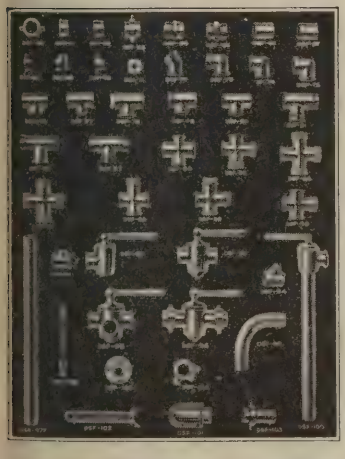
IN ALL big industries there is one dominant concern which stands out prominently in each branch of it. In the machinery branch of the Dairy Industry, the name "Davis-Watkins" is the first name coming into the average mind when machinery is mentioned.

Likewise the trade name of this great organization is the first one you think, when a machine for a particular operation is considered. If it is churns—you think "Disbrow." If it is pasteurizers—you think "Davis;" just as you do on bottle fillers, cappers and washers. If ice cream freezers or homogenizers, it's "Progress." And, everybody knows that "Dairymen's" milk and ice cream cans are made in the factory of Davis-Watkins. Likewise, they have made popular the names "Economy" and "Minnetonna."

Whenever you buy any machinery or equipment bearing one of these trade names, you may be sure it is Davis-Watkins made. Each trade name characterizes the real satisfaction you are sure to obtain from the machine. It has taken many years to build up the trademark value of these names. They represent true value and must be protected. It is the mark of distinction, on each Davis-Watkins machine, which indicates just how sure you may be of its honest value.

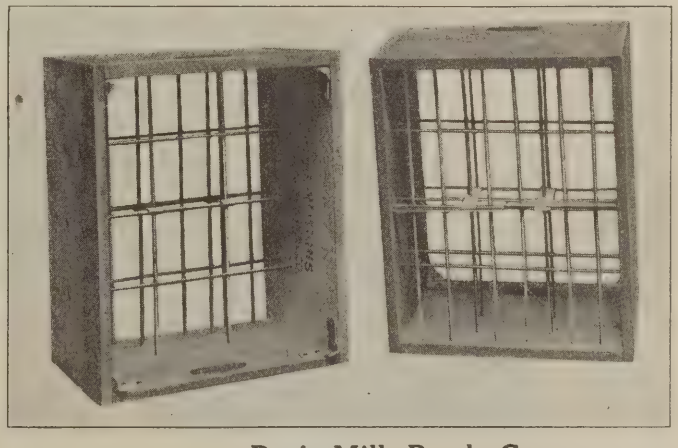


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Cooperage Business Four Decades Ago

THESE are the days of prohibition, and we expect you are questioning why we put before your eyes this big cask which would hold 10,000 gallons of beer—but then you know, there is always the "home brewer" who may be interested—that kind of cautious man we all know of who always insists on his friends sampling his home brew before he will take a chance.

But all things come to some kind of an end, just like the Lenten period, for instance, with its Ash Wednesday, Shrove Tuesday, Good Friday and Nut Sundae—and the bar business has passed away too, taking with it the cooperage business in that line—but behold! It has been supplanted by the great ice cream industry, and in a very efficient manner, and the cooperage business is now doing a thriving business in this growing line. They say you can't hold a skyscraper on a faulty foundation—you have to attend to the foundation first. We might add that the cooperage business plays an important part in the foundation of the ice cream industry, for is it not to the advantage of the manufacturer to recognize the true importance of the ice cream tub? The ice cream man is coming into his own—John Barleycorn is dead—on every hand there is a distinct change in the air—the rasp of uncertain steps has gone from the pavements—hats are worn straighter, collars are all in place now on the avenues, now that prohibition is with us. And the cooperage man has swung his industry to ice cream cabinets; he is in line with the optimist who used to carry the corkscrew and now carries a tin spoon.



The accompanying photo is of a large beer cask displayed in the Elks' parade in Louisville, Ky., in 1902. This barrel and twenty others were shipped to the Iron City Brewing Co., of Pittsburgh, Pa., and were used to store and age beer. Each cask held 2,560,000 glasses of 8 ounces of liquid. The life of these large casks is indefinite—some of the large barrels have been in service thirty-six years and are still giving satisfactory service, (but are serving a different industry.)

At the Columbia Exposition in Chicago, Ill., in 1893, the Gambrinus Cooperage Works, of Louisville, Ky., received the highest award on tanks—and ice cream packing tubs are nothing else than a small tank. Mr. Philip Sengel, the founder of the Gambrinus Cooperage Works is still actively engaged in this business. He is a practical cooper, having learned his trade across the "pond." Being of the old school, he is a believer in quality rather than quantity. He can be found in the plant any day constantly watching the product from start to finish to insure the highest quality. First-class mechanics are employed, some having been with this company for thirty years.

The ice cream tub goes through quite a process before it is turned out into the finished product. After the timber is thoroughly dried, it is taken into the large plant where each piece is inspected to eliminate defects; next it goes to the lathes where the staves are jointed, equalized and matched, tongued and grooved; from there they go to the set-up men who set them up or form the tub; they are then placed on the lathe where they are automatically turned off on the outside, sanded and one hoop driven in; they are next chucked or turned out on the inside, sanded and crozed for the bottom; from the lathes they pass through an inspector's hands who gives them a very rigid inspection. Each tub is then geometrically measured for the bottom and a bottom made for that particular tub. This is done to insure a perfect fit. The bottom is next put in, the croze first being painted with nitrogen black, after which the balance of the hoops are put on. The tub is then ready for the paint shop, where they receive two coats of tub enamel, handles put on, drain hole bored and the tub is then ready for shipment.

The Gambrinus Cooperage Works turn out approximately three cars of tubs each week, and prohibition hasn't hurt the Gambrinus Company even if it has made this part of the world "flat" instead of round.

The company was established in 1877.



NEW RECORDING THERMOMETER.

Another new recording thermometer has recently made its appearance on the market. This instrument is manufactured by the American Steam Gauge and Valve Mfg. Co., of Boston, Mass. It is interestingly described in a new folder which has just reached our desk, and which, no doubt, the manufacturers would be willing to send to those interested.

Unlike some recorders, this new "American" product is actuated by different methods, depending on the purpose for which it is to be used. Either saturated vapor expansion, inert gas or other liquids are employed.

It has an ingenious chart button which permits of removal of the chart by giving the button a quarter turn, and prevents loss of the button. A pen lifter automatically raises the pen from the chart when door is opened. Other features are also worthy of note.

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If the great progress made in ice cream and dairy plants within the past several years were to be summed up in a few words, *"Structural Innovations"* would adequately describe it. In fact, the wonderful improvements in present-day plant buildings are the results of numerous innovations developed and perfected by those who are continually striving to improve, combine and concentrate the various efficiency agents through the media of research, ingenuity and experience.

Plant owners are recognizing this condition as never before, and they are seeing the wisdom of investing in those factors which assure them of a modern, durable, efficient and economical plant.

If you contemplate the erection of a new plant, or the modernization of your present one--if you are interested in knowing how you may apply the same principles of modern architectural and engineering practice which have made

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plants so efficient and economical, we will be glad to give you full information upon receipt of your request.

Regardless of the size of your plant, the cost of McCORMICK SERVICE is more than made up each year through the innumerable economies effected.

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PAPER VESSELS ARE POPULAR FOR SANITARY CONTAINERS.

Illinois Association of Ice Cream Manufacturers

Proceedings of the Twenty-second Annual Convention held at the Sherman Hotel, Chicago, December, 6-7, 1921

(Concluded from March Issue)

Chairman Courtright: The next on our program is "Illinois Food Laws," by the Hon. A. H. Jones. Mr. Jones' name is on the program, but in his place Lieut. Col. Clyde Miner will speak. Mr. Miner is also of the Food Department of Illinois. (Applause.)

Mr. Miner: Mr. Chairman, ladies and gentlemen: I am sorry that the superintendent is not here. He, being a lawyer, could entertain you very well on the food laws. What I have to say is not very much, just a few remarks.

A short time ago there was quite an excitement about raising the standard of ice cream from 8 to 10 per cent in the state of Illinois. But some way or other it didn't go through. I myself can see where it was quite a harm to the ice cream industry not to have that 10 per cent standard in the state of Illinois—for several reasons. It doesn't affect many of you gentlemen that are in the manufacture of ice cream that are here today, but we do get to people in the division of foods and dairies where it would be a great benefit if we had that standard of 10 per cent instead of 8.

Along our sanitary food laws we have quite a little complaint about the way our inspectors use you people. Now an inspector comes into your plant and inspects it, he finds some things that don't correspond with the law. These laws are made to enforce and it becomes our duty to try to enforce them, and I think you will all agree with me that we have been fair with you in trying to enforce them. This inspector on his report must put down there the conditions found. Further down in his report is a recommendation. He makes a recommendation. If you haven't got your place screened or sufficient drainage or something of that kind he says to you, "Mr. Smith, how long do you think it would take you to screen this door? Would five days be enough?" If you didn't think it was, you might say ten. And he puts down ten days here to comply. That report comes into the office and you get a registered letter to that effect, comply with that recommendation within ten days.

Now at the end of ten days he is supposed to go back thre and make a re-inspection. Possibly he doesn't get there for six months. At the end of six months he comes there and finds that the screen door hasn't been touched. Now that is not the proper way to do. All we ask you to do is to comply with the law, just as nearly as you can, and we will give you all the show in the world, but if we find a party that isn't trying to comply, doesn't make any effort to comply, then we must act.

Mr. Luick: Would you be able to tell us how ten average ice cream plants will compare with ten average creameries, or ten average cheese factories?

Mr. Miner: I would say at least just as good. I am a creameryman myself by trade.

Mr. Luick: Just honestly speaking, man to man, would you say fully as good?

Mr. Miner: The big concerns, yes.

Mr. Luick: I am speaking of ten average plants, that is taking in big creameries and small ones, big cheese factories and small ones, big ice cream plants and small ones; I am merely asking you the question whether they would stack up favorably against ten of either cheese or milk?

Mr. Miner: Yes, I would say they would.

Mr. Schwindeler: I am mighty glad to hear that we are making such good ice cream in the state of Illinois, 12 to 13 per cent. But I do think in the inspection department of the state of Illinois that we are still just a little bit lax, not in the inspection of the bigger plants, they receive their inspection regularly, I don't want to criticise the gentleman there, either, but I still can't understand how any man who makes his own ice cream, a man or anybody else can make his ice cream down in a basement and still get by, and we are still doing it in the state of Illinois.

Mr. Miner: I would like to answer that in a way. The division of foods and dairies have about 35 inspectors to take care of ten laws and travel this state from beginning to end, every little nook and corner there is in the state of Illinois. Under those circumstances, it is absolutely impossible to get to everybody; we cannot do it.

Member: Why not inspect them when the license is applied for?

Mr. Miner: We make those inspections. If a man sends in an application for a license the inspector for that territory immediately goes there and makes that inspection for you.

Member: Then if that inspector gets there and he finds the man applying for that license is making his ice cream in a basement, without any regard whatever for sanitary conditions, does he still get a license?

Mr. Miner: He gets it if he is O. K'd by the inspector, yes.

Mr. Schwindeler: That is the point I was trying to

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bring out, that licenses are granted too freely in the state of Illinois.

Chairman Courtright: I agree with you and I fear that the department hasn't taken the right use of the income from our licenses. As I understood the license proposition was to furnish money to supply sufficient inspectors to make proper inspections.

Mr. Schwindeler: I believe you are wrong there. It is to furnish money. As far as the license fee was concerned, the way I understood it, and I had considerable to do with the framing of that bill, was that it would give the inspector an absolute list of every ice cream manufacturer, everybody who made ice cream. At the beginning of this inspection law a notice was sent to every ice cream manufacturer, every large manufacturer anyway, with a request that he send in the names of everybody making ice cream in his immediate vicinity. In that way an absolute check was made on everybody making ice cream. But I do claim that today in the inspections in the various cities that the big manufacturer gets inspection all the time and the little fellow is slipped time after time.

Secretary Loewenstein: I believe Mr. Schwindeler was president at the time this thing came up, and he and I had it under consideration a great deal. He spent some time in Springfield during that session of the legislature, and I spent a great deal of time. Mr. Newmann was superintendent of the food department at that time, and Mr. Newmann and I worked on that bill and got it through the legislature. We not only did that, but we also got the appropriation committee to appropriate enough money for nineteen additional inspectors,—I believe that was right, wasn't it, Mr. Miner?

Mr. Miner: Yes.

Secretray Loewenstein: Those 19 inspectors were for the purpose of taking care of this license law to provide inspection and for other purposes for the food department. We thought that we had gone a long way on it, not only getting the bill through, but also in getting the appropriation for those additional inspectors. We got that through at the very last minute of the session. In fact, the bill was jammed several times. It seemed that some of the druggists, etc., were opposed to the bill. We originally had it that it was to be $20 for wholesale manufacturers and $5 for retail manufacturers, and at the request of the sub-committee of the house that handled the bill, the agricultural committee, it was finally changed to $10 and $1, and we got the bill through in that manner. But it is absolutely true, as Mr. Schwindeler states, that the department is not making an adequate inspection of the plants, and the purpose for which we fought for this bill is not being accomplished. The situation is the same as it has been. The large plants are being inspected and the smaller ones, who are really requiring the inspection, are not being inspected. The primary object of getting the bill through was to eliminate the dirty basement factory where there is no light, no ventilation, and those are the plants that seem to be thriving and going along just the same as ever, making ice cream under dirty, filthy, unsanitary conditions, and those are the plants that should be driven out of business or corrected; and it seems the inspectors don't find those places any more now than they did before, and the result is that the law is not operating as it should. The only ones that are inspected are the large plants. The reason I can say that is because I have had several requests from members asking why a certain plant in a certain town hasn't been inspected, and I know that to be a fact in a great many instances, and they are the ones that they should look up, they don't seem to locate them, and those are the fellows that should be corrected, and if their place of business is in such a condition that it cannot be corrected, they should be made to quit.

Mr. Woodhull: Although an outsider, in a sense, I cannot refrain from just saying a few words, and perhaps I can leave a suggestion with you that may be beneficial in these premises. The licensing of ice cream manufacturers in the state of Illinois, the law under which they license, adn the basic principle of that law is to supply the state of illinois with sufficient funds that it may exercise its police power in safeguarding a product which has to do with the life and the health of its citizenship, and the right to exercise the police power, either by the state, the nation, or the city or the village, is unquestioned, and you know we have no constitutional right when the police power is enforced.

I mean by that, this, if you have a child in your home and it has the small pox, you say it is your home, it is your sacred precinct. Under the Constitution of the United States they cannot enter it. But if in your home there is a contagious disease that jeopardizes the life of your neighbors, you have no constitutional right, you function for yourself, the state comes, or the city or the village, and takes that contagious disease and removes it and takes your child out of your home. So the police powers are very broad, and the license fees that can be assessed under police powers are such funds as are necessary for that law to function. Therefore it is obligatory on the part of the officials of the state and when I say officials I mean legislators, to provide sufficient moneys to safeguard the life and the health of the citizens of the state.

Now we must not overlook the element of politics that enters into all our government, in every channel. We must be practical. I assume that in your endeavor, Mr. Secretary, this organization's endeavor, to cause to

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be written into the law a sum for license, the reason that it was reduced was because those who were engaged in a small way in the manufacture of ice cream, in the parlance of the street, "trimmed you." Their influence with their senators and their representatives was greater than yours. So it brings me to this conclusion, that if the manufacturers upstanding in the state go on record again, as they have in the past, that they want to supply the necessary funds to do this thing in the right sort of way, and exercise that police power and safeguard the public, that those who are interested in the sale of ice cream who are not engaged in the manufacture of ice cream are interested with you primarily, we will say selfishly, if you want to put it that way, because we cannot overlook that element; they should be interested with you in seeing to it that the competitor who manufactures ice cream is compelled to comply with the same conditions under which you manufacture ice cream, and which is taken into consideration when you price your ice cream to him.

In other words, he pays you for an ice cream that is made under proper conditions. He is called upon to compete with someone else who manufactures ice cream under improper conditions. If you can get that thought to him and get every retailer of ice cream in the state back of you and show to him where it is to his interest to have this proper inspection, then I think the political phase of this problem will be solved, and when you go before the next legislature and before the next appropriation committee and say to them, "We want to provide the money to exercise this police power, and we want these inspectors, and we want you to make a specific appropriation for those inspectors," then if they make such an appropriation, that money must necessarily, under the law, be spent for such inspectors, and then, with the proper co-operation of this organization, and the department, whom I am sure want to do it, it seems to me you ought to get results. I thank you.

Chairman Courtright: Alderman Woodhull, I believe that you have that proposition a little bit wrong. As I understand it, in the state a license law providing a certain revenue, that revenue from that law must go into the state treasury and cannot be used for any specific purpose. I believe you can do that here in the city, but I cannot do that under the state law; that is, that the money goes into the state treasury and the appropriations that are made for inspectors, or for any other purpose, are separate and distinct. Of course, it has some effect on the legislature as to the amount of revenue you are getting from a specific statute or license law as to the appropriations they make for the enforcement of the law.

Ald. Woodhull: But when this Department of Agriculture goes before the appropriation committee of the legislature, they make a specific statement as to their requirements, else a budget couldn't be compiled. Every department, I take it, must be called upon to submit to the appropriations committee their requirements for the coming year. They set up their budget when they get that information—"we require so much money for this and that, and the total requirements of this department are so much." Am I correct? All right, then, the appropriation bill when finally tabulated carries in it a total item which was arrived at through the itemized accounts of the respective departments, in which itemization of this respective department you find so many inspectors, which carries with it the moral obligation in the proper expenditure of that money to employ those inspectors, and if there is a civil service law in the state of Illinois and they pass an appropriation bill that carries with it nineteen inspectors, and those men are on that list, even if they are not employed in the act of inspection, they have a civil service standing, they are subject to call, the money has been appropriated, and they can go into court and get their money even though they are not employed.

Secretary Loewenstein. What I meant, Alderman, was that the money derived from the revenue, that is, from the license fees, has no direct bearing on the spending of it, that is, the appropriation for inspectors.

Ald. Woodhull: I am citing to you this, that the state has the perfect right to collect enough money to take care of the police enforcement in the state, the exercise of the police power. The state has a right to levy a license to do that work. If you say we are ready to pay that license, and you have the support, and the license is set, the appropriation made, the department includes in their itemization so many inspectors; it is incumbent, then, under the law, to put on the inspectors, and they can only then fall down in not properly functioning under the head of the department, and for which that head will be responsible.

Mr. Credicott: When you speak about appropriating or furnishing enough funds to carry that on, I am wondering where that is leading to. How many ice cream manufacturers have we. How many licenses were issued?

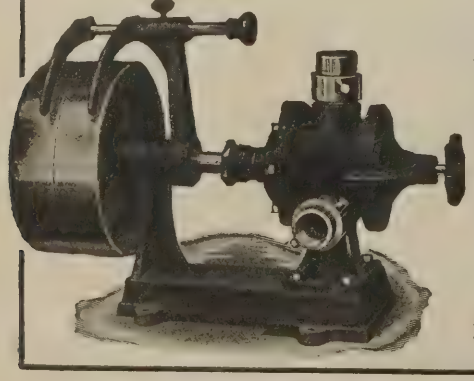
Mr. Minor: I think something like eleven hundred.

Mr. Loewenstein: That includes retail as well as wholesale. You don't know how many wholesale, do you?

Chairman Courtright: Three hundred forty-two I think he said.

Mr. Credicott: When you come down to the final analysis you cannot increase the license on the small

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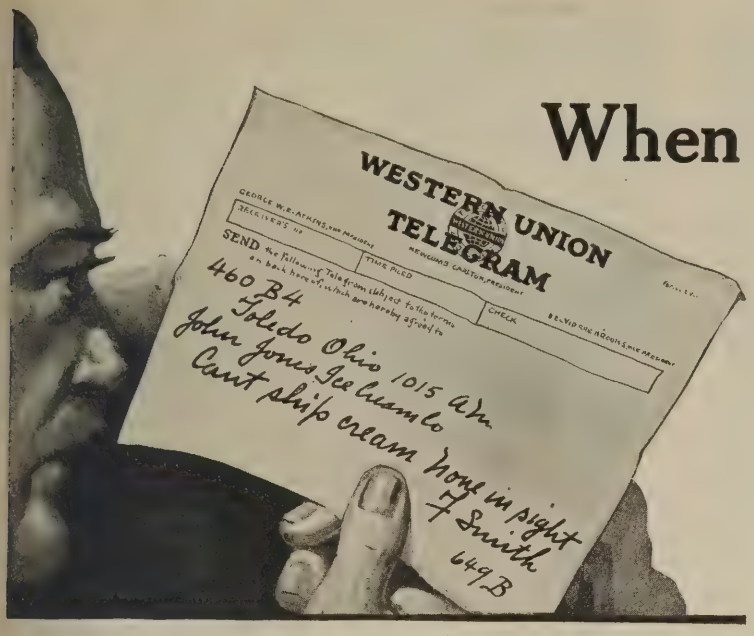


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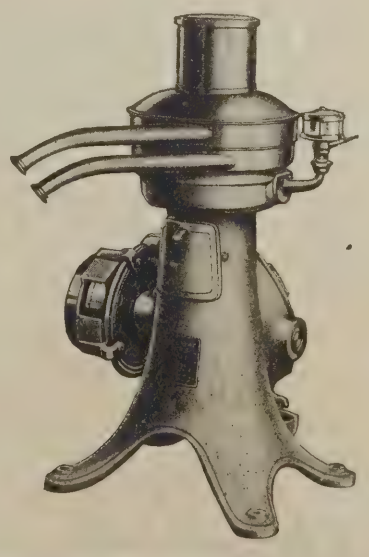
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manufacturers very much. You might boost it up to five dollars. If you are going to raise the funds to do the inspection work and do it properly you will have to get most of it from the large manufacturers. If you will do a little figuring on the expense of keeping out inspectors, their traveling expenses, etc., you will see it is going to run into a lot of money. I have never believed in the license law as a means of controlling that thing. This association was induced to back up the license law by John Newmann, then the superintendent of the Department of Foods and Dairies, on the one proposition, the idea that it would do away with these basement plants that you have been talking about. That was why we backed the thing.

Now, gentlemen, never in the history of this country has it been possible for any group of business men to force other groups of business men out of business by legislation. It is a case of the survival of the fittest. The only thing that you can hope to do on this is to have an inspection force that will work and enforce the laws that are written on the books.

The license—the only real reason that I can see for a license, and I believe it is the only thing that will justify it, is the idea of giving the department a list of these people, so they know where they are at. It also gives them a weapon. That was the main reason why John Newmann came before us at the meeting at Rockford and asked us to back this law, was that he would have, in the cancellation of the license, a weapon far greater and more potent than any regulation in regard to sanitation or anything of that kind; that with these regulations on the books and the power to revoke the license, he had the power to absolutely control the industry.

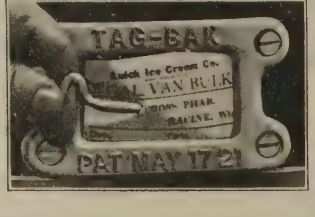
I was not in favor of the license law at that time. I have had a little experience as an inspector. At one time I was an inspector on the dairy and food force of Minnesota. I know a little bit of how this inspection force works out, and I was not in favor of the proposition at that time, but the majority were in favor of it, and I said nothing. To my mind the license proposition is just a nuisance; it doesn't amount to anything; the amount we have to spend doesn't amount to much, but if you were engaged in a varied line, as I am, making ice cream, manufacturing butter, handling eggs, and you have to take out a license for everything, a license for every egg buyer, a license for your main plant, for every cream buyer, and a license for the ice cream, it keeps you busy half the time checking up on the licenses and keeping them properly taken out.

In this inspection proposition, gentlemen, it will be just what we make it. When we talk to the department as we have been talking now to Col. Miner, we show that we don't approve of the way the thing is being enforced; we give him good, sound reasons therefore, we are not kicking on it because it has hit us in some particular case, but that the way the thing is enforced is not in line with the thought and the intent of the law itself, then we are going to get somewhere, but until you get the public sentiment back of the department to force that sort of thing, what are you going to get for your force of inspectors? You are going to get fellows that are in there because they have a political pull.

Now, primarily, what are they brought there for, and who are the fellows that are trying to get in there? Mostly the fellows that have a political pull somewhere. The inspectors in this state, with very few exceptions, Col. Miner is about the only man on the Illinois Dairy and Food Force that knows anything about the dairy business at the present time. There is none of the inspectors that I am acquainted with that know anything more about it than they have picked up since they became inspectors.

I was down in the office of the superintendent one day about a year ago to see him on a matter. There was a man in his office who had recently been appointed an inspector and he had a bunch of books they had pulled out of the library for him to read up on the dairy business to equip him to go out as an inspector amongst the creameries and the ice cream plants in the state. He had been looking them over and finally he shoved them back to the superintendent and he said, "I guess I have got everything out of them I need." Just then the superintendent was called out, and that man and I sat there together in the office a few minutes, and he turned around to me and commenced to talk. Gentlemen, I wish I could remember some of the questions that he asked me about creameries and milk plants. It was absurd, it was ridiculous, it was a joke; why the man didn't know anything about it, he was absolutely ignorant about the whole business. And as long as we, the interested parties, are willing to stand for that kind of inspection, we are going to get just what we are getting now, nothing more and nothing less. I have had this in my system for a long while. If you had some experience with this inspection work you would know that the only way to get an efficient inspector is to get a man that knows the dairy business, knows sanitary conditions when he sees them, not some fellow that doesn't know anything about this, that has just picked up what he thinks he has from the talk he has listened to. Col. Miner, when he has one of those difficult subjects, he has to work with him, the man is under civil service and he has to work with him; he gets him in there and puts him through a course of sprouts and tries to make a dairy inspector out of that man.

Why TAG-BAKS *Bring Your Tubs Back*



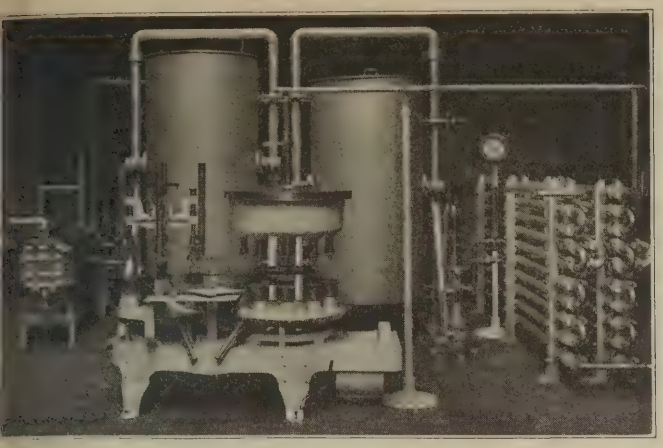
is best explained by the special patented construction of the TAG-BAK itself and by those who have used them.

The projection on the back is the little device that lets the tag slip in easily and prevents the tag from coming out again. Only a sharp pointed tool; deliberately inserted in the tag can remove it from the TAG-BAK System.

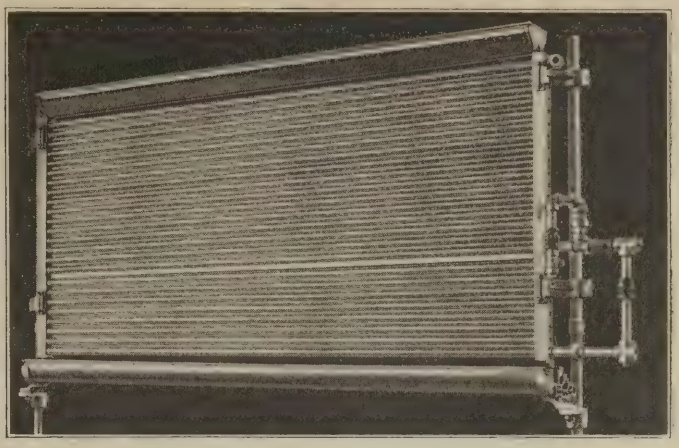


Learn more about the TAG-BAK System thru one of our circulars—write

TAG-BAK, 183 Ogden Ave., Milwaukee, Wis.



Economy Pasteurizing Outfit



Davis Tubular Cooler



Dairymen's Philadelphia Can

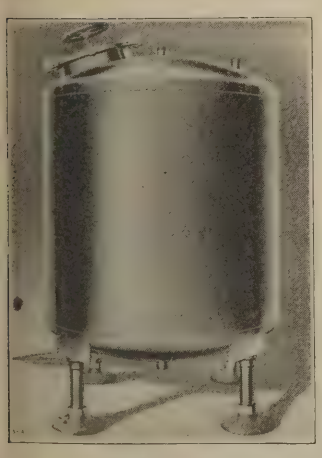
WHEN a concern making this kind of equipment dominates an industry you are rightly justified in placing your orders with them. To dominate over a period of years is impossible, unless thousands of customers are satisfied. In dealing with a dominating house you are improving your chance with success. You automatically discard many chances of failure, which so often handicap modern business activities.

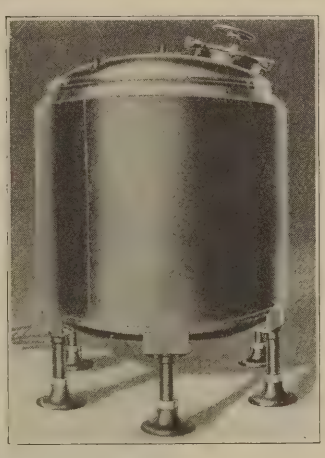
Every right thinking man understands that it takes merit and hard work to dominate in any line of endeavor. Many other men are trying to do the same thing. Competition acts as a stimulant. And the customers are benefited. Competition is surely the father and mother of progress. Davis-Watkins machinery and equipment has met competition satisfactorily for many years. You make no mistake in putting your money into it.

The line is complete, as to working equipment for milk plants, ice cream factories and creameries. It is all illustrated and described in the Davis-Watkins Catalog No. 6. You can easily obtain a copy of this large book on application to the nearest Davis-Watkins sales office. Send today. It is free.

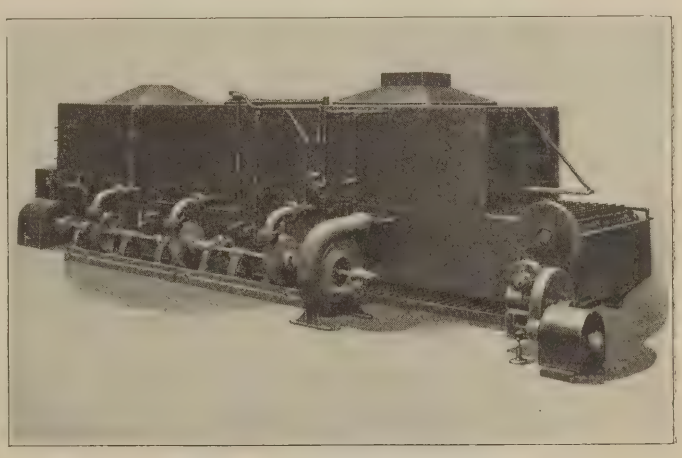


Dairymen's Wisconsin Can





Plain—Glascote Tanks—Jacketed



Progress Milk Can Washer

Your Request for Large Catalog will have Quick Attention.

Davis-Watkins Dairymen's Mfg. Co.

CHICAGO, ILL., 710 W. Jackson Blvd.

JERSEY CITY, N. J., 122 Morgan St. KANSAS CITY, MO., 727 New York Life Bldg. SAN FRANCISCO, CALIF., 242 Jackson St.
BOSTON, MASS., 498 Main St., Charlestown. DENVER, COLO., 1513-1523 Wazee St. SEATTLE, WASH., 326 Railway Exch. Bldg.

ADVERTISING PUTS PUNCH INTO THE POINTS YOU PROPOSE TO PRESENT.

But no matter how hard he tries, he cannot do it, not short of years. That is what ails the inspection in this state. You don't need to go and ask for more laws or a bigger license fee. What you want is to get behind this thing with public sentiment, have the association get behind the thing, and insist that we get some inspection that is inspection. When you do that you will get somewhere. (Applause).

Chairman Courtright: Has anyone else any remarks on this question? If not, we will go on with the next subject, "Taking Long Shots," by Mr. Walter Ward, of Kankakee. (Applause.)

Mr. Ward: Mr. President and fellow members of the family. As I look upon this gathering it sort of reminds me of one big family, and that recalls to my mind a little incident that I heard of a short time ago. There was a couple of distinguished gentlemen that had been over to Roszell's town, you all know where that is; they had completed their trip and were on their way home. One of them happened to be an ex-minister that has charge of an orphan's home down the line, and he had another distinguished gentleman with him. Behind the two gentlemen in the coach sat an old Irish woman. As they journeyed along and stopped at one of the smaller towns one of the other members came in and happened to recognize them, another member of the clan. He said, "Brother Sailor, how are you getting along? How many children have you?" The old man thought a minute and he said, 180. The old lady got up behind him and said, "My God, forgive him for his sins." Brother Sailor thought for a moment and he said, "God isn't here, but I have the Grand Master." Now we haven't the Grand Master of the clan, but we have several good members, the two Johns and our good presiding officer here. I would name one John Gloom and I would name the other one Hope, and I am going to leave it to you to name the president. (Laughter.) Our friend John was one of the men that had a little gloom, John Knobbe.

Gentlemen, I have a little upon my chest. When our secretary wrote to me and wanted me to go on the program I didn't answer his letter, and it ran along for some two or three weeks. Finally I got another letter and it said, "It is about time to go to press; we have to have an answer; what subject do you want?" I had just returned from a little hunting trip. I like a gun and I like a fish rod and I like to go hunting. Well, I thought I would put him off and could get away with it. I wrote him and told him that I had figured I wouldn't be here. I thought I would put him off in that way. I told him I didn't think it was going to be possible for me to go on the program, as I didn't expect to come, but, however ,if I was there I would possibly enter some of the discussion. I said if I were to speak, possibly I would speak from the subject of Taking Long Shots. Now when I made that remark I was thinking of this hunting trip and some fool shots we had made. I didn't go into detail to tell him all the shots I had made, but I wish I had, and then maybe I wouldn't have gotten in this way .

But I have prepared a little paper which I will endeavor to give to you.

TAKING LONG SHOTS.

The subject of "Taking Long Shots" is one that may be discussed from several points, of which I will endeavor to touch upon a few, namely, "Long Shots" on credits. "Long Shots" on customers out of our own territory, and a comparison of "Short Shots" of customers that are closer our own vicinity, and the results of the "Close Shots" as compared with the "Long Shots."

Possibly, the most of you gentlemen that are here well remember that the ice cream business has grown a good deal in the past twenty-five years, and if we go back to the year of 1896, we can well recall that we made some rather long shipments. It wasn't an uncommon thing to ship some two hundred miles, as you couldn't find an ice cream factory in most every town of five thousand population as you can at this particular time, and incidentally, I will say that we didn't have as many dealers, but those we did have were of a little higher standing financially than some of the numerous dealers are today, all of which leads us to believe that it is very important that we keep in close touch with our dealers, and see that they meet their weekly payments as our terms call for.

We have found that in the past few years we are able to keep a closer tab on the home dealer, as we may term him, than to keep track of the fellow that we may be able to sell that is located away some seventy-five to one hundred miles, as we have learned that he generally has a reason to want to deal with some manufacturer that is not in close touch with him, as he is not in this particular manufacturer's territory, we generally find that he is in the hole with some other manufacturer that is close to home. Then the question is asked, why should we take a "Long Shot" on such a dealer both in distance and credit.

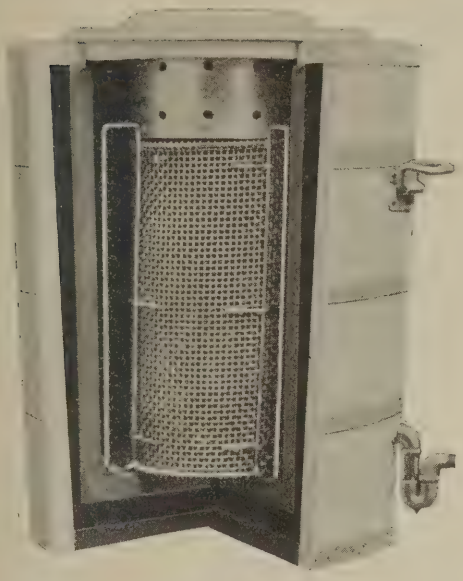
Does it stand to reason that this particular dealer would go a hundred miles or more for his goods when express rates are most double, and there is a chance that he would be out of goods a part of the time, and the cream would be on the road possibly twice as long, and arrive with half of the ice and salt gone when he received it, and very seldom return empty tubs and cans? On the other hand, is it quite fair to your fellow manufacturer to go into his own territory if you are not well located, and disturb or upset his trade and create more or less grief, all of which generally ends up in some consideration of some kind or other from one of the manufacturers, either an allowance of part of the express charges or a cash discount, which really means a cut in the price any way you figure it? And when the season is over, we look over this particular dealer's account, and generally find out we are carrying quite a nice little balance, possible because he wasn't located where we could call upon him quite as handily as a dealer that was closer at home, or where we had other dealers to call on closer at hand, and it was quite natural to drop in upon them. We personally have learned that a territory closer at home and well cultivated has proven to be more profitable than going out on a wild goose chase and "Taking Long Shots" both on long distance hauls and poor credit accounts. We have found that the dealer that is located within a radius of some forty miles or closer, with a little special attention and care will generally be more profitable if you will give him a few assortments of flavors and specials, and not depend on him handling strawberry and vanilla only, as the public is generally looking for something new.

I say to my fellow manufacturers, get away from the idea that you cannot afford to make specials, as there isn't the demand for the fancy fruit or flavors to warrant your carrying them, till you try them out and build up a demand. Then you will find out people do want something better and different for which you can get the price.

Measure up your distance. Figure out your "Sure Shot." Deduct your "Short Shots" from your "Long Shots." See which brings in the gain.

Chairman Courtright: The next on the program is the subject of "**Increasing Ice Cream Sales in Winter,**"

The Thermos Ice Cream Cabinets



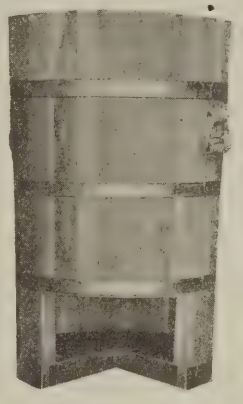
Patent Pending.

Built like a Thermos Bottle — Works on the Same Principle

The simple fact that other manufacturers are imitating our Thermo Idea of insulation proves it to be not an experiment but an assured success.

Will keep Ice Cream 36 to 50 hours solid without repacking with ice. Has smaller ice chamber, therefore more economical. Its shape and little room it takes makes it more adaptable for use in any place.

Made in 3 and 5 gallon size in singles and in 5 gallon sizes in double, triple and quadruple compartments.



Cut showing one of our Regulars with section cut out. Note heavy construction.

The heavy Tinned wire can container in the fives are for convenience to user as well as separating ice and can chamber, thus making cabinet sanitary. Empty cans may be removed without disturbing packed ice chamber.

LARGE DESCRIPTIVE CIRCULAR AND PRICES ON REQUEST.

Our White Cedar Ice Cream Packing Tubs are

LUMBER JACKS

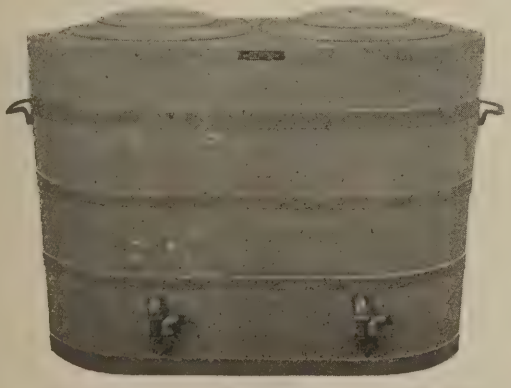
for Toughness, Strength and Durability

They will not waterlog and are the nearest possible resistant to acid and salt brine. They are built of **Michigan White Cedar.**

The heaviest built and lightest weight tub combined. Compare one of our 20 quart standard size weighing 27 lbs. with any other make for weight. See what that means in hauling and freight.

Note heavy construction and dovetailed bottom on sectional cut, also 1¾ inch solid bottom, built flush with bottoms of staves.

We sell **direct** to the **Ice Cream Manufacturer.** Our product is built in our own factory from the **Raw to the finished, complete,** by **skilled** mechanics.



Cut shows one of our two compartment Cabinets.
Patent Pending.

Prompt service and satisfaction guaranteed.
Send for our circular and prices.

Archie J. Verville Co.

Manufacturers and Dealers in
Forest Products

HANCOCK, - MICH.

by Mr. Talcott, the Advertising Manager of the Hydrox Company.

Mr. Talcott: Mr. President, ladies and members of the Association. I have been asked to make a few remarks on the subject of increasing ice cream sales in the winter time. I think there can be no doubt that ice cream sales are increasing in the winter time, due to the fact that people have learned gradually there is no chill in a dish of ice cream, especially when that dish of cream is eaten in a comfortably warm dining room or parlor, and, in fact, that under some circumstances it may be quite as refreshing as when eaten on a hot summer's day.



W. W. TALCOTT

I think the manufacturers of ice cream have blazed the trail in the question of developing winter sales. They have done this by serving each winter a few more shops than they did the year before that didn't pay. While this has caused a loss, I doubt if it has been a greater one than would have been the case by discontinuing the service and allowing the plant and the equipment to lie idle during those months.

It must be more borne in mind that the public is imitative, that if the Smith's serve ice cream to the Jones's, the Jones's will do the same to the Johnsons, and the Johnsons will do the same thing to the Smith's, and thus there are a long series of positive suggestions of the desirability of ice cream as a winter food set up which will result in a considerable amount of business over a reasonable period of time.

I am inclined to think that in the main the ice cream manufacturers haven't made as much effort in this direction as they might have done. They have been inclined to lie back at the end of the season and take things rather easy, whereas if they had made a more conspicuous effort I think they might have developed a considerable amount of business in that direction.

That reminds me of a little story that Mr. Bridges tells about an auto salesman out west several years ago who startled the agency back east by sending in orders for immediate delivery of cars in mid-winter. After the second or the third order had been received the manager back east telegraphed back west to know what the fellow meant. The fellow telegraphed back and said he didn't know that he wasn't supposed to sell cars in the winter time, so he kept right on selling them. The salesman back east, realizing that cars were hard to sell in the winter, hadn't been making any real progress in that direction.

In the preparation of the remarks that I am giving you I communicated with both The Ice Cream Trade Journal and The Ice Cream Review, and succeeded in getting some rather valuable statistics from both of them. I learned through the Trade Journal that whereas many years ago the relation between the high and the low months of the year was twelve or thirteen to one, in 1920 it was five and one-half to one. I also learned that the average consumption of the month of January, 1920, compared to the consumption for the whole year, was 3.18 per cent. That was taken from a large number of manufacturers and that was the average.

From The Ice Cream Review I succeeded in getting a large number of letters they had gotten from various sources, one of which indicated that a certain manufacturer somewhere in the east had succeeded in developing five per cent of his total 1920 business in the month of January. That was so far above the average and other reports that had come to my attention that I wrote to The Review to find out if possible what the particular dealer had done. They said they would find out for me if they could. In a few days I got a response from them and I want to read that response. It is anonymous, I presume because of the fact they wanted to keep the matter somewhat confidential.

This company writes: "The increased sales in January and February, 1920, were due principally to the special winter advertising campaign. We have selected one of our plants this year and will spend the advertising appropriation during the lean winter months on meeting summer advertising, and we hope to have something of interest to report at this time next year."

That letter I think gives something of the trend of the manufacturers throughout the country in that direction.

I sent out two hundred inquiries or questionnaire letters for the purpose of determining, if possible, the relation of winter advertising to winter sales. I received quite a number of responses, and after tabulating them I found that the concerns that were advertising rather leisurely and principally in the summer time, re-

SOUTHERN TINNING COMPANY
Johnson City Tennessee
RETINNERS

We solicit your correspondence and business on the basis of PROMPT SERVICE, BEST OF WORKMANSHIP AND MATERIAL, REASONABLE CHARGES AND THE SAVING WE CAN MAKE FOR YOU. We will gladly retin a sample can for you, free.

"WE MAKE NEW ONES OUT OF OLD ONES"



HAVE you learned how to "speak the language" of the better class women folk of your city?

To raise ice-cream from a child's "treat" to the plane of a delicious frozen dessert servable as a regular thing at the family meals—*that's* your problem!

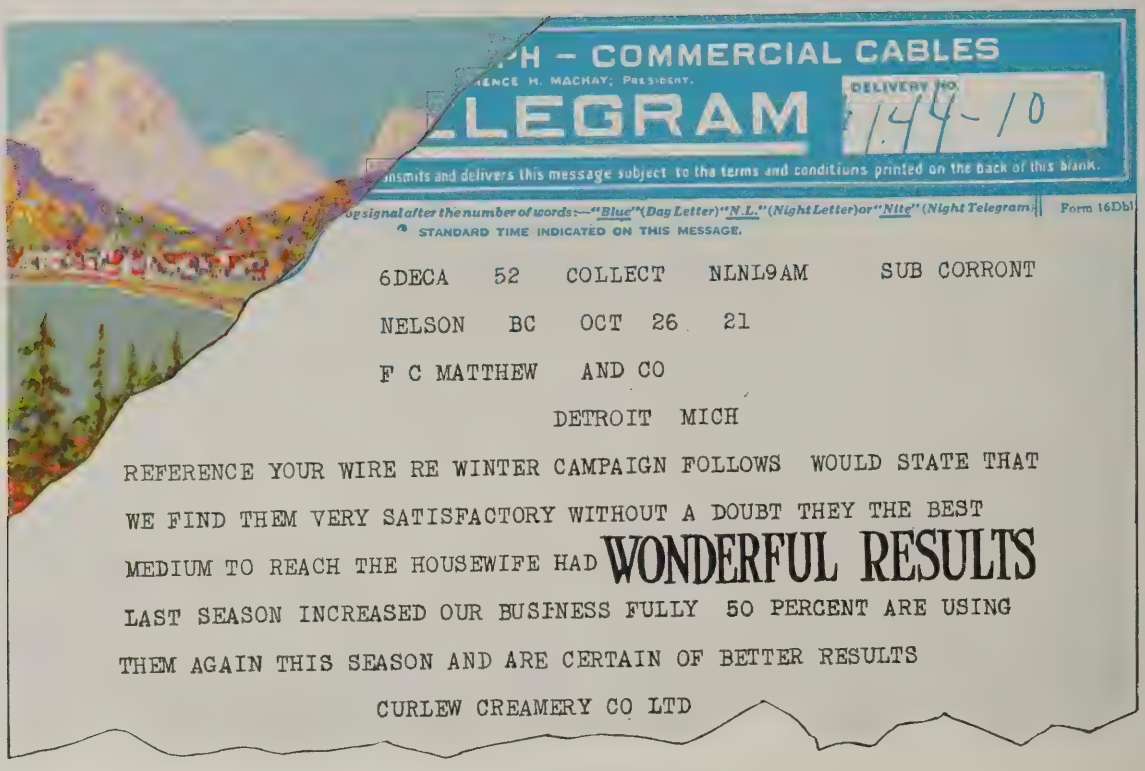
Do that and it's "all over but the shouting!"

"Mathews" illustrations of ice-cream dishes that have the "class" and "character" of the above; well —*you* see where they'd come in, in *your* ice-cream advertising.

THE ASSOCIATION OF ICE CREAM SUPPLY MEN
MEMBER

FREDERICK C. MATHEWS COMPANY
"SERVANTS TO THE DAIRY INDUSTRY"
P. O. BOX 834 DETROIT, MICH.

This insert was produced complete by the Frederick C. Mathews Company, Detroit, Mich.



"Wonderful Results"—

Selling Ice Cream in Nelson, B. C., where below zero weather is not unusual

THE campaign referred to consisted of clever folders mailed twice a month to the housewives of Nelson, British Columbia, a city of about 25,000 people situated among the Canadian Rockies.—(But the folders were *unusual!*) The thermometer occasionally registers many degrees below zero and the snowfall is always heavy at this point and yet you have this manufacturer's own statement that "wonderful results" were obtained in getting the women of Nelson to use *more* ice cream during the winter months (*50 per cent more!*)

As a live manufacturer this is something you'll want to look into. The Mathews man will call if you give the word.

"Barren Spots"

For those "barren spots" in your natural selling territory where you should be selling but are not—we heartily prescribe such a campaign as this.

It can't help but "start something."

THE ASSOCIATION OF ICE CREAM SUPPLY MEN
MEMBER

FREDERICK C. MATHEWS COMPANY
"SERVANTS TO THE DAIRY INDUSTRY"
P. O. BOX 834 DETROIT, MICH.

ported a total of 2.27 per cent of their 1920 business done in the month of January, but the manufacturers on the other hand who reported themselves as aggressive advertisers, and as inclined to spend money in the winter time, had done 2.96 per cent of their total year's business in the month of January.

Now that difference perhaps doesn't seem very great, but it must be borne in mind that the concerns advertising in the winter time are helping to develop business also for the fellows who were not advertising. It seems to me that if it is considered desirable to equalize the various months of the year, and if it is perfectly clear that advertising helps in this direction, that the associations of ice cream manufacturers of the country might well follow the lead of the fruit growers of the country, the orange growers, the apple growers, and the raisin growers, and put on a national campaign bringing out the best features of ice cream as a winter food. It seems to me that if a single manufacturer of yeast has been able to get the whole country talking about his product and eating yeast, eating it in sandwiches and drinking it in tea and swallowing it whole, that the collective ice cream interests of the country ought to be able to get men, women and children to stand on the corner and eat ice cream in a snow storm, due to the increased health this food ought to be able to give to them.

Now I don't presume that much could be done of that sort if it were desirable this winter, but thinking perhaps some of those present might be inclined to do something in the way of immediate advertising, I have jotted down a few phrases that might be used as headlines: "Harden yourself to endure cold—eat plenty of ice cream." "Ice cream is a great hardener." "Ice cream for lunch on school days will enable your children to enjoy themselves these rugged winter days." "Keep up your resistance to cold this winter by eating plenty of ice cream." "Fight cold with cold—eat ice cream." "The blasts of winter will have little effect on children that eat ice cream."

Now if it seems desirable to equalize the various months of the year, it seems to me that the fairest and best way of putting over the proposition would be to go into the national field and endeavor to make people realize there is healthfulness and resistance to be developed through the eating of ice cream throughout the winter. I would like to have that matter discussed and agitated by the association.

Thank you, Mr. President. (Applause.)

Chairman Courtright: Are there any suggestions on this advertising question? Any remarks?

If not we will go on to the next subject, "**Getting Better Acquainted,**" by our old friend Mr. Holmes, of Manteno, probably the best known man in the association. (Applause.)

Mr. Holmes: Mr. Chairman and guests of honor and gentlemen of the convention. It seems like it is pretty late to talk about getting acquainted after you have been here two days. You would think perhaps I was on the social committee, but that seems to be the way the secretary arranged it to get me the last.

Now, then, I want to say this, that I have had considerable experience in getting acquainted, and I assure you it is one of the best investments you, as manufacturers of ice cream can make, is to meet and greet and get acquainted with your fellow co-worker. Don't think there is a little space for you in your own locality, but be willing to reach out.

Now if you will just bear with me I will take a little trip. Suppose we are going to Los Angeles, Calif. I am sure our old friend Mr. Christopher, the genial Frenchman that it was my privilege to introduce here

Uncle Sam Never Lies!

In a recent test made by the Bureau of Standards, Washington, D. C., lino-felt was shown to have a smaller conductivity than cork-board. In other words, lino-felt was shown to be the better insulation.

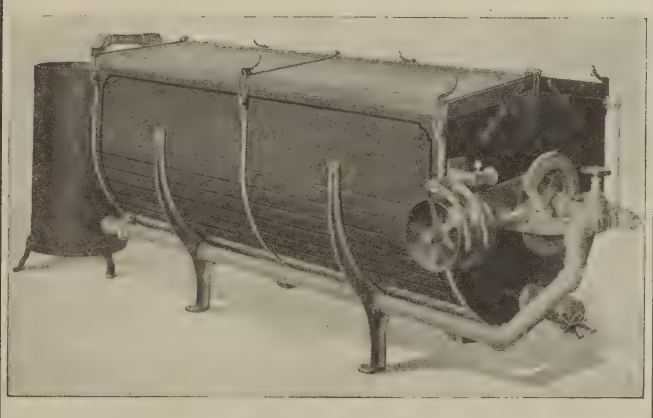
The ordinary coil vat is insulated with half inch cork-board while the Manning Batch Mixer is insulated with one inch lino-felt. The Manning Batch Mixer has better insulation and twice as much of it.

That's one of the reasons why the Manning is the most efficient batch mixer on the market.

MANNING EQUIPMENT

MANNING MANUFACTURING COMPANY

Rutland Vermont U. S. A.



The First Cost, Low As It Is— Is Practically The Last!

a few years ago the first time he was at an association meeting, would be glad to meet you, as I met him a few days ago and he said, "Come and see us." And if you are going to Frisco you will meet Mr. Wilson, and then you will go on up to Tacoma and meet Mr. Walker, and from there on down to Spokane where we will drop in on Mr. Martin—and I recall that five years ago I met him down at Atlantic City at lunch one day and he said, "We have no association in the northwest. I wonder if you could give me something that would be helpful in the organization of an association in that district." I told him "I will be glad to send you a Year-Book, and such other data as I may secure." I forwarded to him the Year Book and other data, as I said I would, and after the gathering they had he wrote me a splendid letter and he said, "That was a great help to me." Now it was no effort on my part, particularly, just a good will and a spirit of friendship for my fellow man.

Coming on down to Minneapolis, to those of you who attended the national convention a few weeks ago, I want to say to you and to those of you that didn't attend, we surely had a great time. The manufacturers of that city, Mr. Ives, Mrs. Babcock, Mr. Slater and Mr. Steele outdid themselves for our comfort and pleasure; that splendid ride we had through that city, in forty-five autos, all labeled The National Ice Cream Manufacturers, and as we went over that city, around among the lakes, and the falls, and the rivers, and over to St. Paul, where we saw the State House, and also the University of Minnesota, and then back to Minneapolis, where we saw the great flour mills, and it surely was a splendid trip, and I know any of you that were there certainly enjoyed that hospitality of friendship which those people extended.

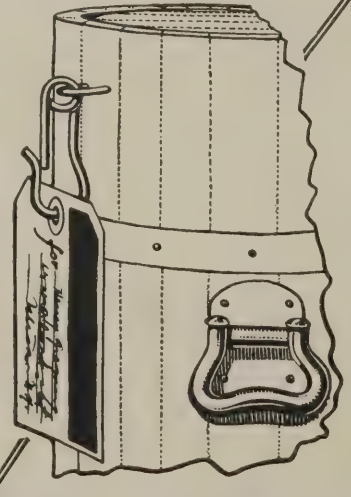
TAG HOOKS
Save Dollars

Why use expensive, untidy, time-losing strings or wires while tagging your tubs or pails of ice cream?

SNAP 'EM ON

and use our rust-proof tag hooks.

SAVE TIME—Figure the cost of strings or wires. Then think of the value of a man's time while tying the tags on your tubs.



CAN'T RUST

Our new type of hooks are made of SPECIAL SPRING BRASS. They sell at $1 95 per hundred, including staples. Besides a 10 per cent discount in lots of a thousand or more. Samples on request.

DALY BROS.
SCHENECTADY N. Y.

Coming on down on my return home I stopped at the capitol city of Wisconsin and I was entertained there by the American Ice Cream Co. and the DeCanada Dairy Co. Then I recall being over in Milwaukee last spring in February when we had the Wisconsin State Convention, and I went over in the morning before the convention and had a little talk with Mr. Luick. He showed me an outline of the diagram like you have seen in the rise and fall of the waters, and also of the Board of Trade the rise and fall of the markets, and he had a different year outline and he showed all the different rises and falls during the year, and he showed me one there that was startling when sugar went off the top (laughter), and it brought to mind some of the arguments that he discussed in the convention a year ago, and Mr. Luick knew whereof he spoke.

A few weeks ago I was over on the west side and stopped in to see Mr. Cunningham's plant. Neither Mr. Cunningham nor his son were present, but the genial lady in charge at the office called one of the gentleman who showed me around, and his voice sounded very much like he might be a kinsman of John, but I think he was from the Emerald Isle. As we went over the factory I can assume you it was a great pleasure to see and assure you of the great care and industry that was put forth. I am not putting any roses on Mr. Cunningham's coat, because he is more like the admirer of Priscilla of old, John speaks for himself. (Laughter.)

Then if we should go on a little further and over into Buffalo a few years ago I visited that factory, and as I entered the Wheat's plant I stepped back, I was almost startled, I read on the laboratory door, "Dr. C. J. Gorden." Do you remember how John Knobbe almost ate the Doctor up in one of his addresses here a short time after?

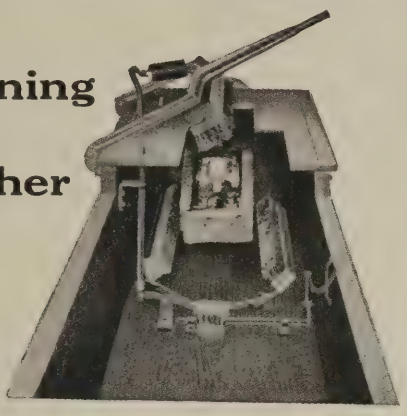
Then, going down a short ways further to Rochester I am sure Mr. Nivling would be glad to greet you; then on to Boston and Eli Perkins and Taft Brothers of Springfield, and when I went on down a little farther to New Haven to greet our president, Mr. Morse, and also Mr. Seaman, and a few years ago I visited the Horton plant, and I want to say that I never was more nicely entertained and taken over that large place that it is, and shown all the details, even into the book department that they carry out. And then we were going down a little further and we would come to our friend Mr. Hendler, that genial Dutchman which you all are glad to know. And then our friend Asa Gardner down there, you know he is out of the ice cream business and he said he is out on bond and under indictment at the present time. Perhaps that is for getting out of it.

Then if we should come back to Philadelphia we have our genial friend, old Mr. Crane, whom we all like very much, and also Mr. Shipley, and over to Pittsburgh, Mr. Reich, and if you should go away to the south you would be entertained by our friend George Moedecker, whom we all like and remember very well.

Now that is the outside, and I like my neighbors, I like the gentlemen from up in Milwaukee and also Marshfield and Fond du Lac and a number of those places up there. Also the neighbors over on the east side, the men of Indiana, Logansport and Indianapolis and South Bend, Kokomo, the old home of Charles Stewart, where so many things happen. But best of all I like the men of Illinois, because I know them better. We have had some splendid work done in Illinois.

Now acquaintanceship develops two or three, possibly four, things. One is a desire. If you have the acquaintanceship it creates a desire in your mind that you want to develop. When you reach out and develop that oftentimes creates competition, and when you get

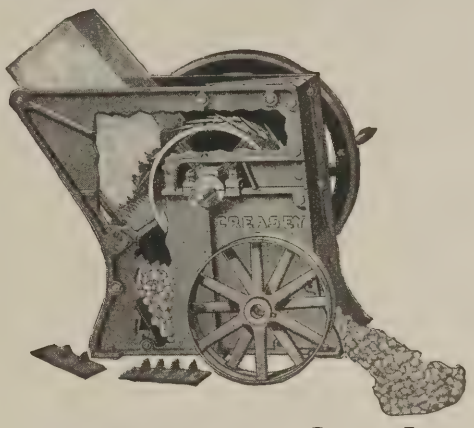
Manning Can Washer



More thorough, more dependable and more economical than hand washing—gives you greater friction that cuts loose every particle of film and grease.

Turns a mean, sloppy job into a pleasant task, keeps workmen contented, and makes it easier to hire more good men.

The brushes reach every curve and corner of the cans, inside and out. Brushes can be removed separately as they become worn—no necessity for buying a complete set of brushes when one wears out.



Creasey Ice Crusher

This is the favorite "Old Ironsides" which has been grinding through tons of ice year after year for a host of satisfied users.

We carry Creasey Crushers in carload lots, in Chicago—a saving to you of time and freight.

This is a sturdy machine, built over-size throughout to stand up under the hardest service. Every ice creamplant needs it.

BARBER

AS the ice cream season draws near you will find that you must have certain equipment or supplies—in a hurry. Remember that we carry in stock everything from parchment to heavy duty freezers, ready for immediate shipment—in line with our policy to serve the trade well at all times, and *when they need it most.* You can save freight on most items by buying in Chicago—from Barber.

A.H.BARBER CREAMERY SUPPLY CO.

Home office: 300 W.Austin Ave., *Chicago*

TWIN CITY OFFICE: 2490 UNIVERSITY AVE., ST. PAUL



Rogers Brick Maker

A machine that is really marvelous in its speed, accuracy and labor saving possibilities. Turns out three color bricks at the rate of 4 gallons per minute, REGARDLESS OF WHETHER IT IS OPERATING ON QUARTS, PINTS OR INDIVIDUALS.

Fills directly into tasteless, odorless, well-paraffined bleached sulphite cartons.

Let us give you more information about this splendid machine.



Pure Vegetable Parchment

We can ship immediately any standard size of vegetable parchment paper circles for ice cream cans, or parchment squares for wrapping ice cream bricks or individual pieces. Printed in one color or two colors. A special design or cut, when desired, is furnished at cost. Write for price list.

competition then you need co-operation, and if you will permit me just for a moment or two I will dwell on that —co-operation—that is a great thing; it has been responsible for a lot of good; it has been spoken of by Mr. Nivling and some of the other speakers.

But here is one thought, "together we stick, divided we are stuck." (Laughter and applause.) The story is told, not a story, either, but the truth, of one of our employes at one of the asylums who had care of the unfortunates, and they asked him the question, he says, "Are you not disturbed at having charge of all these people with their minds as they are?" "Oh, no," he said, "they will never get together, they are crazy." (Applause.)

This matter of co-operation is a great one. We only have to look back and to see how Bavaria and Prussia didn't get together and co-operate and help Germany to perhaps further her damnable schemes, while on the other side England and France and America and Italy, by their co-operation, got together and stayed the hand of destruction, and that is what we need to do, to co-operate to stay the hand, perhaps, of some of the unfortunate trade practices that are being practiced throughout this land of ours.

On the morning of November 12, when the great conference was in session down at Washington, which we are looking and hoping for so much from, our secretary, Mr. Hughes, voiced the sentiment of the Great Emancipator, Abraham Lincoln, for honesty and honor when he spoke in regard to the wonderful heritage that he handed down to us that we might follow after. Then Premier Briand on that morning of November 21, when he spoke so wonderfully in defense of his home land, France, how she had suffered because of the lack of co-operation of her neighbors.

"Doc" says:
If bacteria were as big as cockroaches everyone handling milk or its products would quickly appreciate the need for Germ-X—Dairyland's Greatest Disinfectant
But because bacteria are invisible many plant managers think their plant is free from this quality-destroying pest.
The result is the keeping qualities and the excellence of the flavor of their product are impaired.
A small amount of Germ-X kills a large amount of bacteria.
Send $3.00 for a trial gallon.



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The Creamery Package Mfg. Company
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Prepared in Laboratories of
North Star Chemical Works, Lawrence, Mass.

Now then, gentlemen, I won't dwell further upon this matter of co-operation. It has already been enlarged upon. But I believe I can say with a good deal of desire that we must not draw a radius around about our factory that will reach down state for perhaps one hundred miles and say that we must have all there is in that territory, regardless of who else has been there. This desire for gallonage, as Mr. Nivling has also spoken of, is sometimes too strong, and we are making a mistake, although we have had some splendid co-operation in the state of Illinois.

I remember in the spring of 1920 when that sugar went over the top and the manufacturers of this state, we didn't know what we were going to do, and we called a meeting down state and took that matter up and we found that in order to break even we had to have a little advance in the price, and that price was advanced perhaps ten cents, and automatically, it seemed like, that price that was started down in that vicinity went to the north, it went to the west, it went to the south and way to Texas.

Now, then, last spring we had a decline in that product and felt like we must reach back to about where we were before. So it seemed like that perhaps some of us didn't get out early enough, and as a result there seemed to be destruction on the north, on the south, and on the east, and then it went across the state, and the result of it was some very low prices, and if you could confer—and I know whereof I speak—with some of these men, you would discover that the right hand side of the ledger of a great many of those factories that cut those prices are not reading just right.

We have had a lot of trouble here in Chicago, and they have been doing some things that are going to ruin some of the buyers if we are not careful. There are a lot of things that have gone into the "give away game," and with such results that it is harming the industry, and we must make the best that we possibly can of it, render service that cannot be infringed upon, then get what your product is worth, but don't give away a lot of these trimmings that will be against the movement and the betterment of the industry. I say hold fast to that which is good, give a good square deal, and then our industry will continue to grow and be benefited.

I thank you. (Applause.)

Chairman Courtright: That seems to end our program for this morning. The most important session that we expect to hold at this convention will be this afternoon. It is for manufacturers only—our neighboring states are invited to be with us, of course—and it is more of a round table meeting, and it will be most important for every manufacturer to be here and be here promptly at two o'clock. We want to get through this afternoon, but I want to say that this will be the most important session we will have at this convention, and if there is nothing further this morning, we will stand adjourned now.

Adjourned at 12:30 P. M.

There was nobody who could play the violin like Binks, and he was delighted when asked to play at the local concert.

"The instrument I shall use at your concert," he explained to the host, "is over 200 years old."

"O, that's all right, old chap. Don't worry about that," replied the host. "I shan't tell, and no one will ever know the difference."—Ideas.

"The Package Sells the Goods"

The Imprint of Quality

There's a positive selling appeal in an attractive Carton. Not only does an attractive package influence individual sales where there is competition and an opportunity for comparison, but it also *sells* the consumer on the business concern that respects its product enough to market it in a modern and attractive package.
It's logical for buyers to assume that the product inside an attractive high grade carton is of the same high grade and quality.



In numerous instances MENASHA specially designed Ice Cream Cartons have built up brick cream sales far beyond expectations. No doubt there is room for an increase in sales in your field. It's a certainty that a specially designed MENASHA carton will do much in helping you to accomplish your sales purpose.

We are also equipped to reproduce your three color carton design on pails.—Wire or Tape Handles or Tapeless.

MENASHA PRINTING & CARTON COMPANY
CHICAGO-1606 Conway Bldg. NEW YORK-200 Fifth Ave. MENASHA, WISCONSIN CLEVELAND-755 Hippodrome Bldg. Annex LOS ANGELES-421 I.W. Hellman Bldg. KANSAS CITY-301 Scarritt Arcade Bldg.

ACCURATE AND INSTANTANEOUS TESTING OF OVERRUN IS THE RESULT OF A GOOD TESTER.

RESULT OF SECOND KANSAS SCORING CONTEST.

The second annual Kansas ice cream scoring contest was held at the Kansas State Agricultural College, Manhattan, Kansas, on February 23 and 24. A district meeting of the Kansas Association of Ice Cream Manufacturers was also held at that time.

That considerable interest was shown in this meeting is manifested by the fact that forty-one packers of ice cream were entered and about fifty manufacturers and makers attended the meetings. That the manufacturers are endeavoring to make a high quality product was evidenced in the great improvement shown in the samples this year as compared with the 1921 meeting. With the exception of two or three entries the ice cream this year was of very high quality and indicated careful attention to standardization and sanitation.

A few exhibits had old cream flavors, one indicated dirty utensils, one sour cream, and several indicated the use of old skim milk powder. It has been evident for some time that certain manufacturers of skim milk powder have been endeavoring to dispose of old stocks. It is to be hoped that they will soon see the error of their ways and only send fresh goods out for the use of ice cream manufacturers.

Body and texture were excellent in a majority of the samples.

Another fact that was noted was the condition in which the ice cream arrived. Some samples reached Manhattan in excellent condition even after being on the road a long time, while others with a shorter distance to travel arrived in very poor condition. The difference was due to the proportion of ice and salt used in packing. If too much salt is used the ice melts very rapidly, keeping the ice cream very hard for a time, but by the time the destination is reached all the ice cream has become soft. It is more economical to use less salt in shipping and ice cream arrives in better condition.

The object of the scoring contest is not to determine who makes the highest scoring ice cream, but to point out the defects in the various samples and furnish instructions for improvement.

N. E. OLSON,
In Charge, Dairy Manufacturing.

RESULTS OF 1922 ICE CREAM SCORING CONTEST—KANSAS STATE AGRICULTURAL COLLEGE.

	Sample No.	1	2	3	4	5	6	7	8	9	10	11	12	13
Flavor	Section 1	34	24	31	32	25	34	33	29	32	25	32	29	32
	Section 2	34	31	30	32	32	32	32	31	31	32	33	33	32
	Section 3	33	32	20	33	30	33	33	32	34	30	32	32	32.5
	Section 4	33	32	33	33	28	33	33	32	34	34	32	32	33
	Average	33.5	29.75	28.5	32.5	28.75	33	32.75	31	32.75	30.25	32.25	31.5	32.37
	Official	34	32	20	34.5	31	33	34.5	27	33	34.5	44.5	25	31
Body and Texture	Section 1	14	12	10	14	13	14	14	12	13	11	13	13	13
	Section 2	13	14	11	14	14	13	13	13	13	12	13	13	14
	Section 3	13	13	14	13	14	13	14	12	14	14	13.5	13	14
	Section 4	13	12	13	14	13	14	14	13.5	14	13.5	13	13	14
	Average	13.25	12.75	12	13.75	13.5	13.5	13.75	12.62	13.5	12.62	13.1	13	13.75
	Official	12	12	13	14	14.5	12	15	14.5	14	10	12	11	14.5
Fats and Solids	Fat	8.29	10.65	13.49	10.37	7.98	12.19	13.46	10.01	18.1	11.64	14.72	10.21	9.41
	Solids	33.50	36.7	34.3	33.75	35.10	34.7	37.0	30.50	38.4	35.85	35.5	36.9	34.25
	Score	18.00	20.0	20.00	20	18.0	20.0	20.0	18.0	20.0	20.0	20.0	20.00	19.0
Bacteria	Count*	41	15	2,100	74	49	38	284	122	85	15	29	87	14
	Score	18.0	20	0	14.0	17.5	13	8	12	14	20	20	14	20
Color	Section 1	5	5	5	5	5	5	5	5	5	5	5	5	5
	Section 2	5	5	5	5	5	5	5	5	5	5	5	5	5
	Section 3	5	5	5	5	4.5	5	5	5	5	5	5	5	5
	Section 4	4	4	4.5	5	5	5	5	5	5	4	5	5	5
	Average	4.75	4.75	4.87	5	4.87	5	5	5	5	4.75	5	5	5
	Official	5	5	5	5	5	5	5	5	5	5	5	5	5
Package		5	5	5	5	5	5	5	5	5	5	5	5	5
Committee Total		92.55	92.25	70.37	90.25	87.62	94.5	84.5	83.62	90.25	92.62	95.35	88.5	95.12
Official		94.0	94.0	63.00	92.5	91.0	93	87.5	81.50	91	94.5	96.5	80.0	94.5

ICE CREAM PLANT FOR WILLISTON.

F. E. Erickson is the proprietor of a new ice cream plant in Williston, North Dakota. A site has been purchased and the building has been put in shape and by the time this paper goes to press, it is expected that the plant will be in operation.

A large creamery department has also been installed in addition to the ice cream manufacturing department, the latter of which will take care of 600 to 800 gallons per day. A ten-ton Creamery Package refrigerating machine has been installed.

An extra room 25x50 feet is to be used in handling eggs and poultry.

The creamery owned by the Williston Farmers' Creamery and Produce Company burned last Fall, and Mr. Erickson has purchased all the cans and station equipment owned by the farmers, and all machinery that had passed through the fire that could be used, and intends to add more to his equipment as fast as the business warrants.

Mr. Erickson intends to lay his foundation right, from the start—he has ordered The Ice Cream Review. We wish him unlimited success in his new venture.

	Sample No.	14	15	16	17	18	19	20	21	22	23	24	25	26
Flavor	Section 1	30	28	30	30	32	20	30	25	33	32	30	31	26
	Section 2	32	30	32	32	30	32	32	31	33	33	31	28	32
	Section 3	33	33	32	33	30	32	25	33	33	35	31	30	32
	Section 4	33	33	34	34	33	32	34	30	33	33	34	33	30
	Average	32	31	32	32.25	31.25	29	30.25	29.75	33	33.25	31.5	30.5	30
	Official	33.5	33	34.5	34	32	32	28	25	34.5	34	31	31	28
Body and Texture	Section 1	13	13	14	13	13	10	12	12	14	10	13	13	10
	Section 2	12	13	13	13	13	11	13	13	14	12	14	10	10
	Section 3	14	12.5	14	13	14	14	14	13	14	14.5	14	12	11
	Section 4	13	14	14	14	13	12	14	13	13.5	12	14	14	11
	Average	13	13.1	13.75	13.25	13.25	11.75	13.75	12.75	13.9	12.1	13.75	12.12	10.5
	Official	14	14.5	14.5	14.5	14	11	13	14	14	13	14.5	14.5	10
Fats and Solids	Fat	9.81	10.48	11.48	11.00	12.22	10.64	13.9	11.73	9.71	11.10	9.54	13.22	10.21
	Solids	31.7	35.5	36.65	34.35	33.5	34.73	36.5	33.4	32.9	34.75	35.35	35.5	33.0
	Score	18	20.0	20.0	20.0	20.0	20.0	20.0	20.0	19.5	20.0	19.5	20.0	20.0
Bacteria	Count*	600	2,150	77	109	18,000	4,000	86	49	700	25	100	2,200	7
	Score	0	0	15	12	0	0	14	17.5	0	19	12	0	20
Color	Section 1	5	5	5	5	5	4	5	5	5	5	5	5	5
	Section 2	5	5	5	5	5	5	5	5	5	5	5	4	5
	Section 3	5	5	5	5	5	4	5	5	5	5	5	4.5	4
	Section 4	4	5	5	5	5	4	5	5	5	4.5	5	4.5	4
	Average	4.75	5	5	5	5	4.25	5	5	5	4.87	5	4.5	4.75
	Official	5	5	5	5	5	5	5	4.5	5	5	5	5	5
Package		5	5	5	5	5	5	5	5	5	5	5	5	5
Committee Total		72.75	74.1	90.75	87.5	74.5	70.0	88.0	90.0	76.4	94.22	86.75	72.12	90.25
Official		75.5	77.5	94.0	90.5	76	73.0	85.0	86.0	78.0	96.0	87.00	75.5	88.0

	Sample No.	27	28	29	30	31	32	33	34	35	36	37	38	39
Flavor	Section 1	28	31	20	25	31	24	30	31	33	24	31	24	27
	Section 2	33	33	25	30	33	34	32	33	34	31	32	30	33
	Section 3	35	25	32	33	32	32	30	33	33	33.5	32	32	32
	Section 4	33	33	28	30	32	32	33	34	34	32	33	30	33
	Average	32.25	30.5	26.25	29.5	32	30.5	31.25	32.75	33.5	30.1	32	29	31.25
	Official	34	30	28	20	30	30	33.5	32	34.5	30	33	20	32.5
Body and Texture	Section 1	10	13	12	12	12	13	10	12	14	11	11	12	12
	Section 2	12	14	14	13	12	14	12	12	14	13	12	12	13
	Section 3	14.5	10	13	14	13	13	10	13	14	14	13	13	14
	Section 4	13	14	12	13	12	14	14	14.5	14	13	13	11	14
	Average	12.4	12.75	12.75	13	12.25	13.5	11.5	13.1	14	12.8	12.25	12	13.2
	Official	10	14	13	14	11	14	14	13	15	14	12	12	13
Fats and Solids	Fat	18.69	10.99	13.29	13.90	12.41	12.87	12.08	11.85	16.5	13.13	10.48	13.03	11.42
	Solids	37.85	34.5	34.5	33.75	33.5	37.5	39.35	34.4	39.30	33.5	33.75	35.0	33.85
	Score	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Bacteria	Count*	215	33	22,000	27,000	88	7	228	300	4	36	34	343	262
	Score	10	18	0	0	11	20	10	6	20	18.5	18.5	4	8
Color	Section 1	5	5	5	5	5	5	5	5	5	5	5	5	5
	Section 2	5	5	4	5	5	5	5	5	5	5	5	5	5
	Section 3	5	4	5	5	5	5	5	5	5	5	5	5	5
	Section 4	4	5	4	4	5	5	5	5	5	5	4	5	5
	Average	4.75	4.75	4.5	4.75	5	5	5	5	5	5	4.75	5	5
	Official	5	5	5	5	5	5	5	4.5	5	5	5	5	5
Package		5	5	5	5	5	5	5	5	5	5	5	5	5
Committee Total		84.40	91.0	68.5	75.25	85.25	94.0	82.75	81.85	97.5	91.4	92.5	75.0	82.45
Official		84.0	92.0	71.0	63.0	82.0	94.0	87.5	80.5	99.5	92.5	93.5	66.0	83.5

*These figures represent thousands, i e., 000 omitted.

ADVERTISERS AIM TO CONTRIBUTE TO THE SUCCESS OF OTHERS.



PROF. BAER'S INQUIRY DEPARTMENT

Dear Sir:—We are contemplating on installing an incubator and sterilizer for making our own bacteria tests. We wish that you would be good enough to advise us the equipment that will be necessary for this class of work, also let us know where the same can be purchased. Wish kindest regards.

Yours truly, P. & B.
c/o P. I. C. Co.

Reply: I have your letter of January 23rd relative to a request for the equipment necessary to start your own bacteriological work. I do not know exactly what you have in mind but if you should want a complete bacteriological laboratory you would undoubtedly have to employ a competent man, at least for a time, to get this work started. For your information I might suggest that you could perhaps employ one of our graduate or senior students during the coming summer and he could probably instruct a lady or someone else in your plant who could carry out the work after learning how to do it.

It will require a pretty long list of apparatus including an incubator, auto-clave for sterilizing the media, cooking utensils for making up the media, sterilizing cabinet for glassware and, of course, all manner and sorts of bacteriological glassware. All this material can be secured from A. Daigger & Company of Chicago, Illinois.



Boston Tongs No. 540, Drop Forged, full swell handles, points ¾" wide, 13 to 26 inch span.

ICE TOOLS
built for business

G-W Ice Tongs are of special heat-treated steel to start with; 85 years of experience in design, then expert workmanship on each of the twenty-six manufacturing operations, produces tongs unequalled in stiffness, gripping power, ease of handling, long life. And we make twenty-seven different models in various spans to meet every requirement.

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Individual ice tools for all uses; complete harvesting and storing equipment, natural ice, all machinery for handling artificial ice. Accessories for men, store, wagon, and ice house. Engineering estimates on any size plant. Catalogs on request. Ice tools repaired.

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ICE HANDLING EQUIPMENT

2028-R

If you should be interested in securing one of our students or should you want a complete list of everything in order I suggest that you write to this company and get their catalog of supplies to equip a bacteriological room and I shall be glad to mark the things which you will need, in the catalog, if you will send it to me.

This equipment added to your very modern ice cream plant, although it will probably cost you $1,000 or more to put in a complete equipment, will be a valuable addition to your plant and would, of course, be the only factory in the state equipped in this manner. I can assure you that I will do all I can to assist you in getting this laboratory started.

* * *

Dear Sir:—I have a fair ice cream equipment but have never had the quality of ice cream I wish. I make my mix from 3.5 per cent milk, sweet butter and milk powder. I pasteurize this in a 50 gallon starter can for 20 minutes at 140 degree F., run through a De Laval emulsor over a cooler and age for 24 to 48 hours at 45 degrees F. I have tried various formulas you have endorsed so I am sure my proportions are right.

Now I want you to give me the formula you would use if you were going into the business yourself where competition was keen and you wanted to beat them all on quality and price and also supposing you could not get sweet cream.

I want you to tell me what to do from A to Z. Does the use of eggs help in ice cream and is it practicable? How do you use them?

Now I want you to figure on 10 gallon (denomination) mix which is your favorite.

I have used the best milk powder I could secure and it always tastes in the product. Is there any substance that can take the place of condensed or powdered milk?

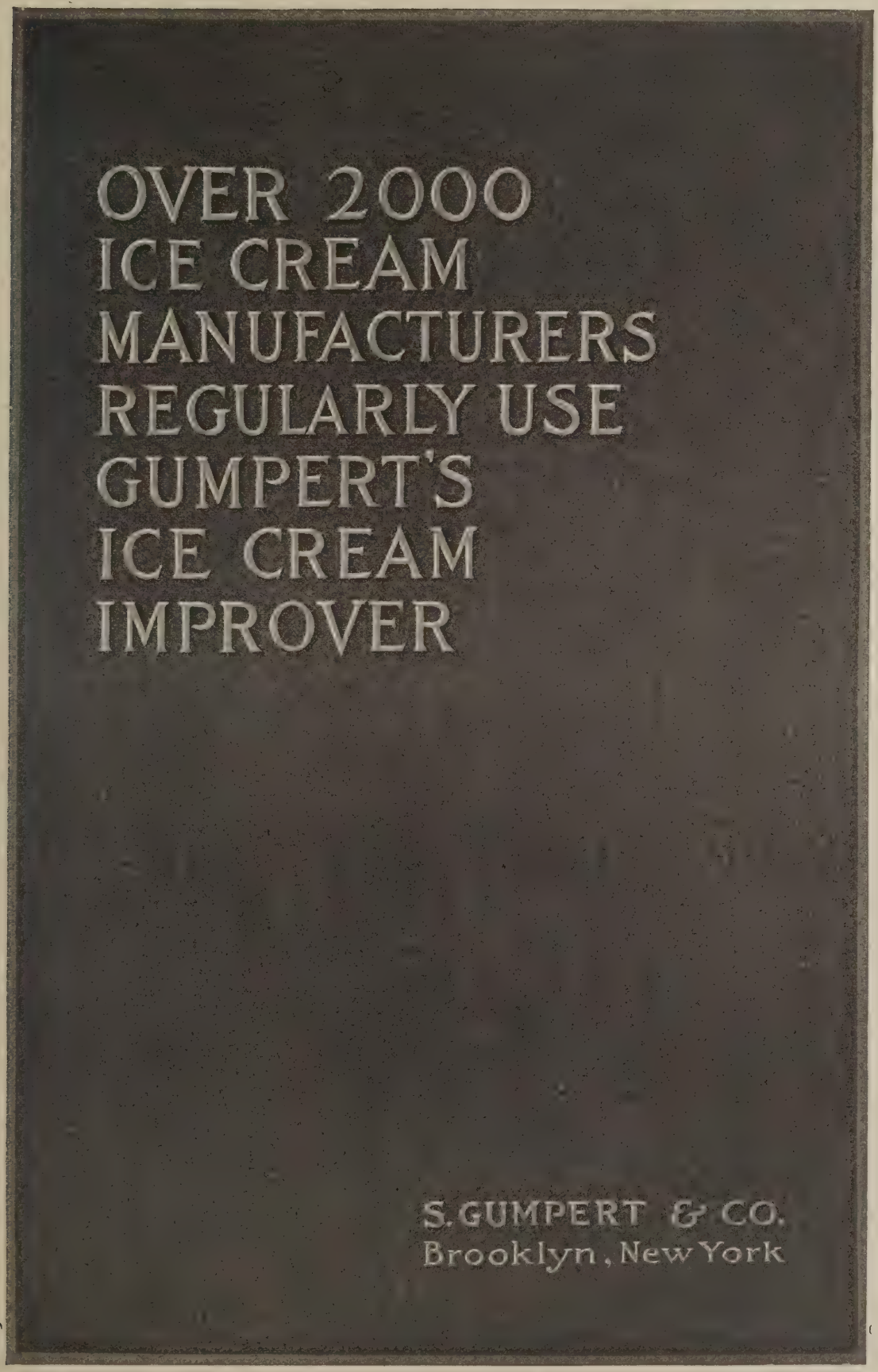
Respectfully, O. B. S.

Reply: I have carefully read over your letter and it occurs to me that you are having trouble with your ice cream mix from some other reason than the ingredients you are using in your mix. I suggest that you explain to me in detail just how you make up your mix, giving weights of all ingredients used, in a definite quantity of mix.

The principle factor in getting a good quality of ice cream from a sweet butter and powdered milk mix is to use as fine a grade of butter as it is possible to get along with a perfectly soluble, flaky milk powder. I have used Merrell-Soule milk powder for a long time and have not found anything wrong with it as long as it is in a nice, fresh, flaky and soluble condition. If, however, the powder is old, its solubility is not good and it will also usually impart a flavor to the cream. A bad grade of butter, especially one which is somewhat rancid, will leave a flavor in the ice cream.

We recently scored a can of ice cream sent from Kansas City which we used in a scoring contest. This ice cream was made up from butter, powdered milk and water. More than fifty ice cream makers participated in scoring twenty cans of ice cream and practically all of them agreed that this particular ice cream scored perfect in flavor as well as in body and texture. Not one of them were able to detect a powder flavor or butter flavor in the finished product so you may see that it is not necessary to have a powder flavor in your ice cream providing you are using good powder.

Eggs are not used in commercial ice cream to any great extent; if they are used at all they are used in a raw condition, whipping up the yolk and white separately before adding to the cream. You stated in your letter that possibly the large ice cream factories had



WORK, FAITH AND CO-OPERATION ENHANCE PROSPERITY—COUPLED WITH GOOD EQUIPMENT.

some secret of their own in making ice cream. No ice cream factory has any such secret to my knowledge.

I suggest that instead of writing me a general letter asking for definite instructions you tell me exactly, giving every detail, as to how you handle your ice cream mix, etc., and if you are doing something which is not correct I shall be glad to assist you farther.

* * *

Dear Sir:—Below you will find our formula for ice cream which we would like you to criticize, and offer suggestions for improvement, as we want to make a good commercial cream.

We expect you to say we are using too much sugar, but they want it sweet here, and sugar is cheap, and we are using more than we did in war times.

	S. N. F.	Fat
14 lbs. sugar	13.35	.....
22 lbs. 40% cream	1.07	8.80
42 lbs. 4% milk	3.58	1.68
21 lbs. skim condensed	5.67	.....
.5 lb. gelatine	.5	.....
.5 lb. flavor	.....	.....
Total, 100 lbs.	24.17	10.48

We sometimes use skim milk powder—2 or 3 pounds. and less condensed, but retain the same amount of solids.

What amount of finished creams should we get from this mix, and would it improve our cream to use some ice cream powder? J. R. N.

Reply: I have your letter of recent date with a discussion of your ice cream mix. You have probably noticed that for some time I have been recommending 14 per cent sugar as most ice cream factories would want to use more sugar now than they would when sugar was rather expensive.

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I find on analyzing your mix that you have all the ingredients proportioned correctly and you also have the correct amount of fat, serum solids, and total solids. Your 100 lbs. of ice cream mix should weigh about 4.5 lbs. to a gallon and should yield a little better than 22 gallons.

* * *

Dear Sir:—We have been buying our mix already prepared and standardized but wish to make a mix of our own to use up some of our surplus milk and sweet cream. We want to put out a product containing 14 per cent B. F. or better. Will you kindly give us an analysis of the following mix: 125 lbs. sugar; 30 gals. 46 per cent cream; 30 gals. concentrated skim—concentrated 3 to 1; 30 gals. 3.5 per cent milk; 5½ lbs. gelatine dissolved in 2½ gals. water; 2 qts. vanilla extract; 1 lb. Gumberts' improver.

We have been using this mix temporarily but find that we do not get quite as much overrun out of it as we do out of the homogenized mix we have been buying. Is this on account of our own mix not being homogenized or being out of balance? We would appreciate any improvement you can suggest on this mix.

J. J. C.

Reply:. You will find below in Table No. 1 a complete analysis of your mix and you will notice that it shows 12.7 per cent butterfat and a total solids of nearly 38 per cent.

Table No. 1.

Ingredients	Fat	Serum Sol.	Total Sol.
125.0 lbs. sugar	....	.....	118.75
234.0 lbs. 46% cream	107.60	11.30	118.90
270.0 lbs. condensed skimmilk	....	72.90	72.90
258.0 lbs. 3.5% milk	9.03	22.17	31.20
5.5 lbs. gelatine	....	.....	5.22
20.8 lbs. water	....	.....	.....
4.2 lbs. vanilla extract	....	.....	.63
1.0 lb. improver	....	.....	.95
918.5 lbs.	116.63	106.37	348.55
Per cent	12.7	11.5	37.9
Per cent sugar	13.6	.....	.....

I think that your trouble in securing a satisfactory overrun is undoubtedly caused by your mix containing too high a per cent of total solids. You will also notice that you do not have the 14 per cent butterfat which you thought you had. If you are going to use 14 per cent butterfat you need not use over 8 per cent serum solids which means that you could use considerable less condensed skimmilk than are you now using.

* * *

Dear Sir:—How will I be able to build an ice cream mix containing a certain per cent of fat and a certain per cent of total solids. I would like a good formula which can be used in figuring an ice cream mix regardless of the kind of milk products used.

A Review Subscriber.

Reply: A 100 lb. ice cream mix could be prepared regardless of ingredients used. In Table No. 1 this can very easily be done.

Table No. 1.

100 lb. mix, 10% fat, 33% total solids.

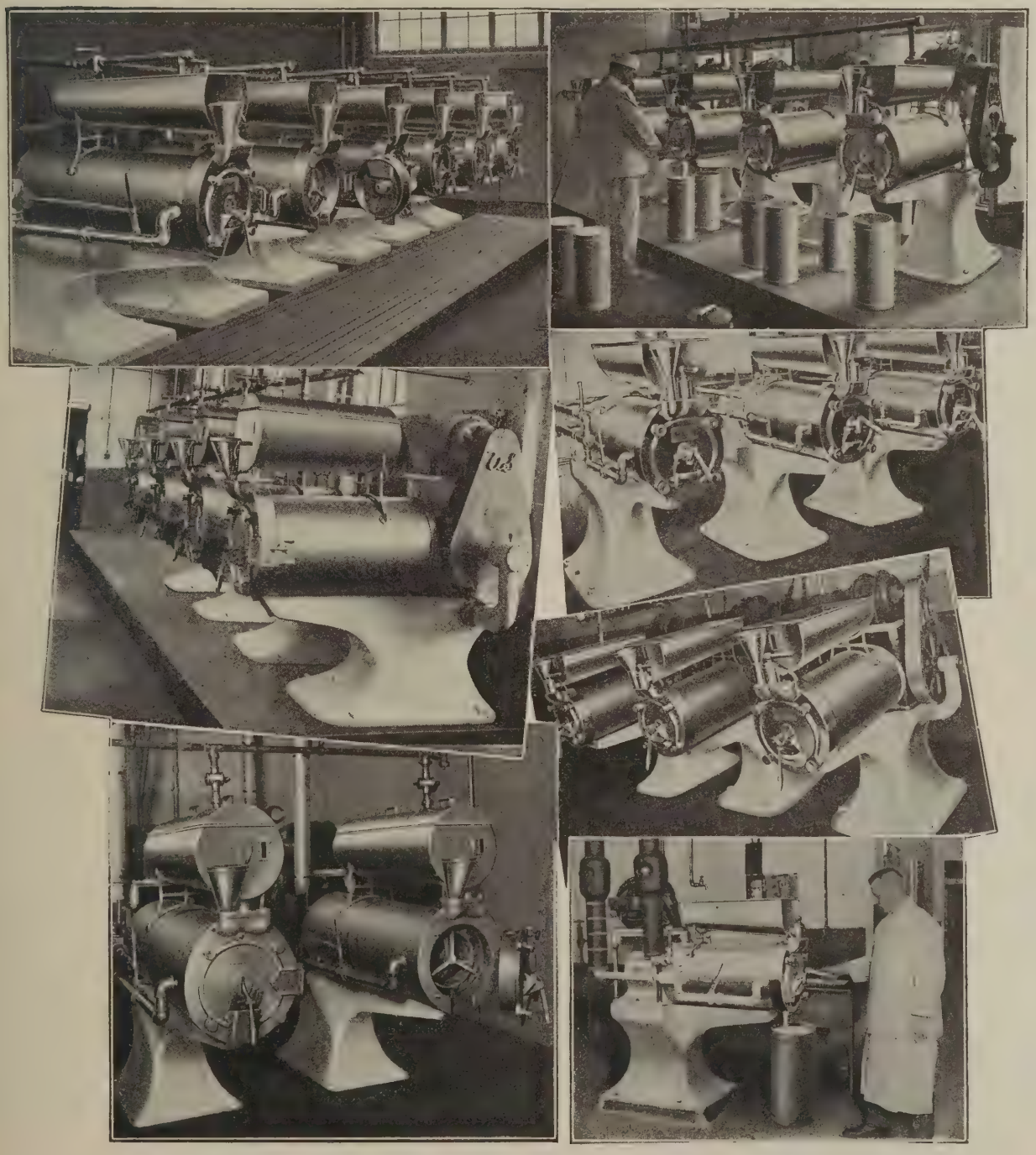
Ingredients	Fat	Serum Sol.	Total Sol.
14.0 lbs. sugar	....	.....	13.30
.5 lbs. gelatine	....	.....	.47
85.5 lbs. milk, cream, skimmilk, butter, skimmilk powder, condensed milk, etc.	10.00	9.23	19.23
100.0 lbs.	10.00	9.23	33.00

* * *

Dear Sir:—I am especially interested in how to make the maximum amount of ice cream with the min-

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24

imum amount of ice with a continuous freezer and how to harden and store it with ice at the least expense. Would be very grateful for some advice on these points or advice as to where I can get it.

E. W. P.

Reply: As you have no artificial refrigeration in your plant it will be necessary to make the brine in the brine chamber of your freezer. You should use ice and salt in a proportion which will give you a brine temperature of about 8 degrees when you start your freezing and while you are freezing the cream the brine should not go over 10 to 12 degrees. This will mean that you will have to keep adding ice and salt to maintain that temperature.

After freezing the cream the most economical way to harden it is to build a hardening box rather than try to harden your cream in the five gallon tubs. You should put perforated cylinders into this box and then set the ice cream cans into those cylinders which are continually kept packed with ice and salt and when you pull out an old can you can insert into the cylinder a fresh can from your freezer.

* * *

Dear Sir:—We here submit a formula to be analyzed. Your advice for improvement will be very much appreciated. 30 gal. cream, 40 per cent; 30 gal. condensed milk, 8 per cent (very thick); 10 gals. milk, 3.5 per cent; 1½ gals. water to dissolve gelatine; 3 lbs. gelatine; 32 oz. vanilla. F. V. H.

Reply: I noticed that you failed to include the amount of sugar which you use in your mix but I am presuming that you are using 13 per cent. If this is not correct I shall be very glad to figure it out for you in detail. I am showing you below in Table No. 1 how your mix figures out.

Table No. 1.

Ingredients	Fat	Serum Sol.	Total Sol.
30 gal. or 240 lbs. 40% cream.	96.00	12.82	108.82
30 gal. or 270 lbs. 8% condensed.	21.60	48.60	70.20
10 gal. or 86 lbs. 3.5% milk...	3.01	7.40	10.41
1½ gal, or 12.50 lbs. water....	....	.....	.....
3 lbs. gelatine.....	....	.....	2.85
2 lbs. vanilla.....	....	.....	.30
92 lbs. sugar	....	.....	87.40
705.50 lbs.	120.61	68.82	279.98
Per cent 17.1		9.7	39.7

You will notice that you have 17 per cent butterfat and nearly 40 per cent total solids. I am sure that you do not want to make a commercial ice cream of that composition. If you will tell me exactly what per cent of butterfat you want I shall be very glad to proportion the right amount of serum solids and total solids for you.

Dear Sir:—I would like to know how you arrive at solids in condensed milk and skim condensed. I have quite a few confectioners for customers and although I have several books on milk cannot find any total solids to agree with your total solids. Milk at my creamery is averaging 4.8; use 75 cans skim to make 22 cans skim condensed. What should be my total solids? With 2 cans 4.8 milk and 1 can skim or in other words 50 cans 4.8 per cent milk and 25 cans skim milk, 22 cans whole condensed milk, what should fat test be and what should be my solids? H. T.

Reply: You wanted to know how I arrived at the solids in various kinds of condensed milk. The figure which I have been using in answering numerous inquiries are average figures which we have obtained by actually analyzing these products in our laboratory as well as getting average analysis from various manufacturers.

The average composition of sweetened condensed skimmilk is 40 per cent sugar and 27 per cent serum solids. I have figured over from the data given in your letter and have found what the solids of your condensed milk should be and you will find the calculations given below in Table No. 1 and Table No. 2.

Table No. 1.

75 cans skimmilk to make 22 cans skim condensed.
75 × 87 = 652.5 lbs. skimmilk.
22 × 9 = 198.0 lbs. skim condensed.
652.9 × 8.9% = 58.1 lbs. serum solids.
58.1 ÷ 198 = 29.5% serum solids in your condensed.

Table No. 2.

50 cans whole milk plus 25 cans skimmilk to make 22 cans whole condensed.
50 × 8.6 = 570 lbs. whole milk.
25 × 8.7 = 217.5 lbs. skimmilk.
22 × 9 = 198.0 lbs. condensed.
570 × 4.8% = 27.36 lbs. butterfat.
570 — 27.36 = 542.64 lbs. skimmilk.
542.64 × 8.9% = 48.3 lbs. serum solids.
217.5 × 8.9 = 19.15 lbs. serum solids.
27.36 ÷ 198 = 13.8% fat.
48.3 + 19.15 = 67.45 lbs. solids.
67.45 ÷ 198 = 34.0% serum solids.

Your whole condensed should then test 13.8 per cent fat and 34 per cent serum solids or have 47.8 per cent total solids.

* * *

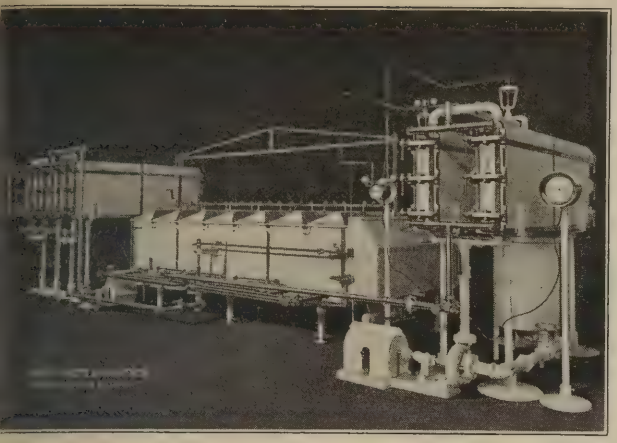
Dear Sir:—Please send us a formula for an ice cream mix, 8 per cent butterfat and 34 per cent solids, using sweet butter, sweet milk and sweet skimmilk powder, and the number of pounds of mix we should use to get ten gallons of ice cream. Change the amount of solids if you think best. P. F. P.

Reply: I am glad to comply with youh request for a mix containing 8 per cent butterfat and 34 per cent

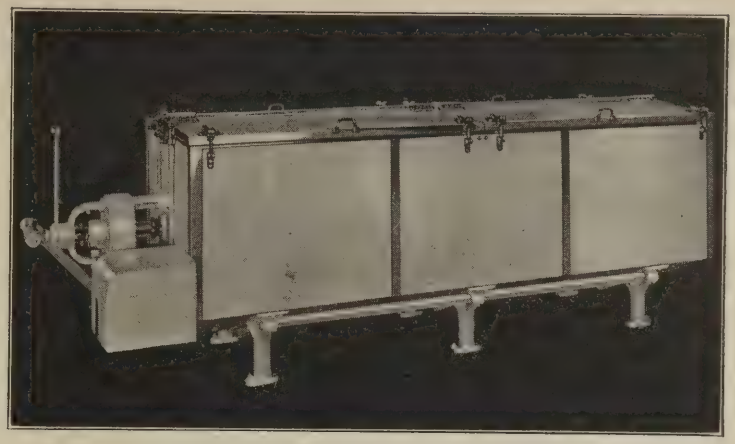
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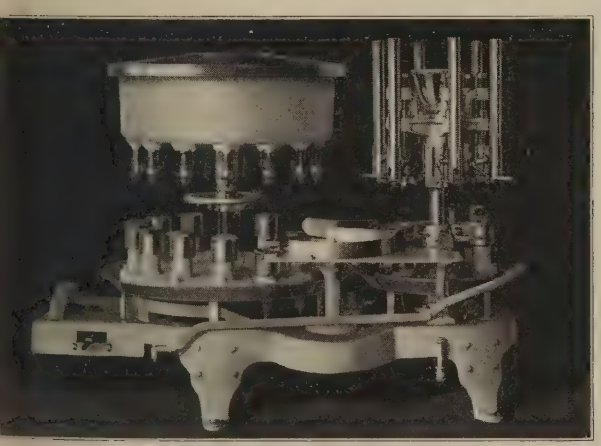
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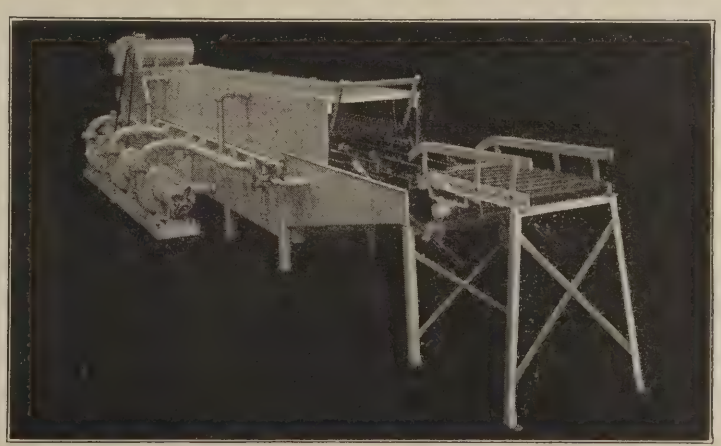
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total solids. Instead of showing you this mix to make ten gallons of ice cream I am showing it to you to make twenty gallons or 100 lbs. of ice cream. You can readily see why it is more convenient to have it on a 100 lb. basis for on this basis the number of pounds of serum solids, total solids or butterfat are the per cent also of these ingredients.

This 100 lb. mix will make 20 gallons of ice cream weighing 5 lbs. to the gallon. If you can get an over-run of 100 per cent, and this mix will easily stand that much over-run, you will get about 22.5 gallons of ice cream from this mix.

Table No. 1.

Ingredients	Fat	Serum Sol.	Total Sol.
14.0 lbs. sugar	....	.....	13.30
.5 lbs. gelatine	....	.....	.47
6.0 lbs. skimmilk powder	....	5.70	5.70
6.0 lbs. 84% butter	5.04	.....	5.04
73.5 lbs. 4% milk	2.94	6.27	9.21
100.0 lbs.	7.98	11.97	33.72

You will notice in figuring out a formula that the butterfat as shown is a little fraction below 8 per cent and the serum solids also .03 per cent less than 12 per cent. This happens to be this way in order to keep the number of pounds of butter 6 lbs. rather than 6.1 lbs. 6.1 lbs. would make your butterfat just a little over 8 per cent. A good commercial ice cream should contain 20 per cent total milk solids which means the butterfat plus serum solids.

* * *

Dear Sir:—We are enclosing you three batches, of 3800 lb. mixes, and would appreciate it if you would figure these out as follows:

On Batch No. 1, using the figures contained thereon, inserting the right amount of sweet butter to make up the 437 lbs. total fat for mix, using separated or skim for reducing and powdered milk, bring up serum and total solids.

On Batch No. 2, filling in the necessary amount of sweet cream at per cent you may desire to make the 437 lbs. total fat, using skim for two-thirds reduction and powdered milk for one-third of reduction and bringing up the serum and total solids.

On Batch No. 3, same amount of total fat using 900 lbs. of skim for reduction and powdered milk for balance of reduction and bringing up the serum and total solids. The fat content of finished products is 11.5 lbs.; total serum solids 8.5 lbs.; total solids 33⅓ lbs.

Kindly let us have the figure showing the analysis and how you handle same in working out the proposition, as we want to use your method and figures in checking ours very carefully as we are going to handle our mixes with a good deal more care than we have done heretofore. D. F. S.

Reply: You will find below in Tables No. 1, 2 and 3 the mixes analyzed and figured out according to your suggestions for batch 1, 2 and 3. I did not understand, however, relative to batch No. 2 your suggestions stating that two-third skim was to be used for a reduction. I have, therefore, included in Table No. 2 900 lbs. of skimmilk similar to the batch in Table No. 3, thinking that perhaps the suggestion would be of value to you.

Table No. 1.

Ingredients	Fat	Serum Sol.	Total Sol.
494.0 lbs. sugar	....	.....	469.30
19.0 lbs. gleatine	....	.....	18.05
8.24 lbs. vanilla	....	.....	1.23
3.0 lbs. color	....	.....	.45
2.60 lbs. salt	....	.....	2.34
55.00 lbs. 40% cream	22.00	2.94	24.94
100.00 lbs. 33% cream	33.00	5.87	38.87
1000.00 lbs. 25% cream	250.00	66.70	316.70
157.16 lbs. butter, 84%	132.00	.....	132.00
85.00 lbs. skimmilk powder	....	80.75	80.75
1876.00 lbs. skimmilk	....	166.97	166.97
3800 lbs.	437.00	323.23	1251.60
Per cent	11.50	8.506	32.93
Per cent sugar	13.0		

Table No. 2.

Ingredients	Fat	Serum Sol.	Total Sol.
494.00 lbs. sugar	....	.....	469.30
19.00 lbs. gelatine	....	.....	18.05
8.24 lbs. extract	....	.....	1.23
3.00 lbs. color	....	.....	.45
2.60 lbs. salt	....	.....	2.34
55.00 lbs. 40% cream	22.00	2.94	24.94
100.00 lbs. 33% cream	33.00	5.87	38.87
1000.00 lbs. 25% cream	250.00	66.70	316.70
440.00 lbs. 30% cream	132.00	27.40	159.40
900.00 lbs. skimmilk	....	80.10	80.10
147.40 lbs. skimmilk powder	....	140.00	140.00
630.76 lbs. water	....	.....	.....
3800.0 lbs.	437.00	323.01	1251.38
Per cent	11.5	8.5	32.92

Table No. 3.

Ingredients	Fat	Serum Sol.	Total Sol.
494.00 lbs. sugar	....	.....	469.30
19.00 lbs. gelatine	....	.....	18.05
8.24 lbs. extract	....	.....	1.23
3.00 lbs. color	....	.....	.45
2.60 lbs. salt	....	.....	2.34
520.24 lbs. 84% butter	437.00	.....	437.00
900.00 lbs. skimmilk	....	80.10	80.10
255.80 lbs. skimmilk powder.	....	243.00	243.00
1597.12 lbs. water	....	.....	.....
3800.00 lbs.	437.00	323.1	1251.47
Per cent	11.5	8.5	32.928

If you will let me know just what you meant by the two-thirds skim for reduction I shall be very glad to figure it out according to your further suggestions.

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Further Reply: I think you can easily reconcile the calculations down to where we have—1,000 lbs. of 25 per cent cream—and you will easily see that by adding the 22.00, 33.00 and 250.00 we obtained 305 lbs. of butterfat. Subtracting 305 lbs. from the total desired, namely, 437, we find we still need 132 lbs. of fat. Dividing this figure by 84 per cent we arrive at the amount of butter necessary, namely, 157.16 lbs.

Then adding the 2.94, 5.87 and 66.70 we have a total of 75.51 lbs. of serum solids. In order to have 8.5 per cent serum solids we must have a total of 323.23 lbs. of serum solids which then makes it necessary to furnish 247.72 lbs. of serum solids from the skimmilk and skimmilk powder. We also found that we needed a total of 1961 of skimmilk and skimmilk powder.

From these figures, using the square methods of standardizing and completing the calculations, we determine that we need 85 lbs. of skimmilk powder having a 95 per cent solids and 1876 lbs. of skimmilk having 8.9 per cent solids. In your conversation I believe that you stated that you wanted 33.5 per cent total solids. This would mean that we would need .57 per cent more serum solids which added to 8.5 would make 9.07. This would mean that more skimmilk powder would have to be used and a little less skimmilk to balance up the formula.

With the suggesitons above I believe you will have no difficulty in making these calculations. I believe that with this information you will be able to make the correct calculations for your formulas No. 2 and 3. If not do not hesitate to write again stating definitely what calculations you want me to show you and I will try to explain them and illustrate them by letter.

You realize very easily that I could do this much more thoroughly if I had your ice cream maker here and assisted him in the calculations which he might want to make as it is sometimes difficult to put down in a letter the exact explanation which is desired.

* * *

Dear Sir:—Will you kindly send me the formula or suggestion for 100 pounds of ice cream mix, containing 12 per cent butterfat, We wish to use the following ingredients: sweet butter, whole milk, unsweetened condensed. I. C. P. Co.

Reply: I am indicating below in Table No. 1 how you might make up the mix from the ingredients stated in your letter. If you do not think this is what you want I suggest that you write again giving me more detail as you did not state what per cent of fat in the whole milk or whether or not your unsweetened condensed milk contained any butterfat.

Table No. 1.

Ingredients	Fat	Serum Sol.	Total Sol.
14.0 lbs. sugar	....	.....	13.30
.5 lbs. gelatine	....	.....	.47
16.0 lbs. unsweetened condensed skim	....	4.32	4.32
11.5 lbs. butter, 84%	9.66	.....	9.66
57.0 lbs. 4% milk	2.38	4.86	7.24
100.0 lbs.	12.04	9.18	34.99

Dear Sir:—Please give me a formula for 100 lb. mix to make a 10 per cent ice cream using 18 per cent sweet cream, sweet skimmilk, 8 per cent condensed milk (Libby's product), sugar, gelatine and flavoring. If one adds crushed fruit or crushed nut meats will it lower the per cent of butterfat? Also send me formula for making chocolate ice cream using above ingredients. T. H. J.

Reply: I am suggesting below in Table No. 1 how you might make up such a formula from the ingredients suggested in your letter.

Table No. 1.

Ingredients	Fat	Serum Sol.	Total Sol.
14.0 lbs. sugar	....	.....	13.30
.5 lbs. gelatine	....	.....	.47
20.0 lbs. condensed, 8%	1.60	3.60	5.20
42.0 lbs. 18% cream	7.50	3.07	10.63
23.5 lbs. 4% milk	.94	2.00	2.94
100.0 lbs.	10.10	8.67	32.54

Relative to your fruit, nut, and chocolate ice cream I may state that the ice cream factories usually use the vanilla mix for making up these various ice creams as the state laws allow a lower per cent of fat in fruit, nut or chocolate ice creams. If you should desire the same per cent of fat it would be necessary, of course, to add a little more cream and less milk which you can easily figure out from the suggestions given in the table.

KEEPS HAWAII INFORMED.

Mr. M. F. Blimm, of the Honolulu Dairymen's Association, Ltd., Honolulu, Hawaii, sent us a postal money order renewing his subscription for four years to THE ICE CREAM REVIEW.

He writes, "I want to thank you for your courtesy in continuing to send the 'Review' after I had neglected to renew my subscription. As you know, we are something over two thousand miles from the mainland and consequently we find your magazine a wonderful source of information in helping us to keep informed as to the latest ideas and new machinery in the ice cream world."

NORTHEY
Ice Cream Cabinets
Refrigerators - Coolers
For All Purposes—Any Size, Style or Finish
Quality - Service - Price
NORTHEY MANUFACTURING CO.
DAIRY SUPPLY HOUSES
139 PARK AVENUE WATERLOO, IOWA


CONDENSED MILK MACHINERY
The Better Kind
We teach you to make condensed milk
C. E. ROGERS
Builders of Better Condensing Equipmen
8731 Witt St. Detroit, Mich.

ICE CREAM MANUFACTURERS PLAY MUTT AND JEFF.

A couple of Pennsylvanian ice cream merchants were running an amusing little contest all of their own—it might have been called a Mutt and Jeff serial, for it was between one of the largest ice cream manufacturers of Pittsburg and one of the smallest ice cream manufacturers of Braddock—and it happened just a few weeks ago. And the children of these two towns were just as much interested in the contest as they are in the "funnies" for the war was on their favorite dish—Ice Cream.

Braddockite kiddies came very near having the joy of their lives by being able to purchase ice cream at 19 cents a quart. But the story turned out to be a tragedy from the consumer's standpoint). This is how it happened:

A Braddock ice cream company began placing their product with dealers to be sold at a retail price of 39c per quart brick. The public bought hungerily and merrily. Rival dealers thereupon determined upon getting even with these "favorites" of the consuming public by reducing their retail price to 29c a quart, and this ice cream was from Pittsburgh. The public immediately turned its fickle affections to the new favorite, and they bought and bought. They disgracefully neglected the butcher and baker and concentrated on the ice cream maker and three bricks a day found their way into the homes of the average. The 29c dealers sent hurry calls for truck loads of bricks from Pittsburg and did a land office business.

Then the war broke in Pittsburgh when the news leaked out that the Braddock dispensers of this much loved "manna" were selling the product of their Pittsburgh leading ice cream company at "below cost." The Pittsburgh company had trouble on its hands galore; their dealers in other towns inquired as to why the Braddock dealers were permitted to sell the ice cream at cut rates. And the Braddock dealers went so far as to say they would cut the price to nine cents a brick, if necessary—while the public watched the bulletins on ice cream dispensers' windows, and the kiddies were all planning on a feast royal. Then the Pittsburgh ice cream company's biggest rival got wind of the doings and showed signs of joining the fray. And the Pittsburgh company number one called a halt. Its high official jaunted out to Braddock and had a little war all his own with his dealers and finally restored the market to its equilibrium. Then the official paid a friendly visit to the little fellow, the Braddockite, and they parted the best of friends with ice cream at 39c a brick. And the kiddies party was over.

WOULD YOU PAY $20 FOR A DRINK LIKE THIS?

It happened on a railroad train blazing its way through the desert country. The supply of ice water had been drained to the dregs hours before. It was a hot, sultry day and throats became scratchy and hoarse for a refreshing drink of ice water. One man exclaimed, 'I'd pay $10 for a drink right now." Still another, 'And I'd pay $20 for a drink of ice water right now." Porter (ever on the alert) "Yes, sah, for dat money I's get yo all a drink of ice water!" True to his word said water was brought forth and the porter was paid the $30. Soon after he was again offered the same amount for duplicating the order. Still a third time he was urged, but he sorrowfully shook his head and said, "I's done run out 'o ice water—deys no more ice on de corpse!"



Baker Hardening Room

Baker Refrigeration

Making ice cream profitably is a problem of refrigeration—the efficiency and economy of your refrigerating system is all-important.

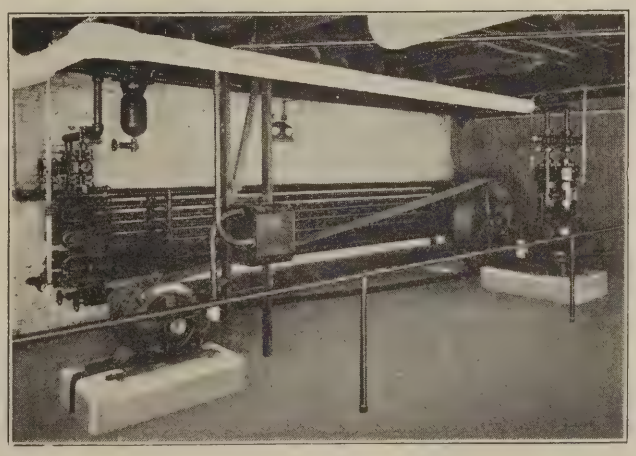
Baker Refrigerating Engineers understand the needs of the ice cream industry—they know how to design refrigerating equipment for greater efficiency, greater economy and dependability.

With a Baker System especially designed to meet their individual requirements, many smaller ice cream plants have developed big plant methods—low refrigerating costs and increased production has made them bigger. Big plants have grown bigger, too, with Baker refrigeration.

Baker Refrigerating Engineers are at your service—they can solve your problem be it great or small.

Ask for Bulletin 65-D—it's free

BAKER ICE MACHINE CO., Inc.
Omaha, Neb.



DON'T TRY TO SAVE MONEY BY USING CHEAP LUBRICANTS.

What is a Colloid?

A colloid is a substance which, combined with other ingredients, will keep the component parts in equal proportions without separating.

And gelatine is the most perfect colloid known to science.

And Essex gelatine is as pure as is known to modern-day manufacturing.

In your ice cream you need a stabilizer; that which will keep the butter-fat, casein, sugars and other solids in the mix from separating.

Science has established, and use has approved, of gelatine as a stabilizer—as a colloid.

And modern manufacturing methods have established, and use by leading manufacturers has proved; that Essex is an economical, pure, wholesome Gelatine that adds to food value of ice cream. Shipments can be made from Boston, New York, Philadelphia, Chicago. St. Louis and San Francisco,

Essex Gelatine Company

Manufacturers

40 No. Market Street
Boston, Mass.

Boston New York Philadelphia
Chicago St. Louis San Francisco

Member Association — Ice Cream Supply Men

PACIFIC ICE CREAM MANUFACTURERS' ASSOCIATION.

On behalf of the President of the Pacific Ice Cream Manufacturers' Association, Mr. W. V. S. Robb, The Ice Cream Review urges co-operation from the members of this association to help compile suggestions and information for the good of its members:

President's Letter.

To All Members:

As we are now entering the 1922 season, after more than a year of business which was not particularly favorable, due to weather and disturbed business conditions, the time seems opportune to review a few points of interest to all manufacturers.

Removal of Tax. The removal on January first of the well-named nuisance tax on ice cream has met with the approval of manufacturer and dealer alike, and it is the concensus of opinion that it will tend to increase consumption, particularly of cones.

Production Costs. Lower production costs, due to decreased costs of materials, and in some cases of labor, are probable.

The extent to which reduced costs of production should be reflected in your selling prices is a question deserving of serious consideration. Remember that lower prices benefit the dealer only, and does not reach the consumer of ice cream. The ice cream manufacturer is too often inclined to forget that he is entitled to a fair average return.

With an improvement in general business conditions in prospect, and with prices based on a fair value and reasonable profit, there is every reason to look forward to a successful season. But the appearance of your profit and loss accounts at the close of it will be greatly affected by your present actions.

For the purpose of compiling data which may be useful to our members, we would appreciate your advising us as to your present prices and your idea as to what changes, if any, should be made during the summer season.

It is our intention, after receiving replies to these letters, to send out a summary of the information and suggestions contained therein to the membership. Your consideration of the above will be appreciated, and we feel sure that the information and advice you can give us will be helpful to the Association and its members.

Thanking you for your co-operation,

Yours very truly,

W. V. S. ROBB, President.

IOWA FIRMS CONSOLIDATE.

Announcement comes from Nevada, Iowa, that the Nevada Cheese Factory and the Nevada Ice Cream and Butter Co., which recently consolidated, has built a fine new home and operation was begun early in April.

The building is 100x40 feet. The basement is being used for cheese-curing and storage rooms, ice machine room, boiler, coal and salt rooms and also contains a storage room. The main floor is being used for the manufacture of cheese, ice cream and butter.

Investment of about $60,000 represents the building and additions to the plant. Mr. A. Contri is general manager and Mr. C. H. Case is the secretary of the newly formed company. The Ice Cream Review wishes them much prosperity in their new venture.

Will Not Freeze Out *No Alcohol*

Vanilla Exquinta

TRADE-MARK

LIQUEFIED

FINER, STRONGER AND BETTER THAN VANILLA EXTRACT

Economical *Pure*

Write today for prices and particulars

CROWN FRUIT & EXTRACT CO., Inc.

418-420 WEST BROADWAY

New York City, N. Y.

WE RECEIVE AN INVITATION.

The Whitings Creamery of Lake Mills, Wis., has recently completed the installation of an Artic ten ton refrigerating machine and a hardening room large enough to care for 1,000 gallons of ice cream. Their milk room will handle 200 cans daily.

They will furnish ice cream plants and condensories with sweet cream, and those in need of sweet cream can communicate with H. H. Whiting. The cream is standardized to meet your wants and can be furnished in quantities of from one to thirty cans daily.

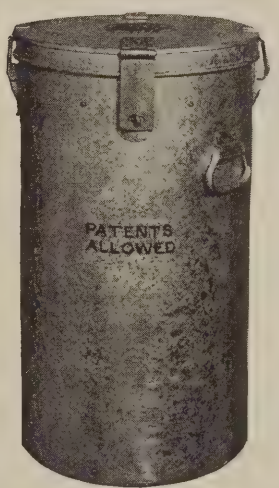
And on top of all this preparation comes the best part of all—we have been cordially invited to come out to Lake Mills and partake of their famous chocolate coated ice cream bars and also a little H—— B——.

And we answered by return mail to say that when the weather gets a little warmer we'd take advantage of this invitation. We also admonished him to have plenty on hand.

Mr. Whiting is a well-known prize-taker in state and national butter contests of former years, and he has built up a very nice business in Lake Mills in comparatively few years. The butter output is a big feature of the nice income which this creamery nets Mr. Whiting. Before starting in business, he was employed as field man in the dairy division at Washington, D. C.

⚜

Tell us what you want, or what you have that you don't want, and we'll fix up a little Ad for you and insert it in the next issue of The Ice Cream Review. You just stay at home and wait for results. You'll soon have your hands full.



Saves 10c a Gallon

That is the saving a shipper just reports who uses the

D-C IceLess Express Container

Well hardened ice cream will keep in perfect condition in these containers for 12 hours. We guarantee that, and on the basis of the most trying conditions. In a fairly cool place, 24 hours without ice and still in perfect condition, is nothing extraordinary for ice cream in the D-C Icless Express Container.

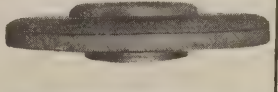
What Would it Save for You?

Their light weight gains a remarkable reduction in express charges. Saves ice, salt, tubs and the labor of packing.

D-C Refrigerating Cover { Converts D-C Shipping container into a cabinet. A practical, inexpensive device that serves a good many opportunities for savings and extending business.

Let us send you prices on these containers. We will also show you some practical way in which they help to develop business.

Decy IceLess Express Container Co., Inc.





THE ASSOCIATION OF ICE CREAM SUPPLY MEN MEMBER

TIMES BUILDING
Room 1001
NEW YORK, N. Y.

KEEP AN EQUIPMENT CATALOGUE HANDY.

The Perfect Flavor for "Eskimo Pie"

"545"

Vanilla Compound

2 qts. "545" flavors 100 gals. dairy mix or about 200 gals. Ice Cream

And, friends, my "545" won't *freeze out* of the ice cream center in the dealer's refrigerator.

This is because its 38% true vanilla extract—a volatile—is *fortified* with 62% non-volatile vanillin, coumarin, fruit flavors and essential oils.

A Successful Ice Cream Business

is *certain* for every manufacturer who makes good cream and flavors it with "Billy Bell's" 545 compound vanilla.

Let me send you a 2 qt. sample for $1.90—the barrel price.

You'll come a running right after you give it a thorough test, for a 50 gal. bbl., at $3.80 per gal.

Wm. M. Bell PRESIDENT Tisco Co.

2 East Lake St.

CHICAGO

Northwestern Office:
523 Metropolitan Life Bldg.
Minneapolis, Minn.

Southwest Office:
208 E. Myrtle Street
San Antonio, Texas

STANDARDIZATION WITHOUT WHICH THERE IS NO PROFIT!

Men are talking it on the street corners, in the factories, and round the conference tables. From the smallest manufacturer, with a few helpers, on up through the big belching factories, whose employees run into the thousands, it is the keynote of all serious conversation. Too long has "special this" and "special that" been permitted a free band with which to squeeze margin beyond all signs of recognition.

Beginning now, TODAY, every one who isn't in business for fun, and who is seriously trying to market a package, whether it be a piece of creamery machinery, a pound of butter, a brick of ice cream, a milk bottle, or what not—is going to look askance at "special" orders. The cost of making even the slightest change from regular specifications is often enormous and out of all proportion to the advantage gained by the customer. Those who insist upon upsetting the routine of manufacture must be made to understand that it is no small favor they are asking, and that they must pay a stiff additional price. Salesmen in every line are urging their trade to get down to brass tacks when ordering and specify STANDARD SIZES and STYLES rather than expect the source of supply to constantly cater to individual whims and strip itself of reasonable profit.

What a relief STANDARDIZATION is going to mean to all of us! You, as makers of butter and ice cream, are in an excellent position to realize the truth of this statement. We, as manufacturers of a line of creamery, dairy and ice cream equipment, have long felt the necessity of such a move. And now public sentiment has taken it up, and the feeling is spreading rapidly from one end of the country to the other. There is a decided opinion that ere long "specials" will be the exception instead of daily occurrences as in the past.

In a recent issue of the "Butter, Cheese and Egg Journal" we note the following paragraph, which tends to bear out this very statement: "The first step the southern California Orange Growers' Association, which is one of the biggest marketing organizations anywhere, did was to standardize their goods in size and quality. When a buyer in any part of the country buys a box of oranges or a carload of a certain size he knows that every orange will be like every other orange, and that they will all be good and sound. That is the reason they have been able to succeed in their selling program."

This last is an excellent cue from which both of us may largely profit. The sooner we adopt and STICK TO STANDARD DESIGNS, that much sooner will the public meet us half way, and transact business on a business basis.—Cherry Circle for March, 1922.



MEMBERSHIP ADDITIONS TO SUPPLY MEN'S ASSOCIATION.

In a certain typographical arrangement which made a paragraph introduction appear, in a casual reading, to be a part of a preceding paragraph, a list of twenty-two companies that joined the Association of Ice Cream Supply Men last year, appearing in the February Ice Cream Review, has been misread by a number of subscribers, we learn, as containing names and companies that had resigned from the Association.

The Association of Ice Cream Supply Men gained notably in membership last year, and we are glad to reprint herewith a list of those members who joined dur-

Chalmers  Gelatine

1872 1922

For fifty years
An unfailing source of satisfaction

James Chalmers Sons
Williamsville, N. Y.

Chalmers Gelatine Sales Corp.
Richmond, Va.

ng the twelve months preceding the Association's annual business meeting, January 24th, 1922. These companies are:

Homer Mfg. Co., Homer City, Pa.
John Wood Mfg. Co., Conshohock, Pa.
Wisner Mfg. Co., New York, N. Y.
Chas. B. Knox Co., Johnstown, N. Y.
Wayne Co. Retinning Co., Detroit, Mich.
Crystal Gelatine Co., Boston, Mass.
Orang-Crush Co., Chicago, Ill.
John J. Grothe Co., Woburn, Mass.
Meyer Wagon Works, Buffalo, N. Y.
American Refrigeration Co., Boston, Mass.
Atlantic Gelatine Co., Woburn, Mass.
Decy Iceless Express Container Co., New York.
Grand Rapids Table Co., Grand Rapids, Mich.
Swift & Co., Chicago, Ill.
Baeder Adamson Co., Philadelphia, Pa.
The Pfaudler Co., Rochester, N. Y.
Taylor Instrument Cos., Rochester, N. Y.
Ayer & McKinney, Philadelphia, Pa.
Southern Packing Co., Baltimore, Md.
John W. Ladd Co., Detroit, Mich.
Mojonnier Bros. Co., Chicago, Ill.
Rice & Adams Corp., Buffalo, N. Y.

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Fat Man: "Do you serve lobsters here?"
Waitress: "Yes, I'll wait on you in a minute."

* * *

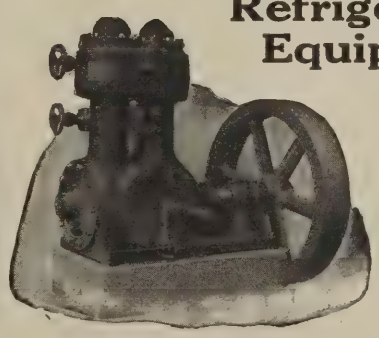
Doc: "You cough easier this morning."
Very Patient: "I ought to, I've been practising all night."—Virginia Reel.

"Simplicity"

is a most essential requirement in a successful refrigerating system for Dairy Manufacturing plants.

Here is simplicity—

York
Refrigerating Equipment



is in a class by itself for simplicity.

Let us show you why. Write

WESTERLIN & CAMPBELL CO.
CHICAGO, ILLINOIS
J. G. HAMMERSCHLAG, *Wisconsin Manager*
1016 Majestic Building Milwaukee, Wisconsin



Get Them From Your Supplyman

ALLEN'S ONE-PIECE SANITARY CAN LINERS

These Dealers Sell Them:

The Creamery Package Mfg. Co., Chicago, Ill., and Branches.
The Schmitz Supply Co. - - - St. Paul, Minn.
A. H. Arnold & Bro. - - - - - Chicago, Ill.
N. A. Kennedy Supply Co, Kansas City, Oklahoma City
J. G. Cherry Co., Cedar Rapids, Ia., and Branches
A. H. Barber Creamery Supply Co. - Chicago, Ill.
The Dairy Supply Co. - - - Minneapolis, Minn
Peaslee-Gaulbert Co. - - - - Louisville, Ky.
J. W. Allen & Co. - - - - - - Chicago, Ill.
Spurbeck Lambert Co. - - - - - Algona, Iowa
The Maas, Keefe Co. - - - - - St. Paul. Minn.
The Crandall Pettee Co. - - - New York, N. Y.
Owatonna Creamery Supply Co. - Owatonna, Minn.
Davis Watkins Dairymen's Mfg. Co., No. Chicago, Ill. and Branches.
Meyer Dairy Equipment Co. - - St. Louis, Mo.
Liebers Farm Equipment Co. - - Lincoln, Nebr.
Dairy Machinery Co. - - - - Seattle, Wash.
Consumers' Gelatine Co. - - - St. Louis, Mo.
The Crane Co. - - - - - - - Chicago, Ill.
Cherry-Bassett-Winner Co. Baltimore and Pittsburgh
The Hurley Co. - - - - - - Denver, Colo.
Hawkeye Supply Co. - - - Mason City, Iowa
The Hudson Mfg. Co. - - - - Chicago, Ill.
Chapman & Smith Co. - - - - Chicago, Ill.
Kennedy & Parsons Co. - - Sioux City, Iowa and Omaha, Nebr.
E. B. Adams Co. - - - - - Washington, D. C.
Monroe & Crisell - - - - - Portland, Oregon
El Paso Butcher & Dairy Supply Co., El Paso, Tex.
Gowing Dietrich Co. - - - - - Syracuse, N. Y.
H. C. Schranck Co. - - - - - Milwaukee, Wis.
Northwestern Bakers & Conf. Co., Minneapolis, Minn.
Dairymen's Mfg. & Supply Co. - - - St. Louis, Mo.
G. F. Lessenhop, Inc. - - - - - Lincoln, Nebraska

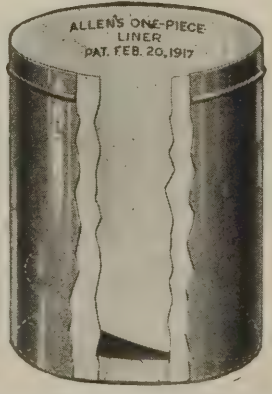
Made by

THE ALLEN CANDY CO.

Sole Manufacturers

PONTIAC ILLINOIS

Samples and Prices on Request



NEBRASKA ASSOCIATION OFFICERS TAKE PART IN DAIRY ADVERTISING MEETING.

Lincoln, Neb.—A publicity campaign to increase the consumption of dairy products will be undertaken as the result of a statewide conference of producers, distributors and manufacturers called by Leo Stuhr, secretary of the state department of agriculture. The conference empowered Secretary Stuhr to name a committee from the various dairy interests and to appoint more producers on the committee in proportion to the other industries enumerated. The committee will be named shortly. It will be asked to present a program of publicity involving newspaper and other forms of advertising. Over one hundred representatives of Nebraska dairy interests attended the conference. The producers were well represented and took a leading part in its deliberations. J. H. Fransen, dairy editor of the Capper Press; A. L. Haecker, secretary of the Nebraska Creamery Butter Manufacturers' Association; H. D. Lute, secretary of the Nebraska Farm Bureau Federation, and Leonard E. Hurtz, president, and R. W. McGinnis, of the state Ice Cream Manufacturers' Association, were present. A number of representatives of the big milk distributing organizations in the state also attended.

President Leonard E. Hurtz, of the state association of ice cream makers, urged that the representatives of the various interests co-operate in the increase in the consumption of dairy products and leave the matter of the division of profits to properly adjust themselves. Get the business and enhance the demand and then such controversies will soon be settled. He declared that constructive work must be done and that it was high time for the dairy interests to go after business in the same business-like way as the other great concerns of the country.

"Now that we are beginning to realize the big possibilities of co-operation," said J. H. Frandsen, "the dairy outlook can be greatly helped by dispelling the age-old notions that milk, because it is a liquid, is just a beverage, that ice cream is a luxury to be indulged in only on the Fourth of July, that butter is a condiment, applied to bread largely to make it palatable and the more easily swallowed, and that cheese, while a food, is too indigestible except for the woodchopper. These are the reasons why American dairymen have had trouble in securing a market for their products. Incidentally, these are the best possible reasons why they should join hands with the nutrition experts and health officials in an effort to acquaint the public of the marvelous virtues of milk and other dairy products.

"Nutrition experts, school nurses and health authorities in general are doing much to educate the public, but there is much yet to be done because of a lack of funds and of people to preach the milk gospel. It will take much time for such an educational campaign, and it is now highly desirable to take advantage of what all other agencies have done to help dispose of the surplus by a publicity campaign." Professor Fransen gave several examples of wonderful resulis in the use of milk among the public school children.

J. E. Palm, secretary of the Nebraska Dairymens' Association, told what it had accomplished in the past several years in advertising dairy products. Exhibits were put on at county and at state fairs, and posters have been much used in other forms of advertising. Mr. Palm said that the results were extremely gratifying, but the association only had a small sum of money to spend. It was the sense of the conference that inasmuch as the dairy business is the only big business that is not properly organized, that it is now time to act.

MEMBER THE ASSOCIATION OF ICE CREAM SUPPLY MEN

VANILLA AND BLENDS
Exclusively

STANDARD VANILLA AND BLENDS

APPRECIATION of flavor is largely a matter of what the taste has been accustomed to. Musical appreciation may be expressed in a syncopated Southern melody or in a Bach Sonata, depending largely upon the training or environment. And usually the popular Southern melody makes the wider appeal.

So with most things, even the flavor of vanilla. The appreciation of vanilla runs through the whole line of blends and extracts, and quite often, like the Southern melody, a proper blend gives greater satisfaction. It is a matter of taste that has been cultivated.

We cater to the taste, not being content merely to sell, but to supply that particular vanilla, whether blend or straight, that will make the greatest appeal to your trade.

Our representative will be glad to demonstrate this to you.

STANDARD VANILLA AND BLENDS

G. R. RYAN MANUFACTURING COMPANY
INCORPORATED
Rochester, New York

NEBRASKA WOULD MAKE BRICK.

We wrote to R. W. McGinnis, Secretary of the Nebraska Association of Ice Cream Manufacturers, asking him if he knew of any ice cream factories making nothing but brick ice cream. Here is a part of Mac's reply.

"I am sure you must have had wrong information and if the report was that all the Nebraska Manufacturers would like to make nothing but brick ice cream during the winter months, you would have had the correct dope.

"While the members of our association are working to increase their brick sales and are making good headway it has not quite reached to the point where their trade has all run to that.

"In taking this as one of the subjects up at our district meetings it has been discovered that by pushing the matter of sales of brick ice cream with the retail dealers it has had the proper effect and since the time seems to have arrived when most that we eat (and used to drink) is in cartons, etc., it has in a way helped the sales of brick ice cream in cartons.

"As to our Pic-Nic would say that nothing of a definite nature has developed to date but it will not be until the weather gets warmer and more settled so it would be safe to take a day off and hunt some nice cool grove with a body of water near by and when spring chickens and all that goes with the picnic lunch are about ripe. You will be placed on the list so look out for us."

A small cash investment and the services of a live young man in the ice cream business are what many proprietors are in need of. You can locate good opportunities through a Review Want Ad.

DULUTH COOPERAGE COMPANY
Duluth, Minn.

Fir Ice Cream
Tubs



Durable, well finished tubs, painted your distinguishing colors, are a good advertisement for your ice cream.

Our Fir Tubs cannot be equalled in quality, finish and workmanship.

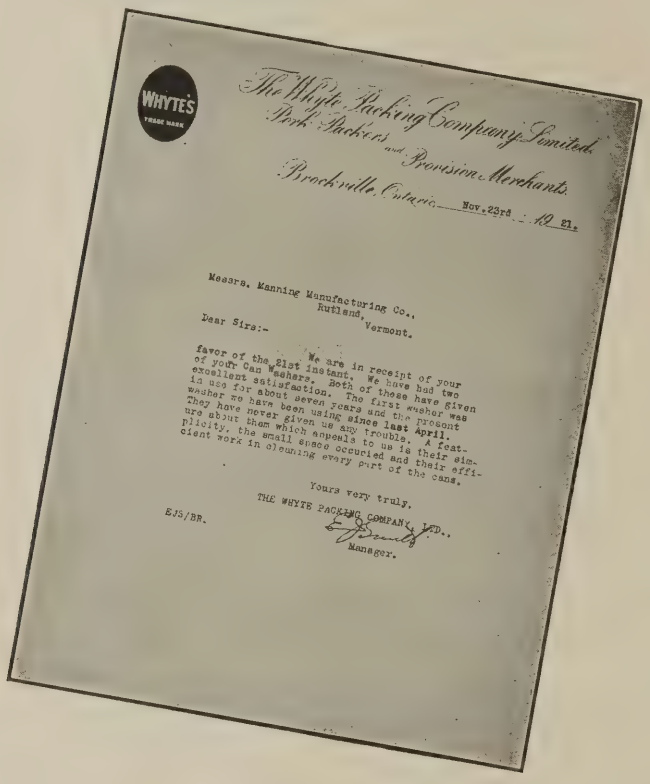
Save Money by Dealing Direct with the Manufacturers.

Write Today for Prices

"Cleans Every Part Of The Can"

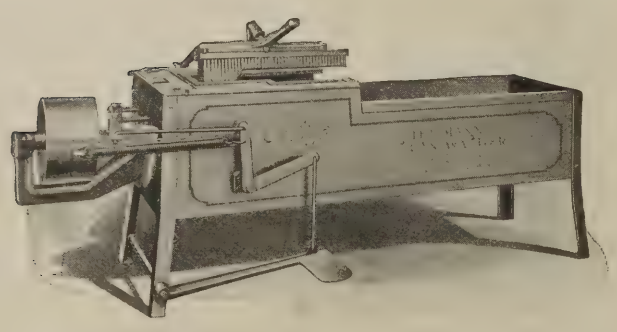
That's one big feature of the Manning Can Washer. The brushes hit every corner, inside and out. The machine named in this letter was in use seven years—some record!

A letter from another Manning user next month—this time from Illinois.


The Whyte Packing Company, Limited.
Pork Packers and Provision Merchants.
Brockville, Ontario, Nov. 22nd 19 21.
Messrs. Manning Manufacturing Co.,
Rutland, Vermont.
Dear Sirs:-
We are in receipt of your favor of the 21st instant. We have had two of your Can Washers, both of these have given excellent satisfaction. The first washer was in use for about seven years and the present washer we have been using since last April. They have never given us any trouble. A feature about them which appeals to us is their simplicity, the small space occupied and their efficient work in cleaning every part of the cans.
Yours very truly,
THE WHYTE PACKING COMPANY, LTD.,
EJS/BR.
Manager.

MANNING
MANUFACTURING COMPANY
RUTLAND, VERMONT

MANNING EQUIPMENT



Used Everywhere—
Liked Everywhere!

NORTH CAROLINA ASSOCIATION OF ICE CREAM MANUFACTURERS.

(Additional Resolutions Adopted.)

The following are additional resolutions adopted at the convention which have reached us just recently. These followed immediately those published in the December issue of the Review.

The following amendment was made to Article 10 of the Constitution and By-Laws, being intrdouced by Mr. Cartland of Greensboro, N. C., and seconded by Mr. Landreth of Winston-Salem:

"That the annual dues of each member shall be $25.00, but in the event of more than one Plant of an Organization belonging to the Association, the home office or main plant shall pay $25.00, with the branch or subsidiary plants paying $15.00 each. Each membership shall be entitled to one vote and one representative at each and all meetings of the Association. No firm or organization shall have more than one Director in any one year."

Mr. White introduced the following resolution, seconded by Mr. A. E. Dixon of Fayetteville, N. C.:

"That we go on record as approving the practice at future annual banquets or other entertainments admitting one member or representative from each firm belonging to the Association without charge, but for non-members or guests other than honorary or specially invited guests, a charge shall be made for each plate, pro-rata with the cost of same."

The motion was unanimously carried.

Mr. Cartland of Greensboro, N. C., offered the following resolution, which was seconded by Mr. Baer of Durham, N. C., and unanimously carried by the membership, viz:

"Resolved, that a supply of 'Sanitary Laws' be printed and supplied to the Association members at cost, the Secretary securing the amount required from each member for distribution among the retail dealers."

The following members subscribed:

Arctic Ice Cream Co., Greensboro, N. C....	2,000
Durham Ice Cream Co., Durham, N. C.....	1,000
Chapin-Sacks Corp., Charlotte, N. C.....	1,000
Royall Ice Cream Co., Goldsboro, N. C.....	1,000
White Ice Cream Co., Raleigh, N. C.....	1,000
Lincoln Creamery, Lincolnton, N. C.....	1,000
Forsyth Dairy Co., Winston-Salem, N. C...	500
Catawba Creamery, Hickory, N. C.....	1,000
Buttercup Ice Cream Co., Hamlet, N. C....	1,000
Crystal Ice Co., Washington, N. C.....	200

The following resolution was introduced by Mr. White of Raleigh, N. C., moved by Mr. Carty and seconded by Mr. Landreth, and was unanimously carried:

"Resolved, that the use of any fat or oil not derived from milk, as a substitute for the whole or any part of the milk fats in Ice Cream, is not a legitimate or proper variation of the ingredients which may be used in Ice Cream Mix. Variation, selection and modifications among the usual ingredients are desirable in our efforts to meet the desires and even caprices of our customers, but we condemn the use of any substitute for the vitamine-bearing milk products."

Owing to the fact that the Ice Cream Review is an Associate member of our organiza'ion, it is deemed proper that they become our official organ, and after sundry discussion the following resolution was introduced by Mr. Corning of Hamlet, N. C., and seconded by Mr. Obenshain, Charlotte, N. C.:

"Resolved, that the Ice Cream Review be made the official organ of our Association for the ensuing year, and that they be so notified."

The motion was carried unanimously.

* * *

Section 1, Article 3 of the Constitution and By-Laws, was amended as follows:

When You Know

When you consider the vital importance of sanitary cleanliness in the manufacture of high quality ice cream, and when you further consider the loss to the manufacturer which results from poor flavor and contaminated cream, you easily understand why a rapidly increasing number of successful makers insist on the use of

Wyandotte
Sanitary
Cleaner and Cleanser

in their plants when its cleaning efficiency, dependability, and economy have been widely tried and never known to fail.

Indian in Circle



In Every Package.

An order on your supply house will positively prove this dependable "Wyandotte Service" the most economical you have ever used.

It cleans clean.

THE J. B. FORD COMPANY *Sole Manufacturers* Wyandotte, Mich.

"That no Manufacturer whose product is below the State standard for Ice Cream, viz: 8% butterfat and 31% solids, will be eligible for membership in the North Carolina Ice Cream Manufacturers' Association."

After discussion it was decided to hold our next meeting in December, 1922, and Raleigh was selected as the city, having received six votes, while Charlotte received four and Greensboro only one.

A rising vote of thanks was given the President and Secretary for their efforts during 1921.

Mr. Shuford of Hickory, N. C., Mr. H. E. Cartland, Greensboro, N. C., and Mr. J. H. Baer, Durham, N. C., were appointed on the Committee to nominate the Directors, and the following were appointed as elected: Geo. L. H. White, Raleigh, N. C.; L. A. Corning, Hamlet, N. C.; W. J. Shuford, Hickory, N. C.; A. E Dixon, Fayetteville, N C.; J. H. Baer, Durham, N. C.; H. E. Cartland, Greensboro, N. C.; E. W. Barker, Norfolk, Va.

As there was no further business to come before the meeting, motion was made and carried to adjourn until the next Annual Meeting, of which due notice would be given.

TO EQUIP CREAMERY FOR ICE CREAM MANUFACTURE.

Due to the increase in the business of the Heron Lake, Minn., Creamery, Mr. H. G. Kurrasch has taken Mr. A. C. Schultz into partnership.

The creamery has put in a new vat and they expect to install ice cream manufacturing equipment later. The plant in general is being improved.

The company is devoting most of its efforts just now to buttermaking, although some retail milk and cream business is being handled. They also deal in eggs and enjoy a good poultry business.

FOR A

Smoother, Firmer Ice Cream
Fruit Frost or Water Ice

USE

Rippey's Powdered Foamoline

No Heat Required

Simply mix Rippey's Powdered Foamoline with the dry sugar add your cream or milk and it is ready for the freezer.

Send for a trial package and book of formulas.

For a limited time we will send postpaid a full half pound package on receipt of 25c, together with our formulas for making ice creams, sherbets, etc.

Rippey's Powdered Foamoline is packed in one pound boxes with registered trade-mark and signature of William Rippey on every box. Never sold in bulk.

WM. RIPPEY

101 East Second Street CINCINNATI, OHIO

Wisconsin Association of Ice Cream Manufacturers

Proceedings of the Seventh Annual Convention Held at Hotel Plankinton, Milwaukee, Wis., January, 17th and 18th. 1922

(Continued from March Issue)

President: We certainly appreciate having Mr. Klueter here with us this morning. Would any of the manufacturers like to ask Mr. Klueter any questions?

In connection with vanilla extract, Mr. Klueter, you mention that tonka and coumarin would not be tolerated by the department. What has that got to do with vanillin and vanilla?

Mr. Klueter: The food laws have also defined vanilla extract and have defined tonka extract and have defined flavoring extracts in general.

"A flavoring extract is a solution in ethyl alcohol of proper strength of the sapid and odorous principles derived from an aromatic plant, or parts of the plant, with or without its coloring matter, and conforms in name to the plant used in its preparation."

Vanillin is such a substance, coumarin is such a substance, a natural substance. Therefore, it is perfectly permissible to make ice cream with either of these flavors, by dissolving those forces in an alcoholic solution of proper strength. If you use a mixture of vanillin and coumarin in flavoring your product, you don't have vanilla ice cream. Vanilla extract is made by dissolving the soluble portion of 10 grams of the vanilla bean in 100 c. c. of alcohol in the proper strength. We don't always dissolve vanilla but we dissolve certain ethyl resins and certain other constituents which are very valuable. You all know you cannot dissolve vanillin, which is only one of the ingredients of the vanilla bean in alcohol and get a flavor that is like vanilla. It is not vanilla flavor that is vanillin flavor. Again if we take coumarin, which is one of the constituents of the tonka bean an ddissolve that in alcohol, we have a flavor which is known as coumarin or coumarin extract. The only requirement of law which is not new, but which has been on the statute books, is that when you use those products, the product you sell must be designated as that flavor. If I go into a store and call for vanilla ice cream, I have a right to expect it and I have a right to get it, and the standards for ice cream insist that the consuming public do get it. We have had a lot of experience with flavoring extract manufacturers. Not some of the larger concerns, but every so often some young druggist or chemist discovers he can make a product which he thinks is very much better than vanilla, by dissolving vanillin and coumarin in water and alcohol, adding sometimes a little glycerine and sometimes a little sugar and then adding a li'tle artificial coloring, caramel. What does he add that caramel for? He adds it to this product because the fact that it is colored to look like vanilla extract makes it appear to the sense of taste, more like vanilla extract. They come and tell us it is superior to vanilla extract. It won't bake out, it won't freeze out. My answer to that is this, then if it is so much better than vanilla extract, for heaven's sake why do you want to color it so it will look like vanilla extract? Why not color it green so people can always tell it by its color, and need not confuse it with vanilla extract? It seems to me that is good logic. If I have an article that is better or superior to some other article, I am not going to make it look like that inferior article.

Applause.

President: Are there any other questions you would like to ask Mr. Klueter?

Mr. Klueter, in your department is there any action or anything being done in connection with these—I would not say Greeks—manufacturing ice cream in their basements? Is your department investigating that?

Mr. Klueter: I will have to say that we have been pretty busy and, as a matter of fact, I thought perhaps you people would like to have us let up a little. We have investigated those places as rapidly as we could. We have on the statute book a law which says that, "a place manufacturing ice cream must be licensed." One of the provisions of that law is that if it is a new place, has not been run before, but is being opened, it must not be located in a basement, the floor of which is more than five feet below the street or pavement and that the ceiling of such place must be at least eight feet from the floor and there must be proper ventilation and light. We have increased our inspectional force from two food inspectors to five, and I think we are making good progress along this line.

I would like to say just this one thing in addition, and that is I think the ice cream manufacturers of the state are to be complimented on this fact; we have examined many samples for foreign fats, and I am very happy to say, pleased indeed to say, that we have not found a sngle instance where anything but pure unadulterated butterfat has been used.

* * *

SECOND SESSION.

Tuesday, 2 P. M.

Meeting called to order by President Smith.

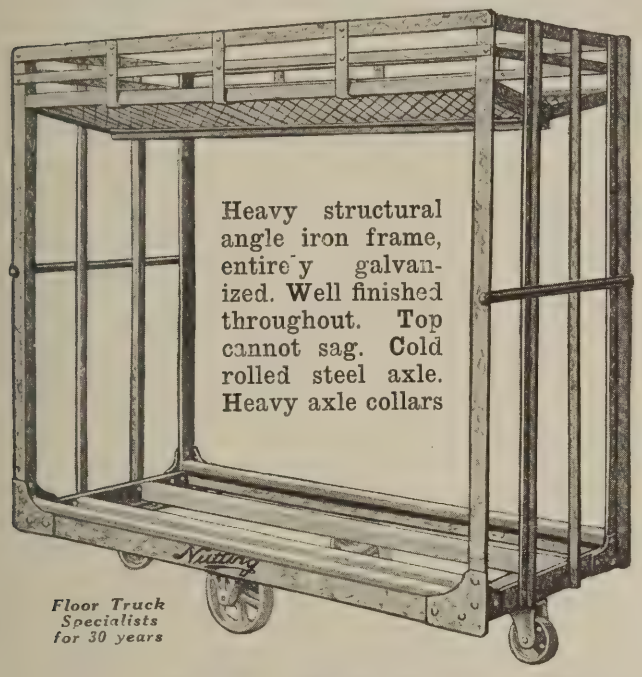
President: The first on the program this afternoon is "Getting Better Acquainted," by S. J. Duffner, of the Uecke Dairy Company, Eau Claire.

"GETTING BETTER ACQUAINTED."

By Mr. S. J. Duffner, Eau Claire.

About three thousand years ago, the then known civilized world consisted of western Asia, eastern Europe and northern Africa. Even for that time considerable commerce was carried on between these countries. The Mediterranean and Black Seas were the chief avenues of trade used by the Romans, Greeks, and people of northern Africa, while camel trains were used by the people farther east who transported their goods to the westward to exchange them for such commodities as they did not produce in their own countries. Under these conditions, it is almost safe to assume that the "high cost of freight" was even at that time a problem. The city of Jerusalem was located at the crossing of several of these routes between eastern Asia and western Europe and naturally became a city of much commercial importance. It was during the reign of Kings David and Solomon that the Jewish nation enjoyed probably its greatest prosperity and undoubtedly the Jews owed much in the way of prosperity to their geographical location. The caravans from the south and east disposed of much of their wares to Hebrew traders who in turn disposed of them to the people of Europe, including the Greeks and Romans. There lived somewhere to the southeast of Jerusalem, a Queen who had heard from the caravan traders of the Jews of Jerusalem and she marveled at their reports on the magnificence and luxury in which the Jewish King was reported to live. The historian tells us that after a time her curiosity, or shall we say desire for first-hand information, caused her to fit out a camel train and make the journey to Jerusalem in order that she might have first-hand information, and

How to Lower Your Costs of Handling Ice Cream Cans



Floor Truck Specialists for 30 years

DIRTY cans are piled with open end out, which slants them upward and prevents slop from spilling. After washing they are piled up with open end in to drain quickly. All the covers are put on top, held in by the rail.
With this specially designed truck your moving, storing and counting of cans is reduced to a simple, easy job.

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Ice Cream Can Truck

Ball bearing swivel casters and wide, 8¼ inch main wheels insure easy rolling with the heaviest loads.

Ask us for complete details or ask your jobber.

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1143 Division St., W. Faribault, Minn.

50% of Your Ice Cream Count Goes to Flavor of Your Ice Cream Production is Vanilla

IF YOU WISH TO INCREASE YOUR SALES, A QUALITY FLAVOR IS WHAT YOU ARE LOOKING FOR. USE

MICHAEL'S MEXICAN

THE ORIGINAL

VANILLA POWDER

With and Without the Bean Showing

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DAVID MICHAEL & CO.
INCORPORATED
MILLERS AND MANUFACTURING CHEMISTS
GUMS AND FLAVORING EXTRACTS
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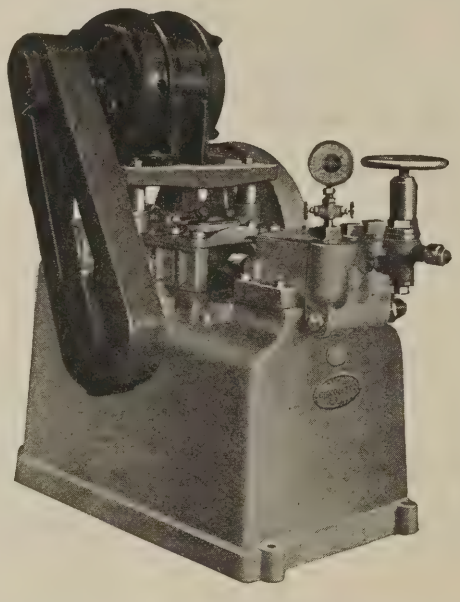
THE FLAVOR THAT MADE PHILADELPHIA ICE CREAM FAMOUS!

Announcing

New Model

The **Viscolizer**

Silent Chain Drive Type



2 or 3 Phase A. C. Motors

SIZE	CAPACITY GALLONS	MOTOR	PRICE
100	100	5 H. P.	$1150.00
200	200	7½ H. P.	1500.00
300	300	10 H. P.	1875.00
450	450	15 H. P.	2180.00
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Complete with direct connected motor, silent chain drive, for 2 or 3 phase, 60 cycle, A. C., 220 or 440 volt. Also Direct Current, 115 or 230 volt, or Single phase, 60 cycle, 110 or 220 volt.

Prices on request.

"There is a Viscolizer Jobber Near You"

John W. Ladd Company
DETROIT CLEVELAND

Cherry-Bassett-Winner Co.
BALTIMORE PHILADELPHIA PITTSBURG

to become acquainted with the wonderful King of whom she had heard so much. I am of the opinion that this justly famous expedition was not undertaken altogether as a pleasure trip. I am of the opinion that this hardy Oriental woman had in mind the idea of commercial advantage to be gained by a better acquaintance with the Jewish king and the Jewish people.

The desire for first hand information; the desire to become better acquainted has been one of the most potent factors for progress that the world has known. The hardy Norseman was trying to become better acquainted when he steered his frail craft across unknown seas. It was the same impulse that caused Columbus to cross the Atlantic. Ben Franklin wanted to become better acquainted with electricity when he flew his kite. Tom Edison has delved deep into the unknown of yesterday and his discoveries will be a monument which will live forever. Henry Ford has introduced himself to the world through the medium of his "Lizzie." If a certain monarch who reigned in one of the European countries had made a trip to America prior to 1914 and become acquainted with the American "hurry up" system, German would in all probability not now be the prevailing language spoken in Hades. China made no material progress for four thousand years because she refused to become acquainted with the outside world. Our forefathers to whom we owe the early development of the resources of our country were certainly not averse to taking a chance. And yet in nearly every instance they were repaid for the effort. As they moved to new fields in pioneer days the fishing and hunting improved and fish and game have played a more important part in the development of our country than they are usually given credit for.

Speaking of fishing, I will try to tell you a little incident that happened. There was an old Dutchman who was a good fisherman and he was also a good hand to tell stories. When old John made a trip to the distant rivers, everybody wanted to know about it. One day he was coming back from the river and in passing by a neighbor's house, the neighbor called out, "What luck, John?" John brought his team to a standstill. "Frank, would you believe me, we caught two bushels of fish and two hauls at the same time?" The neighbor said, "No." "We didn't," and then John moved on down the road.

When the pioneer moved to new fields of endeavor he was forced to build a cabin and clear land before he could raise crops and win a livelihood from the soil and the fish-hook and rifle were the implements on which he had to depend until he became better acquainted in his new surroundings. The story is told of a pioneer who with his wife established a cabin some one hundred miles to the westward of the rim of civilization. After living in their new home about two years, one day while hunting about twenty miles to the eastward of his cabin, he heard the sound of an ax. On investigation he found a man building a cabin and a short visit with the new neighbor revealed the fact the man had taken up a homestead and expected to make the place his home. That night when he arrived home his wife inquired why the sorrowful countenance and he explained something like this: "We gotta move again, Ma. This country is settling up too fast."

In the face of established facts, it would seem to me that it is impossible to get too well acquainted with those with whom we must associate. We should be well acquainted with those to whom we sell goods in order to know their needs. It is poor business to sell a man more than he needs and poorer business to sell him more than

DELFT

The World's Best Food Gelatine

HAROLD A. SINCLAIR 160 Broadway NEW YORK

DISTRIBUTORS:

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"Price is a relative term—quality always a concrete fact."

LET NO ONE FOOL YOU—*It's expensive*
GELATINE IS USED IN ICE CREAM—

(1) As a smoother
(2) As a stabilizer
(3) To prevent crystallization
(4) To aid digestion
(5) To increase food value

It is a scientific fact supported by innumerable scientific men, that nothing else on earth, has equal value used as a substitute for good gelatine in Ice Cream.

REMEMBER—The argument that low grade gelatines are just as good as the highest grades is foolish. YOU know it. Use DELFT top quality grades, save money and gain satisfaction.

MEMBER

Harold A. Sinclair

he can pay for. The first mistake will cause him to lose money, the second will cause us to lose money, and if we know our customers as we should know them, we may avoid both mistakes.

I belivee that as business people and competitors, it is to the best interests that all become as intimately acquainted as possible in order that we may promote business on the biggest, broadest possible plane. There are fewer industries at the present time with a brighter outlook than ours and any line of endeavor that will call the attention of the public to the merit of our goods should be worthy of our support, for after all the greatest people of all time have not been those who were able to appropriate to themselves the greatest amount of worldly goods and the great number of material blessings but the greatest people of all time have been those who have been able to render the most and best service to their fellow men. Therefore let us not hesitate to do any good thing that we may have the opportunity to do. May we so conduct our business and other affairs in such manner as to merit the confidence of the public, our competitors and all with whom we come in contact. May we make every effort to become well acquainted in the broadest possible terms and may we so conduct our affairs that none will regret having known us. May our conventions and get together meetings promote the warmest friendship and good will. Let us even get well acquainted with our own families and be on speaking terms and hand-shaking conditions with even our own mother-in-law. (Applause.)

President: Next on the program is "Package Ice Cream," by Mr. P. C. Mojonnier, of Mojonnier Brothers, Chicago.

Continued on next page

The "RICHMOND"

CEDAR PACKING TUBS



NEW STANDARD PKG TUB (VA. CEDAR)

Quality and Workmanship Count. In the "RICHMOND" Tubs—we have both. Made of Selected Virginia White Cedar. Heavy galvanized iron hoops—thick staves and stout bottoms. Prices gladly given on all sizes. Historical Catalog upon request.

RICHMOND CEDAR WORKS
RICHMOND, VA.

"PACKAGE ICE CREAM."

By Mr. P. C. Mojonnier, Chicago.

Mr. President and Gentlemen of the Association: I am pleased at the opportunity to address the Wisconsin Association of Ice Cream Manufacturers and have been kindly assigned a topic, "Package Ice Cream." In arranging this paper, I have endeavored to make it as concise as possible.

For the past several years the ice cream manufacturers in all sections of the country have been dissatisfied with the present method of packing their brick ice cream. At the various meetings of the National Association and at several state conventions which we have been privileged to attend, brick ice cream making has been the topic of much discussion and widely varying ideas. Considerable progress has been made from time to time in perfecting the old method of making brick ice cream, but the majority of ice cream manufacturers have realized that the method in itself was not right and that it would, in time, be abandoned.

In the meantime the sale of brick ice cream, in most localities, has increased by leaps and bounds, but the problem of packing it economically has become a serious one.

Our company has been experimenting for the past three years on such a machine and for two years had several experimental models in a large Chicago ice cream plant where we have constantly and continuously conducted experiments on packing ice cream under factory conditions.

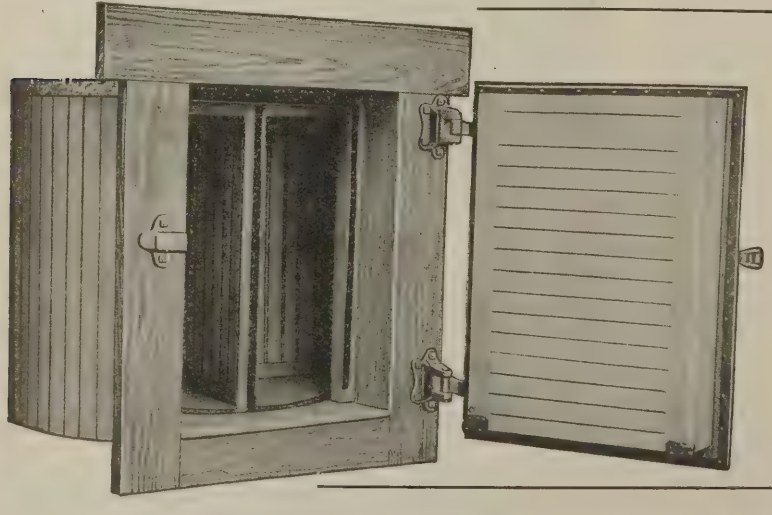
The ice cream manufacturers with whom we worked caught the spirit of the work and co-operated with us splendidly. During this period we have had the opportunity to explode several of our theories and confirm new ones. Mr. E. J. Retzbach, of St. Louis, who has been experimenting along similar lines for about seven years, and who has been granted basic patents on packing ice cream, worked with us, perfecting the machine. In developing the packaging machine we have had many problems to solve, but we can assure the ice cream manufacturers that we have solved the problem of successfully packaging ice cream, as it comes from the freezer in various sized cartons, and colors, and at the same time not reduce the overrun, thus preventing shrinkage, and preserve the straight lines on individual serving, also deliver an equal quantity of flavor of ice cream, even though the viscosity of each flavor is different.

By process of elimination we have developed the present type of the packaging machine which we are now offering.

A word as to what the Mojonnier ice cream packaging machine does. It fills automatically either one quart or pint cartons with one ,two and three flavors of ice cream at a time. It receives the plastic ice cream from the freezer and packs a definite amount directly into the cartons. These filled cartons are then transferred to a container holding 24 quarts and this in turn is transferred to the hardening room. There the ice cream is hardened in the carton ready to deliver to the trade. Nothing is taken for granted in the packaging machine. It is positive in its action. It is of the forcefeed type. A definite amount is drawn, by means of a simple one-piece vacuum valve, this same valve discharges this amount in the desired package. In this connection let us digress to the point of saying that all successful machines have been those positive in action. Among these machines might be mentioned the evaporated milk filler, the milk bottle filler, the telephone, the automobil, etc.

Wtihout a question this packaging machine is out of the experimental stage. Our engineers after repeatedly experimenting on various types of machines and methods of filling packages, found that nothing but a positive feed could be depended upon, as the condition of ice cream as it comes from the freezer varies so much in thickness, in weight and in viscosity. Consequently, they evolved slowly the force feed principle. This has been perfected so that there is no loss of overrun, no shrinkage, full measured quantities of either chocolate, strawberry, fruit creams of any kind, vanilla or sherbets are deposited in each carton. The force feed principle assures each carton being filled with the measured quantity of ice cream. There is no guess work in any operation. It is based on sound mechanical and engineering principles. It handles either soft or stiff ice cream in measured amounts with equal layers. The machine was originally designed to fill the standard open end cartons, quarts or pints. However, with adjustments furnished with the machine it will also fill either round cartons or the "Sealright" type, carry-home pails in pints or quarts or individuals (approximately 1-8 of a quart). It could be styled a universal filler as it will fill any package within reason. The cartons may be used with or without parchment liner as desired by the purchaser.

As to the advantages of this machine. There are so many advantages over the old system of pouring into the slabs, hardening, dipping, cutting, wrapping and rehardening that it is difficult to emphasize the more important ones. The bricks are exact quarts or size desired, no more, no less. The cream has a far better flavor and texture when made into bricks by this new method. The plump, full-measured bricks have been compli-



JAMISONS'

"NOEQUAL" REVOLVING DOOR

is making can-passing easier in Ice Cream Plants and Creameries everywhere.

It passes Ice Cream and Milk Cans back and forth without loss of temperature—and requires but one person to operate when fitted with unloading device.

Standard 5-Gallon sizes in stock.

Send for Catalog No. 10 and Prices

Jamison Cold Storage Door Co.

Formerly
Jones Cold Store Door Co.
HAGERSTOWN MARYLAND, U. S. A.

The Original

Imitated but NOT Duplicated

KEYSTONE BRAND

Orange Pineapple

1922 is a Pineapple year — try these Keystone Pineapple Specialties

Grape Pineapple
Raspberry Pineapple
Maraschino Pineapple (red)
Menthe Pineapple (green)
Lemon Pineapple
Crushed Pineapple

Prepared according to Keystone standards—which means absolutely pure and perfect in every way.

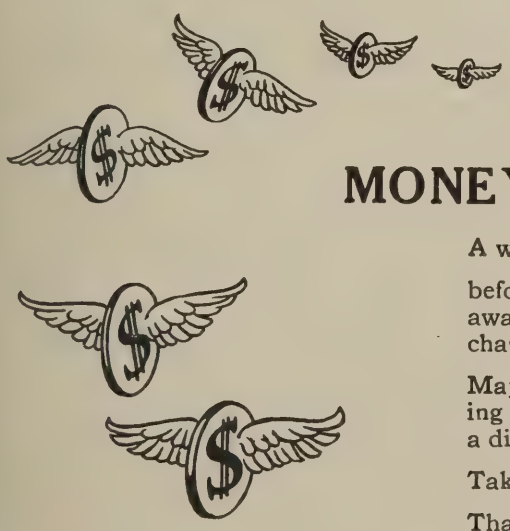
In the nick of time to prepare for the biggest business of your history and to **insure** unbounded satisfaction for your customers. Keystone Orange Pineapple leads the field—why not line up with the leaders? Order N-O-W!

With every order we furnish free, beautiful window strips with your brand imprinted.

Tutti Frutti

A rich, easily worked mixture of marrons, fruits and nuts, flavored to the "queen's taste."

KEYSTONE FRUIT PRODUCTS CO. *Dept. I-C—2* **CINCINNATI, OHIO**



MONEY—MONEY—MONEY!

A worthy thought that, but—

before you go too far, let's figure what is slipping away in good will and lost patronage when you chase the elusive dollar in an ice cream formula.

Maybe you can save a few cents a gallon by making this change or that. But you're bound to get a different kind of gallon with every change.

Take the milk, for instance.

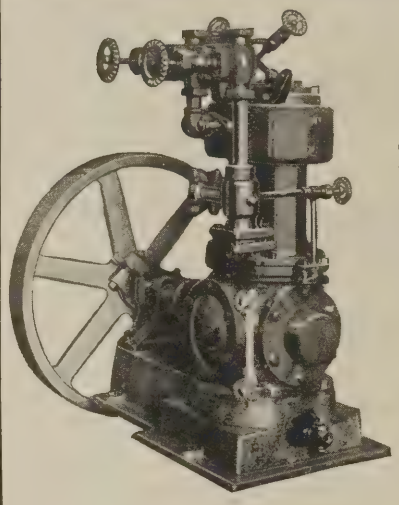
That offers grand opportunities for manipulating prices but—when you do that you play with the quality at that very same moment.

You can be sure of the best results (it has been proven) and you will find the price lower, quality considered if you will use

The Genuine

MERRELL-SOULE POWDERED SKIMMED MILK

MERRELL-SOULE COMPANY
Syracuse, N. Y.



DID You ever stop to think of the saving on reliable refrigeration with small and medium ice cream plants. They pay for themselves in less than a year.

Consulting us will prove these facts

We build complete ice cream equipments and hardening rooms. Also experts on Soda Fountain for mechanical refrigeration.

Our installations are simple in operation and money savers.

Write us your requirement for Ice Cream and Dairy plants.

Reliance Ice Machine Co., Inc.

MANUFACTURERS AND ENGINEERS

1221 Belmont Ave. CHICAGO, U. S. A.

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Milligan & Higgins Gelatine Co.

222-224 FRONT STREET

New York

□ □ □

We have built our business on 54 years of satisfaction to our customers.

□ □ □

Quality and Prices always right.

mented by both the dealer and the consumer. The sanitary way in which ice cream can now be packed is so far above the old method that a comparison can hardly be made. Another advantage from the manufacturer's standpoint is the saving in ice cream that is effected by the new method. Under the old method, there is usually a loss of ice cream while transferring from the freezer to the mould, due to slopping, also frequently moulds are oversize to allow for cutting. There is a loss in cutting the slabs. Conceding upon a most conservative basis the loss will run from five to ten per cent. It is a great labor saver enabling one to make bricks with the same help that turns out bulk ice cream and with no longer a period of time consumed in filling the moulds the old fashioned way. The new package wherever placed has met with the instant approval of ice cream distributors. It is a well known fact that ice cream should not be exposed to the air, such exposure affects the delicate flavor and texture and unless extreme care is taken, an ice crust is formed during the re-hardening after the dipping and cutting operation. The automatic packaging machine entirely eliminates all ice crusts, seals the delicate flavor and aroma right into the carton and prevents exposure to the air until it reaches the table of the consumer. The texture and smoothness of the product is unexcelled when ice cream is filled directly into the cartons by means of the packaging machine. The ice cream is not touched by human hands, the good flavors are all sealed in. The possible bad flavors are all sealed out. These are arguments upon which the manufacture can capitalize in his advertising and sales promotions.

As to the description of the machine. The ice cream packaging machine is manufactured in two models of different capacities. Model "A" hopper capacity is 90 gallons, 30 gallons in each of the three compartments. It will fill automatically 1,200 quart cartons per hour in either one, two or three flavors. This can be increased or decreased, if desired. This machine is operated by two persons. Model "B" hopper capacity is 45 gallons, 15 gallons in each of the three compartments, capacity 900 quarts per hour. This can be slightly increased or decreased if desired. It requires one person to operate it. In both cases the operator closes the cartons and places them in the carry out tray. The hopper is made of a heavily tinned copper and jacketed. The jacket contains a brine coil and felt insulation. Ice cream has been held as long as four hours in this hopper without injury to the product. The construction of the hopper absolutely prevents any change in the ice cream during the packaging process. The revolving table has carton holders designed to hold practically any type of carton. These are furnished with the machine. The motor and gearing are enclosed under a tinned copper hood which may easily be lifted to permit accessibility to any working part. It is built extremely heavy and durable. It occupies a floor space about three and a half feet by eight feet.

How it works. Ice cream is drawn from freezers into five or ten gallon cans and from there poured directly into the hopper of the filling machine. The machine is electrically driven with a one horse-power motor which is furnished as part of the regular equipment. After starting the machine in operation the cartons are placed in the holder upon the revolving table. As each carton is drawn under the discharge openings of the hopper a plunger automatically discharges an exact measured quantity of ice cream into the carton. If perchance for some reason there is no carton in the holder, no ice cream is lost as no ice cream will be discharged unless

there is a carton to receive it. The machine may be very readily taken apart and cleaned due to the simple construction and the fact that all parts are accessible.

In general. One of the greatest possibilities in the use of our packaging machine is that of packaging bulk ice cream. Quite an extended investigation of this was made by some of our representatives during this fall and it was the concensus of opinion among the drug stores and other distributors of ice cream who were interviewed, that they favored the selling of packaged ice cream rather than dishing out and selling bulk ice cream over the counter, that they would rather have the factory do the packaging than to have heir clerks do it or do it themselves. In fact, one large dealer in Austin has for the past year had all of his ice cream that he sells over the counter packed at the ice cream factory. He states that he could sell it for much less than he could sell equal packages of ice cream and still make a satisfactory profit. He states that he could make a sale in much less time than by dishing the ice cream from the can and packaging it himself. One large dealer in St. Louis reported that on a sale of 70 gallons of bulk ice cream he figured that he gives away more than $3.50 of his profits, or a distinct loss of $3.50. Had this ice cream been packaged at the ice cream factory and sold by the dealer at 10 cents a quart profit, on these 70 gallons or 280 quarts, he would have realized a $28 profit instead of $3.50 loss. In the canvass of the dealers it was found that practically all of the dealers are of the opinion that a standard pint and quart carton could be used instead of the present carry home pails now used to package bulk ice cream. This they claim is due to the fact that ice cream from the square or rectangular shape cartons can be served in much more pleasing form than when dipped from the carry home pails.

Every dealer interviewed admitted that bulk ice cream packaged at the factory means to him an assured profit per package and more time to devote to sales. They were unanimously of the opinion that the logical place to package bulk ice cream is at the factory; that the consumers who buy ice cream for home consumption always receive it in package form anyway, and it is a question as to where the packaging should be done. All were unanimous that the packaging could be done much more economically and in much more sanitary manner at the ice cream plant than in the store of the druggist who may be trying to wait on four or five customers at the same time.

One ice cream manufacturer assumed this attitude. "What do we care if the dealer does lose by giving overmeasure? It means more sales for us." However, we feel that upon close analysis you ultimately will agree with me that this viewpoint may lead to erroneous conclusions. The whole fabric of commerce and of human endeavor in its many branches is predicated upon the little word "profit." If the dealer cannot make a profit on the sale of bulk ice cream, eventually the manufacturers will feel the effects of it. The fact that the dealer is even now charging from 30 to 40 per cent more for bulk ice cream than for brick ice cream means reducing the sale of bulk ice cream and in fact reducing the sale of ice cream. Increase in price will decrease the demand or a decrease in price will increase the demand, are the economic rules that govern the world over. Another great advantage of packaging bulk ice cream is that the package will reach the consumer or ultimate purchaser under the manufacturer's own label or trade mark. This prevents substitution. By a little constructive advertising the consumer will soon learn that bulk ice cream packaged at the factory has the same flavor and texture



Patent 6-29-1920—Patents Pending

When The Botton GOES

There is another lease on the life of your tubs left if you

Use The

Frick Bottom Hoop

With this hoop you can replace bottoms that are out, or repair weak bottoms. Making them stronger than when new. In either case, your tubs if equipped with Frick Hoops will last two or three times longer than a new tub of the present type.

This is not a cheap repair job but a permanent improvement. We use heavy rust-resisting metal and hot galvanized after hoop is made complete.

Write us today for further details and prices.

Frick Hoop Company
Corsicana, Texas

PACK YOUR ICE CREAM IN THE RIGHT KIND OF CANS.

as bulk ice cream from the dealer's cans. Advertising packaged bulk ice cream to sell at the same price as brick ice cream would be bound to increase the consumer's demands for ice cream. To realize the best possibilities under this method of procedure would require the close co-operation between the dealer and the manufacturer.

The same problem has been encountered in nearly every other good product. It seems but a few years since packaged oatmeal, packaged soda crackers, packaged butter and dozens of other packaged products were known. It has been only a few years since bottled milk has been the rule. Selling to the consumer goods packed in packages or containers is now the rule.

I thank you, gentlemen. (Applause.)

(To be concluded in May issue)

NATIONAL FARM ORGANIZATIONS DEMAND TARIFF PROTECTION FOR AMERICA'S GREATEST INDUSTRY.

Farm organization delegates from fifteen different states made a concerted, eleventh-hour effort today to obtain a pledge from the Senate Finance Committee that tariff protection would be given dairy products, fats and oils, against the deadly Oriental and South Seas competition which threatens if the tariff oil schedule goes through as it now stands.

They savagely attacked the so-called "Soap Lobby," declaring its demand for duty-free vegetable oils would sacrifice the prosperity of nearly 40,000,000 farmers and endanger the $70,000,000,000 capital now invested in American farms and dairies.

At a conference in the Harrington Hotel, the farm leaders elected F. P. Willits of Philadelphia chairman and Charles W. Holman of Washington as secretary of their committee, and committed themselves to unrelenting warfare against the policy of "free-listing" farm products. They openly threatened to carry their fight to the Senate floor and even to the election polls if necessary, to gain their end.

After prolonged discussion of the situation with friendly western senators, they went en masse to the Capital, sponsored by Senators Gooding and Capper of the farm bloc, and were given full opportunity to state their case by Chairman McCumber of the Senate Finance Committee.

Senator Townsend read a bundle of telegrams just received from Michigan dairymen and farmers and agricultural college experts, which denounced the growing tendency for substitution of cheap vegetable oils in daily foods, referring especially to "oiled" milk, lard compounds, salad dressings, filled cheese and the like.

Senator Lenroot spoke strongly of the farmers' need for protection against the cheap Oriental labor which can be hired for five and ten cents per day, saying: "The soap makers are chiefly afraid that they will lose their large export trade if they do not get these cheap vegetable oils. But the home trade comes first. The importers and exporters oppose this duty for fear other countries will retaliate with higher duties. But if that practice is started, we can adjust our tariffs against imports so as to make them wish they had not."

Senator Capper vigorously urged the need of "protection" for agricultural products, saying: "I have absolute confidence in the justice of this appeal by this delegation of farm organization leaders. This committee should give its most generous consideration to farm interests which have suffered exceedingly and need all the protection that can be justified."

Chairman McCumber of the Finance Committee seemed to agree with the trend of thought by saying: "It seems hardly proper that one section of the country should live under the protection of high duties while another section of our people should be forced to meet the competition of the world's free trade." He inquired if the farmers' committee would favor a tariff that taxed vegetable oils destined for food uses, but admitted free such oils as would be used in soap-making.

C. F. Creswell, statistician of the Dairymen's League, presented evidence showing the immense amount of soya bean oil, copra and cocoanut oil, peanuts and peanut oil which would flow into this country from Manchuria and the tropics where the Yellow and Brown Races have well developed and growing industries.

Albert Manning, master of the New York State Grange, stated that the farmers of America desired to enjoy the same comforts and standard of living as city folks, but that with a free inflow of fats and oils, the American farmer could not prosper and would have to stop producing so many hogs and the corn to feed them; would reduce his cotton crop and give up the new soya bean projects which are now replacing much corn acreage in the middle west.

Fred Shangle of the Inter-State Milk Producers' Association gave figures showing that duty-free oils would benefit only a few people in this country, namely, "348 soap-makers, employing 28,726 people; 42 oleomargarine makers, employing 3,866 people; and the meat packers who make half as much oleo as the other 42 concerns; a few oil refiners and importers."

He declared that the total oleo output was about 374,000,000 pounds only compared with 1,500,000,000 pounds of butter produced by farmers, and that according to the 1920 census, the oleo industry had an "actual value of only $250,274,786 as compared with $70,000,000,000, the actual value of our farms and dairies." He demanded that the Senators go on record as to which industry deserved the most consideration.

The Senate Finance Committee has received about 25,000 letters from laundries and grocery men, instigated by the "soap lobby," according to Senator Calder, so a bitter contest is expected by the farmers.

ROSS JOINS THE CHERRY FORCE.

J. J. Ross, well-known among ice cream manufacturers in the Central West, has taken up his duties as traveling salesman for the J. G. Cherry Company, of Cedar Rapids, Iowa.

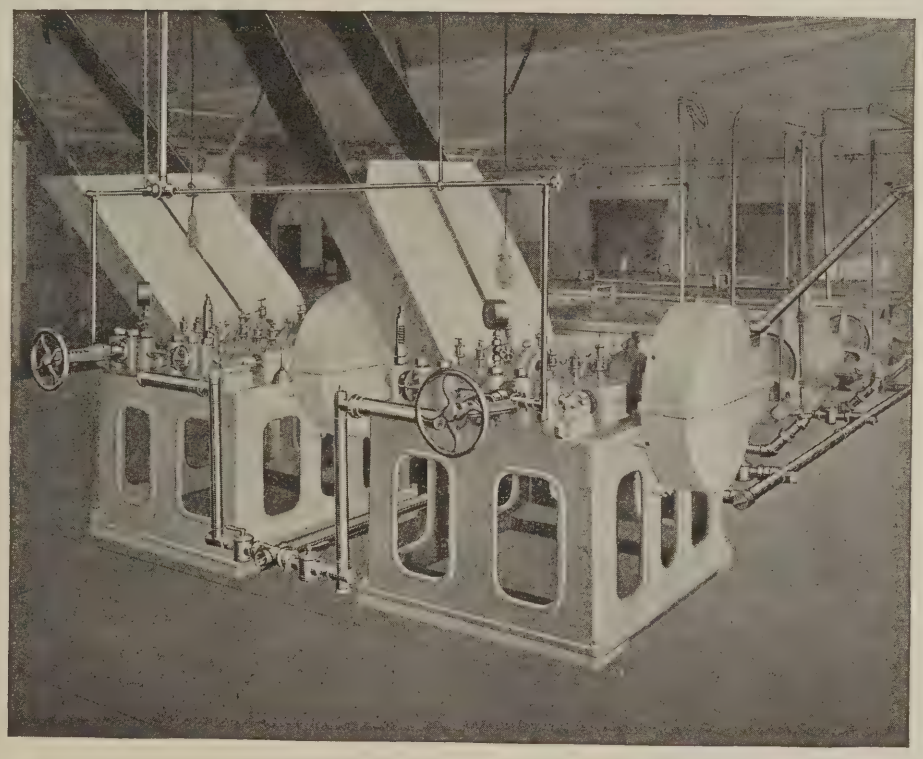
Mr. Ross is to travel the Northeastern Iowa territory.

For seventeen years Mr. Ross made butter in Iowa; and he was a member of the Dairy and Food Department for nine years. He is well versed in the marketing of butter, as he was at one time employed by the Enyard & Godley Company and the Gude Bros., Kieffer Co., of New York City. During 1919 and 1920 he was employed by the Diamond Crystal Salt Company, and during 1921 he was salesman for the creamery machinery and supply department of the Hawkeye Supply Company of Mason City, Ia.

His many friends in the Iowa territory join with us in wishing Mr. Ross success in his new position.

Send news items and personal notices to the "Review" and see how well they look in print.

Breyer's Homogenizing Plan
Includes Two
GAULIN Homogenizers



A FEW may equal but none can surpass the quality of ice cream produced by the Breyer Ice Cream Co., Philadelphia. After experimenting with others they have standardized on Gaulin Homogenizers and every ounce of the mix producing 4½ million gallons of ice cream in a year goes through these two machines.

The Breyer Ice Cream Co. has the reputation of being one of the most efficiently managed plants in the country and their decision in favor of the Gaulin was based on careful tests. It speaks volumes for the efficiency of this homogenizer.

Most of the other plants in America producing quality ice cream have also standardized on Gaulins. They have learned that while a good ice cream maker can produce good ice cream with ordinary equipment, the same man can produce better ice cream and do it easier with a Gaulin. Every particle homogenized in the Gaulin must pass through the Gaulin Spring Homogenizing Valve which crushes it under a pressure of 4,000 lbs. Furthermore, the spring valve feature prevents clogging of the valve as is the case with rigid valves as found on ordinary machines purporting to do what the Gaulin does.

Manufactured by The Manton Gaulin Mfg. Co., 11 Elkins St., Boston, Mass.

Distributed by

THE CREAMERY PACKAGE MFG. COMPANY

CREAMERY MACHINERY
MILK AND CREAM HANDLING MACHINERY
CHEESE MAKING MACHINERY

SALES BRANCHES—(Write to nearest one)

Chicago, Ill., 61-67 W. Kinzie St.
Boston, 138-140 Washington St. N.
Buffalo, N. Y., 133-137 E. Swan St.
Kansas City, Mo., 1408-10 W. 12th St.
Minneapolis, Minn., 318-20 3d St. N.
Omaha, Neb., 113-15-17 So. 10th St.
Philadelphia, Pa., 1907 Market St.
Portland, Ore., 6-8 N. Front St.
San Francisco, Cal., 699 Battery St.
Toledo, Ohio, 119 St. Clair St.
Waterloo, Ia., 406-8 Sycamore St.

ICE CREAM MAKING MACHINERY
REFRIGERATING SYSTEMS
DAIRY MACHINERY AND SUPPLIES

INSEPARABLE COMPANIONS—THE KID AND THE ICE CREAM CONE.

Pacific Association of Ice Cream Manufacturers

Proceedings of Annual Convention, Seattle, Wash., November 14, 1921

The convention was called to order by President Dunne at 12 noon.

Mr. Dunne: Dr. H. M. Read, health officer of the City of Seattle is going to extend to us an address of welcome on behalf of the Mayor of Seattle who is unable to be present. I take pleasure in introducing to you Dr. H. M. Read.

Dr. H. M. Read: Ladies and Gentlemen: I am sure it is a great pleasure for me to be delegated on behalf of His Honor the Mayor of Seattle to say a few words of welcome to such an estimable body of representative business people and to welcome you to Seattle on behalf of the Mayor and its citizens.

You represent a branch of industry of this country that means a great deal to its people. You represent a branch of industry of this country that means a great deal to the health of the people. You are offering and producing and placing before them that which will be of a great deal of importance to them in health and of vastly more importance to them in certain types of illness. I speak advisedly as a physician of some years of practice and as a public health officer.

The history of the ice cream industry is very old in this country as you all know. Any of you who have ever read an old novel called "Elsie Vennor," written by Oliver Wendell Holmes, will find probably the first allusion to ice cream that was ever made in literature.

It is growing in importance as a food product and fills a place in the armature of the doctor that cannot be replaced were it to be taken away. Therefore I trust that nothing will be done here or will ever be done to place any serious embarrassment in the way of the promotion of the industry you represent. We as health officials have only one interest and that is in the purity of the product.

I am glad to say that in Seattle it occupies a very high plane in that respect, and I am sure that the intelligence represented here today by the presence of you men and women is a sufficient guarantee that it will maintain its purity and high standing.

Again let me thank you for the privilege of saying these few words. Of course I cannot do as well as His Honor the Mayor would have done in welcoming you to the city, but I extend to you a most hearty welcome and best wishes for the success of your convention. I thank you.

Mr. Dunne: Dr. Read, on behalf of the Pacific Ice Cream Manufacturers' Association, and on behalf of the National Association, speaking through Mr. Martin, delegated for that purpose, and on behalf of the gentlemen and ladies present, I want to thank you for coming here today and extending this welcome, and in doing so I wish to assure you that nothing will be done at this convention to lower the standard of our product or in any way to make it other than highly nutritious and healthful to those consuming it.

We are pledged as a unit in behalf of the making of a properly regulated ice cream and in addition to that we stand for all of those things that make for perfect sanitation in our plants, good treatment of our employees, which means satisfied employees and consequent loyal service, and in addition to that we are standing absolutely and unqualifiedly against anything that will tend toward the substitution of anything for those vital elements that have tended to raise the standard of ice cream and make it favored by the medical fraternity. We thank you again, Doctor.

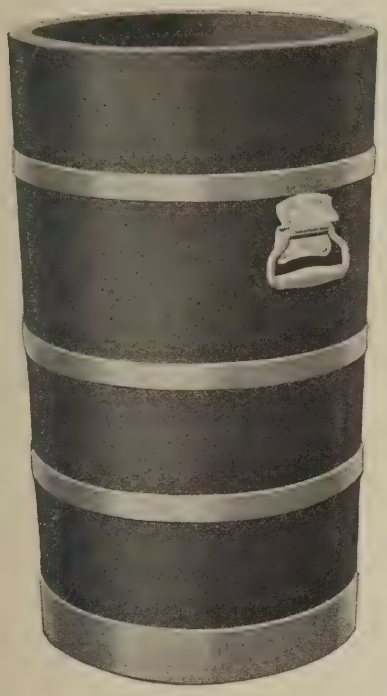
Folks, we are now going to eat and we will not have any more talks until we get through. We want you to meet your neighbors and to get acquainted with them and we thought this would be a good way to break the ice. The registration was a little slow, and that is the reason we thought we would start this thing out in this way. But we are going to start the program on time, and I think the rankest discourtesy on the part of the members of the convention toward those who have gone to the trouble to prepare papers is to arrive late, and from now on when anyone comes in late we are going to sing them a little song which runs something like this, "Come in, come in, come in, you're late, sit down." And any man that is not on time will be given that kind of a reception. We will give it to you in good plain English so there will not be any misunderstanding about the fact that this meeting is going to be called on time and we expect the courtesy of every man's presence at the appointed hour because these speakers have gone to a lot of trouble to prepare their papers and you must show them the courtesy of your presence on time.

(Whereupon the members present partook of a luncheon. At the conclusion of the luncheon at the hour of 1:30 o'clock P. M. of said November 14, 1921, the meeting was opened by all present rising and singing "America.")

Mr. Dunne: It now becomes my pleasure to again address you with a long drawn out speech, and if I take a lot of time, please do not mind it, because I wanted to say a number of things, and I have put it in

PURE VANILLA EXTRACT

ATLANTIC IMPORTING CO.
617-623 Eleventh Ave., New York City
B4



Regular Standard Style
With Double Bottom

TITAN

Ice Cream Packing Tubs

GUARANTEED
to withstand severe conditions to which tubs are subjected

Staves 1 3/16 in. thick, Tongued and Grooved.
Heavy 1⅛ in. Galvanized 18 Gauge Hoops,
2½ in. Hoop at the Bottom.

Inside Diameter Top	Inside Diameter Bottom	Inside Depth	PRICES
15 in.	13 in.	26 in.	F.O.B. St. Louis, Mo. " Topeka, Kan. " Memphis, Tenn. " Dallas, Tex.

Special Size Tubs Made To Order
Also Ice Cream Cabinet Tubs

PRICES ON APPLICATION

MEYER DAIRY EQUIPMENT CO.

3rd and Vine Sts. **St. Louis, U. S. A.**

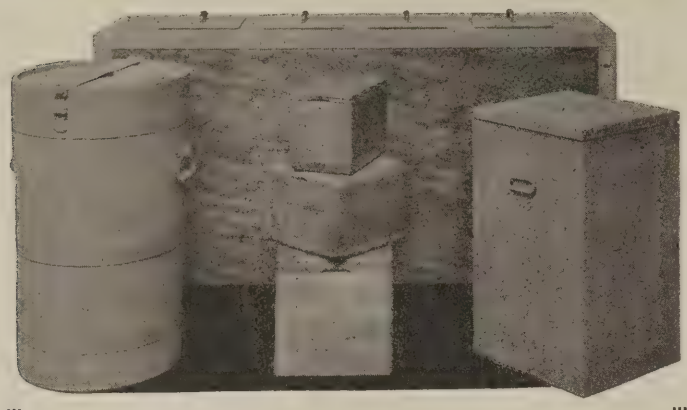
Custards *Flavors*

Maraschino Cherry Custard
Mothers Egg Custard

"Acme" Custards	An exact reproduction of the EGG or CHERRY.
Egg or Cherry	Contains all of Nature's delicate FLAVORS and BLENDED COLORS. A delicious Ice Cream of quality distinction. Working sample for 40-qt. freeze, 36 cents.
Bisque Ice Cream	An imitation of the real Walnut or Shelbark with a nutty flavor. Served to social and banquets as a special. Working sample for 40-qt. freeze, 60 cents.
Perfecto *(Trade-Mark)*	A tested smoother of special value in the making of smoothe and tough Ice Cream. Never fails to give satisfaction.
Concretes	Orange and Lemon Concretes are made from the finest fruits that grow in Northern Sicily.
Extracts *(Non-Alcoholic)*	36 different kinds of fruit extracts. Special blends of Vanilla.
Colors	Certified colors of all shades, highly concentrated.

ACME EXTRACT & CHEMICAL WORKS

Extracts HANOVER, PENNA. ***Colors***



Balsa
Ice Cream Equipment
PATENTED

Deterioration of equipment, expense and slop of ice and salt are done away with by

Balsa Dry Packed Containers

Made of Balsa wood, the only insulator having real structural strength, yet lighter than cork.

Serving Cabinets
Shipping Containers
Special Eskimo Pie Boxes
Ice Packed Cabinets

Let us send you more detailed information about Balsa Products for the Ice Cream Trade

Manufactured by

BALSA

305 Vernon Ave.
Long Island City,
N. Y.

writing and if you will excuse me for imposing upon your time I will now read my address to you.

I urge that all in attendance do the speakers the courtesy to be prompt in your arrival at the speaking time and give your attention to the paper that has been prepared.

You will find pages in the back of the program for making notes, and these should be used for your own records.

If you knew the time these men give to their papers and the job it is to prepare the facts to properly present them to you you would feel it a duty to be here and listen with attention to some of the gems of experience related.

Again I have the privilege of addressing you in an annual address, and review the conditions that have prevailed during the past year in the industry, as well as relate to you the part that our organization has performed.

ADDRESS OF PRESIDENT DUNNE.

History of the Year.

The organization, as you will notice by the secretary's report, has made a satisfactory growth.

The majority of the ice cream manufacturers of the Pacific northwest now belong to our organization. We have legislative committees in each state.

In Oregon, this past year, an effort was made to raise the standard from 8 per cent fat to 12. The legislative committee of Oregon succeeded in defeating this amendment.

In Washington a similar bill was proposed—was referred to a friendly committee, and killed there.

In the state of Idaho, the association went to the then secretary of the Oregon Dairy Council as a representative to Idaho, for the purpose of trying to do something in the way of bringing about favorable legislation in behalf of the amendments desired by the manufacturers of Idaho, but we were not successful, due to the fact that a quarrel broke loose in the house on other matters, and we were not advised in time so that we could overcome it. We sent a representative twice into Idaho for the purpose of assisting wherever it was possible, but failed in our attempt.

We recommend that the people of Idaho present this matter again this year, and that they obtain pledges of the different senators and representatives before they are elected this year, so that they will thus have "friends at court."

We propose, still further, that Guy Helphrey of Northern Idaho present himself for election, because we are assured by those from Idaho who know him that he could readily be elected, and thus bring about a satisfactory adjustment of the conditions in that state, so that the ice cream men would be represented fairly.

Note: Montana has a 10 per cent ruling by its health officers.

Secretary.

It is needless for me to tell you about the work of your secretary. This you are already acquainted with. I must take this moment to compliment him upon the efficient work that he has done in the years that I have been the head of the organization, and the long term for which he has served you, at the expense in many instances, of his own time and money. I feel that it would not be fair to make a report to you without paying particular tribute to the genial secretary, who means as much to the ice cream men as Johnnie Walker does to the men who used to drink it in the long time ago.

We Know You Wash Your Cans

But are they clean? Even though satisfied that your present method of washing cans is all right, investigate the merits of the

IMPROVED LITTLE GIANT CAN WASHER

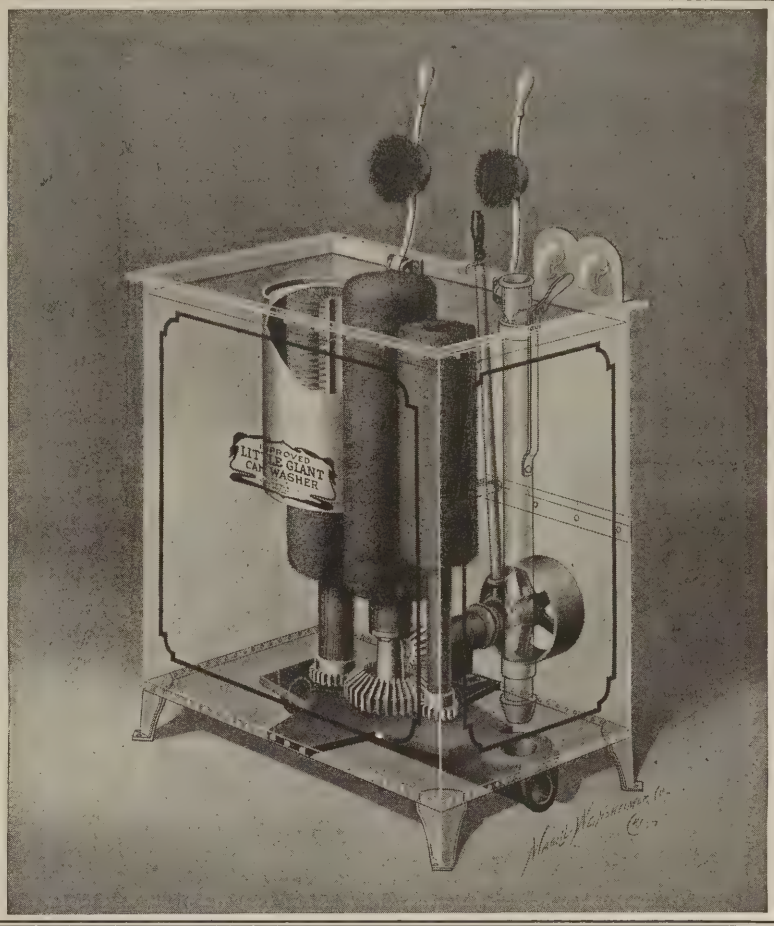
not because we say so—no, indeed—but simply because we know you are interested in learning of any new method which will effect a saving and wash your cans—Quicker—Cleaner and Cheaper than any other method. That's just what this machine does. All sizes of cans are washed—inside and outside—at lightning speed.

Belt and Motor Driven Types

For more information write

C. DOERING & SONS, Inc.
1375 W. Lake St.
CHICAGO

For good Ice Cream Cabinets — Ask us about the Arctic Steel Ice Cream Cabinets



Express Hearing.

We have succeeded in winning our case on ice cream rates in the state of Oregon, shipping for less money than any other state in the United States. We were able to convince the Public Service Commission that the rates that were proposed by the express company were unfair and unjust and without reason. They held with us. This is one specific case where men prepared and handled the case intelligently. It went before the Public Service Commission, based upon facts and figures in our business, hence we held our original rates and weights.

In other words, you are paying, whenever you ship ice cream anywhere else in the Union, on the basis of 115 pounds. In Oregon we are still paying on the basis of 100 pounds, which means we are shipping our ice cream within the state for 43 per cent less than anywhere else.

Necessity of New Express Rates.

We believe that it is time now that action should be taken by the National Association, and I should like to have a memorial prepared by our association, asking that our director take up before the National Association, and ask that the Executive Committee get busy and do something for the purpose of reducing the rates on express. I shall be glad to have you make a notation in the book, so that at a later date, when we get into business session, a memorial can be prepared, and I respectfully request the resolutions committee to make note of this, so that a proper memorial can be drawn and presented at this convention, then sent on to the National Association, asking that special attention be given to the reducing of rates until they are brought to a reasonable basis.

(Continued on next page)

INFERIOR TO NONE

A HIGHLY CONCENTRATED VANILLA

Made of Mexican Beans and Fortified

Will Not Freeze or Cook Out.

THE IDEAL FLAVOR FOR CONFECTIONERY OR ICE CREAM

VAN-MUL

3 drams (10 cents) Flavors 100 lbs. Candy ¼-oz. (5c) Flavors a 5½ Gal. mix of Ice Cream.

Can be made into an extract by adding warm water—1 pound makes 2 gallons.

Price—Per Pound

1 pound Bottles	$5.00
5 pound Bottles	4.50
6-5 pound Bottles	4.25

Special Contract Price **Order Now**

Guaranteed to please or money back

Downey-Turnquist & Co.

Soda Water Flavors **True Extracts**
537 No. Dearborn Street **Chicago, Ill.**

Can You Answer These Simple Questions on Refrigeration?



How may refrigerator machines be classified?

What are the different forms of compressors? What conditions make top expansion desirable and what bottom?

What is the first process in pumping out expansion coils?

Could a single cylinder, double-acting compressor be kept in service while being repaired?

If Not—You Need a Copy of This Book

A practical book that should be handy wherever mechanical refrigeration is employed.

Send $2.00 Today and Get a Copy.

FOR SALE BY

The Olsen Publishing Co.

210 Sycamore Street

Milwaukee, Wis.

Board of Directors—Divisions With Director to Lead.

During the past year, another association has been formed of those people connected in and around Seattle. This plan leads me to offer a suggestion that probably will work out very satisfactorily. I think the Pacific Ice Cream Manufacturers' Association should have units represented in this locality, and headed by the director of the locality which is thus represented. I believe it will succeed in bringing about a bigger and better co-operation, and make it possible to have more subjects come up, handled in a better manner, and leave it possible, in turn, for the member of the Board of Directors from your particular locality to make a report to the Board of Directors of your Pacific Association, and let them have the benefit, or aid, in case of need, in any particular thing that is worthy the consideration of this board, that is brought before them at the request of any of the sub-associations.

Legislation.

These associations could in turn appoint their own legislative committees for their own respective communities and suggest them to the Board of Directors of the Pacific Association, and have the complete co-operation and support, that would result in better work and greater representation. We could correct any legislation that might be offensive, and put in whatever legislation that is necessary.

Legislative Needs.

We had in Oregon, and upon investigation this year, were somewhat surprised to find that through some inadvertence, the clause was stricken out of our law after we thought it was passed, a provision for a five-day return for our empties. This should be incorporated by every state in the northwest in its new demand for the new legislature for the coming year.

We have a representative from Utah here, and we shall be glad to hear from our friend from over there, as to the results they succeeded in obtaining in their legislature. In the early part of the year we sent them a copy of the Oregon law, but did not hear from them again.

Need to Support National Association.

It is needless for me to urge you to support the National Association in every way, and to urge that all who are not now members of the National Association lend their support to this great effort, by becoming members of this association, the applications for which are in the hands of the secretary and on the president's table, and will be handed to you at the conclusion of the first meeting.

Taxes.

I would like to have a memorial presented to the National, also, concerning the tax and depreciation allowed in the income tax returns. I believe that this is a vital question, and we should dwell upon the necessity of having a greater depreciation in our business, on account of the fact that the brine is more destructive upon trucks than in any other business. I would like to have the best brains of this association make notes of this and draw up suitable resolutions, that these in turn can be presented to the National for its consideraion.

The Nuisance Tax, which is the 1 cent tax on cones, should also be abolished, at once, and we must urge the National to give strict attention to this, and see that no other tax is forced upon us that will be dangerous to the industry.

USE

MEXOCINE

High Grade Concentrate

A Compound Bean Vanilla, Vanillin, Coumarin and Tonka Flavor

FOR ICE CREAM AND CONFECTIONS

Impossible to freeze out its true flavor
Forever dependable

Use ¼ oz. (or dessertspoonful) to flavor 10-gallon batch ice Cream.

Use ¼ oz. (or dessertspoonful) to flavor 100 pound batch candy.

Sample cheerfully sent on request

PRICES
Per Pint

1 pint	$7.00
5 pints	6.75
10 pints	6.50
25 pints	6.25
50 pints	6.00

TERMS: 2% 10 days, 30 days net.

REX EXTRACT COMPANY

257 Pacific Street Brooklyn, N. Y.

Order direct or through any of the following well-known firms:

J. G. CHERRY CO.....Cedar Rapids, Ia.
ENTERPRISE DAIRY & CRY. SUP. CO..Cincinnati, O.
CENTRAL OHIO SUPPLY CO.....Columbus, O.
DAIRYMEN'S MFG. & SUP. CO.....St. Louis. Mo.
E. B. GALLAGHER & CO.....Detroit, Mich.
W. L. KNORR CO.....Pittsburgh, Pa.
CHERRY-BASSETT-WINNER CO.....Baltimore, Md.
CHERRY-BASSETT-WINNER CO...Philadelphia, Pa.
N. A. KENNEDY SUPPLY CO.....Kansas City, Mo.
CHERRY-BASSETT-WINNER CO.....Pittsburgh, Pa.

Wages of Men.

The wages of the men in our business continue to be high in the face of what they were before the war. I believe that the wages in our business are now at a standard that may suffer from loss in the next little while, but on the whole have been raised much above what they were before the war, and will continue to be so.

Drivers' Wages—Co-operation.

Many men are succeeding in having much support from their drivers by paying them a commission on sales of merchandise other than ice cream, and in many cases a commission on ice cream, which lifts them out of the class of ordinary men, and makes them salesmen. I believe that a consideration of this by the employers present will probably make it worth their while.

Electric Trucks.

There has been a promised demonstration of an electric truck in the city of Seattle for the convention. Whether it will be here or not I do not know. Mr. J. J. Canavan, representing the Walker Electric, has promised that they would have one of the trucks in Seattle for the purpose of making a demonstration. There are some of the trucks now in operation in Los Angeles, and during a recent visit there, I was surprised to find the very low cost of transportation with the aid of these trucks, and recommend to all who are interested in short haul transportation that they consider the electric truck as one of the vital factors in matters of transportation, and should be weighed carefully by those needing new equipment.

Trucks.

Truck weight is to be the basis of license fee and road permit in the future. If recent laws that have



The Texas Barrel Company

is still manufacturing the best Ice Cream Tub on the market. Our increased sales assure us of that fact.

We were the pioneer makers of the TALL TUB and all other makes are imitations. While we are improving this TUB all the time, our imitators are content to stand still and hang on.

Specially prepared bottom so constructed as to withstand extremely rough treatment.

Can make immediate delivery.
Write for prices.

Texas Barrel Company

HOUSTON *Box 665* TEXAS

ICE CREAM MIX READY FOR FREEZING IS ON THE MARKET.

been enacted are a criterian. I urge you to weigh this fully when considering new equipment.

Refrigerating Body.

The refrigerating body is meeting with success in Southern California, and there are some new ideas that are being put out along this line that may be worthy of consiredation. I found one long haul on which they were using the refrigerating body, and it seemed to be giving exceeding good results, and seemed to have a new idea—the pipes being brought out and assembled on the coast. It will be well to have every man here when the speech on the long haul is being considered.

We find that the long haul concerns throughout the country are now abandoning it because they find it too expensive. I found some of the men in California complaining of the excessive cost of long hauls, and others loud in their praise, and will be particularly interested in the paper that is coming here. I ask every man to give special attention to it, so that when we get to the round table session, they can take this matter up in full and go over it carefully.

Weight Legislation.

The papers dealing with the weight question will be brought up, and should be considered very seriously. California has gone through this fight and it has been indeed a scrap. In addition to that, they have had some adverse legislation.

Mr. Dryden from Oakland will handle this question in a paper, and being a past master in the science of milk, he will be able to tell you many things that are surprising, and can be used by your legislative committees in the future. We ask every man to be sure to be present when this paper is read.

Substitute for Milk.

The speaker is particularly anxious to have you bear in mind that there are a number of plans out now to consider the possibility of using substitute oils, and other substitutes in the making of ice cream.

Ice cream has been decreed by the National Government to consist of milk, cream, condensed milk, sugar, flavoring, and unsalted butter and sweet milk when put through a homogenizer. Anything outside of this is NOT ice cream.

We have found it necessary during the past year to call attention to the fact that some of the manufacturers in the northwest were using substitutes and making the ice cream a pudding instead of a cream. It was necessary to do this, and I urge caution. Every manufacturer must realize that the danger of destroying our business is present in every batch of ice cream thus made, and it is well that we urge care, again.

Whenever ice cream is changed into a pudding by substitutes it ceases to be ice cream, and deserves the censure of those men who are engaged in legitimate ice cream making.

I would like to have a record vote of this Association upon this matter and will be glad to have you jot this down in the books, so that you can take this up in due time.

Another matter that I am particularly anxious about is that we should have a record vote on the matter of substitute fat. We must be opposed absolutely and unalterably to the substitute of butterfat in which Soluble A is found. There is no vitamine in any substitute fat that might be used. There is no fat that might be used that can compare in any way with butterfat. Therefore it is needless for me to dwell upon the value of this in the upbuilding of our industry, and I caution you, again, to give this matter serious and earnest consideration. Stand 100 per cent against the use of substitute fats in any dairy product whatsoever.

I believe that it is well for us to discourage as far as possible, and urge legislation against the use of filled milk, or any other substitute, because this is truly an infringement upon the farmer, and the public health and leaves a dangerous way for the intrusion upon our business by the people who are engaged in such manufacture.

Necessity for Constructive Co-Operation.

The necessity for constructive co-operation will be brought before you by several papers, and we urge upon you that you also listen carefully to these papers, giving a history of the quarrel that has broken out between several of the ice cream manufacturers in an adjacent city. We believe that it is well that this matter be weighed carefully and considerable attention and thought be given to this matter.

Dairy Council.

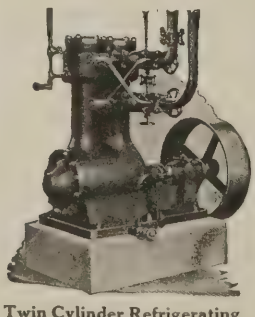
We believe that were there an effective Dairy Council in this locality to step in and assist in the straightening out of the troubles that are bound to exist when a quarrel of this nature is going on, that it would have earned its support in this one instance alone.

Joint Advertising.

The possibility of joint advertising through the aid of a Dairy Council must be evident to every man who is engaged in the business. A campaign of education could be carried on through a Dairy Council that would tell the people of the value of ice cream as a food, could tell the story of ice cream being a food when construct-

(Continued on page 109)

THE VILTER MFG. CO.



Twin Cylinder Refrigerating Machine.

830 Clinton Street
MILWAUKEE, -- WISCONSIN

If this small Refrigerating Machine is not large enough to handle your Ice Cream Trade, **Remember** we build

Refrigerating Machinery

of any capacity desired.

Practical Accounting That Constantly Influences the Increase of Net Profits

The E. C. Bishop Co.

Industrial Accountants

AUDITS SYSTEMS APPRAISALS INCOME TAX SERVICE

523-24 Lemke Bldg. Indianapolis, Indiana

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Pure Vanillas

Atlas Pure Vanilla Extracts are guaranteed to be of Highest Quality and Purity and to give absolute satisfaction in each and every case.

Before placing your next order, let us send you a trial quantity

Manufactured by

H. KOHNSTAMM & CO.

NEW YORK *Established 1851* CHICAGO

83-93 Park Place 11-13 E. Illinois St.



STOUT Schroeder Perfection

Ice Cream Cabinets

"Insulation is the Thing"

Tub Lined — insulated with fine regranulated Cork, packed by our special process. It's the method of packing that really secures the "complete" insulation.

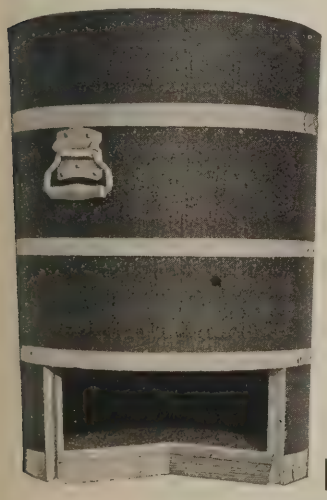
Metal Lined—outer walls lined with Asphaltum paper, next to this "pure" *baked* cork board. Baking the air "in" is what keeps it in the cells of the cork, preserving its insulation qualities. It is 3 in. thick at bottom and tapers to 2 in. at top, protected by wooden inner wall with galvanized metal liner.

The honest, substantial construction and the "real" insulation qualities make Stout-Schroeder Perfection Cabinets the "preferred" cabinet of dealers who have tried them all.

Either type of construction furnished in the Panel Smooth Surface 600 line or the Standard Ceiling Finish 1200 line.



The 600 Line.



See that Wedged-in Bottom with Buffer Projection which protects the staves against careless dropping of the tub. Positively guaranteed the strongest tub bottom made.

Stout Cedar Tubs

—built of close grained cedar, well seasoned and treated to resist water absorption. Cedar construction gives a lighter weight tub with the best qualities of durability.

We guarantee Satisfaction and Prompt Shipment.

THE STOUT CRATE COMPANY

375 Broadway, Milwaukee, Wis.

DO YOU REALIZE THAT GOOD CARTONS WILL INCREASE BRICK SALES?

Powdered Milk Market Report for March, 1922

By Bureau of Markets and Crop Estimates, United States Department of Agriculture.

Prices Paid for Raw Material Delivered During February, 1922, F. O. B. Factory.

Geographic Sections	Whole Milk			Buttermilk per gallon	Skimmilk per cwt
	Price per CWT	Butterfat Basis	Allowance 0.1 p. c. fat		
New England	1.68	3.5	3.7	...	..
Middle Atlantic	1.49—2.00	3.5	4—5	...	20—33
South Atlantic	1.90	3.5	4	...	..
E. North Central	1.25—1.90	3.5	4—5	...	..
W. North Central	1.75—2.32	3.5	3	½—.8	..
South Central	....	...	..	...	..
Northwestern	1.53	3.5	4	...	..
Southwestern	1.40	3.5	..	...	..

Manufacturers' Wholesale Selling Prices During February.

The wholesale prices given below are based on reports of manufacturers covering actual sales made to jobbers, wholesale grocers, and similar buyers on basis of cash or short time credit with freight included to distributing point in each section.

Prices in the column headed "Range of Prices" are the highest and lowest reported by all firms. Those given under "Bulk of Sales" are the highest and lowest reported by different firms as the "bulk of sales" prices.

Geographic Sections		Whole Milk Powder		Skim Milk Powder		Buttermilk Dried	
		Range of Prices	Bulk of Sales Prices Fresh Goods	Range of Prices	Bulk of Sales Prices Fresh Goods	Range of Prices	Bulk of Sales Prices Fresh Goods
N. E.	Case	.....	60	23–33	23–33	.....	9½
	Bulk	28–29	28–29	6½–12	7–12	6.13–10½	6.5–10½
M. A.	Case	.....	60	23–33	23–33	.....	.....
	Bulk	25–32	25–32	5¾–12	5¾–12	5¾–10½	6½–10½
S. A.	Case	.....	62	23–36	23–36	.....	11
	Bulk	28–29	28–29	7½–12	7½–12	6.6–10½	6.9–10½
E. N. C.	Case	31–60	31–60	23–33	23–33	.....	9½
	Bulk	21–29	21–29	5¾–12	5¾–12	5.34–11½	6.6–10½
W.N.C.	Case	.....	60	23–33	23–33	9½–12	9½–12
	Bulk	28–29	28–29	4–12	4–12	3½–10½	3½–10½
S. C.	Case	.....	62	23–36	23–36	10½–12	10½–11
	Bulk	28½–29	28½–29	7½–12	7½–12	5¾–11½	7–10½
N. W.	Case	35–65	38–65	23–38	23–38	.....	10½
	Bulk	28–30	28–30	6–12	6–12	7.65–11½	7.65–11½
S. W.	Case	46–65	40–65	20¼–38	20¼–38	.....	10
	Bulk	30–35	30–35	7½–12	7½–12	5–11½	5–11½

NOTE: Bulk goods includes that sold in barrels and drums. Case goods includes that sold in tin containers.

NOTE: Skimmilk powder for export trade was reported sold at 10c per lb. F. A. S. Atlantic Seaboard and 8c per lb. F. A. S. Pacific Seaboard.

New England (1)—Maine, New Hampshire, Vermont, Massachusetts, Rhode Island and Connecticut. Middle Atlantic (2)—New York, New Jersey, Pennsylvania. South Atlantic (3)—Delaware, Maryland, Dist. of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia and Florida. East North Central (4) Ohio, Indiana, Illinois, Michigan and Wisconsin. West North Central (5)—Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska and Kansas. South Central (6)—Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, Oklahoma and Arkansas. Northwestern (7)—Montana, Wyoming, Idaho, Washington and Oregon. Southwestern (8)—Colorado, New Mexico, Arizona, Nevada, Utah and California.

(Continued on page 108)

PLEASE MENTION THE ICE CREAM REVIEW WHEN WRITING TO ADVERTISERS



Manufacturers of Pure Food Gelatines

BUILT on all the LATEST, UP-TO-DATE, LABOR SAVING LINES to produce ALWAYS a uniform ARTICLE.

Our RAW STOCK supplied by our OWNERS assures THIS.

Our Grades are of the HIGHEST QUALITY OBTAINABLE, clear to the point of TRANSPARENCY, SWEET, FREE OF ODOR, and GUARANTEED to comply with all STATE and NATIONAL PURE FOOD LAW REQUIREMENTS.

ITS USE INSURES GOOD TEXTURE AND A SMOOTH CREAM.

A TRIAL ORDER will convince you that these are the best grades of GELATINE in proportion to price that can be secured.

ATLANTIC GELATINE COMPANY

HILL STREET, WOBURN, MASS.

BRANCHES:

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Room No. 3415
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Suite 510-11
118 No. La Salle Street

BALTIMORE
1012 Union Trust Bldg.

SAN FRANCISCO
Suite 240 Hansford Block
268 Market Street

MERIDALE POWDERED MILK



Meridale Powdered Skimmed Milk is made with a view of retaining the normal flavor of high grade milk.

Meridale Powdered Whole Milk is a protection to ice cream makers especially when the supply of cream is short. In such cases, use Meridale.

39 South Water St.
PHILADELPHIA

AYER & McKINNEY

541-543 W. 22nd St.
NEW YORK

Manufacturers of Whole and Skimmed Milk Powder of Quality

DISTRIBUTORS:—Jos. Middleby, Jr., 327-347 Summer St., Boston, Mass. Lee & Saddler Company, Atlanta, Ga. Haines-Carpenter Dairy Products Co. 716 N. 18th Street. St. Louis, Mo.
SOUTHERN REPRESENTATIVE:—C. Gibson Ford, 1012 Union Trust Building, Baltimore, Md

THE STORY OF THE HOMOGENIZER SHOWS A SPLENDID RECORD.

Condensed and Evaporated Milk Market Report

By Bureau of Markets and Crop Estimates, U. S. Department of Agriculture.

Manufacturers Wholesale Selling Prices of Condensed a nd Evaporated Milk (February)

The wholesale prices given below are based on reports made by manufacturers covering actual sales of condensed and evaporated milk to jobbers, wholesale grocers and similar buyers, delivered at manufacturers' distributing points on basis of cash or short time credit. Foreign prices are given as F. O. B., or F. A. S., points of export in section in which sales were made.

Geographic Sections	Sweetened Condensed, Bulk, Per Cwt. Unskimmed	Skimmed	Unsweetened Evaporated, Bulk Per Cwt. Unskimmed	Skimmed
New England—				
Range	6.38—9.50	3.59—7.50	9.50	4.00
Average	8.35	4.79	9.50	4.00
Mid. Atlantic—				
Range	7.00—10.00	3.50—7.50	6.50—12.00	2.20—6.60
Average	8.80	5.28	8.50	3.47
So. Atlantic—				
Range	8.50—9.50	3.75—7.50	....	4.00
Average	9.00	5.03	....	4.00
E. N. Central—				
Range	8.00—9.50	3.00—7.50	6.50—8.75	2.00—6.45
Average	8.63	4.75	7.55	3.96
W. N. Central—				
Range	8.50—9.50	4.25—7.50	7.16—8.33	3.33
Average	9.00	5.73	7.75	3.33
So. Central—				
Range	8.50—9.50	4.25—7.50	....	....
Average	9.00	5.80	....	....
No. Western—				
Range	8.00—9.50	5.65—7.50	....	4.10—4.40
Average	8.83	6.38	....	4.25
So. Western—				
Range	9.50	5.65—7.50	....	....
Average	9.50	6.75	....	....
United States—				
Range	6.38—10.00	3.00—7.50	6.50—12.00	2.00—6.60
Average	8.80	5.08	7.97	3.78

New England—Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, Middle Atlantic—New York, New Jersey, Pennsylvania. South Atlantic—Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida. East North Central — Ohio, Indiana, Illinois, Michigan, Wisconsin. West North Central—Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas. South Central—Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, Oklahoma, Arkansas. North Western—Montana, Wyoming, Idaho, Washington, Oregon. South Western—Colorado, New Mexico, Arizona, Utah, Nevada, California.

CONDENSED AND EVAPORATED MILK MARKE TS SENSITIVE AS HEAVY PRODUCING SEASON APPRO ACHES.

Trading in condensed and evaporated milk markets has continued rather slow, but the general situation appears to show a little healthier condition, although markets are still very sensitive and will likely respond quickly to any depressing factor which might develop. At the low prices which prevailed during February, much of the surplus was cleaned up through European relief and other buying, March 1 total stocks in manufacturers' hands as reported being over 18,800,000 lbs., less than on February 1. The bulk of this heavy reduction occurred in evaporated case goods which made up practically all of the relief orders. The large quantities of goods which have been absorbed for European relief have constituted one of the principal supporting factors during the past few months, and it is the possibility of a much lessened demand from this source which may be regarded as a future influence of importance. It is reported that large quantities of canned milk from New Zealand and Australia have been offered to European buyers at prices which are prohibitive to American manufacturers.

Season of Heavy Milk Production Approaching.

Condenseries have been maintaining a relatively low production through the recent dull months, which has relieved the situation to a considerable extent, and it is felt that if this rate is not increased too rapidly a normal condition will be more quickly attained. On the other hand, however, it appears from the present outlook that should manufacturing on a scale approaching capacity be resumed, the danger of heavy accumulations of stocks would be encountered, because present demand is being well taken care of by current production. The approach of the season of heavy milk production is another factor not being lost sight of, and already in some sections the milk flow has shown quite an increase. Relatively higher cheese prices have diverted to cheese manufacture large quantities of milk ordinarily going into the condensed or evaporated product, numerous condenseries themselves having changed to this product. Fresh cheese prices have held fairly well under quite a good consumptive demand, and have

(Continued on page 108, second column)

PLEASE MENTION THE ICE CREAM REVIEW WHEN WRITING TO ADVERTISERS

Dunn's Celebrated Gelatines

Guaranteed to Comply With all State and National Pure Food Laws

Specially manufactured and blended for use in the

Ice Cream Industry

Also owners of "COX'S GELATINE" in the "Checkerboard Box"

THOMAS W. DUNN COMPANY

248 Front Street, New York

Canadian Office and Warehouse **9 St. Sulpice Street, Montreal**

Bewitching Ice Cream

Bewitching Ice Cream, laden with Fruit and irresistible—The Most Tempting and Delicious that ever graced a Soda Fountain or Family Table, can be made by adding

BLANKE-BAER Orange Pineapple Bits

Combines the Bewitching Flavor of California's Sun-kissed Oranges with the most Tender and Delicious Meat of Pineapple from Hawaiia's Finest Plantations.

Put up in Gal. Glass Jars, No. 12 (Gal.) Cans, 10 Gal. Kegs, Half Barrels and Barrels.

Order a Trial Lot TODAY
SATISFACTION GUARANTEED
We manufacture a full line of Fruits and Flavors — Ask for Catalog.

Blanke-Bear Extract & Preserving Company

3224-34 South Kings Highway **ST. LOUIS, MO.**

MANUFACTURERS UNSOLD STOCKS OF CONDENSED AND EVAPORATED MILK

Includes all stocks held by manufacturers which were not sold or under contract for delivery on unfilled orders.

Commodity	Total Unsold Stocks Mar. 1, 1922		Comparison of Unsold Stocks For Same Firms Reporting			% Inc. or Dec. Mar. 1, 1922 over Mar. 1, 1921
	Firms	Pounds	Firms	Feb. 1, 1922 Pounds	Mar. 1, 1922 Pounds	
Condensed Case Goods	15	16,582,242	15	15,251,353	16,582,242	— 38
Condensed Bulk Goods	41	2,951,140	41	5,235,127	2,951,140	— 54
Evaporated Case Goods	37	89,737,472	34	108,921,786	89,548,152	+ 94
Evaporated Bulk Goods	19	124,772	19	208,008	124,772	— 60
Total	60	109,395,626	58	129,616,274	109,206,306	+ 38

UNFILLED ORDERS FOR CONDENSED AND EVAPORATED MILK

Includes the amounts of each commodity for which orders have been received by manufacturers whose orders were in excess of their unsold stocks.

Commodity	Total Unfilled Orders Mar. 1, 1922		Comparison of Unfilled Orders For Same Firms Reporting			% Inc. or Dec. Mar. 1, 1922 over Mar. 1, 1921
	Firms	Pounds	Firms	Feb. 1, 1922 Pounds	Mar. 1, 1922 Pounds	
Condensed Case Goods	1	28,938	1	.....	28,938	..
Condensed Bulk Goods	1	12,583	1	.....	12,583	..
Evaporated Case Goods	6	2,949,750	6	240,000	2,949,750	+ 27
Evaporated Bulk Goods	..	.....	..	.....	.....	..
Total	6	2,991,271	6	240,000	2,991,271	+ 29

MONTHLY POWDERED MILK MARKET REPORT.

(Concluded from Page 104)

Manufacturers' Total Stocks of Powdered Milk.

Includes all stocks held by manufacturers reporting whether manufactured by them or purchased from others; whether on their own premises; in storage; or in transit (unsold) for warehouse consignment; and whether sold or contracted for sale but not delivered.

TABLE I.

Total Stocks of Powdered Milk Products.

Commodity	Code	Pounds Mar. 1, 1922	Pounds Mar. 1, 1921
Whole Milk Powder	Case	197,903	202,224
	Bulk	586,863	465,533
Skim Milk Powder	Case	203,978	195,276
	Bulk	7,675,497	16,729,213
Part Skim Milk Powder	Case	.....	.....
	Bulk	100,217	3,851
Cream Powder	Case	.....	.....
	Bulk	68,494	47,990
Dried Buttermilk	Case	89,979	.....
	Bulk	718,632	545,802

Manufacturers' Unsold Stocks of Powdered Milk.

Includes that portion of stocks reported in Table 1, not covered by current sales or future delivery contracts.

TABLE II.

NOTE—Bulk goods includes that sold in barrels and drums. Case goods includes that sold in tin containers.

Unsold Stocks of Powdered Milk Products.

Commodity	Code	Pounds Mar. 1, 1922	Pounds Mar. 1, 1921
Whole Milk Powder	Case	197,903	202,224
	Bulk	394,543	179,533
Skim Milk Powder	Case	203,978	145,276
	Bulk	6,063,566	15,105,713
Part Skim Milk Powder	Case	.....	.....
	Bulk	100,217	351
Cream Powder	Case	.....	.....
	Bulk	53,494	13,890
Dried Buttermilk	Case	89,979	.....
	Bulk	634,792	469,997

EXPORTS OF CONDENSED AND EVAPORATED MILK FROM THE UNITED STATES.

	Condensed Pounds	Evaporated Pounds
Total exports February, 1922		510,881
Total exports February, 1921		241,229
Jan.-Feb. (inc.), 1922		1,215,468
Jan.-Feb. (inc.), 1921		764,256

EXPORTS OF POWDERED MILK FROM THE UNITED STATES DURING FEBRUARY, 1922.

Total, February, 1922	6,349,179	13,801,441
Total, February, 1921	7,797,646	14,032,426
Jan.-Feb. (inc.), 1922	14,360,199	23,941,956
Jan.-Feb. (inc.), 1921	19,739,206	32,282,827

CONDENSED AND EVAPORATED MILK MARKETS SENSITIVE AS HEAVY PRODUCING SEASON APPROACHES.

(Continued from page 106)

been supported also because of a general shortage of fancy cheese, although cheese markets now are barely steady, and recent price tendencies are downward.

1922 Exports Lighter Than a Year Ago.

February exports were slightly heavier than during January, but for the two months of this year, January and February, there was a falling off as compared with last year of 5,379,000 lbs. of condensed and 8,340,000 lbs. of evaporated, or a combined decrease of over 13,700,000 lbs. Exports of evaporated during February more than doubled condensed goods, and of the 13,600,000 lbs. of evaporated shipped, the export report indicated that approximately half went to those European countries for which relief buying had taken place, principally parts of Russia.

Don't let that used machinery of yours stand in your way. Turn it into cash by advertising it for sale in the "Review" Want Department.

PACIFIC ASSOCIATION OF ICE CREAM MANUFACTURERS.

(Continued from page 102)

ed along a certain line, and a luxury when constructed on others. In other words, if you wanted to show the ice cream which is considered the ideal ice cream by Professor Washburn, his argument could be advanced through the Dairy Council and the people could be educated along these lines, and it could be shown the folly of getting a 20 per cent fat, which is, as Professor Wasburn has oftimes told us, like feeding a furnace in the summer time, and show the value and cooling effect of ice cream with approximately ten per cent fat, or eight per cent fat, as the case may be, because that is a point or argument between many people—the value of solids in ice cream, making it a food instead of a luxury where the high fat is used.

This subject will be covered by the Secretary of the Oregon Dairy Council, who has been the State Dairy and Food Commissioner for the State of Oregon for the past eight years, and his talk upon this subject will be well worth listening to.

National Dairy Congress.

We have a letter from Professor Van Norman, which will be read by the Secretary, setting out the request of the National Dairy Congress for a subscription from our Association of $1,000 membership, and the election of a member to represent us upon the National Dairy Congress. The National Dairy Congress is a show proposed for 1923, and is expected to bring the dairy people from all over the world, to tell us of the advance of science in that particular part of their particular work, and will undoubtedly be worth every penny that is spent for it.

Whether this Association is in favor of spending this $1,000 and a pledge to this effect can be obtained here, or not, is a matter that must be considered by the members.

If it is the desire of the membership that there be a special committee for the purpose of considering this matter, I would like to have a notation made of this so that in due time it can be brought up by the members from the floor. Professor Van Norman's letter will be read by the Secretary in due time.

Winter Business

I would like to have the question of winter business be entered upon your book also, and a most earnest discussion from the floor as to the possibility of increasing ice cream sales through winter consumption. I believe that some effort should be made along this line, and I think that if we could increase the ice cream business so that we would be doing at least fifty per cent of the amount of business that we are doing in the summer time, it would be of tremendous value to us in the business as well as good to the population. I shall be glad to have this matter given special attention and care.

New Invention.

In the general review which I have presented to you, it would scarcely be right for me to close my paper without calling attention to the new inventions which are labor saving devices, and which will pay the expenses of any man to this convention if he will study them well.

The inventions of Mr. Roy Meyers, associated with Mr. George Burt of the Crystal Ice and Storage Co., of Portland, of the brick making machine and the tub packing machine, they are worthy the attention of every member here assembled, and those who have not made their acquaintance should do so. They have been

"Packaged Ice Cream"



FOR many years the approved method of marketing perishable food, such as butter, milk, oysters, crackers, cookies, oatmeal, etc., has been in the original package, prepared and sealed at the factory.

Ice cream in the original packages has not been popular, owing to the expensive, antiquated method of preparing bricks.

The Rogers

Automatic Ice Cream Brick Maker

makes feasible and possible the economical preparation of ice cream in bricks in one, two or three colors or flavors.

The boxes, pints or quarts, are fed through the machine automatically. The flavors are put into the boxes evenly and uniformly and the filled boxes are automatically discharged at the other end of the machine.

These cartons go directly into the hardening room. Bricks made in this manner eliminate the undesirable ice shell or ice between the layers which is bound to form by the re-hardening of each layer of ice cream. The quality of the product is therefore improved.

Operating at four gallons per minute, either solid or Neapolitan Bricks are made with less trouble and less expense, by far, than solid bricks could be packed in the old way.

Contrast this simple, sanitary method with the old method of hand-made bricks, using the slab, filling each flavor and hardening, dipping, stripping the slab, cutting, wrapping and cartoning the bricks, and washing and storing the slabs.

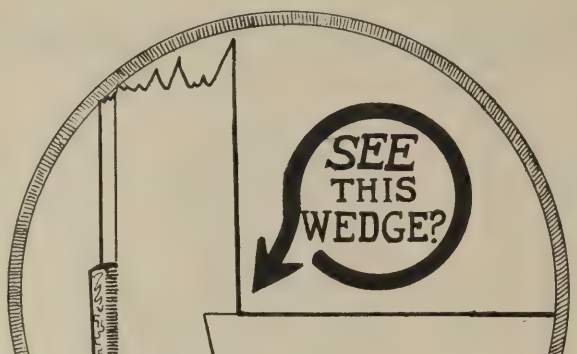
The Price of the Brick Maker is $1,500.00
F. O. B. Detroit

"DIRECTORS OF DISTRIBUTION"

JOHN W. LADD COMPANY

"National Approved" Ladd Distributors Specialties"

DETROIT CLEVELAND



The Greater the Weight Inside, the Tighter the Bottom

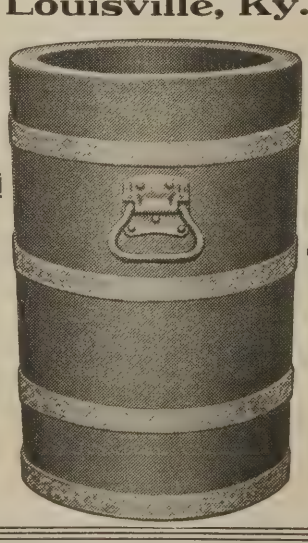
The wedge shape construction of our tubs absolutely prevents the bottom being forced out, while the shoulder or offset also keeps the bottom from going in.

Extra heavy and wide galvanized bottom hoop on all tubs of this construction, making them the STRONGEST TUBS ON THE MARKET TODAY.

This bottom construction is on all tubs, 8 to 20 quarts.

Let us fully explain the advantages of our ice cream tubs and cabinets without obligation. Write today!

GAMBRINUS
COOPERAGE WORKS
Louisville, Ky.



Our Ice Cream Cabinets are also Universally known.

The results of Forty-Four Years of Cooperage Experience

a revalation in the manufacture and handling of ice cream in the city of Portland, and I commend their consideration to you most earnestly.

Brick Ice Cream.

To the advertising unit of your business I urge you to package your ice cream in an attractice container that tells the story in picture form. To keep your stock so marked that it may be identified and moved forward to keep it fresh.

In addition, there have been two other ice cream packing machines that have recently been invented and placed upon the market by C. E. Rogers, of Detroit, and Mojonnier Bros., of Chicago. One of the Rogers machines will be demonstrated at the plant of the Seattle Ice Cream Co. during this convention, while a Mojonnier machine can be seen at the Velvet Ice Cream Co.

There have been some other inventions—scientific—particularly the contama tester, which will prove to those of you who are receiving milk, at the end of two hours, whether you are receiving a proper milk or not, and make it possible for you to arrest bad milk and make samples to find the true bacteria count within two hours after receipt of the product. This you can readily appreciate will be of tremendous value to you and should also be considered by every person here.

Another invention is a vending machine, invented by Mr. Weisroth, which will be displayed in the hotel here during the convention.

These are the only inventions that come to my mind at this time, that have reached any degree of prominence this past year, although some new ideas as to the mixing of cream are being considered, and probably will be presented to us here. We shall be glad to hear from those who are acquainted with anything else besides those patents here outlined.

California Convention.

Finally let me ask that this Association send a big delegation to visit with the California Association during its coming convention at Stockton, to show our appreciation for their visits with us and to help a fellow association of which we are proud.

Booze Question.

I wish to say a few words about a condition that has existed during past conventions which I trust will be taken entirely in the spirit in which it is intended. Some of the ladies have come to me and made complaints about the actions of some of those attending our conventions who have been rather indiscreet in the matter of liquid refreshments they have consumed which has been the cause of some ungentlemanly actions and disturbances. In these days of extreme dryness and the sociability that exists when the boys get together it is easy to take on more cargo than the good ship might be rated for in carrying capacity. I earnestly hope that during this and future conventions that such actions will never be repeated.

This is a convention of serious minded business men, and their wives and daughters are our guests. I am confident that no member of this Association would wilfully be discourteous to any of our guests, and the common courtesy due to a lady should at least make a man act as a gentleman.

It has been a great pleasure to serve you during the past year, and I close with a vote of thanks to the Board of Directors, the Secretary, and Field Secretary, and the members who have assisted me in carrying this organization through during the past two strenuous years.

Mr. Dunne: The next will be the report of the Secretary, Mr. Bert Walker.

Report of Secretary Bert H. Walker.

Mr. Walker: This is just a report, it is not an address. Our Association has shown a growth during the past year, especially with the Supply Men, which indicates they are more alive to the benefits of organization than the ice cream manufacturers.

Our present roster shows a membership of 88 active and 84 associate members. There have been two resignations, three have gone out of business. Since the last meeting we have received 15 new applications, making a total membership of 169.

During the past year there has been collected and turned over to the Treasurer the sum of $1,860. There is still a balance amounting to $240 due from members in arrears, any or all of which we will gladly issue receipts for at the desk.

The matter of collecting past due accounts is one problem that confronts the Secretary during the year. While Article VIII, Section 4 of our By-Laws is printed on all statements and is very plain, it is not the wish or intention of this Association to have any member dropped where there is a chance of keeping them with us. Statements have been mailed to the delinquent ones regularly. Even those who have notified us of their intention to resign have been urged to stay in and do their part towards building up the industry. I am glad to say that in most instances this has been the means of holding the members.

We have received a large number of requests for our list of members from different parts of the country, in each instance there has been a personal letter written explaining our position. We cannot send these lists out to other than active and associate members. This has been the means of bringing in a few of the applications we have before us to-day.

From all information available the past season has not been all the ice cream manufacturer could wish for. There are a few instances of increased gallonage over the territory covered by our Association, most of which can be accounted for, but there has been a general decrease attributed to business conditions and a decidedly cool season. This is especially true of the coast section.

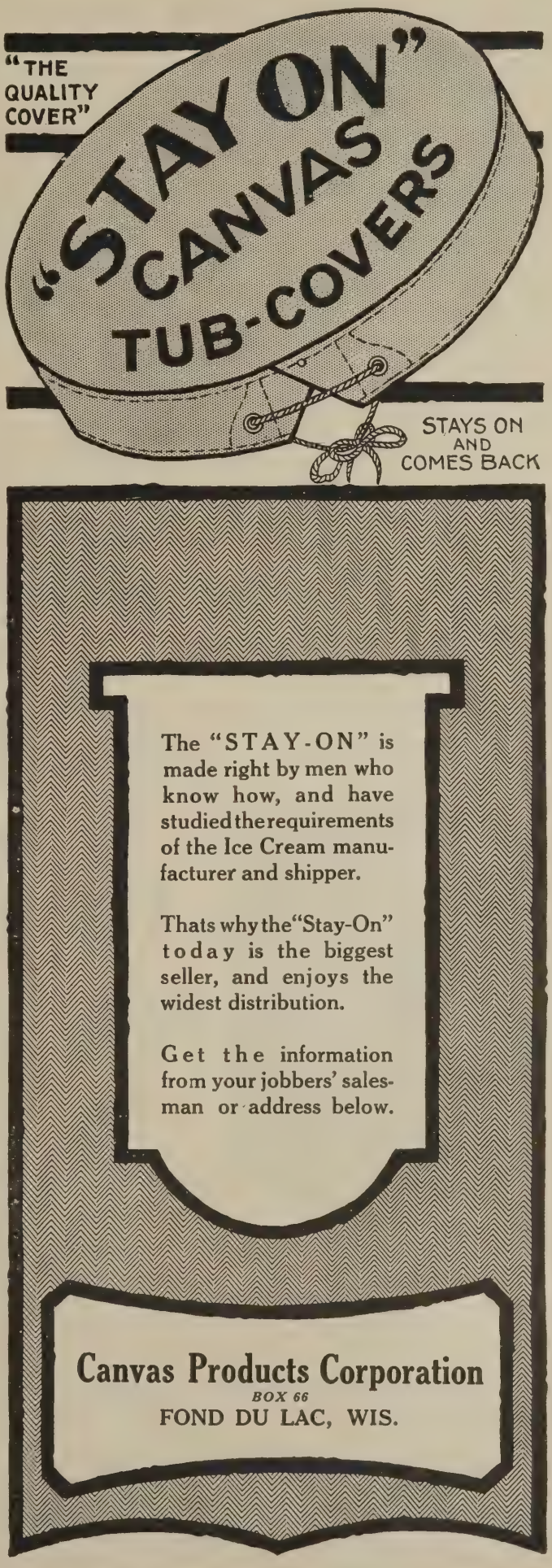
The Secretary has been criticised by some manufacturers for sending out a set of letters last summer regarding the use of certain materials in an ice cream mix, which, in the opinion of those in authority, would be contrary to the standards of the U. S. Department of Agriculture, and those adopted by the National Association of Ice Cream Manufacturers. For the benefit of those who may not be familiar with the standards adopted and those classed as adulterations and misbranding, I have had copies printed for distribution at this time. These letters were authorized and subscribed to by your President and were for the best interests of the ice cream industry. Personally, my opinion stands, and I have no apologies to make for my part in it. This is a matter that might well be discussed at the Round Table for the benefit of all concerned.

In closing I wish to thank the officers and members for their assistance during the past year, especially our Field Secretary, Mr. Kugler, whose efforts are largely responsible for the excellent program to be presented. Trusting the coming season will more than make up for the shortcomings of the one just past. (Applause).

Mr. Dunne: You have heard the report of the Secretary. What is your pleasure with regard to it?

Mr. Martin: I move that the report of the Secretary be adopted.

(Said motion was then duly seconded, put to the



convention by the President and carried unanimously, and so ordered).

Mr. Walker: Do you want the new members now?

Mr. Dunne: Yes. They will have to be voted on.

Mr. Walker: The names are as follows: G. H. Ustler, Robert B. Harbison, J. P. Breckel, J. Randall, V. B. Riley, C. B. Terwilliger, E. D. Rogers, C. W. McAllister, C. O. Swanberg, J. J. Lawrence, Ercher & Brott, O. G. Eccles, H. E. Van Patten, M. S. Levy, B. Heller, I. Laverson, Frank Pfluger, C. B. Baker, E. A. Palmeter, J. C. Booth, A. E. Merwin, Frank Sutcliffe, F. H. Harwood, C. A. Britton, H. F. Brace, R. P. Groves, Jas. B. Robbins, E. H. Savage, Albert R. Hay.

Mr. Dunne: What is your pleasure, gentlemen?

Mr. Martin: I move that the names as read by the Secretary be accepted for membership.

(Said motion was duly seconded, put by the President and carried unanimously and so ordered.)

Mr. Dunne: May I hear a motion that the Valley Ice Cream Company be also accepted? If there is no objection they will stand as accepted. We have a lot of telegrams and condolences to be read. The Secretary will now read them.

(The Secretary then read said telegrams and letters).

Mr. Dunne: If there is no objection we will instruct the Secretary to reply to each of these communications and express our sympathy to those that are ill and our appreciation for the good wishes from those who were enforced by other business or moving operations to be absent, and our appreciation for being remembered at this event. I wanted to say that we expected to see Larry Hughes here, but he is in Cuba today spending his honeymoon. Thas will be of interest to a lot of you fellows. They never grow too old to fall, do they?



A New Packing Tub

Built of Douglas Fir, a Pacific Coast shipbuilding timber; selected for its ability to withstand salt water and "stormy" handling.
A dove-tailed, double bottom 2 inches thick; armoured with a 12 gauge, galvanized iron band.
Using the expert knowledge gained from the manufacture of tubs since 1849, the Menasha Tub combines every quality calculated to give it Stamina and Carrying ability.

Menasha Wooden Ware Company
Branch Offices: MENASHA, WIS.
CHICAGO CINCINNATI NEW YORK ST. LOUIS
FOUNDED 1849

How about the report of the Treasurer? Is the Treasurer ready with his report? Mr. A. F. Bird.

The report of Treasurer A. F. Bird showed a balance on hand of $937.84.

Mr. Dunne: The next is the appointment of the committees. I will appoint on the

Auditing Committee—Jack Simonson, S. S. Moore and Mr. Fisher.

Resolutions Committee—Harry Stokes, Will Robb, G. W. Weatherly, D. M. Dorman and Vic Sampsell.

Nominating Committee—F. N. Martin, Guy Herrick, Frank Bird, J. R. Brown and Ira Carter.

Scoring Committee—Frank Hardy, J. P. Brechel and Perl Gregory.

There is a score board which is being submitted here which is the same score board the California Association is using for the proper scoring of ice cream samples, which they used at their conventions, and so a report can be made on that I am going to turn this score over to the Committee and let them make recommendations before the convention adjourns.

The butter and creamery men are holding a convention in this hotel at the same time ours is being held and I wish to introduce to you a member of their association, Mr. Hanson.

Address by Mr. Hanson.

Mr. Hanson: Our convention is going on at the same time the ice cream men's convention is running and we deemed it advisable to hold a joint session in an effort to get together, as you might say.

Our association of buttermakers and creamery and cheese men—I do not know how to explain it—but we kind of died in our tracks, but through the good offices of President Dunne and Secretary Walker, we have decided to dig ourselves out and we thought we would come in and join the ranks of the ice cream men.

We wish to develop the association of creamery men, butter men and cheese men to a point where we can have everybody realize that we are doing something, and we have some wonderful men in the field. We have been living in our shells so long that it may be hard for us to come out and get busy and we do not know what to do unless we tie up with somebody that is taking an active lead and if there are any of you people who are butter men and cheese men, if you get tired at the proceedings here—which I do not believe you will—we should be glad to have you come over and listen to our session once in a while. Thank you.

* * *

Mr. Dunne: At 8:00 tonight, between 8:00 and 8:30, our friends will call at the hotel to take us to the Yacht Club, and I am requested to ask all local people to bring their machines here as near 8:00 as possible.

I am also requested to announce that there will be a luncheon for the ladies tomorrow at Frederick & Nelson's at 12:30, at noon. They will meet at the waiting room on the fifth floor of Frederick & Nelson's and you will please wear your badges so they will be able to identify you.

The next number is "The Value of Organization and How It Functions," by W. H. Paulhamus. We have a wire here which says that he will endeavor to be with us today, but it is doubtful. We will pass his subject and he will probably be here tomorrow.

As Mr. Fernald is not in the room, I will now call upon Mrs. Nettie May Miller, who will address you on the subject of "A Talk by a Silent Partner." Mrs. Miller comes from Oakland, California, and I tell you she is a live wire, and while she may call herself the

PURITY
STRENGTH
UNIFORMITY

ARE STANDARDS COVERING THE PURCHASE OF GELATINE

BOSTON
CRYSTAL GELATINE

IS STRONGEST - IS GUARANTEED PURE UNDER ALL PURE FOOD LAWS - IS ALWAYS UNIFORM

A TRIAL ORDER WILL CONVINCE YOU

CRYSTAL GELATINE COMPANY

121 BEVERLY STREET BOSTON, MASS.

Branch Stores

New York	Philadelphia	Chicago	St. Louis	San Francisco
14 Ferry Street	418 Arch Street	3630 Iron Street	408 Elm Street	Fairfax Avenue and Rankin Street

DO YOU SELL

CARAMALA ICE CREAM

The Favor Compelling Flavor

PRICES Per Gal.	
1 gallon	$7.00
5 gallons	6.75
10 gallons	6.50
25 gallons	6.25
50 gallons	6.00

Use 4 oz. to 10 Gallon Freezer
Use 3 oz. with Nut Meat to 10 Gallon Freezer

CARAMALA ICE CREAM is always the smoothest and most firm, in comparison with any other made from the same stock mix and handled under identical conditions.

Sample cheerfully sent on request

THE ASSOCIATION OF ICE CREAM SUPPLY MEN MEMBER

REX EXTRACT COMPANY

257 Pacific Street Brooklyn, N. Y.

Order direct or through any of the following well-known firms:

J. G. CHERRY CO.....Cedar Rapids, Ia.
MEYER DAIRY EQUIPMENT CO.....St. Louis, Mo.
BEATRICE CREAMERY CO.....Denver, Colo.
ENTERPRISE DAIRY & CRY. SUP. CO..Cincinnati, O.
CENTRAL OHIO SUPPLY CO.....Columbus, O.
DAIRYMEN'S MFG. & SUP. CO.....St. Louis, Mo.
BLANKE MFG. & SUP. CO.....St. Louis, Mo.
E. B. GALLAGHER & CO.....Detroit, Mich.
HAZELWOOD CO., LTD.....Spokane, Wash.
RICHARDSON & HOLLAND, Inc.....Seattle, Wash.
MANNING MFG. CO.....Rutland, Vt.
W. L. KNORR CO.....Pittsburgh, Pa.
CHERRY-BASSETT-WINNER CO.....Baltimore, Md.
CHERRY-BASSETT-WINNER CO...Philadelphia, Pa.
FERRIS-NOETH-STERN CO.....Baltimore, Md.
N. A. KENNEDY SUPPLY CO.....Kansas City, Mo.
CHERRY-BASSETT-WINNER CO.....Pittsburgh, Pa.

MAKE THE PUBLIC HUNGRY FOR ICE CREAM BY POSTERS AND DISPLAYS.

silent partner, you will find her a most active partner in the success of her husband's business, and I now take pleasure in introducing to you Mrs. Miller.

"SHALL THE 'SILENT PARTNER' KEEP SILENCE?"

Address of Mrs. F. Ellis Miller, before Pacific Coast Ice Cream Manufacturers' Convention, Seattle, November 15th, 1921.

While it may be somewhat unusual for a woman to address a convention of commercial men, the time has passed when an apology is expected for her so doing. For more than half a century we have demanded equal rights with men and it would ill become us to expect special privileges, or special relief from any of the duties which "equal rights," so far as we have them, have imposed on us.



MRS. F. E. MILLER.

So that I may launch my remarks free from any doubt, I will say that I am the near-silent partner of an ice cream manufacturer, that I realize I must share with him the responsibilities of business, and that I do this without in any way neglecting or shirking the duties of a home-maker.

To those who still cling to the idea that a woman should not become active in her husband's business because it takes time from the home, may I call your attention to the fact that the housewife today has not one-fourth of the work to do in her home that was the lot of the women of a generation ago. The marvelous improvements that the brains of men and women have evolved in the last twenty-five years have relieved the woman of this day of so much manual labor that she has ample time to use her intellect. If all these improvements have not aided the advance of women then many of the world's greatest workers and thinkers shall have worked and thought in vain, and we know that they have not.

The best thing God ever made was man. After him came woman, and she has been after him ever since. It is said she has overtaken him in common and uncommon vocations. She has invaded every known profession, art, trade and vocation in the world except two. There are women lawyers, politicians, policemen, preachers, blacksmiths, but she is not yet a military field officer, nor a telegraph lineman. I do not think I would care to shoe a horse or arrest a burglar.

But to the men of this convention who think they have built their business on their own ideas, I want to say that one of our deep thinkers says that there is no such thing as a self-made man,—there is always a woman in the case. Are we less feminine because we become interested in things outside the home? Indeed we are not. If we women ever edit our own magazine you may be sure we will not forget a place for fashions and cooking recipes. We women were all interested in Mme. Curie's little black gown she wore when she came to America—the discoverer of radium—but we also fully appreciated the significance of that gram of radium.

No longer is there any reason to keep man's silent partner silent. Ultimately she will be heard. You perhaps have heard the story of two men who were sitting in an office when suddenly they heard a loud report in the adjoining room. One jumped up and said to the other, "Oh, what was that?" The other replied, "Oh, don't be alarmed, for that was only my silent partner in my private office." That my conception of this silent partner relationship is right I will quote a few sentences from the current number of a popular magazine. The article I refer to tells how western women have a way of their own in getting results. So says this clever writer:

"Out in the West the men and the women are talking and working and the children are learning about these things that mean the very life of their families and the families of the future. And because they are common interests there is a wonderful unity of purpose—more than there is perhaps in any other section of the country—among the plain, average citizens. Sex antagonism is unknown. The story of how the western women educated the canners is almost romantic. 'Until the women organized and came to us with some very definite suggestions,' the vice-president of the National Canners' Association said, 'we got our inspiration from the jobbers. We never knew, and somehow we had not thought of trying to find out, what the consumer really wanted. Now we can plan intelligently to the ultimate advantage of both manufacturer and consumer. Hereafter the wishes of the housewife will be consulted and we will endeavor to supply what she demands.'

"It was about ten years ago that the women of the West began to wake up. They took up their prejudices against manufactured canned goods one by one and looked at them in the clear light of reason. They decided to do a little thinking on their own account. They took the advertised brands and gave them a fair trial. They made up their minds that quality, purity, and wholesomeness were the first considerations. Where a brand of goods measured up to their standard it went on the household white list.

"So persistently did the women pry into things that manufacturers began to turn their factories inside out and show their hands. If their goods measured up they began to let it be known through advertising, and if they didn't, it was up to them to make them measure up. Women wanted to see how the wheels go round, and before long they were able to read in their papers and magazines, advertisements about such commonplace things as piston-rings, and zinc, and paper bags. There was 'nothing hidden that was not revealed.' The net result was a survival of the fittest, for the poorly made goods could not stand the searchlight. It is amusing to hear the canners admit that 'the little ladies of the West have educated them.'

"City women, pity your sisters on the far-away farms and ranches if you will, but the women in the

Audel's
"Answers on Refrigeration"
A practical treatise for engineers. This book is the most complete work on the subject of refrigeration and ice making on the market today. 690 pages. Half leather binding.
Sent Prepaid on Receipt of $2.00.
OLSEN PUBLISHING CO.
210 Sycamore St. Milwaukee, Wis.

Notice The Corner Posts

The mortised corner-post construction of the Brooks Ice Cream Cabinet results in durability and the saving of ice. The Brooks is strong, tight, economical and satisfactory because it is built that way.



Strength and Economy Are Leading Features

All materials, of every kind, are of standard grade thus insuring long life by preventing a break-down in any one part. Brooks Cabinets have special features which are not to be found in any other cabinet.

— Write for the New 1922 Catalog —

We manufacture Tub, Metal Lined, Brick and Combination Cabinets in different sizes, and will be glad to mail you our 1922 Catalog which shows the new models and gives full descriptions and prices. Stock models always on hand. Special orders shipped quickly.

Our new Catalog will tell you how Brooks Ice Cream Cabinets are made and give you detailed information. Read it and you will be convinced that the Brooks will stand the most wear, use the least ice and keep the ice cream in perfect condition. They're guaranteed.

BROOKS CABINET CO.

Incorporated

1003 West 27th Street Norfolk, Virginia

"UNITED" IRON WORKS INC. FOR SERVICE

"ICE CREAM" and all Dairy Products

should be held in their proper condition to make them particularly attractive to your customer. Your CHILL ROOM, your PACKING ROOM, your STORE ROOM and your DISPLAY CASES should be provided with a dry, uniform temperature, and this is given you through the use of



"STERLING"

Refrigerating and Ice Making Equipment

The lines of business we can serve are manifold. Advise us your line and we will furnish interesting descriptive matter.

UNITED IRON WORKS, Inc., Kansas City, Mo.

We have a representative near you.

EVER HEAR OF ICE COLD CAKES SELLING LIKE HOT CAKES?

West are the most progressive, the most resourceful, the busiest, and the happiest women I have ever met."

Now, having placed woman in her rightful place in the home and business it only remains to bring home to this convention how these same conditions, through the medium of an ice cream manufacturer's wife, can be applied with benefit to her husband's business. We have touched on what we may call generalities; let us be specific.

First. Team Work. So far as may be, take an intelligent, not merely a superficial, interest in your husband's affairs. The country's greatest captains of industry long since discovered that many mishaps were caused by men in responsible posts whose minds were torn asunder by domestic friction. We know that to be true. Harmony is just as vital to the success of the ice cream man. His mind is preoccupied with the study of how to improve his product, which means the improvement of business. He comes home with problems relating to every detail of his business, including perhaps some that press heavily upon him. He needs encouragement maybe, he appears to think that the whole world is made of ice cream and that upon his shoulders rests the sole responsibility of maintaining it in proper condition, and of marketing it. Here's where the value of the 'silent partner' comes in. She knows enough about his business to assure him that the rough places can be smoothed out, that everything is all right, and can prove it to him. At such a time, team work is the equivalent of all the capital tied up in the business.

Second. Entertaining and Co-operation. In the get-together meetings which should be held once a month if the manufacturer wants a smooth-working organization, he should be on hand to greet and counsel with the men. Their wives and sweethearts should also be invited to this monthly gathering of business and entertainment, and the employer's wife should have a program all her own for the women folks. If there be dancing let it be strictly democratic and don't fear that you may have to struggle with a poor partner, for, truth to tell, most of our employees are much better trippers of the light fantastic than my husband or myself. Under such circumstances as these the 'silent partner' can make herself heard with telling effect. The wives of your employees should be doing exactly the same kind of team-work with their husbands that I am now advocating for the 'silent partners' of the employers.

Third. The 'silent partner' can be of pronounced value to the firm by carefully studying all the magazines, literature, trade journals and advertising pertaining to the ice cream business. The manufacturer himself has time only for cursory reading of such matter. Yet they contain much of value to him. His wife can tell all the good things relating to the business and give him the full benefit of her work. She will often adapt valuable suggestions to local conditions and thus give a direct impetus to business.

Now, when you stop and think of it, is it not logical that the 'silent partner' should help sell, or bring ice cream before the public? Few lines of business offer a greater field for women to enter than the ice cream field. A close survey of neighborhoods has shown that a large part of the sales are to the housewife; three-fourths of orders over the telephone are given in a woman's voice. It is the mother who gives the child money to go to the neighborhood store to buy ice cream. The ice cream firm should make its advertising appeal to the housewife and mother who is the purchasing agent for the family. These facts give the wife, or your 'silent partner' keener insight into ways to increase sales and promote business.

In conclusion, let me say with all reserve and delicacy, that the fact that I have come eight hundred miles to attend this convention and speak to you on a matter more or less practical and interesting to all, is perhaps the best demonstration I can offer of my conception of the "silent partner" working in harmony with the rest of the firm.

"If with pleasure you are viewing any work a woman's doing
And you like her and you trust her, tell her now.
Don't withhold you approbation till the parson makes oration
And she lies with snowy lilies o'er her brow.

For no matter how you shout it, she won't really care about it,
She won't know how many teardrops you have shed;
And if you think some praise is due her, now's the time to slip it to her,
For she cannot read her tombstone when she's dead."

* * *

Mr. Dunne: I will say she is some silent partner. (Applause and laughter).

I see Mr. Swanberg clapping his hands and I think he knows that no man really lives until after he is married. That is what I have been telling Mr. MacFarland, but he will not believe it. When the little fellow come along and brighten the home and the lives of yourself and wife, if your wife can still be a silent partner and help you, it is certainly a fine thing.

The next address will be by Mr. A. R. Fernald, whose subject is "Broad-Minded Advertising." Mr. Fernald has been good enough to come all the way from Detroit to tell us his idea on broad-minded advertising. I now present to you Mr. Fernald. (Applause).

Address by Mr. A. R. Fernald.*

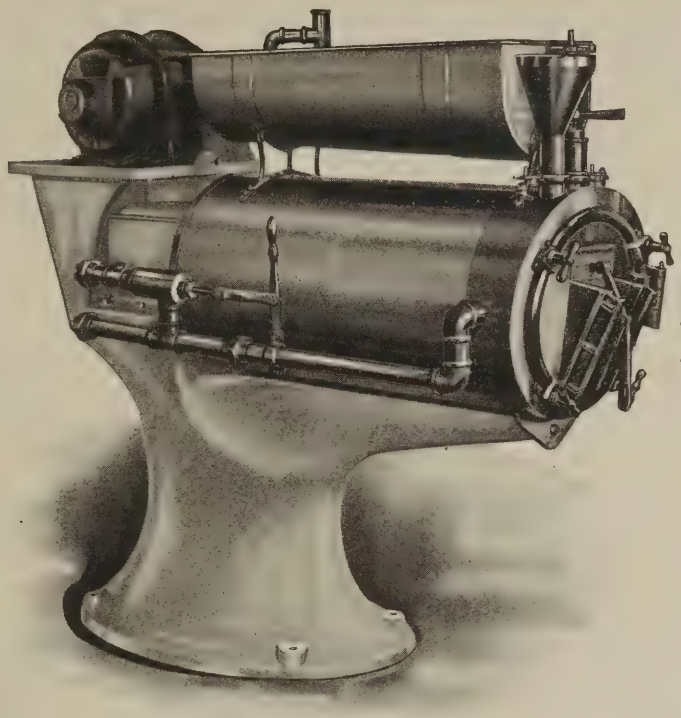
Mr. Fernald: Mr. President and Ladies and Gentlemen of the Convention: I want to begin by telling you an advertising story which I think you can apply to your own problems here today and it had to do with an advertising man who had occasion to attend to an account out in the upper part of the state and when he arrived there he found that he was obliged to stay over night and in the morning he got up and went into the bright, sunshiny, well-ventilated dining room where he was waited upon by a very attractive girl in spotless gown, and he picked up the menu and looked at it and among the items on the menu was "Rabbit sausage." He turned to the girl and he said, "Rabbit sausage. I do not believe I ever heard of it before. Is it good?" She said, "We serve a great deal of it and have served it for some time." And he said, "Well, I will try it anyway."

The girl brought it in hot from the fire, brown and sizzling; it was a crisp morning, giving an appetite, and she brought in the sausage and laid it on the table and he fell to, and it was great.

With the imagination and vision that are necessary in the calling of an advertising man, he began to build a few air castles all his own. He thought of Jones dairy sausage made in Wisconsin in a small town which has since gained a national reputation and he thought of these things, and the idea struck him what a wonderful article for national advertising—almost as good as ice cream—and he began to think of advertisements that could be prepared for such a product. He thought of little bunnies running up and down the margin of his copy and all that sort of thing, and after breakfast he said to the proprietor, "I noticed this rabbit sausage on the menu and I tried it out and it was fine and I would like to know where it is manufactured?"

The proprietor of the hotel told him that it was made down at Pleasant Hill, about a mile from the little town

*A summary of this address was published in the January issue.



Added Fine Features Make The Emery Thompson

Freeze Faster—Develops a fuller yield.

Lasts Longer, with harder usage.

Handled with greater ease.

Stouter in general construction—with less parts. Is far more economical.

Is more flexible, more quiet and is better balanced for finer Ice Cream production, than any of the machines we have turned out in the past many years of ice cream freezer manufacturing.

Please write for our "1922" catalog.

Emery Thompson Machine & Supply Company

271-75 Rider Avenue (6-8 Canal Place) **BRONX, NEW YORK**

ICELESS CONTAINERS HAVE PROVED TO BE A GREAT ICE SAVER.

and the advertising man took a walk over there and found the sausage manufacturer merrily whistling and turning out his product.

While he was talking to this man he was interrupted by a man arriving, driving a very disreputable looking horse and the proprietor of the sausage factory went over and talked to the new-comer and they had some whispered conversation, money changed hands, and a few minutes later he saw the man leaving by a side path with the harness over his arm.

The advertising man, not being entirely dumb, began to press the sausage proprietor and he said to him, "By the way, I would like to ask a question. Do you use any other ingredients in your sausage besides rabbits?" And he said, "Sure," And he said, "What do you use?" And he answered, "We use a variety of things."

Then the advertising man said, "I do not mean to be personal, but I will ask you a rather pointed question. Do you use horse meat?" And he said, "Sure," and the advertising man said, "How much do you use?" And he replied, "Oh, about fifty-fifty; one horse to one rabbit." (Applause).

Now, I think that you gentlemen in the ice cream business, if there is any criticism of your business methods to be made, I think that you have got the horse and rabbit ratio mixed up in your advertising. In your advertising at the present time you probably have about ninety per cent material and about ten per cent plans, and I tell you frankly those proportions are not right.

Now, I have seven points to bring to your attention today. I am afraid that Mr. ———— will think I have been reading his mail, but his points and mine make fourteen points and that has gone down in history (laughter) and therefore his points and mine together should make a success.

My seven points are as follows:

The first one is Lack of Order in Fixing Appropriations.

The average advertising appropriation is not an appropriation at all but rather consists of sums of money wrenched from the business at irregular intervals dependent very often on the whim of the owner or owners rather than an analysis of the need.

Oddly enough it is also true that this money is usually easiest to get when business is good and the advertising is least needed. Such a program makes a PLAN of expenditure impossible, promotes waste and brings about hurried decisions resulting in many errors of judgment.

My second point is Lack of Continuity in Plan and Materials.

The "catch as catch can" method of appropriation results not only in a lack of plan but also in a lack of continuity in the materials or advertising text used to carry out a campaign.

Miscellaneous material is purchased, expenditures are made in things that have no general connection with your campaign.

Under these circumstances it is rarely possible to get full value from the yearly expenditures.

My third point is Lack of Regularity in Plan and Use.

Perhaps the greatest drawback in irregularity of plan is the fact that your advertising is almost always intermittent. Instead of the long pull, the secret of most successful advertising, you advertise jerkily. Your heaviest expenditure invariable falls in the summer season and the fall and winter season, when gallonage is most needed, is neglected and has no opportunity for development.

My fourth point is Neglect of Opportunities Offered in Use of Properly Prepared Mailing List.

It is only in the past year or two that some of you have been awakened to the fact that your most fertile field for advertising lies in intensive mailing lists in which groups of consumers can be influenced to regard your product most favorably and, through reminders, educate to use it more frequently than has been their custom. The advantage of being able to direct an advertising force to concentrate on one group or section is so obvious that it requires no defense. I have personally studied and practiced the principles of direct advertising for the past fifteen years and am thoroughly solid on it both because of its flexibility, the privacy of the method, and the fact that you can actually check the results. Now the first question you are apt to raise is: "Will it work in the ice cream business?" I am here to say that it will and does. To the end that I could bring you proof of this in connection with the development of winter gallonage I sent out telegrams about two weeks ago to makers who were using direct advertising methods in cities varying in size from the second largest in the country to towns of twenty-five, fifty and one hundred thousand population.

Here are a few samples of their replies:

"We think the direct by mail plan of advertising ice cream in the winter months is one of the best methods of stimulating business for this season of the year."

"Regarding winter mail campaigns used last winter. Well pleased with results. Many requests for additional copies from friends of those to whom campaigns was mailed. Believe campaign creates interest during winter months and holds business up where ordinarily drops off. Well worth cost. We stand back of our belief by re-ordering."

"Mail campaign is winner, one of strongest connecting links possible in advertising and sale of ice cream. Results entirely satisfactory."

"Consider direct method best means influencing housewife to use ice cream in home. Well pleased and will continue this year."

"Without a doubt best medium to reach housewife. Wonderful results last season. Increased fully 50 per cent and will use again this season. Certain of results."

"Have used campaign and would advise any one interested to get busy on mail plans. Figure have increased our business 100 per cent."

I am not quoting these as a boost for our own business but to bring forcefully to your attention a heretofore neglected field of ice cream advertising that holds vision and forethought to use it.

My fifth point is Waste in Distribution of Advertising Matter.

A great deal has been said about waste on advertising materials, and no doubt much of what has been said is true.

After all, if you will regard the matter reasonably, have you ever considered that this is largely your own fault?

These abuses have been brought about by your own carelessness and neglect and you are reaping a perfectly material result. If you have no plan for distribution, you can depend upon it there will always be waste and plenty of it.

Another point I want to consider is the fact that there are certain limits to the life of any piece of advertising display material and you are perhaps expecting too much in the way of continuous display from it. Suppose I were to pay eight or nine thousand dollars for a single page of advertisement in a certain popular weekly magazine. Would I expect every one who secured a copy to carry it about in their coat pocket

FOR OVER 20 YEARS

We have ***specialized*** on
Vanilla Extracts
and **Vanilla Compounds.**

We guarantee to improve your Flavor with a saving in cost

Proprietors of "VANOLEUM." The *Original Concentrated Vanilla Flavor.* We warn the trade against worthless imitations having similar sounding names claiming to be "the same as *Vanoleum.*"

Corrizo Extract Company

211-215 West 20th Street NEW YORK, N. Y.

RETINNING ICE CREAM CANS

Special Department

WE DO REFINISHING of old ice cream cans in a special department of our plant which devotes its entire time throughout the year to doing this one thing and doing it well.

OLD CANS MADE NEW AT LOW COST

And we do know how to fix up your otherwise hopelessly rusty old cans so they will be tight and bright and good as new. IT IS NOT EXPENSIVE and PAYS YOU A DIVIDEND. A can retinned by us has a thicker coat of Pure Block Tin than when new.

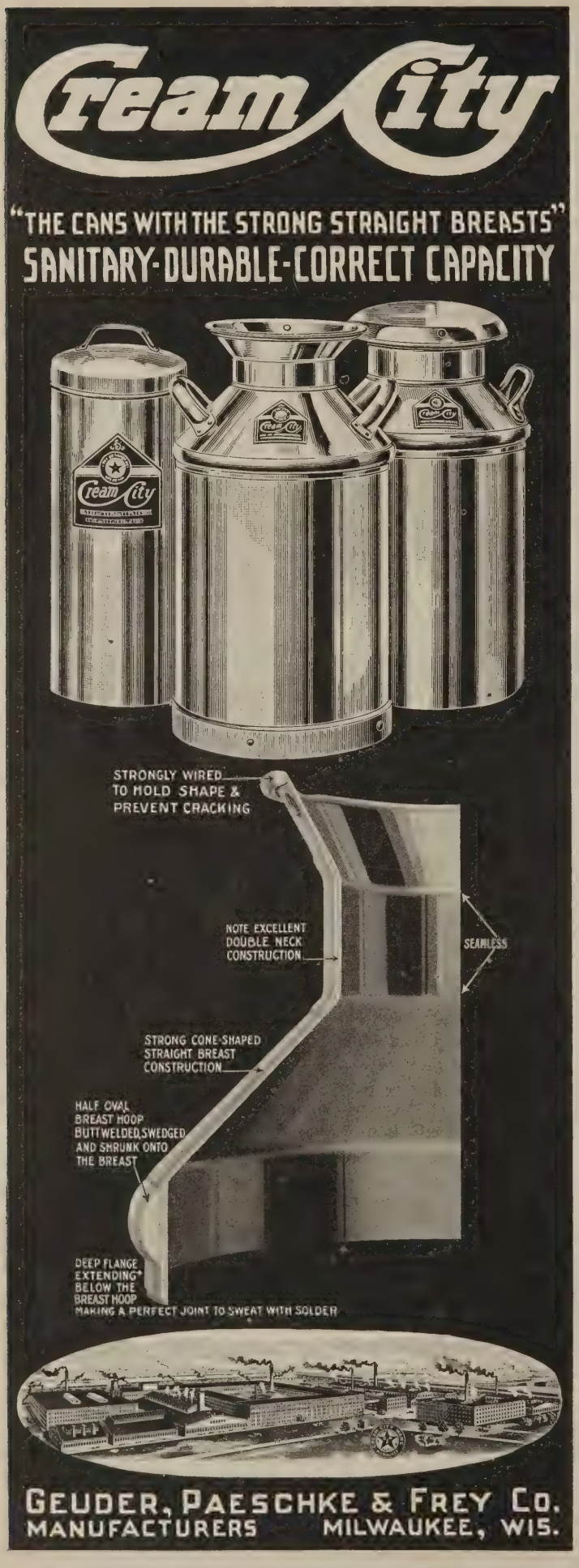
SAMPLE CAN RETINNED FREE

This is the time of year to send cans for renewal. Send us a sample can NOW. We will repair and retin it without charge and return it promptly, so you can see the quality of our work. Write us when you ship it, so we will know whose it is, and we will do the rest.

OAKES & BURGER COMPANY

Established 1873 CATTARAUGUS, N. Y.

A GOOD CABINET AT A GOOD "STOP" IS A GOOD INVESTMENT.



month after month simply because my advertisement was in it? I couldn't expect that.

My sixth point is Lack of Interest in Developing Dealers.

I believe too little interest is taken in the development of your present dealers. You cannot extend this interest if you know the dealer only as a name. If I were an ice cream manufacturer I should have a complete record of my customers as a part of my permanent files. I would know how many had fountains, those that were open to that development; the extent of their bulk or carrying trade; what advertising was suited to the individual dealer and all of the things that would give me a clear office picture of my field.

Most of the largest operators have the information, but you should ALL have it summed up in a clear logical manner, and it is just as important for the smaller operator whose business is to grow as it is for the larger ones.

My last point is Lack of Interest on the Part of Your Wholesale Men:

I do not know just how much you expect from your wholesale men, but I do know that if it were my business and my wholesale man was not a man with a vision of the possibilities of the business, I should fire him and get a new one.

On the other hand, I think that lack of development on the part of the wholesale man is often the fault of an employer who lacks vision himself.

I have seen some fine material in wholesale men whose lack of development rested entirely on either the lack of energy or enthusiasm on the part of the employer himself.

Another point — see that your wholesale man not only understands your advertising plan, but that he is thoroughly sold on it himself. Make him a part of it because it is one of the things he has to sell and his enthusiasm and belief in it will contribute largely to its success and economical use.

Now, let us check these one at a time, take them apart and examine them and seen whether they are curable and if you agree that they are, let's go ahead and cure them.

Now let us substitute seven new cardinal points for constructive building to influence our new policy.

I should say that to be successful in your advertising and sales effort you should

First: Fix the appropriation in relation to your gross business.

Second: Lay out a definite plan.

Third: Make a simple office analysis of your dealer's situation.

Fourth: Make an accurate study of your competitor's field.

Fifth: Educate your wholesale man to merchandising possibilities.

Sixth: Compile strong mailing lists, for mail helps.

Seventh: Properly select and distribute your advertising material.

Taking into consideration the first point, Fixing the Appropriation in Relation to your Gross Business:

Out of the millions of dollars that are being spent annually to advertise the ice cream business there are bound to come definite figures as to the proper amount that should be invested by you to assure a continuance of your present trade. As well as developing new markets.

There are occasional conditions that either raise or lower the volume of expenditure, such as chronically good or bad seasons, the absence or the presence of spirited competition and these must of course be dealt with individually, just as one would deal separately

with a business that was new and that might as a result expect to double its gallonage each year for the first few years until it had established its field.

In the main it is safe to base the ice cream manufacturer's appropriation on three to five per cent of the gross turnover.

Second. Laying out a definite plan:

Having determined the appropriation it is now up to you to give thought to a plan that will give you the best showing possible for the money expended.

Perhaps the most important part of such a plan is to see that your expenditures are so proportioned that you will be spending the proper proportion of your money in the months or seasons when the advertising is most needed. Do not have any lean months, for you will find almost invariably that they will have an exasperating way of bobbing up just when you have need of added effort.

The next point about your plan is to lay it out with a definiteness of purpose.

Know what you are going to say and say it steadily through the year. Associate some definite phrase to your advertising and have it a good one for the public, through your continued advertising is bound eventually to believe and recognize it. Adopt a style for your advertising. Have your advertising, your shipping packages, your stationery, follow this style without a break. That is why great care and thought should be given to the organization of your style, because you are adopting it not for a season but for the life of your business and you can afford to have it the best.

Every point of contact you have with your customers and with the public should express your individuality. Having selected a plan and being satisfied with the wisdom of your selection, do not depart from it.

Souvenir programs, novelties, special editions of newspapers and all their kindred are too often the "catch all" that greatly adds to your advertising cost without adding proportionately to your volume.

Third: Making a Simple Office Analysis of Your Dealer Situation.

As I pointed out to you it is important that this should not be merely a matter of knowledge on your part, but a matter of record, for it is only by putting it down in black and white with an accurate accounting of probable needs that the possibility of expansion and development can be gauged with any degree of accuracy. It is important too that this list be cultivated by mail as well as through salesman contact.

Fourth: An Accurate Study of Competitive Fields.

While no doubt every manufacturer has a broad general idea of their competitive field again very little effort is made to get an accurate picture record of the extent of this field, where it can be wisely and economically cultivated, and the economic limits of shipping and service. This should be painstakingly done in every growing business.

Fifth: Educating Wholesale Men to Merchandising Possibilities.

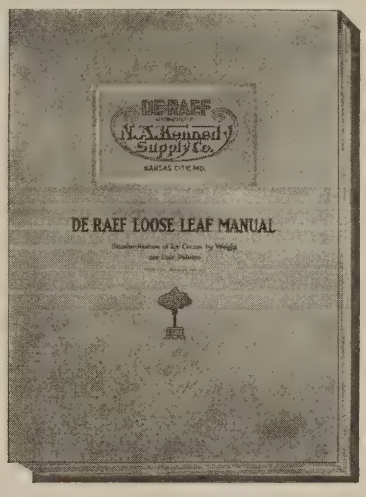
No wholesale man should work without a definite plan of increase based not on haphazard solicitation, but on STUDIED solicitation that will give the best return for time expended.

His interest in your advertising should go beyond the mere delivery of display material to the dealer and he can save you hundreds of dollars in educating the dealer to make such use of it as will make it mutually profitable. The right sort of a house organ mailed each month to the dealers will help keep up interest between calls and aid him in the contact work.

Sixth: Formation of Strong Mailing Lists.

As you grow to use direct advertising methods, the

DE-RAEF LOOSE LEAF MANUAL
FOR THE PRACTICAL
ICE CREAM MANUFACTURER
The only manual of its kind published to date devoted exclusively for the Ice Cream Factory



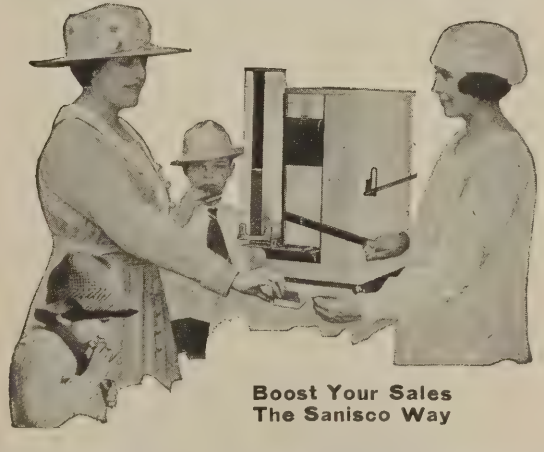
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Copyright July 5 1921 Registration No. 620,254

Written in Plain, Intelligent Language for the Practical Ice Cream Factory Manager and Ice Cream Maker from Several Years of Practical Experience Visiting Plants Throughout the States in the Middle West.

De Raef Loose Leaf Manual, circular sent on application to the Ice Cream Department.

Published by
N. A. KENNEDY SUPPLY CO.
KANSAS CITY MISSOURI



Boost Your Sales
The Sanisco Way

Extra Business

Awaits the progressive Ice Cream man who lets the fact become known that he can furnish a "SANISCO"—the popular, clean, sanitary and rapid dispensers of ice cream for social events, as

Dances—Parties—Bazaars

Full Details on
Prices on Request

SANISCO CO. MILWAUKEE WISCONSIN

GOOD TIN FOIL MAKES THE COATED ICE CREAM BAR DISTINCTIVE AND ATTRACTIVE.

success of your plan will be measured largely by the proper selection of names for your mailing list.

To create trade and prestige for your dealers you must reach two classes and a name must either fall within one class or the other to be useful to you. The first class consists of people who are themselves consumers of cream to a fair amount and thus open to cultivation and development. The other class are those who through contact with a large number of other people are able to do you a great deal of good in unconscious "word of mouth" advertising. Thus a good mailing list would contain the names of the officers of all clube and lodges, school teachers, ministers and priests, doctors who would be interested in the purity of your product, domestic science instructors, trained nurses—all of whom are people who have contact with many others and whose good opinion counts in moulding your local reputation.

In securing the names of consumers — blue books, social directories, membership lists of the better clubs, and home addresses of women secured through co-operation with those dealers whom you wish especially to build up, are your best sources. The wives of members of Rotary, Kiwanis and other business lunch clubs form excellent lists, and you have the added opportunity of distributing an initial price of advertising at lunch to start the ball rolling.

Seventh: Proper Selection and Distribution of Advertising Material.

In selecting the material for your plan proper card records on dealers will give you an accurate guide as to the quantity required. There is no need to supply a five dollar window display to a store handling bulk and cones only. Window display in the larger stores should, wherever possible, be put up by your own people, and hanging cards or counter signs either cleaned or changed frequently enough to keep them fresh and attractive.

The materials you select should show continuity. Avoid pretty pictures that are general in character and too often distract attention from your product instead of attracting attention to it.

Use color wherever it is possible and let your illustrations run largely to reproductions of the cream itself, attractively served, delicious and inviting and occupying the foreground of the picture to the exclusion of everything else. Backgrounds should be unobtrusive and in softer tones carrying out just enough detail to give an atmosphere of class and quality.



We put new life in old cans by our

TRIPLE TINNING Process

Let Us Prove It.

DALLAS TIN PLATE CO. 2836 N. Haskel Ave. DALLAS, TEXAS

Sidewalk signs, where they are allowed by city ordinance are good.

Billboards are used too often in cases where they do little if any definite good, but they appeal to the vanity of the user who likes to see his name in big print, conthing that may be said to the contrary, the fact remains sequently they are bound to be used. In spite of anythat people have not yet been taught to ask for ice cream by brand, and ice cream is seldom asked for by brand. The best place for advertising display is outside the store, in windows and on walls and counters. Here the display of your signs inform the public that your cream is on sale and, prompted by the reputation for quality you have created, people feel free to purchase because they are on the spot and it is convenient for them to do so.

To jog their memory outside the store and cause them to go from store to store seeking your goods and refusing all others is quite a different matter. That is why direct mailing lists should be built up in sections and neighborhoods where you are prepared to supply the demand and where your co-ordinated advertising completes the circle and through continuity of expression rounds out the sale.

Before closing I want to touch on two or three other points that are important. First. quality of product. That is your best advertisement. Neither I nor any other advertising man can offer you anything better, and it is a fact that no advertising, no matter how clever, can continue year after year to sell an inferior product. Advertising will bring people to a trade but it will not hold them if the product does not satisfy and please them. No one can afford the drain of continually advertising to a new audience. If your advertising is to be financially profitable your product must hold the trade you gain and make new friends in the bargain.

Another point is that of giving your business a personality, for there is personality in business just as there is in the individual. A man without personality is handicapped and a business without personality is hampered in growth because it takes people longer to hear of it and is less deserving of public interest.

Last and most important of all—get the confidence and respect of your community. Never break that confidence through poor goods, sly dealing, or unfair methods, and don't quarrel among yourselves.

Good clean competition based on the right rules of business and friendship will make business for all concerned because in reaching out for more business, you automatically create new business from the public far in excess of the old business you take from a competitor.

"Knifink" competition on the other hand causes you to give your property to the dealer, necessitates advertising expenditures beyond the bounds of good sense, and makes you easy prey for any one who cares to play the one against the other to the detriment of both.

You on the coast have fewer heritage in the way of old time methods, old plants, and old prejudices. You're off to a fresh start and can be bold as you will in a business that is growing as rapidly as any good business in America.

Steer straight, have a plan and keep faith with the public by giving them a full measure of value and you will find not only financial demand but the satisfaction of growth through service which after all must be at the root of every permanently successful business. (Applause).

Mr. Dunne: I want to know if anyone present wishes to ask Mr. Fernald any questions?

Mr. Fisher: I would like to ask why Mr. Fernald opposes billboards. I believe he stated that they satis-

FLAVOR YOUR ICE CREAM WITH

Cremilla

"CREMILLA" is better, smoother, creamier and of richer flavor than the finest grade of pure vanilla; and it's more economical.

"CREMILLA" is so concentrated as to make it the best flavor to use with homogenized cream; one-third to one-half oz. flavors perfectly 10 gallons of cream (one to one and a half pints for 500 gallons.)

Trial gallon by express on request. After fair trial, if you don't like it, send back what's left and pay us nothing.

National Fruit Flavor Co.
NEW ORLEANS, U. S. A.

ESTABLISHED 1879

Gelatine is the most efficient of all stabilizers for Ice Cream

WHITTEN'S GELATINES Are Standard

Guaranteed to Comply with all National and State Pure Food Laws

STRENGTH, PURITY AND UNIFORMITY GUARANTEED

MANUFACTURED BY

J. O. WHITTEN COMPANY

Main Office and Works
Winchester, Mass.

Woolworth Bldg.
NEW YORK CITY

20 E. Jackson Boulevard
CHICAGO, ILL.

ICE CREAM SANDWICH MACHINES ARE POPULAR ATTRACTIONS AT PARTIES, BAZAARS, ETC.

fied the users by appealing to their vanity in seeing their names in big letters.

Mr. Fernald: I will tell you my reason for making that statement which is this, that people certainly as far as I have met them, have not yet become accustomed to asking for ice cream by brand. The difference between attracting a man after he is in the store or attracting a woman after she is in the store and attracting them through the fact that the thing is on sale there are two entirely different propositions and I think the most important is to advise them of the fact that they can buy it conveniently near, making it easy for them to find it. But, on the other hand, I have yet to see many cases where people will, through impulse that might have been gotten by a billboard appeal, go shopping from store to store asking for a certain brand of ice cream and refusing all others.

I think that is the situation as I see it. It is the situation with your direct advertising. Your list should be selected in the neighborhood where you are prepared to meet the demand because the public are not educated to asking for ice cream by brand. I believe that is 90 per cent right.

Mr. Dunne: Any other questions?

Mr. Bland: I would like to know what your idea is of advertising in the movies or by slides?

Mr. Fernald: I would say the same general situation would apply to movie advertising. I think the appeal can be gotten across on a screen pretty well on account of the person who is attending the theater, there is a possibility that he is out for entertainment and they regard ice cream as entertainment, and I believe you have got a better opportunity there. I think the mind of the theater-goer is more open and susceptible to your approach. I think that would be true, and I think, too, it would be a useful thing in putting across something if you have some special thing to introduce, but the great trouble is that you do not advertise special things, but that the advertising is to often in generalities.

Mr. Dunne: Was there anybody present who wished to ask Mrs. Miller any questions? I let her talk go by without asking if anyone had any questions. I heard one fellow say that he wondered how Mr. Miller keeps his wife being such a good partner. Does anybody want to ask him how he manages it?

Mr. Dreyer: I want to ask Mrs. Miller to give my wife that recipe.

Mrs. Miller: I have been trying for some time to educate Mr. Dreyer's wife and I think it is at my instigation that he went into business in my city.

Mr. Swanberg: When I started in business in San Francisco I had a wife who was something like Mrs. Miller, but I took in a partner and my partner resented my wife acting as such a silent partner, but having heard Mrs. Miller today I wish I had parted from the other partner and taken in my wife. (Applause and laughter).

Mr. D. A. Dorman: It has been suggested by one of the ladies that maybe one of the reasons Mrs. Miller has been of so much assistance is that her husband comes home at night. (Laughter).

Mr. Dunne: I think probably that was my wife. (Laughter).

Mr. Dorman: And that her husband comes home at night and tells his wife his business.

Mrs. Miller: I would like to know if there is any ice cream man who ever comes home late at night. (Laughter).

Mr. F. N. Martin: Mr. Dorman is not married and does not have to come home.

Mr. Dunne: I am sure that after Mr. Dorman has heard what these gentlemen have said he will go back home and find a partner.

Mr. Dorman: I am going to look around here. (Laughter).

Mr. Dunne: He says that Larry Hughes will not have anything on him. The next address is by George Burt, but he came back too late to prepare his paper for reading at this time but it will be given to you before the convention is over. I can go on and call some other member or do you want to adjourn now.

Mr. Swanberg: I am the oldest man in the room and I feel very fresh. Let us go ahead.

Mr. Dunne: I will ask if Harry Stokes will come forward with his paper, as we have received word that Mr. Paulhamus is not here and I think that Mr. Stokes will deliver his address at this time. It is hardly necessary to introduce Harry Stokes to you as you all know him. I want to say that Harry is one of the pioneer ice cream people in the city of Seattle. When I first came to Seattle everybody knew Harry Stokes and his name was written all over the city. He is president of the Stokes Ice Cream Co., and his address will be on "Creating New Business."

(To be continucd in May issue)

PURE
STRONG
CONSUMERS GELATINE CO.
ST. LOUIS, MO.
PEERLESS
Gelatines
Pure White India Gum
PERFECTION Ice Cream Powder
ODORLESS
UNIFORM

BUCKINGHAM JOINS THE MUNN-NICHOLS ADVERTISING AGENCY.

Mr. Daniel J. Buckingham, who for some years past has been advertising manager of the Manning Manufacturing Company, Rutland, Vermont, has severed his connections with that concern to join the forces of the Munn-Nichols Advertising Agency, Bookstore Building, Springfield, Mass., as a partner of this concern. Mr. Buckingham intends to specialize in dairy advertising and he will have charge of the Dairy Advertising Department of this concern. Mr. Buckingham is qualified to give superior service to manufacturers in the dairy field.

CEDAR RAPIDS PLANT DESTROYED BY FIRE.

The Cedar Rapids Tinning and Galvanizing Company of Cedar Rapids, Ia., recently suffered the loss of their plant by fire and they are unable to handle any business at the present time.

Work is now in progress on the construction of a new plant, and the company will be in position to handle their business in a better and bigger way than ever when the plant is again in operation.



Sethness Company,

TRADE MARK Cosco

Western Branch
DENVER, COLORADO
2910 Huron Street

Pittsburgh Office:
609 Chamber of Commerce Building
PITTSBURGH, PA.



659 HOBBIE ST., CHICAGO

Operating 75,000 Square Feet for Quality and Service

COSCO BRAND

FRUITS

ICE CREAM CRUSHED FRUITS (BULK)
SOLID PACK FRUITS IN NO. 10 TINS
COLD PACK STRAWBERRIES
C. P. CRUSHED FRUITS IN BULK PKGS.

EXTRACTS

FLAVORING EXTRACTS, ARTIFICIAL
TRUE EXTRACTS
ORANGEADE EXTRACT (FOR ICES, SHERBETS AND PUNCHES)
CONCORD GRAPE EXTRACT (FOR ICES, SHERBETS AND PUNCHES)
VANILLA COMPOUNDS
VANILLA EXTRACTS, PURE
MARVEL PURE VANILLA BEAN EXTRACT
VANILONG
WALNUT FLAVOR
MAPLE COSCO CONCENTRATED
PINEAPPLE JUICE
QUINTOLS
EMULSIONS

COLORS

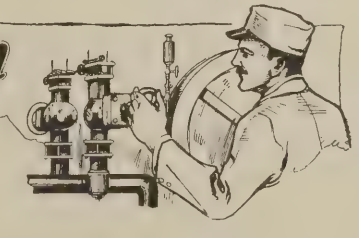
LIQUID CERTIFIED COLORS
CERTIFIED DRY COLORS
CARAMEL SUGAR COLORING
BUTTER COLOR ANILINE
NEW YORK ICE CREAM COLOR

TRUE FRUIT PASTES
CERTIFIED PASTE COLORS
MARSHMALLOW TOPPING
COCOA
BUTTERSCOTCH SUNDAE
CARAMEL SUNDAE
GELATINE
CITRIC ACID
GUM, PURE INDIA, POWDERED
ICE CREAM POWDER
SOLUBLE SKIM MILK POWDER SPRAY
KREMOLIN R. ICE CREAM RIPENER AND BINDER
VANILLA BEANS
VANILLIN
COUMARIN
GLYCERINE
TARTARIC ACID

SODA FOUNTAIN FRUITS AND PRIVATE LABEL MARSHMALLOW TOPPING FOR JOBBING PURPOSES

CP Mechanical Refrigeration

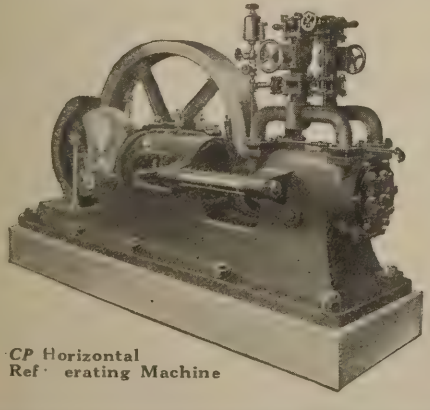
The Modern Method of Maintaining Uniform Temperature



For Ice Cream Freezing, Hardening and Storage

IN NO other field does ***CP*** Mechanical Refrigeration prove more valuable. It is more economical than natural ice for it requires less space and fewer men about the plant. Ice can be made on the premises with the ***CP*** System for icing tubs, cabinets, etc., at very low cost.

The ***CP*** Mechanical Refrigeration plant is strictly sanitary as dirt is confined to the boiler room and slop to the wash room away from the rooms where cream is frozen, hardened and stored.



CP Horizontal Refrigerating Machine

CP Refrigerating Systems can be supplied in all sizes ranging from ¾-ton up with either horizontal or vertical compressors and driven by belt, direct motor drive or direct Corliss engine drive as desired. Send for free ***CP*** Refrigerating Machine catalogue.

The Creamery Package Mfg. Company

SALES BRANCHES—(Write to Nearest One)

Chicago, Ill., 61-67 W. Kinzie St.
Boston, 138-140 Washington St. N.
Buffalo, N. Y., 133-137 E. Swan St.
Kansas City, Mo., 1408-10 W. 12th St.
Minneapolis, Minn., 318-20 3d St. N.
Philadelphia, Pa., 1907 Market St.
Portland, Ore., 6-8 N. Front St.
San Francisco, Cal., 699 Battery St.
Toledo, Ohio, 119 St. Clair St.
Waterloo, Ia., 406-8 Sycamore St.
Omaha, Neb., 113-15-17 So. 10th St.

NEWS FROM FAR AND NEAR.

(Continued from page 16)

Girard, Kans.—Roselle's creamery and ice cream factory was destroyed by fire March 21st. Only the previous day workmen completed the work of remodeling the plant and adding modern machinery and new fixtures. The loss will reach $25,000, partly covered by insurance. The cause of the blaze is undetermined.

Manhattan, Kans.—Machinery of Manhattan's newest industry was set in motion recently when the Chappell Creamery Company opened for business ready to supply the demand for ice cream, "Dairy Maid" butter, milk, cream, whipping cream and other products.

W. H. Chappell, proprietor of the business, will be assisted by his son Earl, and D. L. Kent, formerly with the Beatrice Creamery Company, and an experienced ice cream maker, in the operation of the business.

The equipment includes a mammoth churn, freezer, viscolizer, York refrigerating machine capable of manufacturing six tons of ice daily, and the hardening rooms.

Gardner, Mass.—A wholesale ice cream plant will be started here by Mr. J. W. Fitzgerald, who is about to leave the retail ice cream manufacturing business.

New Bedford, Mass.— Homer J. Messier, of the Made-Rite Ice Cream Company, has recently opened his newly completed ice cream freezing plant and parlor. With the new plant in operation the company will have a total capacity of 3,000 gallons per day. The freezing apparatus, including a 400 gallon freezing tank and other equipment, together with the furnishing of the ice cream parlor represent an investment of $50,000 by Mr. Messier.

Kalamazoo, Mich.—The Beedel Ice Cream Company, a new organization, will soon start operations here.

Lansing, Mich.—Mr. John Davis of this city is planning to open an ice cream factory here soon.

Lawton, Mich.—A corporation called the Perfection Ice Cream Company has been formed here, for the manufacture of ice cream, confections, etc. Their capital stock is $1,500.

Milan, Mich.—The Milan Creamery Company of Milan, Mich., is establishing a distribution branch in Toledo, O. The company manufactures ice cream and butter and deals in Milk, cream and condensed milk.

Fergus Falls, Minn.—The management of the Fergus Ice Cream Company has been taken over by Miss Lottie Snowbeck and Francis Wilson.

Minneapolis, Minn.—George A. Ball of the Ball Pharmacy Company will start the manufacture of ice cream at the new co-operative factory soon.

Pipestone, Minn.—I. O. Dyberick, who has been with the Pipestone Produce Company for the past five years, is now with the Langenfeld Ice Cream Company of Watertown, S. D.

Billings, Mont.—The Jersey Butter and Ice Cream Company has been organized, with capital stock of $15,000. They will sell butter, ice cream, etc. Gerald E. Hogan, Judd J. Fuller, and Claude P. Danrell, all of Billings, are incorporators.

Cameron, Mo.—The Cameron Dairy has let a contract for erection of a concrete block building. It will be a 26x80 ft. one story structure, to join the present building on the north. Work will begin in the near future. The interior of new building will be equipped with refrigeration of latest approved type and special machinery for handling the ice cream business.

Mexico, Mo.—The White Eagle Dairy Company of Columbus will open a branch creamery and ice cream plant in Mexico this spring. The business of this firm will be wholesale exclusively.

St. Joseph, Mo.—The City Dairy & Ice Cream Company has been chartered with capital of $20,000.

St. Joseph, Mo.—A new plant will be erected in this city by the Greene Ice Cream Company of Nebraska City, Neb. Mr. C. D. Miller, formerly manager of the Nebraska plant, will be in charge.

Arnold, Neb.—Mr. W. K. Tabor of this city is planning to open an ice cream factory here next summer.

Norfolk, Neb.—The Lewis Ice Cream Company, headed by Tom Lewis, for many years in the ice cream business here, has opened for business in a new building. The plant is entirely new and contains new machinery. The capacity is 500 gallons daily. Additional machinery is being installed in the new plant.

Superior, Neb.—The new ice cream factory owned by Edaall and Elliott is ready for operation. Vern Rowe, ice cream maker of Omaha, has been engaged.

Statesville, N. C.—A plant for the manufacture of ice cream is being erected by the Harden-Sumers Creamery Company.

Raton, N. M.—A busines merger of interest is recorded in the consolidation of the Dwight Ice Cream Company of Trinidad, Colorado, and the Raton Creamery Company of Raton, New Mexico. F. E. Button, who has conducted the Dwight Ice Cream Company, will have dircetion of the merged business. A program of expansion is announced which will include the installation of a modern refrigerating plant and ice cream machinery at the creamery plant at Raton, which will be the main headquarters of the business.

Work has begun on an extension to the present creamery building to accommodate the expanded operations. A modern ice cream machine has been received, but is not yet in place. An ice making machine and other equipment is on the way. The enlarged establishment will be ready for full operation soon. The production of ice cream for the wholesale trade, and the supplying of cold storage for various purposes will then be added to the creamery operations.

Jersey City, N. J.—The Eckmo Ice Cream Company has been incorporated with a capital of $5,000. G. Cooper, Edw. A. Brown and Florence McClonkey are interested parties.

Amsterdam, N. Y.—The Amsterdam Ice Cream Company has been incorporated for $200,000, having taken over on March 1st, the good will, plant and equipment of Hill, Marks and Heath, Inc., of Amsterdam, and the good will of the International Ice Cream Company, in the Amsterdam territory.

Auburn, N. Y.—The first ice plant of the Dairymen's League Co-operative Association has started manufacturing in Auburn, and plants under supervision of the League will be operating soon in other cities.

Brooklyn, N. Y.—A charter has been granted to the Park Ice Cream Co., Brooklyn, which was incorporated with capital stock of $30,000. S. V. Steiner, B. Steiner and W. H. Tuohy are incorporators.

Jamestown, N. Y.—The Lake City Ice Cream Company, to operate in this city, has been incorporated recently with capital stock of $20,000. F. E. Bufton, E. P. Peterson and C. M. Tibbitts are incorporators.

Niagara Falls, N. Y.—The new plant being erected here by the Cataract Ice Cream Company is nearing completion.

Salamanca, N. Y.—An artificial ice plant and ice cream factory will be erected here by Charles J. Hubbell. Work on it will probably begin next August. The concern will be known as the Salamanca Ice Cream Company. The plant will have a capacity of 12 tons of ice every 12 hours.

Cleveland, O.—A charter has been granted to the Peerless Ice Cream Company, Cleveland, which is capitalized at $50,000. Isadore Dudin, Albert Joseph, Samuel Weinstein, Jos. Morganstern and G. Schwarm are incorporators.

Columbus, O.—The Noaker Ice Cream Co. has consolidated with the Crane Ohio Ice Cream Co., Columbus, formerly known as the Moores and Ross Milk Co., according to announcement made recently by L. J. Noaker of the Noaker Ice Cream Co.

Both companies will retain their identity and present management but will be consolidated in a business way, according to Noaker.

The Noaker Co. is enlarging its field in many ways and already is known as one of the leading ice cream companies in Ohio. Recently an additional plant was purchased in New Philadelphia and other extensions are to be made.

Noaker will remain in direct charge and control of the business in this territory.

Galion, O.—The Buckeye Dairy Company is operating a dairy and ice cream plant.

Ironton, O.—An increase in the capital stock from $5,000 to $35,000 has been made by the Ironton Ice Cream & Dairy Company.

Jamestown, O.—An ice cream plant is being contemplated by A. Jenks and C. Mauck.

Niles, Ohio.—James St. John, formerly of this city, but now located on a large farm in Johnston township, is planning on putting in a large ice cream manufacturing plant. It will be about a month before he is ready for operation.

Rockford, O.—The Casnovia Ice Cream Company and the Rockford Ice Cream Company, both of this city, will open new plants.

Urbana, O.—Welsheimer and Butler, druggists, have just contracted through Paul Smith, a former Urbana boy, representing the Frick Machine Company of Cincinnati, for a new refrigerating machine.

Duncan, Okla.—Construction of a two story brick building for an ice cream factory and creamery has been started here.

Welland, Ontario.—The Goodwillie manufacturing plant was sold recently to Martin Bros., dairymen. The building and land will be turned over to Martin Milk Products, Limited, a company which has just been organized, and of which Martin Bros. are the leading figures.

The factory, which was built in 1913, is two stories high,

and has a ground area of 135x130 feet. The new owners will use it for the manufacture of ice cream and butter.

Portland, Ore.—Manufacture of machines for the production of coated ice cream cakes is proposed by the General Products Company, organized recently by J. W. Browne, Alfred S. Rix and H. F. Sturdevant, with a capitalization of $100,000. The new machine was invented and patented by J. O. Halverson, and the first one manufactured was placed in operation at the plant of the Mutual Creamery Company recently.

Bethlehem, Pa.—An addition is being built to the present plant of the Bethlehem Ice Cream Corporation.

Brookville, Pa.—The ice cream plant, including building, machinery and good will of Clark Bros., Brookville, was recently purchased by the Brookville Ice Company and possession taken on April 1st.

Canonsburg, Pa.—The Rieck-McJunkin Company is remodeling the interior of the Charleroi Brewery building, its newly acquired property, and expects to have it ready for its ice cream and manufacture of ice productions soon.

Chambersburg, Pa.—G. Stewart Klenzing of King and Franklin streets is converting a building at the rear of his residence into an ice cream factory, and will begin the manufacturing of ice cream in the near future. He will have as a partner his brother-in-law, Robert Gabler, of Roxbury. Up-to-date machinery is being installed and they will wholesale and retail their product.

Charleroi, Pa.—P. Calistri & Sons have started the erection of a new ice cream plant. The business was started by P. Calistri 23 years ago. P. Calistri was the entire organization, being ice cream maker, errand boy and delivery man. Due to his efforts and the quality of his product, the business grew so that in 1912 it was necessary to increase the plant to a total capacity of from 500 to 700 gallons per day. During the time the business was growing, Mr. Calistri's two sons, Messrs. Jermia J. and Dee A. Calistri, were initiated into the business. The business has continued to grow so that the present plant is the outcome of this continued growth.

The building and equipment for the plant will be new in its entirety. It will have a maximum capacity of 2,000 gallons of ice cream per day.

Emaus, Pa.—Stortz & Eisenhard purchased a tract of land from Wilson Wenner on the south side of the East Penn railroad. They are erecting a large ice cream plant.

Greensburg, Pa.—Equipment for the manufacture of ice cream is being installed by the Dairy Products Company. Mr. J. U. Kuhn, Jr., is the manager of this plant.

Kingston, Pa.—Evans Brothers are now operating an ice cream plant.

Oil City, Pa.—A new ice cream plant is being started here. Mr. Sloppy of the local American Legion is the proprietor.

Perkasie, Pa.—At a meeting of the directors of the Crescent Ice Cream Co., I. P. Mensch was unanimously re-elected president of the concern.

The capital stock of this company has been increased from $50,000 to $150,000, and extensive additions will be made to the present plant.

Plans have been received and approved for a 3-story brick and steel addition that will house an ice manufacturing plant of a capacity of 30 tons daily and provide storage facilities for 500 tons.

Pittsburgh, Pa.—The Pittsburgh Ice Cream Company has increased its capital stock from $90,000 to $250,000.

Smethport, Pa.—A. Miller, proprietor of the Claranett Creamery, will begin manufacturing ice cream for local consumption at his creamery as soon as the necessary equipment arrives.

Velvet Brand is the name for the proposed product, following out the similar named brand of butter sold by the creamery.

Tarentum, Pa.—The Ganor Ice, Ice Cream and Dairy Company has recently been incorporated for $100,000.

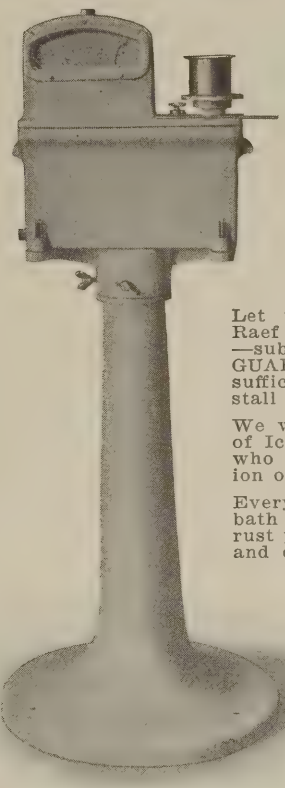
Newport, R. I.—The Aquidneck Dairymen's Association has purchased land on which it will immediately erect a terra cotta building 40 by 60 feet. The purchase has to do with the plan to manufacture ice cream. The association has already contracted with a Chicago concern for the installation of the ice cream making machinery.

Watertown, S. D.—The Langenfeld Ice Cream Company has purchased the plant of the Kampeska Ice Cream Company.

Brownsville, Tex.—C. C. Lamberth of McAllen, Texas, is to open an ice cream plant.

Seguin, Tex.—At the regular directors' meeting of the Seguin Chamber of Commerce last week, C. E. Tips was commended for his enterprise in putting in modern ice cream machinery for the manufacture of ice cream.

DE RAEF Ice Cream Weight Standardizer



The only patented equipment offered to the ice cream manufacturer for the Standardization of all makes of ice cream — Vanilla — Fruit — Nut — Sherbets—without any adjustments of any kind—no charts—no weights regardless of weight of mix—making it practical in any plant, to make an entire day's run and not to vary an eighth of a pound to the gallon.

Let us demonstrate this De Raef equipment in your plant —subject to sale. We will GUARANTEE YOU A SAVING sufficient to justify you to install this equipment.

We will send you the names of Ice Cream Plant Managers who will tell you their opinion of this Standardizer.

Every working part works in bath of special oil making it rust proof from the salt laden and damp air.

Drop us a card

N. A. Kennedy Supply Co.
Kansas City, Mo.

National Distributors

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RICORANGE

(Patent Applied For)

"Made Where the Orange Grows"

A TRUE FRUIT PRODUCT FOR USE BY

Ice Cream Manufacturers
Soda Fountains
Confectioners
Bakers
Etc.

RICORANGE

FOR

Orange Ice Cream and Ices

RICO PURE FOOD GELATINES
MEXOLA Guaranteed Not to Freeze Out
INDIAN OR KARAYA GUM
LA PARA GUM
COCOA BUTTER
COATINGS
COLORS

THE W. K. JAHN COMPANY

561 E. Illinois Street
Chicago, Ill.

Bush Terminal Bldg. 10
Brooklyn, N. Y.

DON'T TRY TO SAVE MONEY BY USING CHEAP LUBRICANTS.

Sherman, Texas.—Branch plants will be opened at Denison and Greenville, Texas, by the Lyon-Jensen Ice Cream Company.

Sweetwater, Tex.—The Sweetwater ice cream plant, a new business institution, commenced operations recently.

Glendale, Wash.—Recently the Glendale Dairy, under the management of Floyd Sather, began the manufacture of the widely popular chocolate coated ice cream bar in wholesale quantities for local and outside confectionery dealers.

Mt. Vernon, Wash.—The Highland Dairy has opened an ice cream manufacturing plant in connection with their milk and cream service, and have already started to place their product on the market.

The added equipment is modern in every respect.

The erection of the new Highland Dairy plant, on which construction work will start soon, will permit this concern to considerably enlarge their facilities and better enable them to care for their constantly increasing business.

Lumberport, W. Va.—Lumberport dairymen are planning to start a co-operative ice cream plant here, it was announced recently at chamber of commerce headquarters. Plans for the carrying out of the project were made at a meeting in Lumberport which about fifteen dairymen attended.

Wheeling, W. Va.—H. P. Hauman, who has been local cashier of the Imperial Ice Cream Company, left recently for Winchester, Virginia, where he will be the manager of the new plant of the company at that place. Mr. Hauman has been in the employ of the Imperial Ice Cream Company for several years.

J. J. Talbott, former bookkeeper at the local plant, has been advanced to the position of cashier.

B. D. Wells, formerly with the Imperial Company here, has been made manager of the new plant at Steubenville, O.

C. J. Dickman, also of the local Imperial plant, has been appointed manager of the new plant at Washington, Pa.

Fond du Lac, Wis.—Fourteen members of the Northwestern Ice Cream Dealers' Association held a get-together meeting in this city recently.

Ten cities of the Fox River valley district, including Fond du Lac, Oshkosh, Green Bay, Appleton, Sheboygan, Manitowoc, Shawano and other points were represented at the meeting. The association holds these conventions twice each year and they are for the purpose of having a discussion as to general conditions and toward the promotion of greater service and efficiency in the business.

Janesville, Wis.—Twenty ice cream manufacturers of Southern Wisconsin came to Janesville one day recently to hold an all-day get-to-gether. According to Charles P. Touton, of the Shurtleff Ice Cream Company, no business matters were taken up.

Among those present were: R. W. Minett, Waukesha; G. H. Kothlow, Edgerton; G. R. Courtright, Rockford; F. J. Schmidt, Elkhorn; Mansfield Caughey Co., Madison; Mr. Hass, Madison; C. A. Carver, Oshkosh; W. R. Meier, Ft. Atkinson; A. O. Sorge, Reedsburg; Mr. Whiting, Lake Mills; George Cronin, Janesville.

Medford, Wis.—The Suits Ice Cream Factory has been reopened for the summer work.

Plymouth, Wis.—William A. Brannon has disposed of his interest in the Mel-O ice cream plant and will leave for Madison where he will again serve as a chemist for the French Battery Carbon Company. He and Carl Krohn, both of Madison, came here a year ago and took over the establishment.

River Falls, Wis.—M. M. Walters of River Falls has added an ice cream making machine to his creamery outfit, and will sell the product direct to the consumer.

Wisconsin Rapids, Wis.—It is reported that the Mory Ice Cream Company of Stevens Point and Appleton are planning to open a new branch factory in this city this season.

NEW FREEZER CATALOG.

The Ice Cream Review office has just been favored with a copy of 1922 catalog of the Emery Thompson Machine and Supply Co., 271-75 Rider Ave., New York City. This is a neatly arranged booklet of 32 pages, showing the various types of Emery Thompson Freezers and giving a general description of each and of the parts of which it is composed.

The Emery Thompson Company is also manufacturing an underdrive mixer, which is an outfit for making ice cream without mechanical refrigeration at a very low manufacturing cost. Copies of this catalog may be secured from the Company at the address given above.

MIDLAND PRODUCE CO. MAN IS SECRETARY.

This man is the new secretary of the North Dakota Ice Cream Manufacturers' Association. He is G. B. Caraway, manager of the Midland Produce Company, Fargo, North Dakota.



G. B. CARAWAY.

North Dakota has an active little association. It is not little from a standpoint of accomplishment, however for in this respect it can be placed on an equal basis with other associations, having many times their actual membership. The North Dakota Association is coming right along, and has planned many things which will be of benefit to the ice cream men of the state.

Below is where Secretary Caraway labors. The Midland Produce Company is doing a fine business. Their office is shown on the right of the picture, and their retail store on the left. They have three churns and two ice cream freezers in operation, which last year made about 700,000 pounds of butter and 100,000 gallons of ice cream.



INFORMATION WANTED.

It was reported a short time ago that a certain ice cream manufacturing company was specializing in the manufacture of brick ice cream. One of the subscribers to The Ice Cream Review is very anxious to obtain the name of the manufacturer, who is making nothing but the brick ice cream. If any of our readers happen to know who is engaged in this specialty, they would confer a favor on us by sending the name to The Ice Review office.

FORTUNE

"NORTH POLE"

Sweet Milk *Chocolate Coating*

FORTUNE PRODUCTS TRADE MARK

Especially Prepared for

ESKIMO PIES

Ready for Use — Nothing to Add

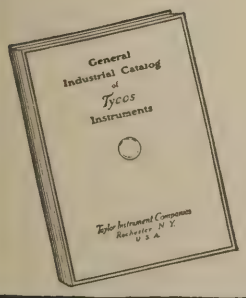
Fortune Products Company

416-422 So. Desplaines St. CHICAGO, ILL.



Tycos temperature instruments

We seek to place our literature before progressive manufacturers to show how Tycos temperature instruments come under the head of service in the Ice Cream Field.



Taylor Instrument Companies

Rochester, N.Y., U.S.A.

Theres a *Tycos* and *Taylor* temperature instrument for every purpose

Your request for literature, taking advantage of Tycos assistance through our advisory service is respectfully solicited.

311

A GOOD POINT TO CONSIDER IS THE SERVICE OUR ADVERTISERS GIVE.


Wolfhounds
J. WILL CARPENTER, Pres.
Haines-Carpenter Dairy Products Company, St. Louis, Mo.
OTIS B. WITTE, Secretary
N. A. Kennedy Supply Company, Oklahoma City, Okla.


Mr. M. T. Cochran, President of the Oklahoma Ice Cream Manufacturers' Association, has spent two or three days in Oklahoma City, and is going from there to Tulsa and other parts in Oklahoma in the interest of better organization of the ice cream manufacturers of this state.

* * *

A LIVE WIRE BOOSTER.

Readers, meet Mr. Carl Glitsch, the wide-awake, up-to-the-minute head of the New State Ice Cream Co., of Oklahoma City, Oklahoma. In addition, Mr. Glitsch is a leader of the local Elks, past Chief of Police of Oklahoma City, and a leader in politics.



CARL GLITSCH.

He is the type of man who will give you a pleasant reception, listen attentively to what you have to say, and make his decision NOW. He is one of the "Let you know later" kind.

His friends characterize him as a man free from petty considerations, a real man among men, a man they are proud to call friend.

It may be gathered that no matter what Mr. Glitsch gets into he is not content to be merely a spectator, but takes a prominent hand in running the show. Men of this type are bound to make a success of whatever they undertake, because they put behind it the force and enthusiasm that gathers momentum which is effective against any difficulties that may be encountered. More power to you, Carl! The industry needs more men of your type. Whatever you attempt, you may be sure there will be plenty of us rooting for you, for all the world loves a booster of your type.

* * *

FRICK ICE CREAM COMPANY ENLARGES PLANT.

Due to an increase in business, the Frick Ice Cream Company of Corsicana, Texas, was obliged to enlarge their plant. They have built an addition to their present factory for can storage and wash room, in order to give more room in the packing department, and have installed in the factory laboratory equipment, furnished by Mojonnier Bros., Chicago, and a new freezer furnished by the J. G. Cherry Company, of Cedar Rapids, Iowa.

The plant will be under the active management of Mr. H. M. Montgomery. Mr. Frick will give most of his attention to his new organization at Corsicana, the Frick Hoop Company. Mr. Montgomery has been connected with the Ardmore Ice Cream Company and the Southern Ice and Utilities Company of Texarkhanna. He has been with Mr. Frick since the founding of this company at Corsicana.

Due to the expansion of their trade territory, this company will concentrate on the manufacture of ice cream, and will handle only miscellaneous supplies for the fountain.

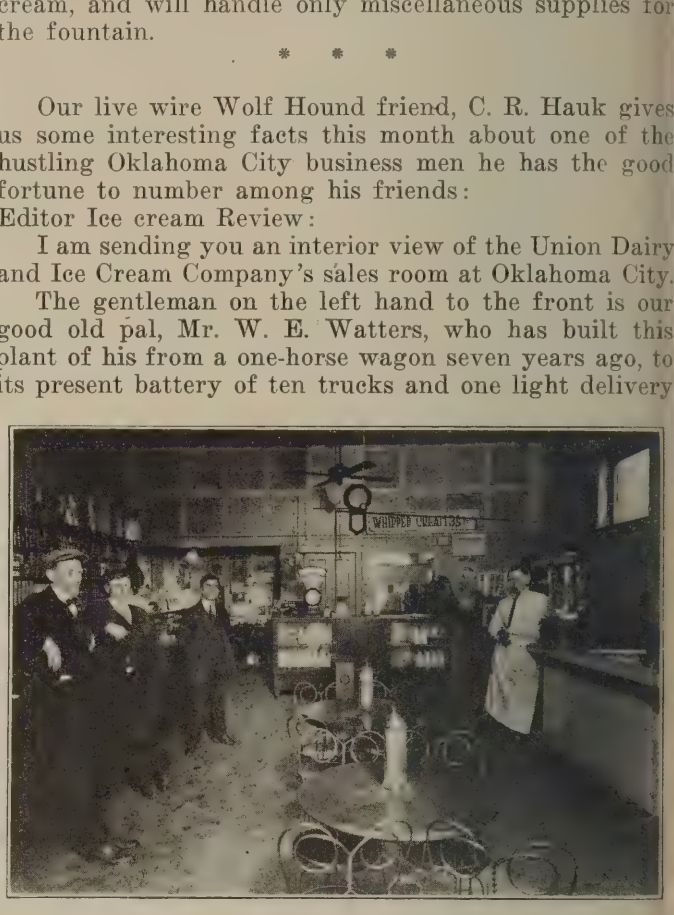
* * *

Our live wire Wolf Hound friend, C. R. Hauk gives us some interesting facts this month about one of the hustling Oklahoma City business men he has the good fortune to number among his friends:

Editor Ice cream Review:

I am sending you an interior view of the Union Dairy and Ice Cream Company's sales room at Oklahoma City.

The gentleman on the left hand to the front is our good old pal, Mr. W. E. Watters, who has built this plant of his from a one-horse wagon seven years ago, to its present battery of ten trucks and one light delivery



Union Dairy & Ice Cream Co., Retail Sales Room.

car, all motor driven. This is another instance of what hard work and "stick to your text" methods will do for a hustler of this man's type. Go get 'em, Walt; the people of this day and age look up to your kind of business methods—broad of mind, a booster of your line, with a kind greeting for all that may call upon you, and a firm believer in advertising.

Hats off to you for the big assistance in making the last convention the biggest success ever. More power to you is the wish of all. C. R. HAUK.

"TWO NEW BOOKLETS."

We have just received two new circulars from The Pfaudler Company, one of them illustrating fittings for glass lined tanks, and the other tells us of the use of glass lined steel tanks for creameries.

In the first mentioned book a Pfaudler Flush Valve is described in detail, also the Spray Coil, the Propeller-Type Agitator and the Two-Speed Motor Drive, and all fittings which are a part of the Pfaudler Glass Lined Tanks.

Then the other booklet, the uses of Glass Lined Tanks for Creameries are outlined, also a number of users of Pfaudler creamery equipment are listed.

Either of these circulars may be obtained by writing to The Pfaudler Company, Rochester, N. Y.



MENUS for the SODA FOUNTAIN

Samples Free on Request

THESE menus are **especially** for the Soda Fountain. They are not hotel menus or restaurant menus but are printed and embossed in colors on the highest grade stock and reproduced from original drawings for the use of Soda Fountains exclusively.

15 Styles

The three shown in cut are typical designs but there are various styles and sizes to choose from.

Ice Cream Manufacturers!

HIGH CLASS INEXPENSIVE ADVERTISING

The menus are popular among ice cream manufacturers, who give them to druggists and confectioners with the manufacturer's trade-mark or advertising slogan printed on them. This is a sure and inexpensive means of advertising the ice cream manufacturer as the menus come to the attention of the customers of the retailer.

The Allis Press *Formerly* **K. C. Bill of Fare Press** **Kansas City, Mo.**

CHICAGO'S DAIRY SUPPLY CENTER.

One of our readers who noticed the new announcement in our last issue with reference to the new Chicago Headquarters of the Davis-Watkins Dairymen's Mfg. Company, has called to our attention the growing importance of a certain district in the city of Chicago.

Located within an area of a few square blocks just west of the Chicago river and the famous Loop District are many creamery and dairy supply houses and manufacturing concerns. These companies are evidently finding out the special advantage of locating near their neighbors which might otherwise be considered as their competition.

An investigation reveals the fact that the following dairy machinery concerns are located in the limited area above mentioned:

Louis F. Nafis, 544 W. Washington Street.
Cresco Creamery Supply Co., 1845 W. Van Buren St.
R. J. Wade & Co., 308 S. Canal Street.
Mojonnier Bros. Co., 739 W. Jackson Boulevard.
Kimble Glass Co., 402-406 W. Randolph Street.
F. G. Dickerson & Co., 549 Washington Blvd.
Advance Timmerman Co., 308 S. Canal Street.
A. H. Arnold & Bro., 710 W. Jackson Blvd.
Milk Drying Machinery Co., 548 W. Jackson Blvd.
Sharples Separator Co., 565 W. Washington St.
Solar-Sturges Co., 838 W. Congress St

Our reader says he remembers the time when such concerns made it a point to locate as far away from one another as possible. It is quite evident that rapid progress is being made as these men surely see the advantage of having their businesses located near together for the proper service of trade.

WARREN ICE CREAM COMPANY ORGANIZED.

The Warren Ice Cream and Ice Company has recently been organized at Warren, Indiana, and will operate in the same plant and conduct the same business as was formerly carried on by the Warren Ice and Ice Cream Company. Mr. E. O. Ellerman, president of the Elwood Creamery at Elwood, Indiana, is president of this company; Gordon Trixler, of the Huntington-Collins Ice Cream and Bottling Company, is vice-president, and Orva Sales, of the Huntington-Collins Company, is secretary and treasurer. Mr. Trixler will do the buying for the Warren Company.

It will not be necessary for this company to make any extensive improvements to the present plant now, as the building is in good condition, and the machinery on hand is adequate for present uses. The ice cream mix will be furnished by the Elwood factory, as, with the modern machinery there, a better product can be turned out, which will be more satisfactory, as they are striving for a quality ice cream. The facilities at Warren for making ice cream bars are exceptional, and they will be made here.

There was at one time a retail confectionery operated in the front rooms of the Warren plant, which was discontinued by the old company. This stand is being put in shape, and will be opened soon, and will be devoted to the sale of ice cream, wholesale and retail candy and cigars, bottled milk and cream, and ice.

Need Any Help?

If you want help for your factory, the quickest and cheapest way to locate same is through The Ice Cream Review Want Department.

YOUR CO-OPERATION WITH OUR ADVERTISERS BRING DESIRED RESULTS.

NEWS ABOUT SUGAR

Items of Interest for the Ice Cream Manufacturer

THE SUGAR MARKET.

"Though the market is unsettled from time to time," says The Magazine of Wall Street," particularly after buying has been over-zealous, the trend in consumption continues upward. Both Europe and America are buying more heavily now, particularly Europe where sugar stocks have been depleted. It is now clear that Europe must become from this time on a preponderant element in the sugar situation.

"The broad tendency of prices of both raw and refined sugar in recent weeks has been upward owing to the growing scarcity of prompt supplies. However, the rapid pace of the rise has somewhat discouraged buying by the refining interests and at present writing the market gives a heavy appearance. At present levels, raw sugar has advanced about ½ cent a pound above the lowest quotations recorded several months ago.

"Under the present conditions, the outlook is for a continued advance in sugar quotations as buying increases gradually. The outlook for the sugar industry is not so much dependent on an advance in prices as continued liquidation of stocks of which there is still an abnormal supply on hand. In this connection, it would hardly prove of value to the sugar interests to maintain a high price for their product if this were to interfere with the flow of sugar from producer to consumer. The best interests of the sugar companies will be served by following a moderate attitude with regard to prices demanded. A sudden sharp advance in the price would likely discourage buying.

* * *

RATE FIGHT IN PROSPECT.

The recent action of Arbuckle Bros., in including in their petition for the readjustment of freight rates on sugar from Atlantic seaboard and Gulf ports to Chicago territory a demand for the abolition of the long existing port differentials, apparently has precipitated a fight that will involve many interests and may have far-reaching consequences, according to Facts About Sugar. The insistence of Philadelphia and Baltimore, and of the traffic lines serving those ports, on a differential over New York was the cause of some bitter railroad rate wars twenty years and more ago, and the revival of this controversy is lining up the chambers of commerce and other shippers' organizations of the big Atlantic port cities on one side or the other.

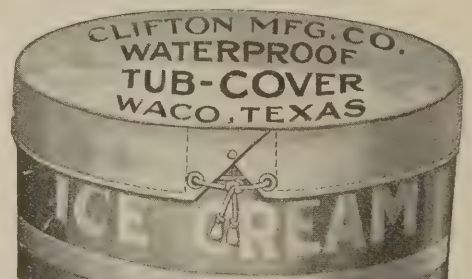
The Chamber of Commerce of New York and commercial organizations in Philadelphia, Boston and Baltimore are said to have decided to enter the fight if the question is reopened, believing that any change in differentials applying to sugar may be used in an attempt to upset other rate adjustments of long standing.

Among refining interests the most strenuous opposition to the plan to abolish port differentials probably comes from the American Sugar Refining Company, which is just putting into operation its new Baltimore refinery. This plant, it is understood, was built largely because it was figured that it would enjoy a differential of three cents a hundred pounds over New York on freight into middle western territory. If the port differentials are abolished it would mean that this preference would be lost and that the only business advantage to be gained by the Baltimore location would be confined to the comparatively small area in which it would have the advantage over Philadelphia refineries.

On the other hand, Boston is sanguine over the proposal and has already demonstrated its willingness to fight in favor of the plan by retaining expensive counsel. The attorneys so far retained by eastern port interests are said to be men whose fees for handling such a case will run from $10,000 to $20,000 and upward.

In the meantime sugar traffic circles have more or less given up hope of getting an early decision on the Arbuckle petition on the Chicago rates, owing to its having been linked up with the port differential matter.

TUB COVERS



TARPAULINS

ETC.

Samples and prices
on application.

CLIFTON MANUFACTURING CO.
Everything in Canvas
WACO TEXAS

"Crescent"
Ice Cream Packing Tubs

Made right
Keep tight

Write For Prices

Crescent Tub Manufacturing Co.
Johnson City, Tenn.

A. T. SPONAR TAKES NEW POSITION.

A. T. Sponar, until a short time ago sales manager of the dealers' department of the Solar-Sturgis Company of Chicago, has recently been made sales manager of the ice cream can department of the John Wood Manufacturing Company, Conshohocken, Pennsylvania, manufacturers of the Electric Weld ice cream cans, range boilers, etc. Mr. Sponar is well known to the ice cream industry, and he has the best wishes of his many friends for success in his new enterprise. He is a member of that well known gang of rooters for the ice cream business, known as the Dixie Fliers.

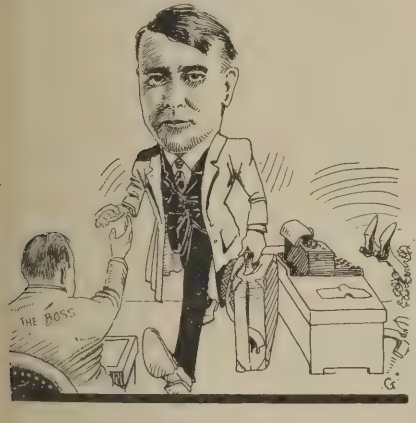


A. T. SPONAR.

BACK FROM THE WEST.

There are few things which "get by" now-a-days without the radio giving them away—but here's one that did.

Into the serenity of our office routine one day recently, walked the long-absent R. E. MacFarland, Western representative for the Essex Gelatine Company of Boston, Mass. Mac has been gone since last November and he showed up looking fine and reports a very good trip, with business excellent. His extensive trip covered the Western territory and took in many conventions on the Pacific Coast and he is now on his way to Philadelphia and other Eastern points and will return to Chicago about the latter part of April.



Many's the conjecture which arose as to where Mac (Farland, not Sennett) could be stranded out on the Pacific Coast, when the Poodle Dogs of Iowa, the Badger Flyers of Wisconsin, the Jack Rabbits of Kansas, and the Dairy Boosters of Michigan were out in full force at their respective state conventions, and Mac was missing, and we wanted to ask him about that brunette mentioned in the M. D. B. Column, but he really looked too happy—we didn't ask—we knew it couldn't be.

* * *

During the past month, we enjoyed a visit from E. Don Rogers, of the C. E. Rogers Company, Detroit, Mich., who visited Milwaukee on a business trip. Mr. Rogers reports business good and has been on the road almost continuously since last October. He left here to attend the monthly meeting of the National Dairy Club of Chicago.



"No Tub Is Stronger Than Its Bottom"

Government statistics show the average life of an ice cream tub to be 150 to 180 "drops." Records kept in several plants where B. L. R. Hoops have been in use show that tubs so equipped will stand upwards of 500 drops without loosening of staves or breaking of chimes.

Six Economical Features of the

B.L.R. Reinforcing Bottom Hoop

1. Constructed of 16-Gauge Rust-proof Steel, B. L. R. Reinforcing Hoops will outlast the life of the tub.
2. B. L. R. Reinforcing Hoops are rust resisting and non-corrosive because of the special process of Parker rust-proofing.
3. B. L. R. Seamless Reinforcing Tub Hoops replace the bottom hoop on the tub. The rim extends 1¾ in. up the side of the tub and covers the bottom 3 inches.
4. The center opening in the hoop permits all the water to drain out. No water can remain between the wood and the metal.
5. B. L. R. Reinforcing Hoops cost less than making the usual tub repairs each season.
6. B. L. R. Reinforcing Hoops permit more business with less tub investment by keeping all tubs in actual continuous service.

SIZES

The Hoops are furnished in the following sizes:
15½ in. 15¾ in. 16 in. 16¼ in. 16½ in. 16¾ in.

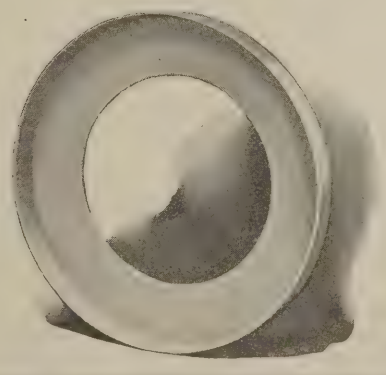
Order From Your Nearest Jobber

"A B. L. R. Hoop On Every Tub Bottom"

John W. Ladd Company

"National Approved Ladd *Distributors Specialties"*

DETROIT CLEVELAND



KEEP AN EQUIPMENT CATALOGUE HANDY.



MICHIGAN ALLIED DAIRY ASS'N.

Dairy Booster Officers:

Pres., C. J. YUNKER
1112 Radcliffe Drive,
Toledo, Ohio.

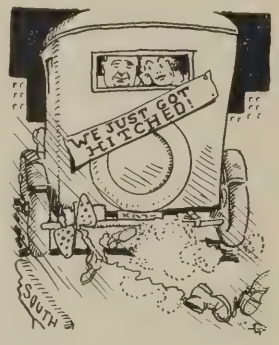
Secy., C. J. W. SMITH
c/o Creamery Package
Mfg. Co., Detroit.

SMITH BECOMES A BENEDICT.



Smash! Bang! There goes our heart again! And this time it's none other than C. Frank Smith, the genial and well-known representative for the John W. Ladd Company of Detroit, Mich.

Mr. Smith will combine pleasure with business this trip; he and his bride, who was Miss Georgia Lawrence of Oil City, Pa., will spend their honeymoon in the South and West and will be gone about two months. Mr. Smith will be covering his usual territory for the Ladd Company.



His many friends will join THE ICE CREAM REVIEW in wishing the newly-weds much prosperity and happiness.

ME.

WHY BE SO DISAPPOINTED!!!!!!

Miss Ima Booster, who attended the Michigan Allied Dairy Association Convention at Saginaw, Mich., surely must have had a good time in trying to find out who she could flirt with. It seems to me she did not take time enough to study the men through, for they all have good qualities.

For instance—there's Howard Black, the Widlar Company representative, who is a nice, good-looking chap, young and pretty. He could be caught very easily, for he left his wife at home.

Then, if Ima was wanting for hearty laughter, she should have taken on A. J. Miller of the Sanitary Tinning Company, Cleveland, for he can't be beat and he has only a few gray hairs, just enough to make him look good.

Also, she could have had Bill Finch. He is a first-class jollier; he has no equal; and he can entertain fine. Do not know where his wife was, but probably would not be in sight. Bill likes his cider and cigars.

Now don't you think, Ima, these would have been better than the ones you picked? Now let's see, who else did she miss in her choice? There's Jim Hill, Diamond Crystal Salt man, he is a hummer and full of jokes. E. W. Stewart, the United States Gelatine salesman, he was very lonesome and needed company. And Henry W.——— who represents the Daigger Company, is such a fine boy and an extra good dancer, why did you not catch him? You surely made a mistake there? And so many more of those good-looking salesmen—you either missed or failed to see them. It may be the one she was actually looking for, could not be there on account of being detained out on the coast on business



—and that's our good friend R. E. McFarland, who is so tall and handsome a chap that we couldn't blame her for not being able to find anyone at the convention to suit her.

A Michigan Dairy Booster.

* * *

HE HAD THE WRONG ONE THAT TIME.

Well, Mr. Michigan Dairy Booster, I hate to spoil your day, but you are a punk guesser. I'm not going to give it away as to who you are, but for your own benefit, just to prove to you that I am a better guesser than you, I am putting your picture here to show you that I have guessed who you are—I don't want to give your identity away so that all the supply men will have the chance to "guy" you to death; but really, doesn't it look just like that picture Ima spoke about in the January Review?

I am surprised at you for thinking that I was there—and you didn't even see me! Why you'd be one of the first boys I'd look for. You see, the boss left me at home—I wanted to go all right—for I think the ice cream supply men are the best on earth—but the train pulled out and they forgot to put me in their grip, and in spite of all the kind invitations you sent for me to attend the Michigan convention, the grim hand of Business held me and I couldn't get away.

"Why, Mr. Michigan, I never would have said all the cruel things Ima said about the supply men—I'd have told a white lie if I'd have died in the attempt. That alone proves I didn't write the article.

Now, Mr. Booster, let's take your letter apart and my answers will prove that I have an altogether different view of things than you surmised I had under the guise of Ima Booster.

Your first paragraph is "most unkind"—as Harry Coleman would say—in the first place I don't have to flirt—did you ever see a duck take to water? Well,

figure it out for yourself. Then, you mention Howard Black—why, if I'd been in Ima Booster's place, I would have found Howard right away, and I'd have asked his forgiveness for the bet I never paid. And just wait until he reads that you called him "pretty" and he'll pan you. And A. J. Miller, do you think I would have passed him up? A fellow whose wife serves chicken dinners like Mrs. Miller does, and who takes you around Cleveland and shows you the town like he does? Not on your life—his would have been one of the first hands I'd have grasped, with inquiries for the wife and kiddies if I'd been there. And I'd have booked a dance with him first crack—for didn't we have a heel-spinner in Buffalo? And Bill Finch—I haven't met him yet but if he's a jollier, as you say, most likely he would have been over to the stand to get acquainted. And as for Jim Hill, I don't know him either. The only Jim Hill I know is of railroad fame. But you say he travels for Diamond Crystal Salt, and I didn't know he got railroaded from the Great Northern to Salt, but then, as the saying goes, "when it rains, it pours"—well, if it stopped at the Diamond it might interest me, but I can't do so much for the salt part. And Mr. Stewart, thanks, I met the gentleman in Chicago at the Illinois convention, and it's too late for you to make any dates for me with him. And Henry W.—Lawdee! Michigan, he doesn't like blondes, didn't you know that? He falls for the brunettes every time—but I do admit that he is some dancer—for we tripped the light fantastic in Milwaukee and I never thought I could dance until I found that I could follow steps like Henry W.'s.

And last comes the prize shot—MacFarland—I admit that he is "tall and grand" but didn't you know that some awful brunette captured him long ago? Well, well, you are behind the times. What's the use of crying over spilt milk?

Speaking of handsome men at the Michigan Convention, you missed a few yourself—I know a few more and I wasn't even there. What say you about the beauties of Jack Hickey and Don Rogers and O. E. Harwood, and John W. Ladd and Roscoe Moon and L. A. Kline and Fred Hollweg and R. J. Decy and A. Senor and a few of the really good looking ones?

Come on you famous pool player—snow again—you were in the wrong drift. The vital question is—who is this Ima Booster anyway if she isn't.

ME.

* * *

MICHIGAN DAIRY BOOSTERS NEWS.

By C. J. Yuncker.

S. H. Weeks is installing a Dairy and Ice Cream plant in Galion, Ohio, and began operations early in April. A. H. Warner is his butter and ice cream maker.

* * *

The Ashland Sanitary Dairy Co., Ashland, Ohio, has completed the new two story addition to their plant; and their new cooling room is a good size to handle their milk and butter. They can store 1,500 gallons of ice cream at a time. They bought two new Creamery Package 300 Gallons Capacity Mixing Vats, also a twelve ton York Compressor and a Blue Line Bottle Washer, also have added a numbe r of Electric Motors to the plants to operate the different machines. They will also put in a new Ice Cream Freezer, motor equipped.

* * *

The Isaly Dairy Co., Youngstown, Ohio, is doing a big business and has a very large and fine plant. Their retail room is of good size and their counter ice cream cabinet is cooled from the refrigeration room. They carry in this cabinet seventeen kinds of brick ice cream. They are contemplating operating twelve retail stores in Youngstown, O., and surrounding towns to retail their own dairy products and ice cream. Each store will have an ice cream cabinet counter to hold seventeen five-gallon cans of ice cream and also space for brick ice cream. They will always carry seventeen flavors in their cabinets and each store will have a two ton York refrigeration machine to keep their ice box and ice cream cabinets cool. It has so far proven a success with them to carry the seventeen kinds of flavored ice cream as the public likes a change in flavors. Leave it to Mr. Chester Isaly, manager of this plant, for he surely knows how to please the public in ice cream.

* * *

The Perfection Dairy Co., Kent, Ohio, has added a 10-ton Ice Machine; this doubles the capacity. They also bought a new 2-ton Federal truck. They are doing a good business and the manager, Mr. Earl Tatjenhorst, is well liked by all, therefore the reason of success to this new firm.

* * *

E. W. Patton of Lisbon, Ohio, is now manager of the Ravenna Ice and Milk Co., Ravenna, Ohio. Here's hoping for his success.

* * *

E. J. Davis & Co., Oberlin, Ohio, have moved into their new ice cream and candy factory.

* * *

The Tawney Ice Cream Co. of Barberton, Ohio, is in the new building and is doing a good business. They have a nice plant.

* * *

F. A. Martin, Sandusky, Ohio, says his candy factory is doing a fine business. The ice cream factory is also doing well.

* * *

The Bryan Ice Cream Co. of Bryan, Ohio, is making an ice cream cutting machine for cutting bars to dip in chocolate.

* * *

Caramala Ice Cream, cut and dipped in chocolate, makes a fine dainty to eat; the two flavors blend together very nicely by adding some red cherries in the ice cream. You will have a very nice looking bar; everyone so far who has seen it, says it is a very rich eating piece.

* * *

Joe Huhn, Van Wert, Ohio, has moved into his new location with his retail candy store. C. M. Young also moved his drug store into the same room, so both parties put in all new up-to-date fixtures, thus giving the place a very fine appearance. Mr. Young's drug store is on the left side of the room, and Mr. Huhn's candy store is on the right.

* * *

Mr. Huhn also has his candy factory and ice cream plant on the second floor of the building. He has also installed a new Walrus soda fountain.

* * *

Joe Dunirt, Upper Sandusky, Ohio, has bought a 4-ton York refrigeration plant and an Emery Thompson freezer.

Albert Joseph, Upper Sandusky, Ohio, has purchased a 4-ton York refrigeration plant and an Emery Thompson freezer, and is now erecting a new building to be used as an ice cream factory.

⚜

Don't let that used machinery of yours stand in your way. Turn it into cash by advertising it for sale in the "Review" Want Department.

A COMPREHENSIVE MERCHANDISING AND ADVERTISING CAMPAIGN.

Greater Sales Possibilities of Bulk Ice Cream Through the "Sealright Way."

We are in receipt of a very beautiful and complete portfolio issued by the Sealright Co., Inc., and furnished to users of the company's filling machines. Inquiry of Mr. Fred E. Eriksen, advertising counsel for the company, elicited the following:

Unless it is fully determined beforehand that the adoption of a "new method" in any industry bears a fundamental basic relation to existing needs of the industry, unless the new method successfully meets these needs, is practical, economical, affords a better way and will result in greater and more profitable business, the adoption can still only be regarded in the light of an experiment. Before any new method is finally presented or offered to an industry, its practicability and worth should be pretty well established.

The portfolio entitled, "The Sealright Way," copy of which you have received, deals with an exceedingly important phase of the ice cream industry. It is not merely the result of our own theory, idea or opinion, but is, as stated in its introductory pages, based on the experiences of many ice cream manufacturers situated in various sections of the country. The preparation of this portfolio, therefore, was of long duration, covering a period of careful observation, investigation, study and application. The "Sealright Way"—bulk ice cream in package form—was not formally announced as a method nor was it so advertised until eighteen months had elapsed from the time it was adopted by the first ice cream manufacturer, who, by the way, is still even more enthusiastic about it.

The fundamental, basic idea back of the "Sealright Way" is simply this. Bulk ice cream is the mainstay of the industry. People prefer bulk ice cream in the plain flavors. Certainly you derive, in the long run, greater profits from the manufacture of bulk ice cream than brick. The retailer has not always been able to handle bulk ice cream to a profit in the dip method—filling the ordinary paper pail at the fountain, giving over-measure and sustaining losses of yield to constant exposure of cream to the outside, warmer air.

Consumers have been reluctant to "carry home" bulk ice cream in paper pails. There was always present the fear of leaking or dripping and the unpleasant result of finding the cream soft and mushy when home was reached. The "Sealright Way" removes all of the foregoing objections and will positively open the way to greater sales.

However, the proposition must be thoroughly understood and for this reason we prepared the Portfolio—dividing it into three main divisions (1) to show the manufacturer how the "Sealright Way" must be handled in his own plant; (2) how it must be presented to his retailers and how they in turn must "carry" it on; (3) how to present the merits of the "Sealright Way" to consumers—reaching the consumer through advertising, both by the manufacturer himself and through dealer co-operation. The advertising plan as outlined in the Portfolio covers everything in detail and ice cream manufacturers already report their entire approval of the practical suggestions offered.

Space does not permit our going into details here. The entire plan, as contained in the Portfolio, is most comprehensive. Its greater worth is due to the fact that the various steps of the plan are based on actual experiences rather than theory. The portfolios are not intended for general distribution. One copy is sent each purchaser of Sealright Filling Machines, those manufacturers who have adopted the "Sealright Way." To them, the portfolio is of inestimable value.

The success attending the "Sealright Way" is not of a temporary nature, dependent on its newness or speculative possibilities. It is more permanent. It originates from an ever-pressing need of long standing. And for the simple reason that it meets this need practically, efficiently and economically for the manufacturer, retailer and consumer, because it is so fundamentally correct in principle, it is not to be wondered at that "Sealright Way" is receiving so enthusiastic and responsive recognition.

But, as in everything else, it must be thoroughly understood to be successful. For this reason, we went to the pains and expense to prepare the portfolio, explaining as it does, the "Sealright Way"' and giving to the manufacturer a comprehensive merchandising and advertising plan whereby he can attract a greater volume of business to his profit.

ILLINOIS ASSOCIATION OF ICE CREAM MANUFACTURERS.

Ice Cream Review:

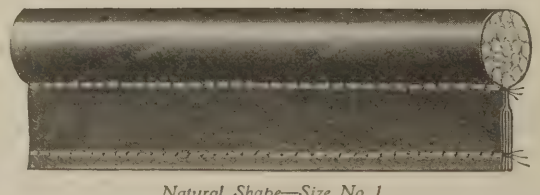
The Illinois Association held seven sectional meetings during the past winter, as follows: Centralia, Litchfield, Quincy, Rockford, Danville, Bloomington, Springfield. All of these meetings having been called for the purpose of discussing ways and means to bring more stable market conditions, closer co-operation, and a better understanding among the manufacturers in the territories affected.

The meetings were all splendidly attended, from thirty to sixty manufacturers having been present at each one.

Numerous subjects came up for discussion, including express rates, chocolate coated ice cream bars, the 1921 revenue act, etc.

Stop Cold Air Leaks *with*

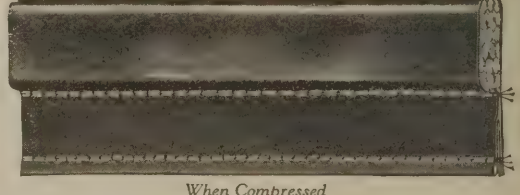
Wirfs Waterproof "AIRTITE" Cushion Gasket



Natural Shape—Size No. 1

(*Pat. Applied for*)

Stops cold - air - leaks through doors, windows, wall plugs, chutes, joints, etc. etc. Also for weatherstripping homes and buildings.

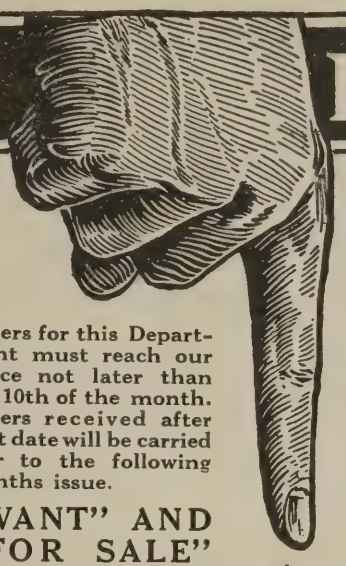


When Compressed

Get samples and prices stating quantity needed.

E. J. WIRFS, 703 WAINWRIGHT BUILDING ST. LOUIS

WANT DEPARTMENT



Orders for this Department must reach our Office not later than the 10th of the month. Orders received after that date will be carried over to the following months issue.

"WANT" AND "FOR SALE"

Notices will be published at the rate of 2 cents per word, cash with order. For blind address 15 cents extra.

NOTE: Names and addresses of advertisers using blind addresses cannot be furnished direct from this office. The advertiser can be reached only by using the key number and addressing your reply care of "The Ice Cream Review."

NOTICE.

The Ice Cream Review disclaims any responsibility for the reliability of parties advertising in the Want and For Sale Department, nor for the truthfulness of statements made in such advertisements. In answering such ads, ask for references if parties are unknown personally, before sending money. Our subscribers are requested to assist us in keeping unreliable parties from advertising by reporting any suspicious dealings.

HELP WANTED

THE TREMENDOUS SUCCESS of the recently invented confection, "ESKIMO PIE," has demonstrated the wonderful possibilities of protective patents and trade-marks for novel confections. Patents procured, trade-marks registered; 22 years' experience. Instructions and terms on request. Robb, Robb & Hill. 920 McLachlen Bldg., Washington, D. C., and 1385 Hanna Bldg., Cleveland, Ohio. 2-22tf

EMPLOYERS!—Men, men, men—the crying need of the day! If you need any men in your business today, read the following ads and see if you can use any of these. The fact that these men are advertising here stamps them as unusually progressive. Write them and give them a chance to sell their services to you. "Ice Cream Review," Milwaukee, Wis. tf

WANTED—An experienced flavoring extract salesman. One familiar with ice cream manufacturers in Michigan, Indiana, Ohio, Pennsylvania and Western New York. Splendid opportunity for right man. Address: R-248, Ice Cream Review. 4-22

WANTED—Expert ice cream maker at reasonable salary. Give full particulars quick. Address: R-254, Ice Cream Review. 4-22

WANTED—To get in touch with a good ice cream maker that expects to make the ice cream not to superintend the making. Give salary and experience first letter. Address: R-261, Ice Cream Review. 4-22

WANTED — Immediately, experienced creamery man. Must understand butter and ice cream making, pasteurizing milk and cream. Must be able to do testing and any work connected with creamery. State experience and salary expected. Address: R-264, Ice Cream Review. 4-22

WANTED—Experienced plant superintendent for large ice cream manufacturing plant on the coast. Must have practical experience and knowledge in the latest methods of ice cream mix and freezing. Must know condensed milk thoroughly as applied to manufacturing of ice cream. Must have the best references. This is a big job. Only capable men need apply. Address: R-265, Ice Cream Review. 4-22

POSITION WANTED

HIGH GRADE ICE CREAM MAKER, capable all around dairyman, open for engagement. Thirty years' practical experience, expert on testing, standardizing, pasteurizing milk, cream. Thoroughly experienced in all departments inside, and outside work, steam, refrigeration; good mechanic; reliable; best of references. Will guarantee to save and make you money in your plant. Desire position with reliable firm. Address: R-48, Ice Cream Review. 7-21tf

POSITION WANTED—As manager of large ice cream business, fully acquainted with all details of manufacture handling and sales, prefer position offering working interest. Address: R-206, Ice Cream Review. 4-22

POSITION WANTED—As superintendent or plant foreman in up-to-date ice cream or combination plant. Understand all latest methods in pasteurizing, mixing, homogenizing, freezing and testing. Also refrigeration. Two dairy school courses. Married, age 28. Can come at once. Best references. State salary and describe plant in first letter. South preferred. Address: R-260, Ice Cream Review. 4-22

POSITION WANTED—As ice cream maker. Two years' experience. Six months' Dairy School course. Fully understand manufacture of mix, control of overrun, testing, etc. State salary and particulars in first letter. Prefer full charge small plant. Will go anywhere. Address: R-237, Ice Cream Review. 4-22

POSITION WANTED—As superintendent or plant foreman in modern ice cream plant. Understand all latest methods in mixing, freezing, pasteurizing, testing, standardizing and refrigeration. Best reference; eight years' experience. Age 22. Please state salary and description of plant in first letter. C. P. Moore, Box 482, Bristol, Va. 4-22

POSITION WANTED—As manager of ice cream plant. Twenty years' experience. Nothing but first class proposition considered. Address: R-256, Ice Cream Review. 4-22

POSITION WANTED—As assistant to manager of progressive ice cream or dairy products plant. Have technical education and practical experience. Will consider only first class proposition. Address: R-258, Ice Cream Review. 5-22

POSITION WANTED—A first class ice cream maker with 22 years' experience. Knows the business from A to Z, with $1,000 to invest. Would like to go in business with someone. Address: R-259, Ice Cream Review. 4-22

POSITION WANTED—Dairy manufacturing specialist, chemist and bacteriologist. Five years best practical experience in ice cream, city milk, condensed milks, powder, butter. Thoroughly familiar with latest methods and equipment, standardizing, cultured milk drinks, drinks, soft cheeses, prepared mixes, etc. Best references. Responsible and competent to assume duties of manager. Address: R-233, Ice Cream Review. 4-22

POSITION WANTED—By reliable man with thirty years' experience in all departments of condensed milk business, mostly Pan operation. Have specifications for up-to-date sugar and exaporated milk, powder and malted milk plant; also creamery plant combined. Capital invested in plant according to these specifications. Will bring greater returns in comparison to other similar institutions. Can lay out remodeling your buildings into efficient condensed milk or other dairy products factory. A. Stocker, 2922 Vliet St., Milwaukee, Wis. 4-22

POSITION WANTED—A practical production superintendent of 15 years' experience in all branches of ice cream making will accept position as superintendent or manager of large plant or as travelling production manager of chain of plants. Can organize any business on economical lines and have a splendid working system of my own. Can install and operate any kind of modern machinery. At present employed as superintendent of large modern plant. Can start May 15th. Address: R-257, Ice Cream Review. 4-22

POSITION WANTED — As ice cream maker, with four years' experience in up-to-date plant. Address: R-266, Ice Cream Review. 4-22

POSITION WANTED—By man of good moral character as assistant ice cream manager seeking good employment. Address: Wm. Scheid, Rosendale, Wis. 4-22

FOR SALE BARGAINS

FOR SALE—Wholesale ice cream plant in city of 20,000 population, 4 railroads, large territory, located in heart of city, largest ice cream business in territory. Up-to-date plant. Also butter business locally and sub creamery within forty miles in dairy belt. Will sell both plants. Address: R-238, Ice Cream Review. 3-22tf

BUSINESS OPPORTUNITY—For a live wire man with $25,000.00 cash, and about $100,000.00 worth of pep, there is a wonderful opportunity with one of our customers, an Ice Cream Manufacturer. The business is 19 years old, located in a town of 60,000 people and does 100,000 gallons a year, with another 100,000 gallons in sight when the right man gets on the job. Merely investing the money will not do—the new man must be a merchandiser and buckle right down to increasing sales in a market that has great possibilities yet undeveloped. Eventually he will be able to get control. The present owner is square and trustworthy. All he needs is the financial and promotional assistance of a Go-Getter. All the figures and the plant are open to inspection. If you can qualify with the money, the energy and the ability, address Frederick C. Mathews Company, P. O. Box 834, Detroit, Michigan. 4-22

FOR SALE — One Creamery Package Wizard mix vat, copper lined, copper top, metal sides, complete with cover. Price $225.00 net F. O. B. Milwaukee. One Mansion House motor, driven brick cutting machine, one-half horsepower motor, 220 volt, with cutting boards for pints, quarts, 10, 8 and 6 slicers. Price $135.00 net Milwaukee. This brick cutter has never been used since it was returned from the factory where it was thoroughly overhauled. This cutter was being kept in case of emergency or a breakdown with our other cutter. The Geo. C. Mansfield Co., Milwaukee, Wis. 4-22

FOR SALE—Ice, Ice Cream and Cold Storage Plant. Thriving distributing center, southern West Virginia. Property consists of three story large and modern brick building and up-to-date equipment for producing 55 tons ice and 500 gallons ice cream daily, as well as steam, condenser and storage facilities for bottling purposes. Plant capable unlimited increase in ice cream production. Excellent field. Business well established. Present owners selling, due other affairs preventing giving management proper attention. Address: Wyoming Ice and Bottling Company, Box 97, Tralee, West Va. 4-22

FOR SALE—Creamery and ice cream factory in a good town in N. W. Iowa. Population 5,000. Good shipping point. Good reason for selling. Easy terms. Address: R-252, Ice Cream Review. 4-22

FOR SALE—One-half interest in a well established ice cream factory and bottling works, in one of the best cities in Minnesota. Good paying business but have other business interests and can not give it my personal attention. Address: R-262, Ice Cream Review. 5-22

FOR SALE — By Wisconsin creamery, sweet pasteurized cream butter for ice cream making, also 91-92 score print butter. Address: R-210, Ice Cream Review. 5-22

MACHINERY AND SUPPLIES AND

BOILERS, NEW AND SECOND HAND—Electric Motors, Engines, Pumps, Pipes and fittings, Valves, Belting, Shafting, Bearings and Pulleys. Money Saving prices. Harris Machinery Co., Minneapolis, Minn. 12-20tf

FOR SALE—Three new Cherry model "I" 60-quart freezers; motor driven. Rich Ice Cream Co., Buffalo, N. Y. 3-21tf

FOR SALE—Cottage cheese in one, two or five tub lots, shipped date of make. Rock Lake Creamery, Lake Mills, Wis. 1-21tf

SEVERAL GOOD DEVICES FOR MAKING COATED ICE CREAM BARS ARE NOW ON THE MARKET.

SOME PAPER—WE KNOW

The Ice Cream Review:

We have made a sale of our ice breaker, thanks to your efficient service. Kindly discontinue our ad. This breaker is being shipped to Kentucky. Some paper you have—we know.

Yours very truly,

KELLOGG ICE CREAM CO.,
Burlington, Wis.

FOR SALE—Three Cherry 40-quart brine freezers, belt drive. All in first class condition. Overhauled last year. We are replacing with larger size Cherry freezers. Will sell, one, two or three to first bidder. Address: R-104, Ice Cream Review. 4-22

FOR SALE—1, No. 1 DeLaval Emulsor, good as new, new bowl, spindles and bearings; 12 Babcock tester, 8, 10, 12 bottle sizes; 1 24 bottle Crepaco Babcock tester; 1 24 bottle Wizard Babcock tester; 1 Toledo Print scale, good as new; 1 small Blackmer Pump, bronze, ½ inch connections; 1 Jensen Bronze Sanitary 1¼ inch connection pump; 1 Trahern Iron 1 inch connection pump; 1 Farrington enameled moisture oven; 1 continuous double disc ice cream freezer, 100 gallon capacity, with counter shaft and pulleys; 1 250 gallon Wizard disc vat; 1 Ventura 18 inch wall suction fan (new); 1 12 bottle Troemner cream scale. Ottawa Condensing Co., Ottawa, Kans. 4-22

FOR SALE—Bates & Edmonds gas engine 25 horsepower; Bates & Edmonds gas engine, 18 horsepower; F. W. Niebling horizontal ammonia compressor, size 6 by 10, with 4 suction, 4 discharge valves, in first class condition; one brine cylinder pump, dimensions, 5x5x3. Address The American Ice Cream Co., 560 West 6th St., Cincinnati, Ohio. 4-22

FOR SALE—12 Babcock tester, 8-10-12 bottle size; 1 Jensen bronze sanitary pump, 1¼ in. connections; 1 Trahern iron pump, 1 in. connection; 1 continuous double disc ice cream freezer, 100 gallon capacity, with counter shaft and pulleys; 1 Ventura 18 in. wall suction fan (new); 1 12 bottle Troemner cream scale. The Bennett Creamery Company, Ottawa, Kans. 8-22

FOR SALE—De Laval steam turbine separator. Purchased new last August. We are compelled to install a larger size. This machine will handle 2,750 pounds of milk or 3,000 pounds of whey per hour. Guaranteed good as new, not worn in any way. Write us. Norwich Ice Cream Co., Inc., Norwich, N. Y. 4-22

You can get somebody to sell you anything you want, if you use the "Ice Cream Review" Want Department.

FOR SALE—One Holding Tank (7,000 lbs. capacity); two Model D Simplex Milk Pumps; two Sanitary Rotary Milk Pumps (Taber Pump Co.); one Cream Production Co. Ruff Condensor No. 7; one Taylor Vapor Tension Index Thermometer; two Bristol Recording Thermometers with 15 feet of tubing. For particulars write or phone Pabst Corporation, 917 Chestnut Street, Milwaukee, Wis. 3-22tf

Don't let that used machinery of yours stand in your way. Turn it into cash by advertising it for sale in the "Review" Want Department.

FOR SALE—One Cherry ice cream freezer, one old model ice cream freezer, one ice crusher, one ten horsepower motor, pulley and shafts. Will sell at best offer. I need money bad. Write F. Hinzil, 3037 W. 19th St., Chicago, Ill. 4-22

FOR SALE—80 quart Miller and 25 other freezers, belt and motor drive, at very low prices; 1 AA Manton-Gaulin homo, one Manning can washer, 400 gallon viscolizer with complete outfit of vats, cooler, etc. Motors 1 to 45 horsepower, attractive prices; 2, 3, 4 and 500 gallon vats, cans, tubs, cabinets, slab bricks, ice breakers, 3 gallon new cans, $1; 5 gallon, $1.25; extra lids, new, 20 cents; one 5½ ton Mack truck, ice cream body, used one season; two 2-ton Autocars. Graham-Bernstines and Fultons. Write for particulars. Philadelphia Retinning Co., North Philadelphia, Pa. 4-22

FOR SALE—Simplex 1½ inch Tubular Cooler 21 tubes, 7 feet long, top and bottom trough, two sections. Excellent condition; $190.00. Address: R-234, Ice Cream Review. 4-22

FOR SALE—Bargains: one Model 110 De Laval Clarifier, belt drive, 4,000 pounds per hour; one No. 1 De Laval Emulsor, belt drive. These machines used only a few months. Good as new. Each $350.00. Address P. O. Box 674, Sioux City, Ia. 4-22

FOR SALE—Standard sweetened skimmed condensed milk in barrels. We offer car loads or less. Ovid Creamery Co., Ovid, Mich. 4-22

FOR SALE—1 homogenizer, 1,200 lbs., 1 Triumph milk heater, 1,200 lbs., 1 sterilizer for canned condensed milk, 3 trays, 1,500 cans, baby size. Outfit new, never used. Will sell together at a bargain if taken at once. Address: R-249, Ice Cream Review. 4-22

FOR SALE—1 No. 1 De Laval emulsor in A-1 condition. Has never been run. 1 Sharples emulsor, 300 lb. capacity. Has been used but a short time. Address: R-251, Ice Cream Review. 4-22

FOR SALE—1,000 8½ quart cans, Boston style wooden plug in very good condition for 40 cents each and 500 3-gallon and 500 1-gallon ice cream cans Davis-Watkins heavy type at one-half present list price. Apply to F. E. Boyd, 16-20 Oakes St., Everett, Mass. 4-22

You can find the person who will be glad to buy what you wish to sell, by letting your desires be known through an advertisement in The Ice Cream Review.

FOR SALE—Two (2) good as new ten gallon capacity C. & B. horizontal brine freezers. Write Newton Kelsay & Sons, Evansville, Ind. 4-22

FOR SALE—Three new, and two rebuilt Tyson 40 qt. belt driven ice cream freezers. These freezers are known as the Tyson Advance Special, and were taken over from the Tyson Co. on a debt, and must be sold. These freezers are of late model and were built last summer. No fair offer will be refused, as these freezers must be moved in the next 60 days. Address: J. B. Parker, 608 Cherry Ave. N. E., Canton, Ohio. 5-22

FOR SALE—One No. 6 Ruff condenser, 1921 model, 12 cylinder machine, tank capacity 500 gallons, recently overhauled and repainted. In good condition. Special proposition for cash. Now stored in central Pennsylvania point. Address: R-255, Ice Cream Review. 5-22

FOR SALE—Some buy for the man that knows values—1 12-ton old style Barber refrigerating machine with 20 horse—3 phase—60 cycle motor, complete set of condensers, brine tank—6 ft. wide, 12 ft. long and 3 ft. high—with coils. A **real buy** for $850.00 F. O. B. Chicago. We also offer 250 5-gallon eastern style ice cream cans at a **real bargain,** 80c each F. O. B. Chicago. The Traill & Cooling Ice Cream Co., 208 Madison St., Oak Park, Ill. 4-22

FOR SALE—40 quart Miller brine freezer and motor. One Creasey ice crusher. All in good condition. Cheap for cash. Supreme Ice Cream Co., Coshocton, O. 5-22

Tell us what you want, or what you have that you don't want, and we'll fix up a little Ad. for you and insert it in the next issue of The Ice Cream Review. You just stay at home and wait for results. You'll soon have your hands full.

WE ARE NOW IN A POSITION TO FURNISH

High Class Job Printing

AT PRICES CONSISTENT WITH GOOD WORKMANSHIP

OLSEN PUBLISHING COMPANY

210 Sycamore St. Milwaukee, Wis.

FOR SALE—14 ton Vilter ammonia ice machine. Direct driven by Corliss engine. In good condition. Write Geo. Ziegler, Co., Milwaukee, Wis. 4-22

FOR SALE—1 double section Alaska tubular cooler, 16 pipes high, 1½ inch tubes, 5 feet long. Complete with upper and lower troughs. 1 H. D. Davies creamer, capacity 200 gal. per hour. Slightly used but good as new. Langenfeld Ice Cream Co., Watertown, S. D. 4-22

FOR SALE—Six ton Fisher ice machine with oil and scale trap, one ten horse power electric motor, three phase, and one Emery Thompson vertical brine freezer, belt drive. Brown County Creamery, Hiawatha, Kansas. 4-22

FOR SALE—One 800 gallon single coil belt drive and two 500 gallon twin coil motor drive Cherry pasteurizer vats. All new. Special prices. Address: R-263, Ice Cream Review. 4-22

FOR SALE—One Meyer icing truck body. Further information furnished on request. Elmira Ice Cream Co., Elmira, N. Y. 6-22

FOR SALE—Prices on the following machinery and equipment are all F. O. B. La Crosse, Wisconsin. One 300 gallon Creamery Package disc Wizard pasteurizer, $75.00; one C. & D. horizontal freezer, $150.00; one Perfection Model D ice and salt brine machine together with pump, $75.00; the brine maker is practically new, being used only about seven months; one brine maker and pump, $40.00; one emulsifier, $30.00; two Twentieth Century 8 bottle milk testers, each, $7.50; one Facile 24 bottle steam milk tester, $25.00; one No. 1 Victor ice crusher, $35.00; one No. 54 Creasey ice crusher, $60.00; one No. 100 De Laval milk clarifier, practically new, $125.00; one No. 4 roll Victor churn, 700 lbs. capacity, $150.00; two 2½x2x8 galvanized tanks, each, $10.00; one Emerson motor, 110 volt, to cycle, 1 phase, 1750 revolutions, with attachments, for a De Laval separator No. 21, $50.00. A large amount of shafting, hangers and pulleys of all sizes at half of what market values are today. Address: Tri-State Ice Cream Corp., La Crosse, Wis. 4-22

FOR SALE—2 vertical open top, blue enamel tanks, 30 in. O. D. by 37 in. high, 125 gal., $200.00 each; also 3 vertical open top, 37 in. O. D. by 48 in. high, 225 gal. capacity, $225.00 each; and 2 vertical closed top, 8 ft. O. D. by 15 ft. high, 5 30-in. rings, 4433 gallons capacity, $450.00 each. Address: Chas. S. Jacobowitz, Buffalo, N. Y. 4-22tf

FOR SALE—One No. 32 Sharples emulsifier, 200 gal. size, perfect condition, used 6 months, half price. Rolla Creamery & Ice Co., Rolla, Mo. 4-22

FOR SALE—1 wall cooler, 1 Davies emulsifier, guaranteed, 2 300-lb. chocolate melting kettles, 1 basket dipping machine, 1 Enrober chocolate dipping machine. Lovell & Covel Co., Boston, Mass. 4-22

FOR SALE—Ice cream equipment used only four months. 400 gallon Progress homogenizer with motor; 300 gallon pasteurizer, enamel covered, motor attached; 600 gallon pasteurizer, enamel covered, motor attached; 500 quart Progress horizontal freezer, direct connected to 5 H. P. motor; cans, scales, gelatine cooker, Nelson cabinets, boiler, sanitary pipe, coils, connections, etc. Write for prices. Sun-Beam Ice Cream Co., 613 Kentucky St., Dallas, Texas. 4-22

WANTED TO BUY

WANTED—Ice cream freezing outfit, 10 gal. batch size. Must be in good shape. Can also use some tubs and cans. Give price in first letter. J. B. Rietz, Harlowton, Montana. 4-22

WANTED—150 gallon pasteurizer, also tubular cooler or direct expansion cooler. VanRyn Ice Cream Co. 348 5th Ave., Kewanee, Ill. 4-22

WANTED—100 gal. starter can or Pfaudler glass lined pasteurizer. 6 or 8 H. P. boiler. VanRyn Ice Cream Co. 4-22

Send news items and personal notices to the "Ice Cream Review" and see how well they look in print.

FOR RENT

FOR RENT—Ample rooms for small ice cream manufacturing together with use of ice machine, hardening room, and ice cream parlor. Fine opportunity to cater to college and high class city trade for specialties, like ices, sherbets, etc. No other such plant in city of 20,000 inhabitants. Address: R-250, Ice Cream Review. 4-22

Chocolate Coated Ice Cream SUPPLEMENT

HERE is the promised supplement devoted exclusively to the chocolate coated ice cream business. Here are pages and pages of interesting material gathered from all parts of the nation and embodying the experiences of the most progressive men in the ice cream industry.

The chocolate coated ice cream business is a new business. So new, in fact, that fundamentals are few and far between. It lacks the experience of seasons and years by which certain rules are established. The business man who refuses to be guided by anything except "the lamp of experience" has no business making chocolate coated ice cream. It remains for the other kind of a business man—the one willing and anxious to tackle a new thing—to make a success of it.

It may surprise some folks to learn that dipping ice cream in melted chocolate is not new, in spite of the fact that marketing it on a big scale is very new. Just to prove that putting a chocolate wrapper on ice cream is not new we quote from "Standard Recipes for Ice Cream Makers," by Val Miller, published in 1909, as follows:

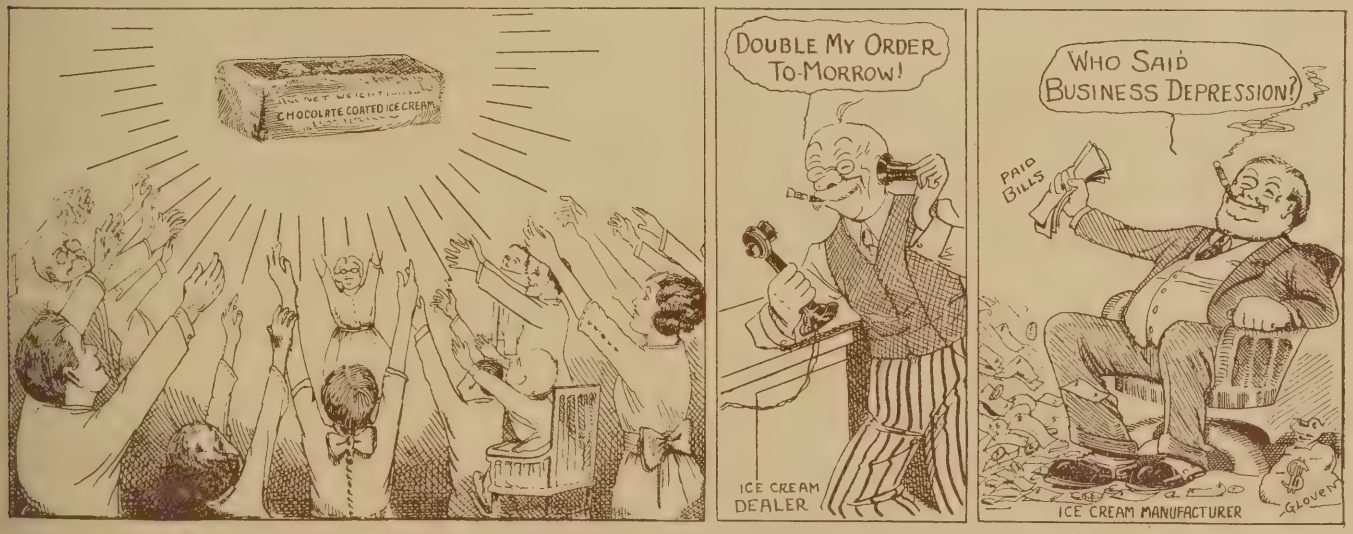
ICE CREAM CANNON BALLS.

Mould some round balls extra hard as for individuals, then melt some thin chocolate, thin it down with cocoa butter, let it cool until the most of the heat is off; now have two wire forks, drop a frozen ice cream ball into the chocolate, turn it upside down quick, and with your two forks, set it out on your tray, and then immediately in your ice cabinet or iced up can.

Ice cream manufacturers have had the opportunity for all these years to make these "cannon balls" and supply them to their trade. Surely the suggestion to make them in a different shape must have appealed to some manufacturers if they hesitated about putting them out in a round form.

What, then, was the reason for letting the years go by without making chocolate coated ice cream one of the specialties of the ice cream business? There was no demand for such a product, to be sure, but the consumer can't be expected to demand something that he knows nothing about. He didn't know, during all these years, that ice cream coated with good chocolate makes a delightful confection. Probably few ice cream manufacturers knew it.

How did it happen, therefore, that right in the dead of winter—the most unfavorable time of all the year to interest the consumer in an ice cream specialty—there should spring up such a demand for an ice cream product that thousands of ice cream plants have been taxed to their utmost capacity, and usual winter losses have given way to winter profits?



The answer is **advertising**. The consumer was told about this new ice cream specialty. He bought it and liked it. He told his neighbor about it and the demand increased to a point where it could not be supplied. Ice cream manufacturers worked frantically to meet the demand and called loudly for plant equipment suitable for quantity production. Inventive minds met this emergency until now it may be truthfully said that the chocolate coated ice cream business is well established, so far as production is concerned. Chocolate manufacturers have done their part. They have experimented and produced a product highly suitable for this particular business.

It is not surprising that the demand for chocolate

PACKAGING MACHINES HAVE REVOLUTIONIZED THE PACKAGE ICE CREAM BUSINESS.

coated ice cream has fallen off in some sections. Whenever the demand exceeds the supply of any food product there is a danger of lower quality and eventually a lessened demand. Then, too, some business men make the mistake of spending less money for advertising when the demand for their goods exceeds the supply. Why advertise when one has all the business he can handle? Such men make the mistake of looking upon advertising only as a means of **getting** business. They forget that advertising is necessary to **hold** business.

Where the demand has held up or increased it will be found that high quality goods have been put upon the market. Manufacturers have not allowed excessive demand to influence the quality of their product. They know that folks like good ice cream and good chocolate, and that poor ice cream or poor chocolate, or both, don't make a good chocolate coated ice cream product. They have used the best of everything and they have followed their product right to the consumer to insure his getting it in the right condition. Such is the power of advertising when backed up by goods of merit.

There are those who look upon chocolate coated ice cream as a novelty, depending upon the whims of the consumer for its demand. We can not subscribe to any such theory. From all the information we have been able to collect we can draw but one conclusion. Chocolate coated ice cream in some form or another is here to stay. It is an ice cream specialty just like the ice cream sandwich and the ice cream cone. Make it good, keep it good, and advertise it and the consumer will continue to buy it. He will buy it because he likes it as a confection and a food.

In the April issue of "The Nation's Business," a monthly magazine published by the Chamber of Commerce of the United States there appears an interesting article by Mr. Warren Bishop, devoted to the subject of chocolate coated ice cream from which we quote extracts and which emphasizes in a most striking way the tremendous power of advertising. The extracts follow:

"Marketing a new ice cream product in the winter of a year of great depression. It can't be done!"

"It can be done, and it was done. Once more there is proof that the buying power of the public isn't dead. It has been atrophy of selling power that has struck business.

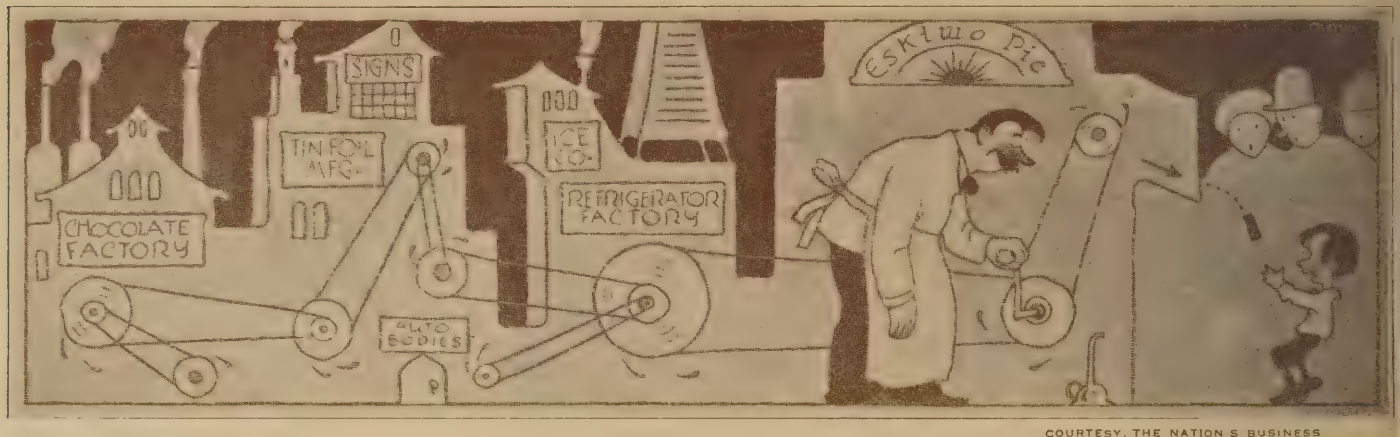
"The man who did it has built himself up a daily income in excess of $15,000—according to such of his acquaintances as take delight in multiplication, and forgetting, momentarily, the costs of sales—in less than four months, and he's done it out of dimes by original methods and by moving right against the prophets of evil and the men who said 'it can't be done,' and 'the times aren't right for any new venture.'

"The man is Russell Stover, and the product he has started the nation to using is a chocolate coated ice cream bar. Three or four thousand ice cream and candy salesmen would probably have told you, if they'd been consulted in advance, that the idea was not worth much, that it couldn't be marketed.

"But Stover thought differently and went ahead. By the first of February, after only about three months of drive, so many manufacturers had been licensed that the American public was eating some 4,000,000 chocolate coated ice cream bars a day and paying Mr. Stover 5 cents for every dozen sold.

"You might have told Mr. Stover that ice cream was a seasonal industry, that it couldn't be marketed in quantities in midwinter, but he wouldn't have listened.

"He had an idea and a name for it. The idea was simple and the name was fetching. 'Eskimo Pie!' It's



COURTESY, THE NATION S BUSINESS

written up all over the United States now, on newspaper and magazine pages, on billboards and on shop windows. Yet how long ago was it that you first heard of it? Hardly a dozen weeks. The Stover idea was that the children, the women, and the men of the country would be made to buy a luxury product that should be sold **as a luxury,** for a fair price. Moreover, the market was as broad as the population and there was no end to the repeat orders.

"The idea of a coated ice cream isn't new, nor is the idea of covering ice cream with chocolate. Hot chocolate sauce on ice cream is a familiar dessert. But Stover found a man who could prepare a coated ice cream in a practicable, sanitary, salable way. Methods of preparation and the name were protected by patent and copyright, and a very few trial sales showed a waiting public appetite for ice cream robed in chocolate and protected by a wrapper of tin foil.

"Here's a description, first hand, of how it was done, given by an advertising man who was hastily summoned to Chicago by Stover soon after he really got to work:

"I found him in a dramatic state of siege. He retired from one hotel bedroom into another, strategically seeking inner and yet further inmost sanctums for a calm that could not come. He had started the Eskimos marching across the country, preceded by dozens of salesmen and demonstrators and hundreds of letters and telegrams, and the grand headquarters of the invading forces found difficulty in keeping contact with the front lines. But so many messengers did come in to salute and report that finally Stover had to stop retreating into corner bedrooms, and sleep with his clothes on, on a couch, and do business between winks.

"He had started in a small way. But he sold his idea so cleverly and thoroughly to the first few licensees that their competitors and even their distant fellow-

National Buy Word:

BASEBALL

Original chocolate coated ice cream confection. Not a fad. Can be sold, served and eaten anywhere, in ice cream parlors, restaurants, moving picture theaters, soft drink stands, conventions, baseball games, outdoor fairs and meetings. Also in big demand for home dessert, dinner parties and dances.

Big profits now being made by manufacturers, wholesalers and retailers handling BASEBALLS. Be first in your territory to secure franchise to manufacture and sell this novel frozen confection. Nothing like it on the market.

BASE 

BALL

TWO FLAVORS

"CHOCOLATE COATED ICE CREAM BASE BALL"
TRADE MARK REGISTERED.

Retailers are demanding that their manufacturers supply them. Meet this demand by obtaining a franchise. Write today. Our salesman will call.

Elite Chocolate Coated Baseball Co.,
El Paso, Texas.

10 CENTS

A TUB HANDLE PROVIDING A GOOD GRIP IS APPRECIATED BY TUB HANDLERS.

manufacturers began to want to talk to Mr. Stover. The public liked the pie — instantaneously sometimes, and with gradual enthusiasm elsewhere. But the mere audacity of offering ice cream done up in a tinfoil wrapper, to be handed out over a counter in a heated room, made the public taste once. And if the ice cream bar was good, it tasted twice and is still tasting.

"His small-way start soon became literally a national progress. With typical audacity he put so many salesmen into the field that, during some of those siege days in the hotel, he really didn't know how many he had. Right behind them he immediately marshaled a national advertising campaign. He did the daring, persistent, aggressive thing so thoroughly that the Eskimo Pies never stopped even once to bivouac, but marched clear on from coast to coast. And now two or three million persons every day are buying ice cream, done up purely in a luxury form, at a luxury price, in the middle of the winter!

"It isn't only Russell Stover who has profited by his defiance of precedent in selling ice cream in a winter when 'nobody would buy anything.'

"Ice cream plants make profits in August and run into deficits in January, usually. Eskimo Pie has put many ice cream plants even with the world in winter, in the last three months. Results? The members of the Association of Ice Cream Supply Men who sell them their essential ingredients, equipment and supplies under one of the strictest codes of ethics in force today in any industry, are finding fewer accounts still open on their books of last fall's purchases. And the ice cream manufacturer buys 150 varieties of equipment and ingredient for his plant.

"Cocoa and chocolate manufacturers recently found themselves — their export markets dead — faced with prices below those of the pre-war days and with great stocks of raw and manufactured product and no outlet visible. Today the licensees of Eskimo Pie's manufacture are buying chocolate coatings in carload, five-figure lots. And chocolate manufacturers are paying bills.

"When the war ended there was a glut of tinfoil in the hands of manufacturers here. They thought, and thought, and thought some more, but there were, after all, just so many markets for their goods. Now tin-foil houses are rushed with orders for Eskimo Pie covering."

The advertising campaign started by Russell Stover, referred to in the above article, has been supplemented by extensive advertising by other licensing concerns and devoted to other trade terms like "Sundae-Ette," "Baseball," "Tri-a-Cone," etc. These have all enjoyed a splendid demand and have contributed to the popularity of chocolate coated ice cream.

There are those who believe that this product will not find favor with the consumer during the summer months. They imagine all sorts of things which will prevent handling it during warm weather. To say that these conditions can not be surmounted is assuming that ice cream manufacturers are not progressive.

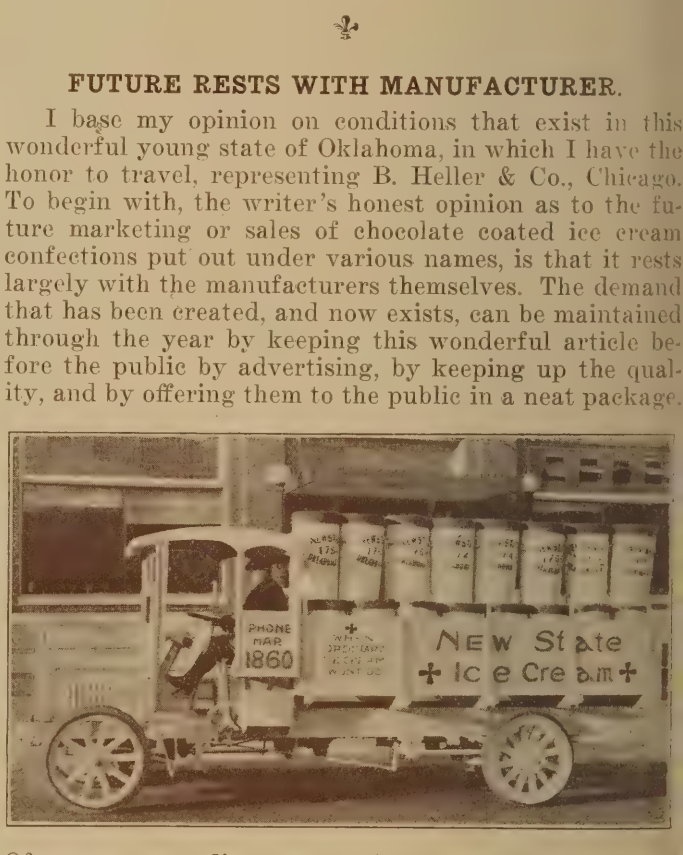
The writer has always been a lover of good chocolate in almost any form. Years ago we had to go without chocolate candy in the summer time because retailers couldn't handle it. They found a way and we doubt not that the manufacturers of candy prompted it. Surely ice cream manufacturers are no less progressive.

Make a good product, devise ways for getting it to the consumer in good condition and we are sure he will buy it during the summer months just as readily—yes, more readily—than during the time of "heavies" and over-due coal bills..

There are so many functions during the summer time when he is in a spending mood and in an ice cream mood. Sell him bulk ice cream, brick ice cream, ice cream cones, ice cream sandwiches and chocolate coated ice cream. The more specialties you can offer the more ice cream he will consume.

Read all of this supplement and we believe that you will be convinced that the chocolate coated ice cream business is here to stay and here for twelve months in the year.

You will be interested, too, in studying the advertisements. Note the rapidity with which suitable apparatus and supplies have been put upon the market. But a few weeks ago the industry was practically unknown. In this short time men have designed, manufactured and prepared the different appliances and supplies for the industry. Such is the spirit of American business men.



FUTURE RESTS WITH MANUFACTURER.

I base my opinion on conditions that exist in this wonderful young state of Oklahoma, in which I have the honor to travel, representing B. Heller & Co., Chicago. To begin with, the writer's honest opinion as to the future marketing or sales of chocolate coated ice cream confections put out under various names, is that it rests largely with the manufacturers themselves. The demand that has been created, and now exists, can be maintained through the year by keeping this wonderful article before the public by advertising, by keeping up the quality, and by offering them to the public in a neat package.

Of course, some dispensers of ice cream in stores would much rather do away with this article, as the profits are not so great to them as they would be in the dispensing of bulk cream in the summer months. We also know that the profit in making these bars is less to the manufacturer, owing to the extra help and the method of handling before it becomes a finished product, so as before stated, the future of this confection rests in the hands of the manufacturer, whether to lag, or to boost the product. To show what a wide-awake, up to the minute business man has been doing in the way of advertising, I enclose a picture of one of the New State Ice Cream Co. trucks loaded to the brim with their famous Polar B'ars. This entire truck load was delivered to one of Oklahoma City's leading theatres, to be distributed to each one present by two charming little actresses from the film world, who were present at the theatre to see their own picture on the screen. The writer was present, and overheard many remarks, a few of which were, "I didn't know that ice cream could be coated

(Concluded on page XVIII)



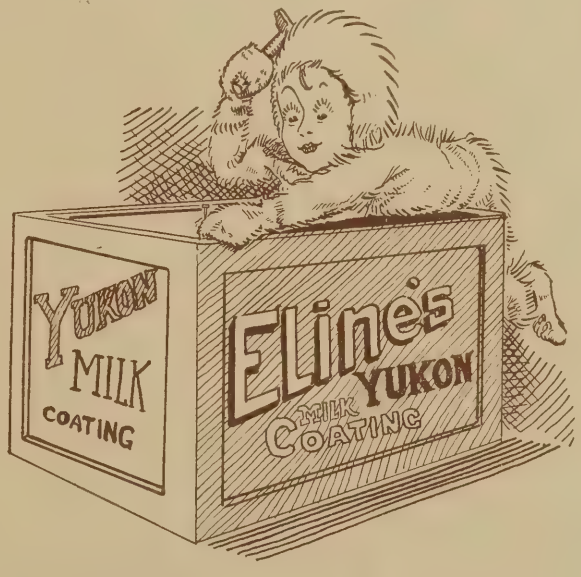
Eline's
INCORPORATED

Ice Cream Coatings

Exclusively used and highly recommended by leading manufacturers of chocolate coated ice cream confections, whose reputations for producing superior quality products must be upheld.

In developing that "Melt in the Mouth" goodness, so readily distinquished in "Eline chocolate products," we have not overlooked its practicability from the manufacturers' standpoint. Eline's Polar and Yukon brands embody all the skill, scientific knowledge and great care known to the art of making chocolate coatings.

We also produce a superior grade of cocoa for the manufacture of chocolate ice cream.



THE ASSOCIATION OF ICE CREAM SUPPLY MEN
MEMBER

Eline's
INCORPORATED
Milwaukee, U.S.A.

THE ASSOCIATION OF ICE CREAM SUPPLY MEN
MEMBER

THE *NEW* BIG ICE CREAM-CON is here

TRI-A-CONE

THE TRIPLE DELICACY

CHOCOLATE COATING | ICE CREAM FILLING | CONE CAKE

IF you are an ice cream manufacturer you can profit by this latest novelty confection—the creation of the food experts of the American Cone and Pretzel Company.

We call it Tri-A-Cone. It consists of a White Rim Cone filled to the top with ice cream—dipped, rim downward, half-way into hot chocolate and frozen. It is then encased in a glassine bag, delivered to your dealers and placed in their ice cream cabinets.

Easy to Make— Easy to Sell

Easy to handle. No fuss, no muss, no smearing. And a wonderful value at 10 cents. Think how the public will grasp this delightful ice cream-cone-fection—a liberal measure of good ice cream, pure chocolate and excellent cone cake—all for a DIME.

That's the kind of real value that people want, and Tri-A-Cone fills the bill. It is a great forward step in the ice cream industry. Profits are assured to manufacturers that get on the job—***at once***.

A Special Cone for the Purpose

Our experiments have convinced us that the average cone was not suitable for this purpose. Hence the White Rim Cone was developed as especially desirable for Tri-A-Cones.

SELLING FECTION



An Advertising Service — — FREE

A series of newspaper advertisements has been prepared for the FREE and EXCLUSIVE use of Tri - A - Cone manufacturers.

You Pay Absolutely No Royalties

Not one cent royalty do you pay for the idea, the use of our name "Tri-A-Cone," or for the advertising service. The ONLY condition we make is that you use White Rim Cones—acknowledged the best on the market.

Wire for full particulars—
Do It Now!

American Cone & Pretzel Co.

"LARGEST MANUFACTURERS OF PRETZELS AND ICE CREAM CONES IN THE WORLD"

Executive Offices: WIDENER BUILDING, PHILADELPHIA, PA.

PLANTS AT PHILADELPHIA, ST. LOUIS AND CINCINNATI.

Warehouses in Principal 28 Cities.

Exclusive owners of

TRI-A-CONE

THE TRIPLE DELICACY

CHOCOLATE COATING | ICE CREAM FILLING | CONE CAKE

"SLIGHT NOT WHAT'S NEAR THROUGH AIMING AT THE FAR."—EURIPIDES.

The Manufacturers' Point of View

Summary of Opinion of Ice Cream Manufacturers Everywhere on Chocolate Coated Ice Cream

AS A part of our preparation for this special supplement on the chocolate covered ice cream bar, a questionnaire that we believed covered the subject as completely as possible was prepared, and sent to a list of ice cream manufacturers selected from all parts of the country. The main problems and points of interest concerning the manufacture, sale and future of this commodity are taken up in this questionnaire, which reads as follows:

1. Do you make coated ice cream bars?.....
2. If so, under what brand?.....
3. Do you use a prepared coating or do you prepare your own?.....
4. Volume of sales weekly (dozen).....

What method or equipment do you use for:

5. Cutting?.....
6. Dipping?.....
7. Wrapping?.....
8. Are sales keeping up satisfactorily?.....
9. If not, what is the reason?.....
10. What are the prospects for summer season for this product?.....
11. Have sales for coated ice cream bars reduced demand for brick?.....
12. If so, what percentage?.....
13. Do retailers welcome this business?.....
14. Do you find it a satisfactory profit producer?.....
15. Have coated ice cream bars increased total winter gallonage?.....
16. If so, what percentage over last winter?.....
17. Have you made any effort to sell coated ice cream bars at cigar stands, grocery stores and other places where ice cream is not generally sold?.....
18. If so, with what success?.....
19. What is your estimate of total sales of coated ice cream bars per week in your city (dozen)?.....
20. If we should publish the above information, may we use your name?.....

Signed.....

Up to the time of going to press 126 of these questionnaires have been filled out completely or in part, and returned to us. The information conveyed in these replies is of such great variety, and the opinions expressed are of such wide divergence that more than a brief summary is required to cover the subject satisfactorily. The great difference in the replies to some of the questions would lead one to think that it is almost an individual problem of each manufacturer, based on his location and his methods of operation. No doubt every manufacturer and dealer will find problems and experiences that parallel his own in these replies. The first three questions may be briefly summarized:

Question No. 1.—Do you make ice cream bars?

Out of the 126 replies received, 98 manufacturers were actively engaged in making these bars; 3 were preparing to make them in the near future, and 25 did not make them. Those who did not make them and gave their reasons for not doing so were unanimous in stating that their reason was that they did not believe they could be made and sold at a profit. No figures or data were given on what this conclusion was based. However, we note that most of these manufacturers are located in the smaller towns throughout the country, and it may be that, due to the limited field for distribution they feel that their sales would not be of sufficient volume to justify the expenditure for additional equipment necessary. Since their number constitutes such a small percentage of those manufacturers making these bars, it may possibly be taken as an indication that popular demand is so great and so general throughout the country as to cause manufacturers to arrive at the conclusion that there are sufficient indications of its becoming a staple commodity to make it a wise move to prepare to make it now while the profits from the volume of business incident upon its introductory popularity may be enjoyed.

Question No. 2.—If so, under what brand?

Over 80 per cent reported "Eskimo Pie." Among the other brands represented were the following: Sundaette, Frost-Bite, Alaska Bars, Polar Frosties, Alaska Bon Bons, Yukon Dainties, Choco Pie, Igloo Cake, Polar Pie, Polar Cake and Polar B'ars.

If a digression may be pardoned at this point, allow us to remark that it is a safe bet that teachers have found a stimulation of interest on the part of their pupils in the inhabitants, fauna and geography of the frigid zone since this bar has been introduced to Young America.

Question No. 3.—Do you use a prepared coating, or do you prepare your own?

Of those who gave replies to this question, 72 used a prepared coating, 25 prepared their own, and 8 used both. Opinions differed as to the desirability of both kinds of coatings, but it would seem that it does not pay the manufacturer to prepare his own coating unless he can do it on a large scale. The kind of equipment used in the manufacture of the bars would influence this opinion to a great extent also, so that it becomes a question to be decided individually by each manufacturer. The preference seems to be based mainly on the flavor of the coating rather than on the handling qualities of the chocolate. This indicates that the manufacturers are being guided by the preference of the consumer in choosing their coating, and not to such a great extent by their own convenience in making. This attitude augurs well for the continued popularity of these bars.

Question No. 4.—Volume of sales weekly (dozen).

Reports here varied from 15 dozen a week in an Indiana town of 4900 population, to a high mark of 16,000 dozen a week in an eastern city of 733,000. There is a great difference in the volume of sales, based upon the location of the factory and the territory supplied. An approximate average, gathered from the figures we have received, would seem to be 80 dozen a week for each 1,000 population.

Among these replies is one of especial interest from an ice cream manufacturer in Norfolk, Virginia. He gives as his figures 6,000 dozen a week, as his sales in this city of about 116,000, and 10,000 dozen a week as the total sales in the town. Thinking that he had overlooked the word "dozen" in parentheses, and had given us his sales in round numbers, we wrote him to advise us on this point. His answer came back "pronto", stating firmly, decisively and, we trust, proudly, that those figures, insofar as he was concerned, were approximately correct, and that theirs was a **regular** town and business. If the sales of chocolate covered ice cream bars may be

Pasteurize in Glass!



The mixing and pasteurizing of ice cream mix in Glass Lined Tanks has become an established practice. At first, only the larger concerns adopted the system, but gradually as its merits (sanitary, economical, and otherwise) were recognized, it became universal.

Among others, the following ice cream companies have adopted Pfaudler Glass Lined Equipment for mixing, pasteurizing, and aging:

Tait Bros., Springfield and Worcester, Mass.
Horton Ice Cream Co., New York City and Brooklyn, N. Y.
General Necessities Co., Detroit, Mich.
Furnas Ice Cream Co., Akron, O.
Hagemeister Products Co., Green Bay, Wis.
Ottawa Dairy, Ltd., Ottawa, Can.
Bartholomay Co., Inc., Rochester, N. Y.
The Velvet Ice Cream Co., El Paso, Texas
Imperial Ice Cream Co., Clarksburg, W. Va.
Miller Creamery Co., Oakland, Cal.
Ellamore Candy Co., Marysville, Calif.
The Carroll Co., Chicago, Ill.
Kosmos Ice Cream Co., Englewood, Ill.
Nicodemus Ice Cream Co., Frederick, Md.
Totham & Ham, Winthrop, Mass.
C. A. Connor Ice Cream Co., Ovid and Owosso, Mich.
Norwich Ice Cream Co., Norwich, N. Y.
Caum's Ice Cream Co., Altoona, Pa.
R. E. Rakestraw, Mechanicsburg, Pa.
Grove Bros., Waynesboro, Pa.
United Food Products Co., Houston, Texas
Holland Creameries, Ltd., Winnipeg, Man., Can.
Western Dairy & Ice Cream Co., St. Joseph, Mo.
New Haven Dairy Co., New Haven and Hartford, Conn.
Wheat's Ice Cream Co., Buffalo, N.Y. (Akron and Elba plants)
St. Louis Dairy Co., St. Louis, Mo.
Pipestone Ice Cream Co., Pipestone, Minn.
Tech Food Products Co., Pittsburgh, Pa.
Paramount Ice Cream Co., Richmond, W. Va.
Chism Ice Cream Co., Reno, Nevada
Smith Bros. Co., Jackson, Tenn.
National Ice Cream Co., Oakland, Cal.
National Ice Cream Co., San Francisco, Cal.
Excelsior Creamery Co., Santa Ana, Cal.
Trout Brook Ice Cream Co., Hartford, Conn.
Lawrence Ice Cream Co., Chicago, Ill.
Hammond Dairy Co., Akron, Ind.
New Orleans Ice Cream Co., New Orleans, La.
City Dairies, St. Louis, Mo.
H. P. Hood & Sons, Cambridge, Mass.
Consumers Ice & Creamery Co., Detroit, Mich.
Levant Creamery, Falconer, N. Y.
A. G. Papastraat & Co., Poughkeepsie, N. Y.
Ohio-Toledo Ice Cream Co., Toledo, O.
Muskogee Ice Cream Co., Muskogee, Okla.
S. A. Gastin, Shenandoah, Pa.
Palmetto Ice Cream Co., Florence, S. C.
Plainview Creamery, Plainview, Texas
Holliday Creamery Co., Wichita Falls, Texas
Goodale Ice Cream Co., Centralia, Ill.
Missouri Valley Creamery, Washington, Mo.

The PFAUDLER Co.

Pfaudler

The World's Largest Makers of Glass Lined Steel Equipment

ROCHESTER, N. Y.

NEW YORK CITY CHICAGO SAN FRANCISCO

Foreign Agencies;

LONDON, England SYDNEY, Australia

REQUEST

.....1922

The Pfaudler Co.,
Rochester, N. Y.
Gentlemen:

Send your representative.....
Send booklet, "Ice Cream Equipment" .....

.....

.....

No obligation. I.C.R. 4-22

used as a criterion, it certainly is. It might be interesting to know what persuasive words are used in pushing the sales of these bars in this city, that warble so winningly to the wallets of the town. This surely is an unusually fine record, to which he may well point with pride. It must be remembered, however, that this city enjoys an unusually great amount of transient trade. Still, if the manufacture and sale of these bars were not in the hands of wide-awake, live wire manufacturers and dealers, sales could not reach this high mark regardless of how favorable the conditions.

Question No. 5.—What method or equipment do you use for cutting?

Out of the 92 who gave replies to this question, 70 used the method of cutting by hand with a knife, most of them using a marker of some kind first, and 12 use a machine. Most of them do not state just what kind of a device it is. The Thomsen Ice Cream Company, of St. Joseph, Missouri, informs us that they made a contrivance of their own for this process, which consists of a 14-inch board with a wire running the entire distance, with small wires attached. One man cuts, dips and removes from the small wires, while another wraps. These two can just keep abreast of each other working in this way. They say that the main difficulty by this method lies in getting the chocolate to the right consistency.

Another firm at Wytheville, Virginia, states that they have a special design which is built on the order of a hydraulic butter cutter, and cuts a brick of cream with one operation. Still another design which cuts a brick at one operation has a capacity of 120 gallons an hour. One firm uses a foot lever cutter, which cuts a brick into 16 bars with one operation. There are also several New Era machines in use.

It would seem that there is a good field for the use of some small, efficient cutter that will take care of the needs of the smaller manufacturer satisfactorily, and that can be made at small expense. There were a few inquiries as to what was offered for this purpose. At present the hand method seems to take care of the requirements of the small manufacturer, with a more or less reasonable degree of satisfaction, and would seem that many of them are waiting until this business passes the experimental stage and is on what they think is a more stable basis before investing in mechanical equipment.

Question 6.—What method or equipment is used for dipping?

Of the 90 replies received to this question, 78 used the hand method, using some kind of hooks for the dipping process.

One firm reports the use of hooks made from bicycle spokes. We suggest a raid of the attic for the manufacturer who wants to cut down on manufacturing expense in dipping. Almost any respectable attic can boast of at least one old bike in some state of delapidation, the spokes of which could be shined up and made to serve for this purpose. (Manufacturers of rust remover please note.)

The method in general favor is to use a pan of some kind, usually steam jacketed or heated, to contain the chocolate, into which the bars are dipped by means of the hooks. Several firms use dipping frames which dip eight or more at one time.

A company at Marion, Indiana, has a contrivance consisting of three rings suspended on a wire running lengthwise of the dipping table, with 11 hooks suspended from each ring. We presume that the 11 bars are dipped at one operation by means of this contrivance.

The aforementioned Norfolk, Virginia, concern reports the use of a cam acting, positive motion dipping machine which automatically feeds and releases itself thereby saving the work of five men. Judging by their output, this is a very efficient means of dipping.

Various patented dipping racks are in use, which dip from 8 to 32 bars at one operation. A few firms also report the use of chain conveyors for use in hardening and dripping.

Here too, as in cutting, the mechanical problem seems to be to manufacture some device that will take care of the needs of the smaller manufacturer satisfactorily, and can be placed on the market at a reasonable figure. And as in the case of the previous question, though some manufacturers have inquired regarding what mechanical contrivances are offered for this process, we gather that they are waiting to see what the future of the chocolate covered ice cream bar will be before making any extensive investment in equipment. In larger firms, where the volume justifies, large mechanical dipping devices are in use which are operated in the manner of chocolate enrolers in use in candy factories.

Question No. 7.—What method do you use for wrapping?

There seems to be very few mechanical contrivances invented to wrap these bars, for every firm which answered this question wrapped by hand.

Foil wrappers were used in almost all instances. One firm reports the use of wrappers made of glassine paper printed in colors, which they said made a very attractive wrapper on account of the transparency of the paper and the color scheme used in printing.

Question No. 8—Are sales keeping up satisfactorily?

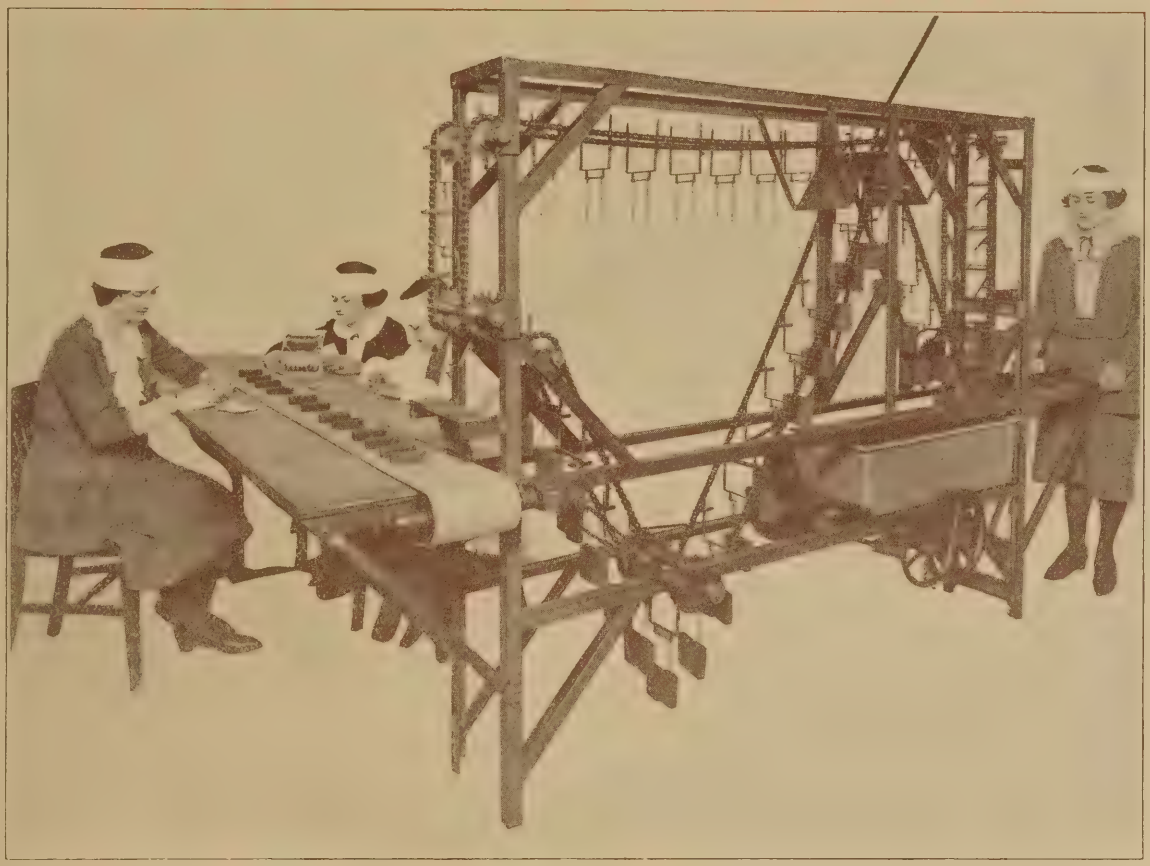
Answers to this question were very nearly evenly divided, with 45 replying in the negative and 37 in the affirmative. Some report fluctuation depending upon weather conditions. Others state that sales are up to their expectations, but do not say whether these expectations anticipated an increase or decrease. Some manufacturers find that sales reached a high mark in January, decreased considerably in February, but showed evidences of picking up again in March.

The wide divergence of opinions stated in the replies to this question seemingly cover every possible reason there might be for a falling off in the sales of this product. One general opinion was that sales were abnormally high at first on account of the novelty of the thing and that since this novelty has in a measure worn off sales have dropped in proportion. Another reason given by quite a few manufacturers was that many people did not think they were getting full value for their money at the present price of these bars, especially as compared to cones.

One Indiana firm stated that, due to the keen competition offered by the chocolate covered ice cream bars the candy companies of that city were co-operating in putting on an intensive advertising campaign, in which they make capital of the fact that their various chocolate covered bars are larger for the money, and really give more value. This campaign is said to be so extensive and effective as to tend to decrease the sales in the entire ice cream business. It would seem that the thing to do would be to retaliate with a similar campaign boosting the ice cream bars, if they want to keep up the volume of sales. There are any number of forceful selling points in favor of ice cream that would be effective ammunition in such a campaign.

A manufacturer at Fremont, Nebraska, gives as a reason that dealers are losing interest because the man

The E-CON-O-ME
ESKIMO PIE MACHINE



PATENT ALLOWED

Be Ready to supply the demand for Eskimo Pies that is sure to come with the Summer season.

ESTABLISH A REPUTATION FOR THE BEST.

The E-CON-O-ME Pie Machine cuts, chocolate coats, and delivers 3000 Eskimo Pies to the wrapping table per hour, without waste of cream or chocolate. The operation is exact, efficient, and most economical.

Operates in the smallest possible space, in the most sanitary manner, produces perfectly coated pies that will establish your product with particular people.

Write for our Booklet giving full information

ICE CREAM PIE MACHINE COMPANY

390 WEST 7th AVE. COLUMBUS, OHIO

gin of profit is too small, especially where express charges have to be paid, and the bars re-iced. Dealers seem to have trouble in keeping the bars frozen to the right consistency, and the fact that so many of them are sold in a soft, sloppy condition tends to decrease their sales, according to reports. In many instances these bars are sold in pool halls and stores where there are no adequate facilities for keeping the bars properly frozen, and this tends to place the bars in disfavor with the consumer.

One firm gives as a reason the abatement of interest on the part of the public, due to the fact that these bars are insufficiently advertised. Unfortunately, this would seem to be true. A product of this kind, the merits of which can be set forth in few words, offers attractive possibilities for clever advertising, and it is to be wondered at that this phase of the business has not been developed to a greater extent. There would seem to be an especially attractive field for billboard advertising, with the use of clever, novel illustrations, effective colors, and catchy, brief phrases or "slogans".

A manufacturer in Topeka, Kansas, who attended an ice cream meeting in Wichita recently makes the statement that the dealers are against the proposition because the public refuses to pay the equivalent of $7.20 a gallon for ice cream, according to a consensus of opinion arrived at there.

Several manufacturers state that, though business has fallen off some from the high level that had been reached at first, it is a condition that could be expected with any novelty, and that the bar is now getting down to a regular merchandise basis. They believe that the bar has sufficient merit to make it reasonable to expect that it will be a permanent addition to the ice cream industry.

In some instances, the general financial condition of the country is blamed for the falling off in sales. It seems that the novelty of the thing caused people to buy it at first who would not continue to do so, and the class of people to whom this bar would make a special appeal are not in a position at this time to give proper support to the industry.

A California concern states that, although their volume of sales had decreased, it was largely due to the unfavorable weather conditions and the prevalence of flu in that part of the country. We print this because we suppose it is the first time in the history of this country that a native Californian has made a statement derogatory to the climate of that country.

However, the main causes for the decline of sales which we gather from summarizing these reports, may be stated in the words of a manufacturer at Decatur, Illinois, who sums up the situation briefly and tersely thus: Restricted territory; too many making them; lack of proper advertising; novelty has worn off; money too scarce for class of trade buying them.

Question No. 10.—What are the prospects for summer season for this product?

"That's what we are trying to find someone else to tell us," says a Columbus, Ohio, manufacturer. We hope that he will find an answer to his question among the great and interesting variety of answers given.

Opinions of those who gave answers to this question were almost equally divided, with a slight majority anticipating a decrease in the sale of the bar for the summer season.

Those who anticipate an increase during the summer give as their main reason that, though regular trade will fall off, the sales at picnics, fairs, ball games, resorts, and other outdoor gatherings where it would be inconvenient to serve ice cream in other ways, will bring the total sales well up over the winter mark. One manufacturer thinks that the general financial condition of the country will be better as the season advances, which will naturally result in an increased sale of ice cream in general, of which these bars will receive a good portion. One California manufacturer says that the prospect looks very good to him, for his firm learns from their dealers that the trade prefers them to cones or individual bricks. A Buffalo firm makes the optimistic statement that they would consider an estimate of double the business in summer conservative.

Manufacturers and dealers consider that warmer weather will bring a natural increase in the demand for ice cream in general. The fact that the per capita consumption of these bars runs just a little higher in the south than in the northern sections of the country would also seem to indicate that the warmer weather would bring an increased demand for these bars.

On the other hand, manufacturers base their reasons for anticipating a decrease in the sales on a number of what appear to be good and sufficient reasons that will come with the warmer weather.

The main objection seems to center around the dealer. It is generally stated that the dealer's enthusiasm for this bar is waning, due to the fact that his margin or profit is comparatively small, and the bars are difficult to keep in a properly frozen condition. Much trouble and expense is encountered in icing these bars so that they will not soften, and he is the one who has to bear the brunt of all complaints put forth by the consumer. Naturally, summer will multiply his difficulties, with the result that he will feel that he is not getting enough out of the transaction to pay him for handling them. Small towns have been large consumers of these bars during the winter, and in most of these places the ice supply is a problem in summer, hence it is reasonable to expect that a great many small town dealers will discontinue handling them. A remedy suggested by one manufacturer is to conduct a campaign to the retail stores by all manufacturers on the proper care of the ice cream bars.

A prominent manufacturer of Louisville, Kentucky, out of the depths of his mental bepuzzlement on the subject, gives vent to the following feeling phrases: "Brother, you sure have asked a real question, and I wish I could answer it. We can only wait and see. The public will accept them in large quantities in the summer, but the question is, can the ice cream be kept in good salable condition?" In making this statement, he no doubt voices the sentiments of a great number of manufacturers.

The smaller manufacturers who do all their work by hand are in favor of discontinuing the manufacture of these bars in the summer because it will be too difficult to make them during the warm weather, and to keep the chocolate from melting after they are dipped.

One man states that if a machine can be devised to cut, dip and wrap these bars, reducing the labor and expense of manufacture so that they can be sold at 5c each, the prospect for a boomnig summer business is good, otherwise doubtful.

Some manufacturers also anticipate a decrease in sales because the dealer is unable to see the condition of the goods and consequently will feel that he is taking a chance his profits do not warrant in laying in a supply.

A manufacturer at Muncie, Indiana, says on this subject that he anticipates good sales for fairs, picnics, baseball games and outings generally, but does not believe the bars will be carried extensively by regular fountains and ice cream parlors. Another agrees with him, stating that for certain carnival events he believes the bars will go big, but for the day to day city sales



Troubled with Competition?

With your present equipment fitted up with the inexpensive H-C Bulk Package system you at once have an advantage over your competitors in securing dealer distribution.

You can easily convince the dealer that it will pay him to handle YOUR ice cream by the H. C. system, because he sells exactly the amount he buys. He has no shrinkage and saves the time of his help required for dipping.

YOU profit in dealer satisfaction, greater distribution of your product and a price sufficient to cover extra small cost and yet secure a larger dependable margin for the dealer.

Learn About the H-C Bulk Package System

Write today for full details on how this system works out and be prepared with a greater number of dealers when the rush season comes.



A Handy Package for Eskimo Pie

This round container holds one dozen Eskimo Bars standing on end and fits into the H-C Bulk Package System without waste of space or confusion and keeps the product in excellent condition.

The Hunt-Crawford Co.

Manufacturers

Coshocton - Ohio

he does not believe it will show the percentage of increase normally expected on brick and bulk business.

As we see it, the main objection to selling the bars in summer is on account of the difficulty of keeping them in a good condition. The others seem to be covered by the condition of trade in general throughout the country.

Question No. 11—Have sales for coated ice cream bars reduced demand for brick?

Of 108 answers to this question, 21 found that the sale of these bars reduced the demand for brick, 82 found that they did not and 5 found that they increased the sales 25 to 33 1-3 per cent, one of them as much as 100 per cent.

One manufacturer states that he feels that the interference with the sale of brick is negligible, because brick is generally served in homes for dessert, whereas the bars are eaten by the "kidlets" in place of candy. This same man is of the opinion that the sale of ice cream in general has been boosted by placing these bars on the market, because of the many retailers who did not handle ice cream at all before on account of improper facilities for service, are selling the coated bars now.

Question No. 12—If so, what percentage?

The 21 manufacturers who found that their sales decresead gave figures which averaged about 25 per cent, with a decrease of 50 per cent for a high mark, and 5 per cent as a low level. One manufacturer stated that he thought it decreased all ice cream sales, taking the attitude that those who buy the chocolate coated bars would have purchased ice cream in some other form if they had not been on the market, and since the quantity of ice cream he gets for his money if less than in any other form, the total quantity of ice cream sold naturally decreases.

Question No. 13—Do retailers welcome this business?

Of 105 replies received to this question, only 19 were in the negative. The main reason given for stating that they did not welcome the trade was because the bars were very troublesome to handle and keep frozen to the proper consistency. Dealers seem to feel that there is not sufficint profit in the business to make it worth while for them to take this trouble. A few did not handle the bars at all. Some preferred not to, but because of public demand for them, they felt that they would lose other fountain trade if they did not.

Then too, since the novelty has worn off the volume of sales has decreased to an extent where profits on this commodity are not up to their expectations, and as a result their enthusiasm is waning. Some retailers feel that the sale of chocolate coated ice cream bars will lessen the sales of bulk and brick ice cream, hence feel that they will lose in the long run by handling them. They claim that the profit on a gallon is only slightly in advance of what it is on brick, and so much more equipment in the way of icing supplies, etc., is needed that this profit is largely swallowed up by it.

"Not very lovingly," says a Wisconsin manufacturer. We were not aware that sentiment entered into the business at all, being under the impression that it was a cold business proposition, the colder the better.

However, in the face of the big odds against them, those who do not welcome this business seem to be the exception instead of the rule. One manufacturer located in Maryland states that the dealers in his district are delighted with them. Another firm in Minnesota makes the statement that their regular dealers are all delighted with the additional business brought them, and they, too, find that many places that did not sell ice cream at all before are selling these bars now, with good success. A few manufacturers agreed that the business is welcomed in territories where it means a greater volume of business but the small town dealer is not so enthusiastic, because it means another tub to pack, and ice is high and scarce, especially in the summer time.

Some manufacturers say that their dealers feel that they are not getting enough profit from them, but in this connection, one man says that the volume of sales takes care of what may be lacking in percentage of profit, but that most dealers refuse to see it this way.

Another philosophical individual, resigned to the general cussedness of human nature, is not surprised at the complaints of his dealers, as he says there are always some who will complain, no matter what happens.

One manufacturer states that he has found that the bars reduce the sale of both brick and bulk 10 to 15 per cent, but in his opinion a fair estimate was almost impossible because of unusual business conditions prevailing just now.

The main objection on the part of the dealers apparently is based on the difficulty of keeping the bars in a properly frozen condition. This again would seem to emphasize the fact that some equipment for keeping these bars more satisfactorily and easily should be devised.

Question No. 14—Do you find it a satisfactory profit producer?

Twenty-five per cent of the replies to this question were in the affirmative, although many of these affirmative answers were qualified in one way or another.

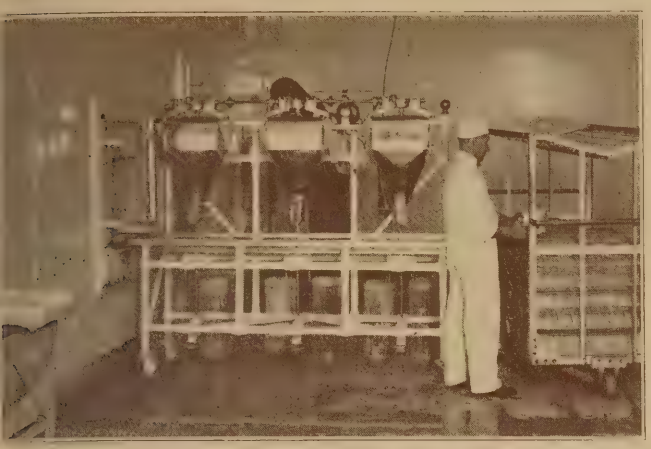
Those who replied in the negative gave a variety of apparently good reasons for their statement. A manufacturer of Wytheville, Virginia, says in this connection that it makes necessary more labor more equipment and more investment in supplies, while it only slightly increases the profit on a single gallon of ice cream. Another manufacturer located in Minnesota states that he does not find it satisfactorily profitable at the present time because things are not on an economical basis. We presume he refers to manufacturing methods. Many of them say that the margin of profit at 80c a dozen is too small to put the business on a profitable basis, considering the additional investment in labor and supplies required. Another phase that was brought to light was the fact that more service on the part of the manufacturer was required in proportion to the amount of profit than with any other form of ice cream, mentioning in particular delivery and icing expense. A few manufacturers agreed that they were too expensive to make in a small way, and were profitable only where the volume ran over 1,000 dozen a day.

Those who replied in the affirmative in a great many cases made the qualifying statement that they found it profitable only because of the large volume, and doubted whether it would pay on a small scale. A number also agreed that it is profitable in winter because it enables them to utilize idle equipment and reduce overhead expense during the winter, but doubted whether it would pay as well in summer because of the extra equipment required. "It helps us to keep our forces during the dull months, and cuts down our losses in the winter season," says a Kansas City, Kansas, manufacturer.

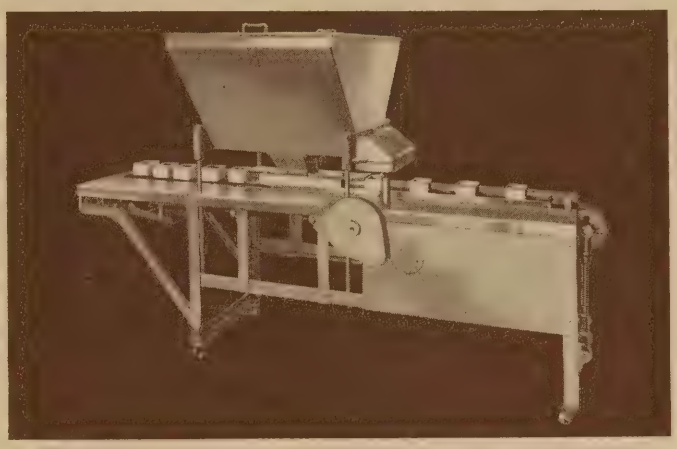
A few manufacturers were of the opinion that the profit was equivalent to bulk, but not as much as on brick.

"We can cut 16 pies to the quart, and dip 22 to 24 pies to a pound of coating, thus making more money than we do on the brick," says a California manufactur-

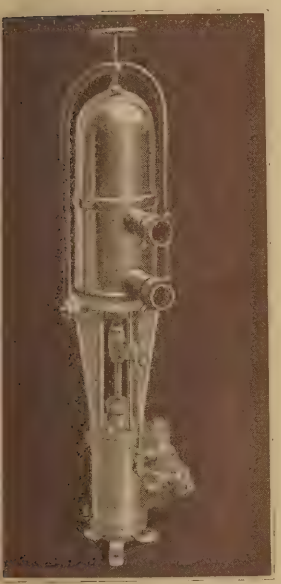
(Continued on page XXXII)



Myers & Burt Slab Filler.



Valerius Brick Carton Filler.

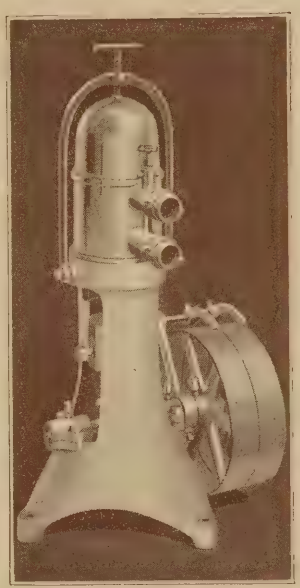


Progress Milk Pump

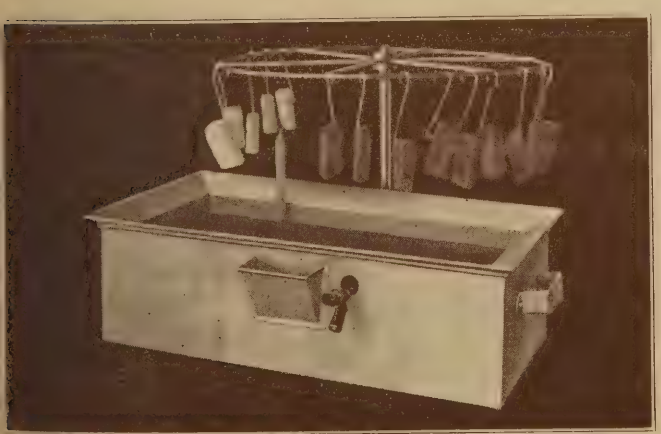
AS NEW and improved equipment is needed the Davis-Watkins organization is right on its toes in looking out for the interest of customers. Here is a carton filler, slab filler, tub icer and eskimo pie outfit for the ice cream men. All this equipment is the latest and best for each operation. Expert dairy engineering skill is continually promoting, improving and building; the benefits of which are of vital interest to Davis-Watkins customers.

Myers & Burt developed the Slab Filler and the Tub Icer, out on the Pacific Coast. Mr. T. L. Valerius is responsible for the Carton Filler and the Pie Outfit. All four machines are important to ice cream men. They cut handling costs; quickly earning back their cost. Present owners are beginning to wonder how they were able to get along without them.

The Davis-Watkins Dairymen's Mfg. Co. has sales offices in many cities. They are recorded at the bottom of this page for your convenience in making inquiry as to the machines and equipment you are interested in. A live, wide-awake manager is in charge. Just phone, wire or write him—he is put there to serve the men in this industry, who are in need of Davis-Watkins Service.



Progress Milk Pump



Eskimo Pie Making Outfit.



Myers & Burt Tub Icer.

Send for Davis-Watkins Catalog No. 6.

Davis-Watkins Dairymen's Mfg. Co.

CHICAGO, ILL., 710 W. Jackson Blvd.

JERSEY CITY, N. J., 122 Morgan St. KANSAS CITY, MO., 727 New York Life Bldg. SAN FRANCISCO, CALIF., 242 Jackson St.
OSTON, MASS., 498 Main St., Charlestown. DENVER, COLO., 1513-1523 Wazee St. SEATTLE, WASH., 326 Railway Exch. Bldg.

THE TROUBLE WITH SOME BUSINESS MEN IS THEY ARE NOT SET TO GO.

A CANDY MAN'S VIEW OF THE ICE CREAM BAR INDUSTRY.

Mr. Massarella, of the Liberty Chocolate Machine Company of Cincinnati, is a practical candy man of many years' experience in all its branches. His view of the chocolate coated ice cream bar industry is from the candy man's standpoint.

He says, "It is my belief that the permanency of the chocolate covered ice cream bar industry rests wholly with the manufacturer. The combination of chocolate with the ice cream makes a very tasty and novel confection, the demand for which may be easily maintained.



Almost everyone likes good chocolate, therefore it would tend to increase the demand to use the best, and eliminate the addition of excessive ingredients, thereby producing a more palatable bar. Comments from the public have led me to believe that a quality product of larger size would place the ice cream bar on a staple marketable basis.

"To bring the cost of production to a minimum, the proper equipment is most essential. The coating process is perhaps the most important operation in the manufacture of ice cream bars, hence the problem of coating equipment arises.

"The Liberty Coater, built by the Liberty Chocolate Machine Company, is a well known and practical candy coating machine. It is not a hook, dipping or basket device, but a continuous, automatic coating machine. It has been designed especially to coat ice cream bars. In view of the immense capacity of this machine, and the large savings in coating and labor, a quality product of larger size can be produced at a fair and legitimate margin of profit, thereby helping to insure the permanency of the ice cream bar. Most coatings now used contain excessive amounts of cocoa butter. The Liberty Coater will handle a coating with less cocoa butter very effectively, with absolutely no waste, thereby cutting the first coat, and retaining a palatable bar."

An American in dear old London was bragging about his auto. He ended his eulogy by declaring:

"It runs so smoothly you can't feel it, so quietly that you can't hear it, it has such perfect ignition you can't smell it, and as for speed—boy, you can't see it!"

"But, my word, old dear," interrupted the Briton anxiously, "how do you know the bally thing is there?"
—American Legion Weekly.

BIG SUMMER POPULARITY FORESEEN.

It is the general opinion of the manufacturers that chocolate coated ice cream fills a long felt want in the distribution of ice cream, and that while it has been very popular during the winter, they will be much more popular in the summer.

The simple method of hand dipping in a bath which is water-jacketed or electrically heated, is employed by most of our manufacturers. These bars furnished an outlet for a large amount of ice cream during the winter and have proven their value to the industry. I wish to emphasize but one point in connection with their manufacture and sale during hot weather. Manufacturers and dealers must keep them **cold.** They must be treated with the same consideration in so far as refrigeration is concerned, as brick ice cream; and when they are sold to consumers for later consumption, the consumer should be cautioned against exposing them to warm air for very long. COLD, HARD, FROZEN ice cream bars will sell well and be relished in the summer time; but the industry will be injured seriously, if manufacturers and dealers do not handle them in such way that the centers REMAIN HARD. Customers will be disappointed and ultimately refuse to buy ice cream bars, if the centers are soft. We all expect a big business in chocolate coated ice cream bars during the coming summer.

L. E. HURTZ,
President Nebraska Ice Cream Mfrs. Association.

NEW COUNTER CABINET.

A new type of cabinet for holding chocolate coated ice cream has been designed by the Virginia Tub Company of Bristol, Virginia. This cabinet is a small affair for use on a counter or fountain, and weighs approximately 75 pounds. It will hold eight dozen bars, and it is claimed that it will keep the chocolate coated cream in a perfect condition for 36 hours, with only one icing.

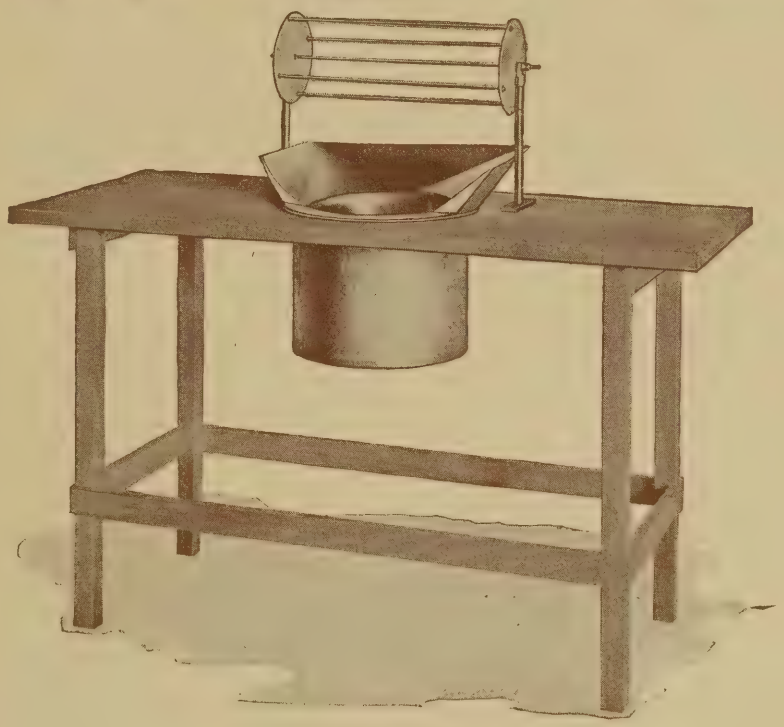
One of the best, most distinctive innovations presented in this cabinet is the self advertising feature.



This feature will give the cabinet the advantage of being a trade stimulator in addition to a counter cabinet, at the cost of one article alone.

This cabinet has been patented as a self advertising counter cabinet for dispensing individual portions of ice cream, and will retail at a very moderate figure.

ESKIMO PIE
Dipping Outfits



Patents Pending

Special Heated Apron Catches All Drip

NO CHOCOLATE WASTED

Pans can be Heated by Steam, Hot Water, or Electricity.
Dipping Pans are Seamless, Round Containers; Sanitary and easy to clean.

Special Reel Saves Space

Reels can be furnished to fit your present outfit.

Price—Outfit Complete as shown (less table), including 100 hooks, $25.00.
Price—Extra Reels, $5.00. Price—Extra Hooks, per 100, $2.00.

We Carry in Stock Standard Eight Quart Single Cover Slab Bricks.

Keiner Williams Stamping Co.

Manufacturers of Milk Cans, Ice Cream Cans and Soda Water Tanks

8746-8782 123rd STREET RICHMOND HILL, N. Y.

PROSPECTS GOOD FOR SUMMER BUSINESS.

I presume that our experience has been similar to that of most manufacturers with chocolate coated ice cream. The sale started out very big, continued so for a while and then gradually dropped back to a basis whereby, though our sales were considerably smaller than when this new product was first introduced, they are still very satisfactory and profitable. It is our belief that the chocolate coated ice cream bar has come to stay and that it will be sold in the summer as well as in the winter, and also that it will be a valuable adjunct to the ice cream business.

About the only thing we have done, in reference to manufacturing, that is different from the methods of most of the other manufacturers, is to make a shallow pan just the thickness of the slice used in the bar, this pan being about 12x15 inches and containing the ice cream for five dozen bars. After this is hardened, the cream is removed and immediately dipped, eliminating the drawback of having to put the cream back into the chest after cutting, which was recommended to us at the outset, and which we did for a time but which required a great deal of labor and refrigerating space. We find that by getting these thin slabs very hard they can be cut immediately after being removed from the pan and that it is not necessary to return them to the hardening chest before dipping.

As stated above, we believe that chocolate coated ice cream will hold a place in ice cream sales throughout the summer months that will be considerable, and as our salesmen are seeing the trade at the present time, they are trying to impress upon our dealers the necessity for continuing window and fountain advertising on these bars, keeping the goods in perfect condition and being in a position to supply the demand when the summer weather arrives. At the present time we are supplying 27 Liggett drug stores throughout New England and 70 in New York City, making the majority of these shipments by express. The experience this large chain of drug stores has had with chocolate coated ice cream bars is that when a warm day arrives their sales have been considerably greater than with normal Spring weather and it is their belief as well as ours that warm weather is going to have a considerable effect on the sale of these bars as well as upon ice cream sales, though not in the same proportion. We are going to devote some of our advertising to chocolate coated ice cream and believe that with co-operation on the part of our dealers, this delicious confection can be made a profitable addition to the ice cream business throughout the twelve months in the year

G. W. KENISON,
Treasurer Jersey Ice Cream Co., and President New England Association of Ice Cream Manufacturers.

FUTURE RESTS WITH MANUFACTURER.

(Concluded from page IV)

with chocolate," "How delicious they are," "I am going to serve them at my next party," and so on. It certainly paid them to advertise. They had to put four more girls in the Polar Bar department the following week after the above stunt. This all goes to show that the wide-awake ice cream manufacturer himself has the future of this confection in his own hands, as Mr. Glitsch and Mr. Auer, of the New State, says. Hustling always wins.

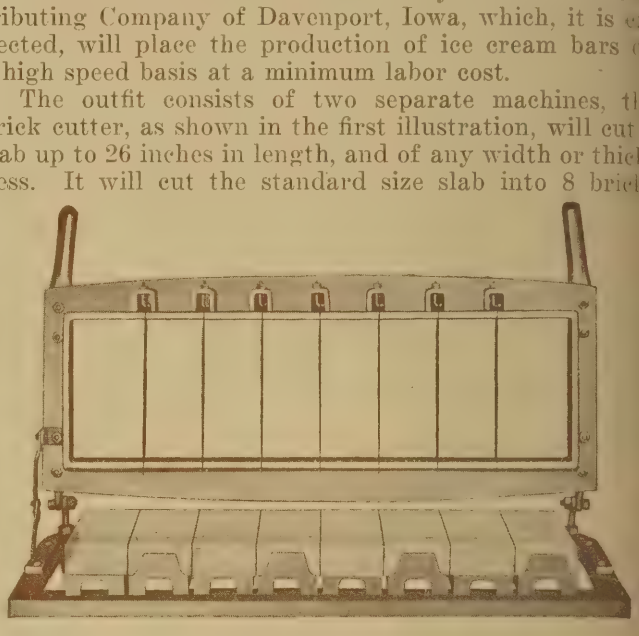
Yours with a boost,

C. R. HAUK.

CUTTING MACHINE FOR ICE CREAM BARS.

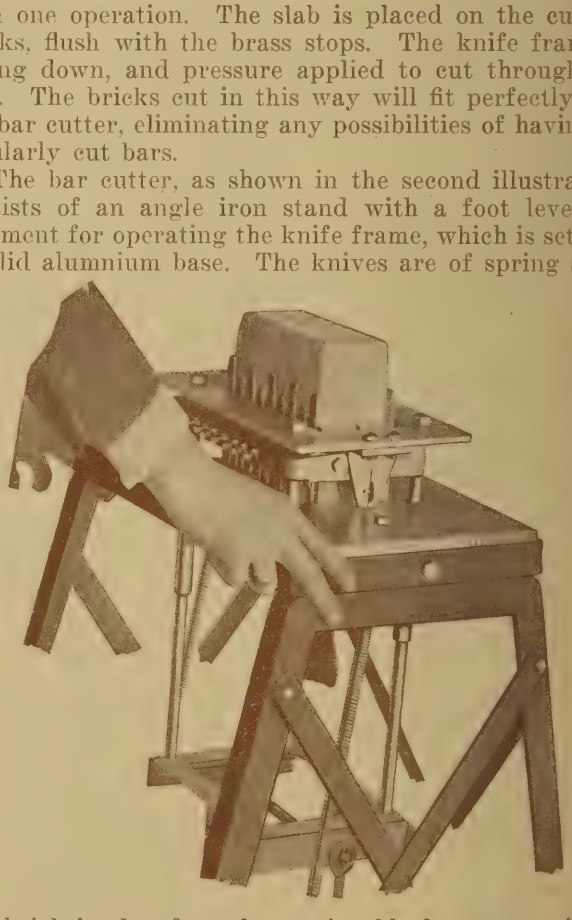
A machine has been introduced by the Central Distributing Company of Davenport, Iowa, which, it is expected, will place the production of ice cream bars on a high speed basis at a minimum labor cost.

The outfit consists of two separate machines, the brick cutter, as shown in the first illustration, will cut a slab up to 26 inches in length, and of any width or thickness. It will cut the standard size slab into 8 bricks



with one operation. The slab is placed on the cutting blocks, flush with the brass stops. The knife frame is swung down, and pressure applied to cut through the slab. The bricks cut in this way will fit perfectly into the bar cutter, eliminating any possibilities of having irregularly cut bars.

The bar cutter, as shown in the second illustration, consists of an angle iron stand with a foot lever attachment for operating the knife frame, which is set into a solid alumnium base. The knives are of spring steel.



The brick is placed on the cutting block, pressure is applied to the foot lever, and the stroke is transmitted to the knife frame. The brick is thus cut into 16 or 18 perfect bars, as desired.

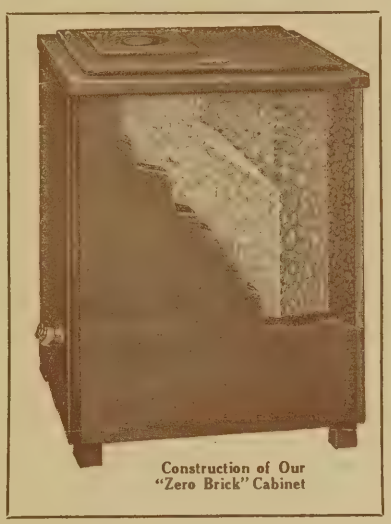
Aluminum construction and the use of brass fittings eliminates possibilities of rust. The machines are sanitary, and are readily cleaned by drenching in hot water.

Planth using these machines are cutting 288 bars a minute, which enables them to cut in 20 minutes as many bars as it would take about two hours and forty minutes to cut by hand with a knife.

The Grand Rapids
ICE CREAM CABINET OF QUALITY

For Keeping Eskimo Pie in Perfect Condition

The Grand Rapids



Construction of Our "Zero Brick" Cabinet

Zero Brick Cabinet

Eskimo Pie, the new confection, which is meeting with such great success, must be kept in perfect condition to insure maximum sales.

Our Zero Brick Cabinet is ideally fitted for this purpose. The design is widely different from ordinary brick cabinets, one of the principal features being the separate covers for the Brick Tank and the Icing Compartment. The tank is held perfectly rigid—no floating. There is no chance of getting ice and salt into the brick compartment while icing.

The high efficiency of the cork-board insulation and construction means a constant low temperature and a minimum ice bill.

THE ASSOCIATION OF ICE CREAM SUPPLY MEN MEMBER

THE ASSOCIATION OF ICE CREAM SUPPLY MEN MEMBER

Take Advantage Now of Recent Price Reductions

Lower manufacturing costs enable us to give you the same high quality for which our line is noted at a lower price. Write today for prices and all other data.

GRAND RAPIDS CABINET COMPANY

Successors to CHOCOLATE COOLER COMPANY

55-59 Alabama Avenue N.W. **GRAND RAPIDS, MICH.**

New England Sales Office and Warehouse, MERROW BROS., Inc., 44 N. Market St., BOSTON, MASS.
South Eastern Sales Office and Warehouse, CHERRY-BASSETT CO. { 33 So. Charles St., BALTIMORE, MD. / 1106 Arch Street, PHILADELPHIA, PA.
North Western Sales Office and Warehouse, A. C. BLACK, 515 Lumber Exchange, MINNEAPOLIS, MINN.

PROTECT YOUR TUBS IN ROUGH HANDLING BY SUBSTANTIAL METAL RIMS.

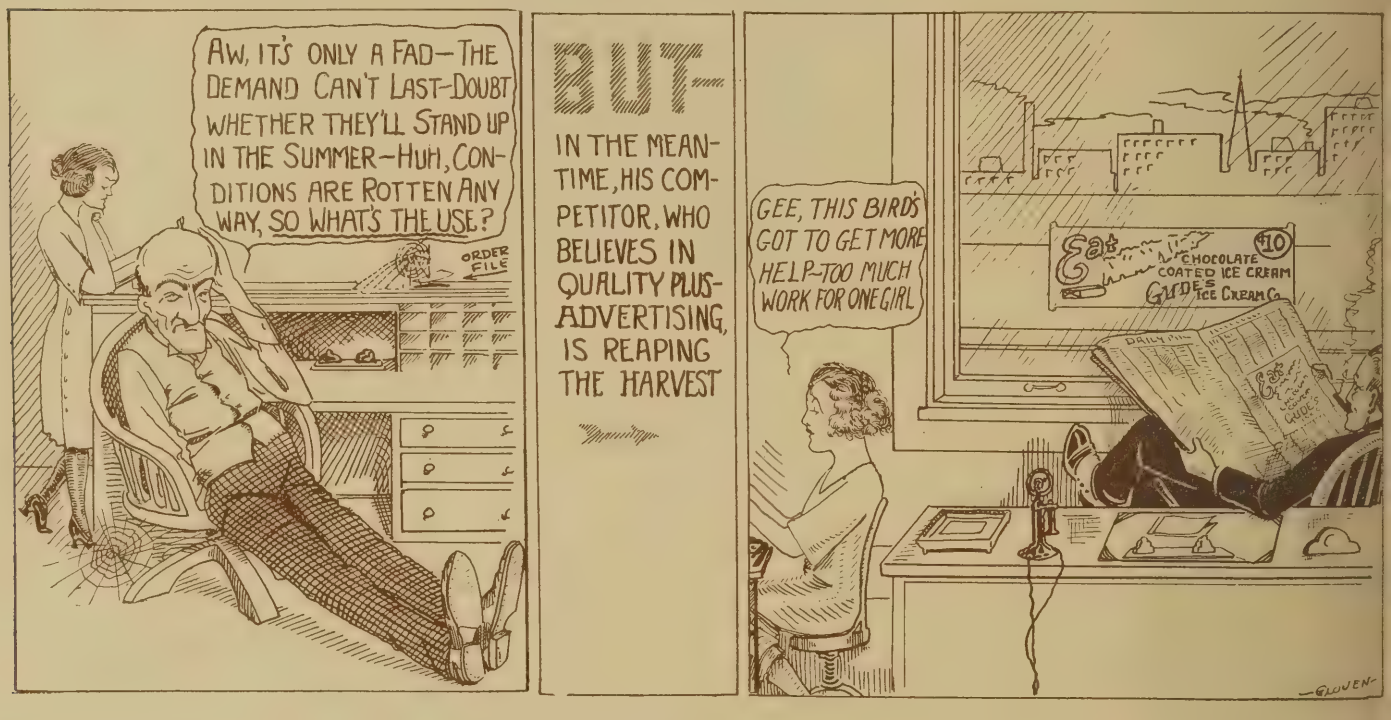
More Than a Vision

OUR artist has attempted to portray the experience of the ice cream manufacturer who has consistently advertised good chocolate coated ice cream, as well as the manufacturer who doesn't believe in progressive methods.

Chocolate coated ice cream has been the sensation of the year in the ice cream business. When it was introduced interest in it spread like wildfire. The demand exceeded the supply everywhere.

The demand continues in some sections while reports from other sections indicate that the novelty has worn off and sales are dropping off. What is the reason?

We believe we can give the answer. In those sections where the demand continues the ice cream manufacturers have backed up quality goods by efficient advertising. They didn't depend upon the novelty feature to make the business a success. As real business men they realized right from the start that they had a good food product—not a novelty—and they used the same means in promoting it that they have used in selling their other ice cream products, i. e., advertising.



The average consumer will buy a novelty through curiosity, but he doesn't buy staples that way. He is influenced by advertising and many ice cream manufacturers have forgotten this in their efforts to sell chocolate coated ice cream. They have depended too much on the novelty feature to build up a steady demand. Some have depended on this so much that they even sacrificed quality. They expected to be able to retire in a short time if the demand continued. But it didn't.

But there is no us crying over spilled milk—or decreased sales of chocolate coated ice cream either. It is just as good eating now as six months ago. In fact, it is better because it is made better. It has merit and the consumer will buy it, but no longer as a novelty. The same measures must be adopted to sell it as are used in selling ather staple goods of merit.

First, it must be made of the finest materials. It must be made right and kept right until passed to the consumer. **Then it must be advertised.**

We believe with those who look upon chocolate coated ice cream business as a valuable and important branch of the ice cream business. It will be just what the men in the business make it, however. We believe that with the right quality and the right kind of advertising a steady demand can be built up.

There are some consumers who complain that a chocolate coated ice cream bar is not worth a dime. How do they know? Who has fixed values? We don't believe any one is competent to say that ten cents is too much for good chocolate coated ice cream. Make the consumer want it badly enough and he will spend a dime for it just as quickly as he will spend a nickel. Surely the business will be in better shape if built up on the basis of a ten cent good article than a cheaper poor one. We believe it would be a big mistake to try to popularize a cheaper product.

We believe in this business so thoroughly that we have devoted this section of The Ice Cream Review to it. Being such a timely subject we feel that our readers will appreciate the effort we have made to put before them some practical information on it.



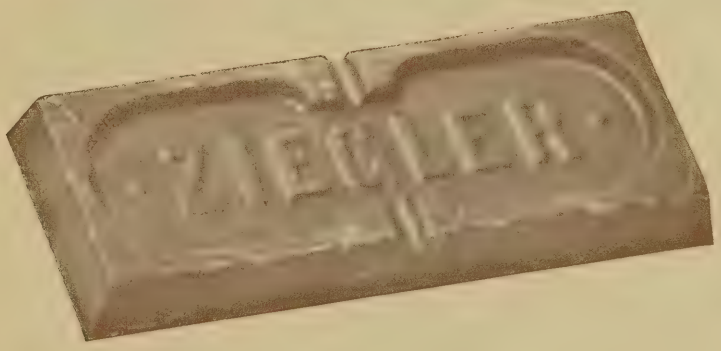
NEW CATALOGUE OUT.

The new 120 page catalogue, No. IC-2, put up by the Dairymen's Manufacturing and Supply Co., St. Louis, Mo., is now ready for the dairy products manufacturers and can be had for the asking.

It is one of the largest and most complete books the company has ever compiled and will be of interest to the butter, ice cream and cheese manufacturers, and to the milk dealer.

The Dairymen's Manufacturing and Supply Company began business December 1, 1919, and was organized by B. Riley Hauk, who is the president of the company, and a well-known personage for considerable years past in the dairy industry.

Eskimo Coating—



No additional Coco Butter or Liquor Required.

Zieglers



CHOCOLATE MANUFACTURERS

GEO. ZIEGLER CO.

364-366-368-370-372-374-376-378-380-382-384
FLORIDA STREET

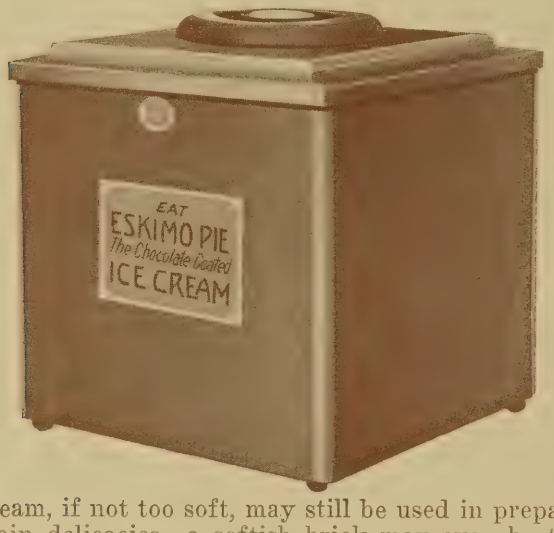
MILWAUKEE, WISCONSIN
SINCE 1861

A SPECIAL CABINET FOR CHOCOLATE COATED ICE CREAM.

A well known manufacturer of high grade ice cream cabinets, the Stout Crate Co. of Milwaukee, Wis., saw the need, coincident with the sudden widespread acceptance of the chocolate coated ice cream idea by manufacturers, dealers and the public, of immediate steps for insuring that this rather delicate product be properly preserved during the time elapsing between its delivery to the retainer and the moment when the purchaser unwrapped it and took his first bite.

They saw a real danger to the permanent success of this new and very desirable product lurking in the little contingency that if the first bite disclosed a mushy interior with an inclination to ooze out, over and down the edges of the chocolate onto the customer's fingers—then a good customer and booster would be spoiled.

They saw that a conveient, easily handled, thoroughly high class cabinet was more important for the holding of this product at the dealers than even in the case of the customary form of packing ice cream. Soft



ice cream, if not too soft, may still be used in preparing fountain delicacies—a softish brick may even be tolerated for serving at home—but an oozy chocolate coated "mess" in the fingers—never again.

Hence the Stout-Schroeder Perfection Special Cabinet was designed with the idea that it must be neat and attractive enough to be set right on the counter, in full view, where it would be a self seller calling attention to the product and creating the desire to eat one with many who entered the store on other errands, it must be easily moved about, must have plenty of icing space, must hold a generous stock of the packages—and above all it must have the best insulation qualities known to the ice cream cabinet making art.

The special chocolate coated ice cream cabinet is built in strict conformity with the standards of construction that have made Stout-Schroeder perfection ice cream cabinets famous all over the country—that's why they are proving so acceptable to the retailers and are helping to put the chocolate coated ice cream bar on a safe basis of continuing popularity for the future.

No manufacturer who gives the subject consideration will take chances with inadequate "excuses" for cabinets in the stores of his retailers—he will protect his future business by supplying his dealers with the best insulated, most attractive and convenient cabinet he can secure.

One pound of self-reliance is worth a ton of expectation.

GOOD BUSINESS AT AUTO SHOW.

Regarding our present methods, and the selling of chocolate coated cream, we made rather a crude table in which our chocolate was kept warm, this table we are still using. Our bars are dipped in this chocolate bath, and then put on a chain which moves by hand power above the table. Two girls dip, one takes off the hooks, and two wrap. It takes most all of one girl's time to keep the material ready and on hand. We pack 12 bars to a carton, then 10 cartons to a 5 gallon can. We find this very convenient in keeping account, and also very convenient to enable the customer to know that he has received his full amount. Thus far we have not experienced much trouble in keeping them iced up, but are expecting when hot weather comes that it will be much more difficult to keep them frozen hard than ice cream.

Our sales are becoming smaller each week, and we believe that in summer the bars are going to sell best in parks and other places where there are large gatherings. We have just had an automobile show at Indianapolis at which place we had a good business, selling something like 1000 dozen bars.

C. A. REEVE,
Ballard Ice Cream Co., Indianapolis.

MACHINE DEVELOPED TO INCREASE PRODUCTION OF CHOCOLATE COVERED ICE CREAM BARS.

W. D. Belknap, one of the original inventors and promotors of the ice cream cone machine, having noted the remarkable success with which the new chocolate covered ice cream bar was introduced, predicted that it would rank in popularity with the cone, and in order to meet the anticipated demand, realized that it would be necessary to produce this new frozen dainty in tremendous quantities, and on an efficient production basis.

To this end W. D. Belknap, C. R. Belknap and W. Geraughty have perfected an automatic machine with many distinctive features, and original in principle. This machine cuts standard quart bricks into any desired shape automatically, picks each bar up and dips it into chocolate, and when ready to wrap, distributes to the wrappers. There is absolutely no waste of chocolate or ice cream, and it saves labor, floor space and worry.

A picture of this machine is shown in the Ice Cream Pie Machine Co. advertisement, which appears elsewhere in this supplement.

EFFECT OF FOUNTAIN TRADE UNCERTAIN.

The writer would be very willing and agreeable to give you all the information possible about the manufacture and sale of chocolate coated ice cream bars but it is something that has come upon us so suddenly that it it not through the experimental stage as yet. Even what little I could say would not be of any benefit to any one interested in the ice cream business. While this matter has been discussed at our various annual and district meetings, none of our members has posed as a prophet as to just what the future of this business will be.

I can say that every manufacturer of ice cream in Nebraska is making and selling this product and seems to have pretty good sales. What will be the effect on the sales of the new product when the weather gets warm and the retailers open up their fountains no one can predict.

R. W. McGINNIS,
Secretary Nebraska Ice Cream Makers' Credit Ass'n.

JUST WHAT YOU NEED
Our
Baby Liberty Koater

will coat your

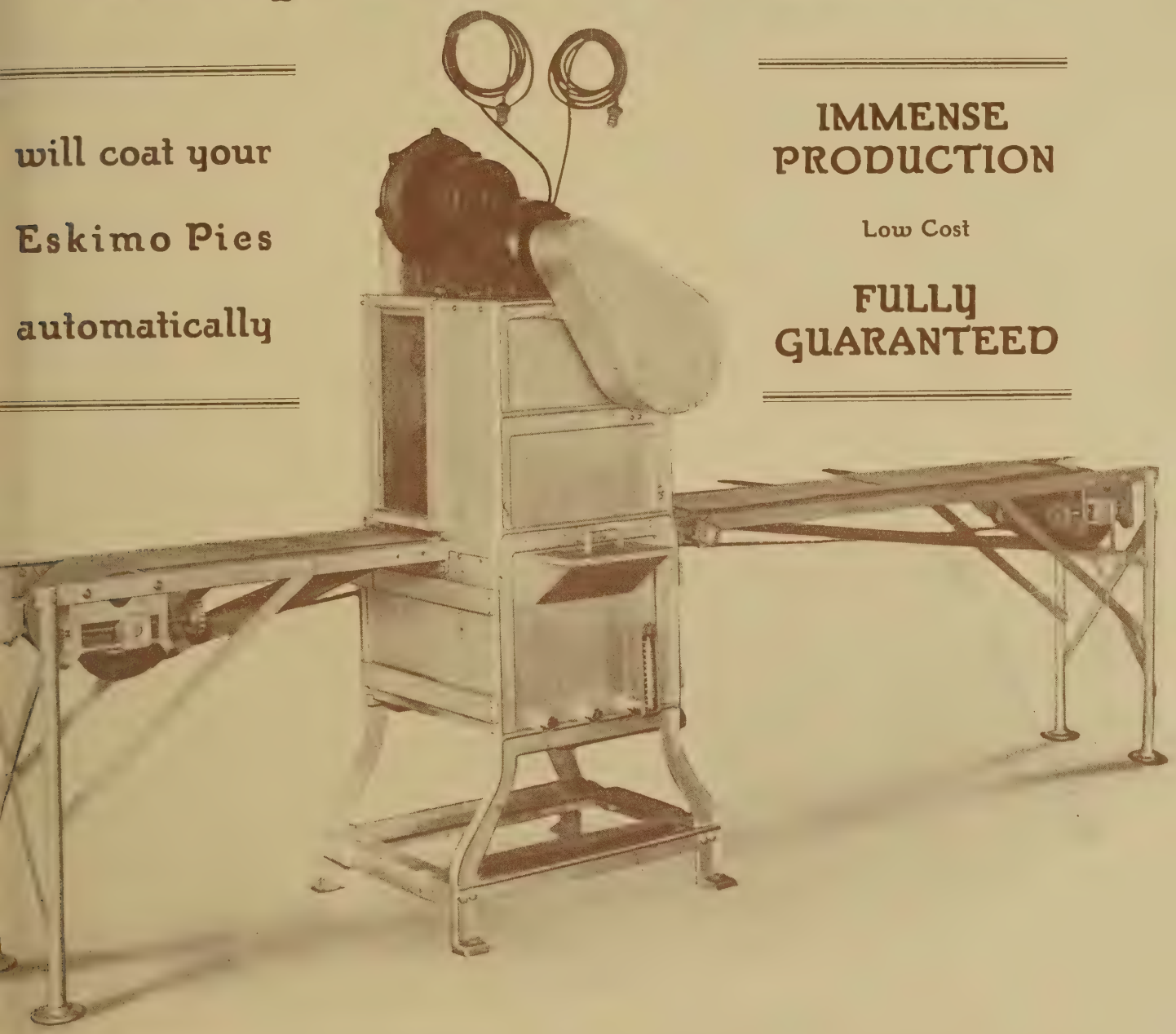
Eskimo Pies

automatically

IMMENSE PRODUCTION

Low Cost

FULLY GUARANTEED



Applies an extra good bottom. Our special electric controlled blower system regulates the amount of coating desired on the bars. This machine is not a hook or dipping device, but a continuous automatic coating machine.

Western Representative
O. WALKER, Colton, Cal.

Central Representative
CHAS. MISH, Wilkes Barre, Pa.

Eastern Representative
L. WEISCOPF, 30 Church St., New York

The Liberty Chocolate Machine Co. CINCINNATI, OHIO

The Chocolate Coated Ice Cream Bar Industry in Milwaukee

The Ice Cream Review Representative Visits Big Milwaukee Plants and Gets Dizzy Watching the Manufacture of Huge Quantities of Chocolate Coated Ice Cream Bars.

THE same curiosity that leads a small boy to take his first watch apart to see what its "inwards" look like led a representative of The Ice Cream Review to joyfully accept an assignment by the editor to "cover" the big ice cream plants in Milwaukee and see how they turn out so many and so good chocolate coated ice cream bars. Incidentally he let his enthusiasm lead him too far in sampling the delicacies, and had to resort to well known home remedies, but that is another story. He now knows that there is such a thing as "too much of a good thing."

Our first visit was to the Mansfield Ice Cream Company's plant where we gained much helpful information regarding the chocolate coated ice cream bar, which has become a most popular confection in Milwaukee. Miss Hove kindly consented to show us through the plant and explained the details of manufacture to us.

Beginning with the quart bricks leaving the hardening room, they are brought into the cutting room, which is at the end of the freezer room. In operation there we found the Creamery Package cutter, which automatically cuts the quart bricks into the right size for the coated bars. After these bars are cut, they are again placed in the hardening room. Upon again being withdrawn from the hardening room they are taken to the girls who handle the dipping and wrapping.

The chocolate in its cake form is cut up and melted in large melting pots and then poured in the heated pan in which the bars are dipped. This pan is electrically heated or rather the right temperature is maintained to keep the chocolate the right consistency for dipping.

Individual hooks are used for dipping and holding the bars when placed on racks to dry. A long horizontal bar is placed directly over the melting pot to allow for dripping. The girls start with the empty rack by hanging hooks on the left of this horizontal bar until the bar is completely filled. Then the bars are detached from the hooks and all exposed ice cream is covered with chocolate by a small paddle.

After this is done there is no further operation outside of wrapping. They are first wrapped in a light tissue paper and lastly in tin foil and then packed into boxes of two dozen each. After these bars are all packed, they are again placed in the hardening room to await orders.

* * *

We next received a hearty welcome at the plant of the Bendfeldt Ice Cream Co., 2308 Clybourn Street, by Mr. Bendfeldt, whom we found to be a very busy man. Mr. Bendfeldt had just returned from a trip to California and he turned us over to his brother, Herbert Bendfeldt, who is in charge of the manufacturing end of the business.

The chocolate covered ice cream bar making department of the Bendfeldt plant is located in one end of the freezer room. We found there a number of girls operating a Creamery Package brick cutting machine. Their method is to run the cream direct from the freezer into the ordinary brick molds, filling the moulds only half full or the thickness they intend their chocolate covered ice cream bars to be. After these moulds are hardened in the hardening room, which is held at a temperature of 20 degrees below zero, the moulds are inverted and the hardened cream is forced out of them by means of air pressure. The hardened cream is then placed on the belt and automatically conveyed to the cutter. The machine is set in such a way that it cuts the ice cream into the proper size for the chocolate covered bar, lengthwise and crosswise, getting 16 to the quart. One of the young ladies was taking the cream from the machine after being cut into bars and placing it on another slab on which they were taken to the hardening room for rehardening. After remaining there a sufficient time to harden properly, they were again brought out in the freezer room for dipping.

In the dipping process, an electrically heated water jacketed tank is used. A prepared coating is previously cut up or shaved, melted and heated and is then placed into the tank of the dipping apparatus.

We found the Bendfeldt plant to be a very well equipped plant. The freezer room was equipped with 8 of the Creamery Package 40-quart freezers, most of which are kept in continuous operation. In another room adjoining the freezer room are 4 Creamery Package vats, one of which is used for pasteurizing and mixing and the other three for holding or ageing. From the mixing vat the cream is run to the Gaulin Homogenizer nearby and then over an Arctic cooler and into the three ageing vats before mentioned. On the lower floor are a couple of Creamery Package refrigerating machines, each with a capacity of 60 tons. Each of these machines is run with an individual motor and are connected in such way that either or both of the machines may be used for hardering at one time.

The Bendfeldts are very enthusiastic over the chocolate covered ice cream bar, believing that it will become a permanent source of profit for the ice cream business. They feel that the novelty of the bar is past and that their sales have reached a permanent basis. They expect the demand to increase considerably during the warmer months and expect big sales from the crowds a baseball games, parks and other amusement places.

* * *

A call on the Luick Ice Cream Company revealed to us quite modern appliances and conveniences for the making of coated ice cream bars. They have a separate room, which we judged to be about 35x15 feet, in which the complete process of manufacturing this product is conducted. At one end of the room may be seen the two melting pots for melting the bulk chocolate, each one holding approximately between 15 and 20 gallons of liquid. After thoroughly melting the chocolate, it is then placed in the dipping pan by means of large dippers. These dipping pans in which the chocolate is placed after melting is electrically heated and maintains a temperature of about 90 degrees Fahrenheit, which is the best temperature to maintain to keep the chocolate the right consistncy for dipping.

In the center of this room is a long table, on which the complete operation of dipping, drying and wrapping is all done. There are several heated dipping pans and above each is a 4-bar spindle. The individual bars of ice cream are placed on hooks which are attached to the horizontal rods after being dipped by hand. When this rod is filled to capacity, without overcrowding so that the bars would come in contact with one another, the spindle is turned and the girls on the opposite side unhook the bars and cover all exposed cream with chocolate by the aid of a small paddle. They are then placed on an endless belt, which moves towards the opposite



ESKIMO PIE

TRADE MARK REGISTERED

Cold millions being sold every day. National advertising, national good will, national demand, and a clear conscience! Bite not on imitations. Associate your name with genuine Eskimo Pie. Success unmatched!

10c

Russell-Stover Company
5 North Wabash Ave., Chicago

DO YOU REALIZE THAT GOOD CARTONS WILL INCREASE BRICK SALES?

end of the table, where the girls may be seen wrapping the bars, first in a light tissue paper and lastly by the tin foil and then packing them in boxes of two dozen each. After this operation has been completed, they are again placed in the hardening room and are ready for the trade.

The cutting of these bars is done by a Creamery Package cutting machine, which cuts the regular brick cream into the correct size for the bars. After the cutting, they are replaced in the hardening room preparatory to the dipping process. This hardening room maintains a temperature of at least 10 below zero at all times.

* * *

The Blommer Ice Cream Company's superintendent, Mr. Brandt, kindly consented to show us through their plant recently. The ice cream is run into brick slabs directly from the freezer. These slabs are about 2½ feet long and 8 inches wide, and hold two gallons of cream. The pan after being filled, is levelled off and placed directly into the hardening room, where it is left for at least over night. Upon withdrawing the cream in the morning from the hardening room, these brick slabs are placed in warm water for a few seconds so as to loosen the cream from the container. The cover is then removed and by means of air pressure applied through a small hole in the bottom of the pan, the cream is forced out on to a board. This sliding board that the cream is placed on is a part of the ice cream cutting equipment. The board is so made that there are notches in the under side, which regulates the feeding of the cream through the cutter. This company has a New Era cutter, manufactured by the New Era Company of Oshkosh, Wisconsin. This machine is used extensively among the manufacturers of this product. The size of the bars is adjusted by a notched plate which is located on the feeding end of the cutter, so that bricks of one quart and one pint and other sizes may be all cut on the same machine. The two gallons of cream as it passes to the cutter produces 128 bars.

The chocolate in its cake form is cut and melted in the same process as the other companies, which have been visited. The chocolate is dipped from the melting pots to dipping pans in a similar way as before described and instead of being sustained at a certain temperature, the process is simplified by having a greater number of people doing the dipping. In one day this plant turns out at least 700 dozen of these chocolate coated bars. The one different feature which the Blommer people have in their equipment is in the manner of conveying the ice cream bars, after they are dipped, to the girls who attend to the wrapping. They have a pulley arrangement in the form of a heavy string which travels about 2 feet above the dripping table. The dipped bars run slowly across from the dipping end to the girls who detach the bars and do the wrapping.

The trolley runs slow enough so that the chocolate has plenty of time to harden properly. Different ones have commented upon this one feature of the Blommer Company, as being a better method as it allows for a definite means of drying the chocolate before wrapping.

The wrapping of the bars is done through one operation only. The tin foil and the tissue paper are so arranged that the bar is wrapped with both at the same time, and quickly packed into the two-dozen bar cartons.

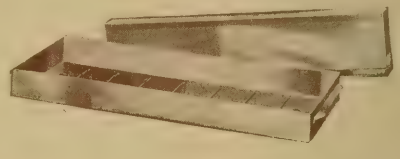
The hardening room is at the end of the table where the girls are wrapping these bars and the matter of quickly placing the packages into the hardening room is very simple and quickly done. The Blommer Company has witnessed the same falling off in trade as other companies of Milwaukee have, since the novelty of the bar has worn off.

It has been quite interesting for our representative to see all these different methods of manufacturing this product.

⚜

A BRICK MOLD FOR CHOCOLATE COATED BARS.

The development of the manufacture of chocolate coated ice cream has created the need of a special ice cream mold. To meet this need The Creamery Package Mfg. Company are marketing a heavy steel ice cream brick mold. This is made from heavy black 16 gauge steel plate, welded together and then thoroughly tinned



from pure block tin. Hence it cannot distort, bulge nor get out of shape and all bricks are uniform in shape and size. As there is no solder used except around the handles, the interior of the mold is absolutely smooth and is easily cleaned and sterilized.

This mold is made in two special sizes, i. e., an extra deep mold 26 inches long, 6⅜ inches wide and 2¾ inches deep, holding eight quarts, and a shallow mold 26 inches long, 6⅜ inches wide and 1⅜ inches deep, having a capacity of four quarts. The contents of either mold can be sliced in one operation into bars of standard sizes.

⚜

SUGGESTS A VARIETY IN CENTERS.

Chocolate coated ice cream has become a very popular seller in my territory. I find it is being sold under different names, such as Eskimo Pie, Alaska Bar, Chocolate Patties, Alaska Patties, Velvet Chocolate Bar, Chocolate Coated Bar, Frozen Polar Bar, and many other names too numerous to mention. Will say it helped many ice cream manufacturers to make money last winter. It surely would always make a good winter piece and probably summer piece if the manufacturer will push it during the hot weather.

I have seen it frozen in different flavors and it is a very nice eating piece. I find some flavors in the ice cream are greatly hidden on account of the chocolate flavor and the manufacturers will find ice cream flavored with caramel flavor is a flavor that blends very nice with chocolate. Furthermore, the color of caramel ice cream is like a caramel candy and the color blends very rich with the chocolate. If you put broken red cherries in your ice cream you will have a very nice bar, as the light brown center with red pieces of cherries, dipped in chocolate, make a dandy piece to sell to the trade. The chocolated Caramala ice cream bar was demonstrated the first time for the convention at Saginaw, Michigan, in February, and everyone was pleased with it.

C. J. YUNCKER.

⚜

Awkward dancer,
Polished floor:
Wreath of lilies
On the door.—Inklings.



The New Ice Cream Sensation

Everybody wants it—Everybody buys it—Chocolate covered Ice Cream. The finest and best results may be obtained by using the following:

KLONDIKE STAR MILK CHOCOLATE
KLONDIKE MILK CHOCOLATE
ICE-KREME KOTE CHOCOLATE

These WILBUR coatings are manufactured only with PURE COCOA BUTTER and the very finest raw materials. Tested to insure very thin dipping. No waxy after-taste. May be used either for machine or hand dipping. Bright in luster.

Made in the same careful way as the celebrated Wilbur Quality Coatings and Liquors.

Send for samples

H. O. WILBUR *&* SONS INC., *Philadelphia, Pa.*

BALL GAME BRINGS GOOD BUSINESS.

We have gone through the peak load of the chocolate bar business with probably the same amount of plant disorganization and night work that all other plants have had. In our section it has increased the sale of bulk ice cream, in addition to the sale of the bars itself.

Not knowing anything about the chocolate candy business we had our trouble with coatings. We have melted coatings at temperatures ranging from 120 to 180 degrees and dipped from 90 degrees up. For the coating we have finally decided to use, we have found that melting at about 120 degrees and dipping at 95 degrees gives us a very satisfactory product. This coating requires about a 10 per cent addition of Cocoa butter to maintain the best dipping consistency. We use a half size slab brick, cutting on a New Era Brick Cutter, dipping in an electric heated chocolate pan. This equipment with three operators makes the cost of labor to cut, dip and wrap slightly over two cents a dozen.

In regard to summer business it is very much guess work to forecast it though we have had one shining example of its possibilities at baseball games, fairs, etc. We had one of the pre-season ball games here March 24th, featuring Ty Cobb and the rest of his team playing against the Rochester, N. Y., Internationals. The attendance was 2300 paid admissions. With the disadvantage of a comparatively cool day we sold about 30 per cent of this number, or 60 dozen, during the game. We were badly handicapped by not being able to get efficient boys, and at one time we were sold out. I believe we could have sold under good conditions 100 dozen, or about 50 per cent of those at the game. Our present sales are about 40 per cent of peak and seem to be holding steady at about that rate. Under the circumstances we are very optimistic on chocolate coated ice cream.

L. A. CORNING,
President Buttercup Ice Cream Co., Hamlet, N. C.

A GOOD THING, BUT NEEDS PUSHING.

Here's to the chocolate coated ice cream bar, the life saver, or winter exhilarator of the ice cream industry! The trade has taken to it just like cooties to the dough-boys. In the opinion of the writer, it is here to stay, and the more pleasantly we treat its interests the more respect we shall acquire for it.

The question in the minds of everyone is—will the sale of the bar continue throughout the summer months, and can the necessary attention be accorded it for a continuance of the present increasing demand, or would it be wiser to anchor it during the summer months in order to stimulate winter business, during which time its manufacture can be handled more advantageously.

Since there is no special make-up to the ice cream end of this bar manufacturing business, and considering the fact that chocolate is an all year round seller in all stores, soda fountains and confectionery shops, one could not but be prompted to believe that the manufacture and sale of the chocolate covered ice cream bar should prove of good financial interest to all concerned. Ice cream manufacturers have now in a measure overtaken a lead as established by the candy manufacturers, who have long considered the importance of pushing bar and package goods. It appeals favorably to the dealer, who appreciates the fact that extra labor in the way of weighing, wrapping, etc., has been eliminated, and it wins the favor of the public, who much prefer to purchase a form of goods of known branding, properly wrapped, with weight, etc., properly shown. Again, such a package is much more attractive, gaining favor from a sales or advertising point of view.

The introduction of chocolate coated ice cream bars has caused some unrest to the candy manufacturers. It has given them something to think about, since it is plain to see that it has reduced the sale of chocolate coated candy goods. The move to which we should all give serious consideration at this time is some action to take towards increasing the demand for the chocolate covered ice cream bars, and to have them recognized by our dealers as a very lucrative sales proposition, with little action involved on their part in the upkeep of the advertising campaign. We should also point out to them the reasons for regarding them highly, not only as a confection of real merit, but as a delicious dainty in the purest form, in which is embodied the nutritive value of a pure food product.

When we jump in our Lizzie for a spin around the old town, we are confronted with the necessity of putting the juice to her to have her climb the hill. At such times we disregard the thought of having the car make the grade alone. Now let's couple the chocolate coated ice cream question with the Ford situation; the popularity of this car was achieved, not only by a mere introduction on the public market, but by an everlasting sales effort to gain favor over the fore-running competition. As in all cases where endurance and perseverance is the predominating factor, the Ford won out in popularity, and so will the chocolate coated ice cream bar.

F. E. ROBINSON,
Mgr. New Orleans Sales Office, United Chemical and Organic Products Company.

SOUTHERNERS, CAN YOU ANSWER THIS QUESTION?

Have just read in your March issue the contribution on the staying power of chocolate coated bars. We surely are considering this question here. We are using the best vanilla cream we know how to make, and covering with the highest grade coating we can find. Our regular cream sales have about doubled in the past eight weeks. Yet our sales have dropped over 50 per cent, and are still on the down curve. From reports we have heard, other concerns in greater Boston are fully as hard hit. I believe the question of "Quality" needs more emphasis as, it seems to me, the entire industry is seriously injured by the poor article sold by some manufacturers.

My object in writing, however, is to ask if you could not push your inquiries further, especially into southern territory, to ascertain how the bars stand the hot weather. I have been told by a salesman that they are selling well in Florida, and are keeping in good shape in that climate. Could you verify this? Personally, I feel that chocolate coated ice cream is here to stay, and as you have said in your article, the individual manufacturer is the big factor in the case, we are putting in new hardening rooms and added machinery on this assumption. If I could get some idea of how the summer climate affects both the sales and the keeping qualities it would help in forecasting our work.

May I add, I appreciate very much the practical articles in your magazines, and such as the exposition on "Determination of Fat in Gelatin" in this March issue. It seems to be hard to get hold of real facts in ice cream work. I suppose because of constantly changing methods and new discoveries. Every new real fact helps, however.

Sincerely,
E. S. TURNER.

ESKIMO PIE



The Eskimo Pie idea included the tin foil wrapping. Nothing else would do.

People have learned to prefer the product wrapped in foil.

For the following reasons:

1. FOIL IS CLEAN
2. FOIL PROTECTS
3. FOIL LOOKS THE PART

There is no better way to wrap chocolate coated ice-cream bars than with foil.

There is no better foil made than Conley foil. Send for samples, prices and designs.

Conley Foil

Authorized by the Patentees of Eskimo Pie—The Russell Stover Company, Mallers Building, Chicago

Conley Foil
TRADE MARK

The Conley Foil Company
541 West 25th Street ~ New York City



The Emerson AUTOMATIC Eskimo Pie Chocolate Coating Machine

Capacity 250 doz. per hour.
Operated or fed by one girl.
Price $690.00

This machine picks up the ice cream, dips it, and discharges the finished piece without handling — the operator simply places the ice cream on the feed board —it is just what you need—makes a better looking pie with uniform coating and no large holes—better than spraying or hand dipping.

Made by

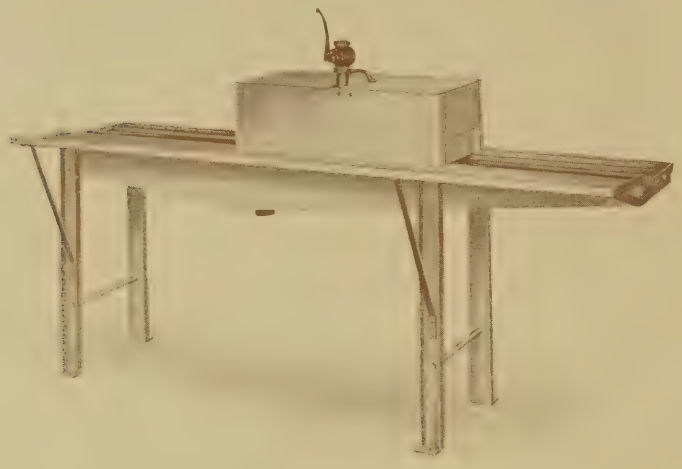
EMERSON MANUFACTURING COMPANY
1701 Madison St., N. E. **Minneapolis, Minn.**

SUCCESS RESULTS FROM BACKBONE, NOT WISHBONE—AND PROPER EQUIPMENT AND METHODS.

A RAPID BRICK MOLD RELEASER.

One of the most pressing problems of the manufacturers of chocolate coated ice cream is the question of turning them out fast enough.

The Luick Ice Cream Brick Mold Releaser is a device that not only will speed up the manufacturing process but it is more convenient and sanitary. The necessity of dipping the mold in a tank or tub of water, which soon becomes unsanitary, is avoided. The releaser delivers the brick from the mold in a solid brick instead of a brick that is mushy on the sides.



No power is required to operate this machine and it is simple of construction. The mold is placed in the machine and receives a spray of cold, clean fresh water which thoroughly washes off the dirt from the outside of the mold. Then every part of the mold is sprayed with hot water. The operator simply turns a whistle valve for one or two seconds prior to releasing the brick. The mold is removed from the machine, turned over on the table and is lifted off, the brick remaining in a true solid shape.

This device is manufactured by The Creamery Package Mfg. Company, Chicago.

MATTOON CREAMERY TO BUILD NEW FACTORY.

Mr. J. W. Kisner of Champaign, Illinois, has purchased the Mattoon creamery, and contracts have been let for the erection of a new building. This will be a one and one-half story brick structure, 130 feet long by 50 feet wide. The basement, extending the entire length of the building, will have a reinforced concrete floor. This building will be located on one of the most prominent streets in Mattoon. It is expected that the cost of construction will be in the neighborhood of $25,000, while an additional $15,000 will be spent for new equipment, including refrigerator systems, ice cream freezers, pumps, vats and boilers, to be installed for the manufacture of butter and ice cream, and the pasteurizing of milk.

A new company will be organized when the building is completed.

THE SUNDAE-ETTE.

Among the various brands or trade marks under which chocolate coated ice cream is manufactured and sold, is the Sundae-Ette. This name was adopted by The Sundae-Ette Company of Milwaukee. It differs somewhat from the other bars in that the ice cream is placed between two chocolate wafers, similar to the Nabisco Wafers and then is dipped in chocolate. It is said to have the advantage of holding its shape, the Nabisco on either side acting as a support for the cream, to prevent the chocolate from cracking over the entire bar when a bite is taken. The Sundae-Ette has appealed to the lovers of this confection and it requires a highly imaginative mind to conceive of anything more dainty or delicious. This confection has enjoyed a great success, not only in the volume of sales but in genuine customer appreciation and popularity.

A high grade wrapper is used, consisting of a foil wrapper, called "Radio".

The address of the Sundae-Ette Company is 377 Florida Street, Milwaukee, Wis.

ARCTIC ICE AND COAL COMPANY PURCHASES NEW PLANT.

The Arctic Ice Cream Company has recently purchased the ice cream plant and good will of the May's Ice Cream Company of Burlington, N. C. They are renovating and remodeling the plant, and just as soon as the new equipment is installed, the factory will be in operation.

The Arctic Ice Cream Company is owned and operated by the Arctic Ice and Coal Company, which is a North Carolina corporation with capital stock of $600,000. The officers of this company are W. C. Boren, president; J. W. Landreth, vice-president, and H. E. Cartlandt, secretary and treasurer, all of Greensboro, N. C. The company also operates plants at Winston-Salem, High Point, Wilmington and Greensboro, N. C.

Mr. J. O. Sharrard, formerly of the National Ice Cream Company, of Louisville, Kentucky, who, as manager of the company's Wilmington plant the past year, has been transferred to Greensboro, and has been made superintendent of the plant at this point.



STOP THIEF!

Arrest rust before he steals any more of your equipment and good name.

Dericote
PAINT YOUR PERSONALITY ON YOUR PACKAGES

arrests rust and rot in cans and tubs and protects your good name before the public.

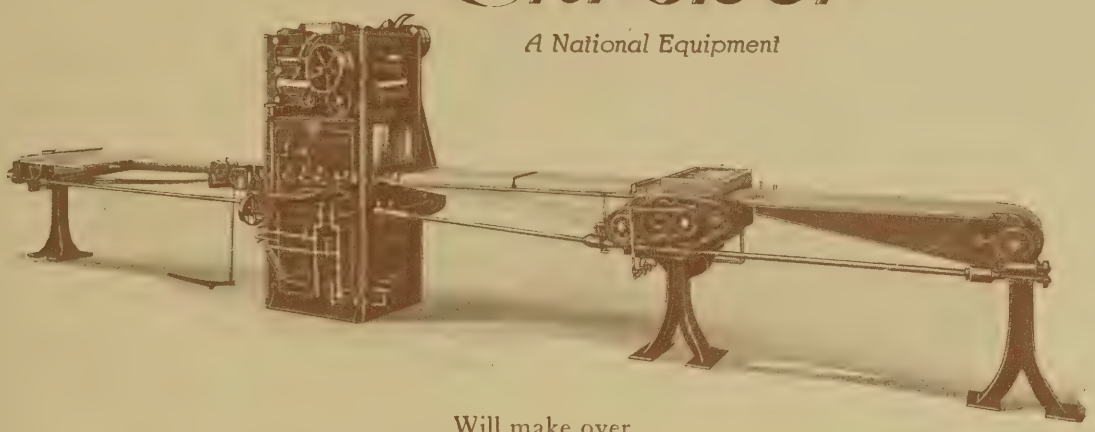
Made in 24 colors; not affected by washing, washing powders, salt brine, etc.

THE ASSOCIATION OF ICE CREAM SUPPLY MEN
MEMBER

The National Paint & Varnish Co.
CLEVELAND, OHIO

The Enrober

A National Equipment



Will make over

10 Dozen Ice Cream Chocolate Coatings a Minute

That's the fastest, cheapest and best way to coat the popular ice cream confection.

One complete Enrober and 1000 pound melting kettle will do the work of from 15 to forty dippers, and do it more efficiently, uniformly, sanitarily—with a big savings of time and space The Enrober is a substantial, economical machine and is used by the largest chocolate coating candy manufacturers in the country.

We are prepared to give immediate service. Wire for particulars.

NATIONAL EQUIPMENT CO. *Largest Manufacturer of Candy and Chocolate Machinery in the World* **SPRINGFIELD, MASS., U.S.A.**

Eskimo Pie Boxes

A TWO-PIECE folding box especially made to hold this new frozen product. Shipped flat, weight ninety pounds to the thousand.

We are also glad to quote on wire handled or tape handled ice cream pails and one and two-piece brick boxes.

Our service department will be glad to send samples and quote prices

The Peerless Paper Box Mfg. Co.
1137 West 6th Street : Cleveland, Ohio

Any kind of folding box for every kind of business

PEERLESS BRAND CLEVELAND

ESKIMO PIE BOXES

"DIFFICULTIES ARE THINGS THAT SHOW WHAT MEN ARE."—EPICTETUS.

THE MANUFACTURERS' POINT OF VIEW.

(Continued from page XIV)

er, in direct contradiction to some of the above statements. We do not know whether this man was taking into consideration any additional equipment or labor in making the statement that his profits were satisfactory, but the tone of his entire report was of such an optimistic nature that we presume he must have found his returns pleasing. Up to the present time this factory has been cutting, dipping and wrapping these bars by hand, but have an automatic cutter on order, which they expect to put in operation soon. Their capacity is about 1000 dozen a week.

One point that a number of dealers report as being in favor of the bars is that they are so very easy to sell and serve that practically all expense in this connection is eliminated. Taking this into consideration, one is led to wonder whether this would not counterbalance the expenses involved in re-icing and packing.

Summarizing, the consensus of opinion seems to be that the manufacture of these bars is profitable in winter where the volume of sales is great enough and idle equipment can be used, but that the industry is not yet on a sufficiently economical basis to make it profitable under any and all conditions, and the outlook for the summer is doubtful because it still remains to be seen whether the volume of sales will offset the additional overhead expense that the warm weather will make inevitable.

Question No. 15—Have coated ice cream bars increased total winter gallonage?

Only about one-fourth of those who answered this question found that the bars did not increase their total winter gallonage.

"Not known yet; winter is not over yet," we are gently reminded by a Connecticut factory owner. It's supposed to be over, according to our almanac, brother. We're afraid the Connecticut weather man is having a little joke at your expense.

A California manufacturer says that it is very difficult to make an estimate that approaches accuracy in any degree, because, due to the wet season in that state, business as a whole has been slow. However, he states that 1922 has already shown an increase, and the prospects for the year are excellent.

Several manufacturers make the statement that the total winter gallonage is increased only by the quantity of ice cream used in the manufacture of the bars, and, since there are as a general thing 72 to a gallon, a very great number would have to be sold before there would be a noticeable increase in the gallonage. However, in a factory that would have been practically idle during the winter had it not been for the manufacture of these bars, even a moderate volume of business would be an appreciable increase.

It is quite evident, however, from the proportion and nature of these replies that there has been a good portion of ice cream sold this winter in the form of these bars that otherwise would not have been on the market at all, and, considering general financial conditions, this commodity has played an important part in keeping up the winter consumption of ice cream.

Question No. 16—If so, what percentage over last winter?

Out of the replies received to this question, twenty per cent showed an increase of 10 per cent, 12 per cent showed an increase of 20 per cent and an equal number showed an increase of 25 per cent, four per cent showed an increase of 30 per cent, eight per cent increased 35 per cent, twenty per cent increased 50 per cent, twenty-four per cent increased 100 per cent and four per cent increased 200 per cent.

In one case, of which we make an exception, the manufacturer reported an increase of about 500 per cent. His factory is located in a Georgia city of about 53,000 population, and his weekly capacity is approximately 2000 dozen.

Question No. 17—Have you made any effort to sell coated ice cream bars at cigar stands, grocery stores, and other places where ice cream is not generally sold?

About two-thirds of the manufacturers answering this question had tried selling these bars in places where ice cream is not generally sold, with varying degrees of success. The biggest customers of this class of retailers are cigar stores, bowling alleys and pool rooms, with bowling alleys heading the list, probably due to the fact that the strenuous physical exercise creates a type of appetite that these bars are particularly suited to appease. Because they are easy to serve, they would seem to be the ideal refreshment for places of this kind. Some manufacturers have found these places to be their largest customers. Another place where these bars are sold with a fair degrees of success is in the soft drink emporiums formerly known as saloons. As a general thing, this commodity is not handled with an even satisfactory degree of success by grocery stores, mainly on account of the refrigeration problem. Where cabinets are furnished by the manufacturer, the trouble and expense of keeping them iced is not justified by the moderate volume of business done by these stores.

Question No. 18—If so, with what success?

Opinions expressed in reply to this question range from expressions of enthusiasm from manufacturers who find that these places are their best customers, to indication of indifference to cultivating this class of trade by manufacturers who find that they are rendering packing service at a loss, unless the volume of business is very large.

In fact, from the standpoint of both manufacturer and dealer, the only serious difficulty encountered in selling the chocolate covered bars in places where ice cream had not been sold at all before the introduction of these bars, is the problem of keeping them properly frozen. They feel that, due to the fact that in these places many bars are sold in a soft, sloppy condition, the general popularity of these bars will be detrimentally affected, and will injure the business in the long run.

In this connection, one manufacturer who does not cultivate this class of trade says, "We have entirely too many little dealers of this description handling ice cream in summer, who lose money for all concerned, and we do not wish to encourage them. They would probably increase the total sales somewhat, but where packing is furnished, would do so at a loss."

However, the majority of manufacturers and dealers find this trade to be profitable and successful in spite of these difficulties. It brings the manufacturer business that he otherwise would not have at all, and any trouble or expense on the part of the retailer is largely offset by the negligible expense in actual selling and serving. In only one case did the manufacturer feel that this business was gained at the expense of the regular dealers.

Question No. 19—What is your estimate of the total sales of coated ice cream bars per week in your city (dozen)?

The figures given in reply to this question showed such widely varying proportions that, in order to give a better idea of how the estimated consumption of these

Protect Your Supply of Foil Wrappers

NO ONE will venture to estimate how many hundreds of millions of the chocolate coated ice cream pies the public will consume this summer—or how many millions of foil wrappers purchasing agents will have to find *somewhere*. But we know that customers who are protected by a contract with us will be well cared for.

Master Metal wrappers have proven to be the one best wrapper for chocolate coated ice cream blocks.

UNITED STATES FOIL COMPANY
INCORPORATED
LOUISVILLE KENTUCKY



Patent Applied For

WRITE FOR FURTHER DESCRIPTION

List price **$15.00** *Each*

LIBERAL QUANTITY DISCOUNT.
ORDER A SAMPLE NOW.

A Self Advertising Counter Cabinet

Here is the Cabinet that solves your problem of keeping Eskimo Pies or Individual Portions—

Capacity eight dozen —

Keeps cream hard 36 hours with one icing —

Ice compartment and cream compartment have individual doors —

Cabinet is self advertising. Three sides arranged to carry card signs, and is well worth purchase price for advertising value.

Manufactured by

Virginia Tub Company
(INCORPORATED)
BRISTOL VIRGINIA

bars run, we will give the actual figures as received from different parts of the country:

UNDER 5,000 POPULATION.

City—State.	Population	Weekly consumption (doz. bars.)
Olney, Illinois	4,400	150
Cherryvale, Kansas	4,600	50
Decatur, Alabama	4,700	400
McCook, Nebraska	4,300	40
Burlington, Wisconsin	3,600	50
Decatur, Indiana	4,762	75
Pipestone, Minnesota	3,300	50
5,000 TO 10,000.		
Malone, New York	7,000	200
Hopkinsville, Kentucky	9,600	200
Macomb, Illinois	6,700	150
Rhinelander, Wisconsin	6,600	300
Oskaloosa, Iowa	9,400	140
Marshfield, Wisconsin	7,400	150
Owatonna, Minnesota	7,300	280
Fremont, Nebraska	9,000	150
10,000 TO 25,000.		
Marquette, Michigan	12,600	650
Ann Arbor, Michigan	19,000	1,000
Selma, Alabama	15,500	700
Freeport, Illinois	19,600	550
Grand Forks, No. Dakota	14,000	500
Marion, Indiana	23,700	900
Ironwood, Michigan	15,700	300
Reno, Nevada	12,000	100
Santa Ana, California	15,400	1,800
Clinton, Iowa	24,000	200
Meridian, Mississippi	23,400	1,400
25,000 TO 50,000.		
Winston Salem, No. Carolina	48,300	4,500
Cumberland, Maryland	29,800	1,500
Decatur, Illinois	43,800	1,000
Shreveport, La	43,800	2,000
Bloomington, Illinois	28,700	500
Bellingham, Washington	25,000	1,500
San Jose, California	39,600	2,000
Fresno, California	45,100	5,000
Everett, Washington	27,600	2,500
Stockton, California	40,000	2,000
50,000 TO 100,000.		
Lansing, Michigan	57,000	2,200
Ft. Wayne, Indiana	86,000	1,900
Rockford, Illinois	66,600	150
Racine, Wisconsin	58,500	2,000
Sioux City, Iowa	71,200	1,000
Harrisburg, Pennsylvania	75,900	2,000
Tulsa, Oklahoma	72,000	1,000
San Diego, California	74,600	2,800
OVER 100,000.		
Columbus, Ohio	237,000	1,193
Atlanta, Georgia	200,000	13,500
Norfolk, Virginia	115,700	10,000
Bridgeport, Connecticut	143,500	2,000
Kansas City, Kansas	101,000	2,000
Baltimore, Maryland	733,000	12,000
Buffalo, New York	506,700	11,000
Louisville, Kentucky	234,800	1,750
Salt Lake City, Utah	118,100	4,000
Philadelphia, Pennsylvania	1,823,800	60,000
Tacoma, Washington	100,100	1,500
Springfield, Massachusetts	129,600	1,000
Los Angeles, California	576,700	1,500
Milwaukee, Wisconsin	458,000	14,000

The population of the cities named in this list are only approximate, as they are given in round numbers, and are taken from the 1920 census figures.

On the average, it may be noticed that the per capita consumption runs somewhat higher in the southern and eastern sections than in the northern and mid-western, with the western portions of the country about between the two. Even allowing for inaccuracies in estimating the consumption, the difference is so general that it may be taken as a safe indication.

However, taking each section separately, it will be noticed that towns fairly near each other differ greatly in per capita consumption. This seems to signify that, assuming that conditions are equal in both places, in those localities where the consumption runs higher, the demand for these bars has been stimulated more extensively by dealers, manufacturers, or both. This apparently indicates that the field for the sale of these bars is not being pushed in many territories to the extent that it could be, and that the per capita consumption could be increased to a point a great many times higher than it is at the present time.

NATIONAL INDUSTRY TO HAVE ITS OWN GREAT WEEK.

The following announcement has been made by The Association of Ice Cream Supply Men:

"The National Association of Ice Cream Manufacturers has notified this association of the former organization's directors' acceptance of the organized supply men's invitation to hold the 1922 convention of the National Association of Ice Cream Manufacturers in Cleveland, in conjunction with a National Exposition of the ice cream industry.

"In conference with officers of the National Association of Ice Cream Manufacturers the week of October 16th has been picked for a joint Convention-and-Exposition of national scope.

"Its opening date slightly preceding the close of the convention of the National Association of Ice Cream Manufacturers—the dates of which have been set by its proper authorities as October 16th, 17th and 18th. The Association of Ice Cream Supply Men will open its exposition in the $6,000,000 public hall in the heart of Cleveland, the newest, most magnificent and ideally-equipped exposition building in the country. Until the close of the week ending October 21st, this great exposition of machinery, equipment, services and supplies, with added and novel educational features, will be open to the ice cream manufacturers of the United States, Canada and foreign countries.

"The Association of Ice Cream Supply Men is already preparing its campaign, to be effected through its 100 members scattered from coast to coast and through the more than 500 members of its affiliated Salesmen's Club who travel every state and county in the United States and Canada, to make the attendance at the combined Convention-and Exposition, transcend any gathering of the ice cream industry yet recorded.

"The heartiest support and co-operation has been displayed in the preliminary arrangements so far made by the officers of the two organiations. The Association of Ice Cream Supply Men is dedicating its efforts for the next six months to making the week of October 16th to 21st the national industry's own great focussing point of progressive interest and ambition."

CENTROX DAIRY COMPANY ORGANIZED.

Centrox Dairy is the new name applied by H. R. Schultz and Geo. Armstrong to the Douglas ice cream factory, which they recently took over. Mr. Schultz is president and Mr. Armstrong is secretary and treasurer. The company is capitalized at $20,000. It is their intention to remodel the present plant, and equip it for the manufacture of butter as well as ice cream.

"LET THE FIRST IMPRESSION BE GOOD"

BY ADOPTING

TIN FOIL WRAPPERS OF CHARACTER

PRINTED BY

THE JOHNSTON TIN FOIL & METAL CO.

MANUFACTURERS OF TIN FOIL

6106 SOUTH BROADWAY

ST. LOUIS, MO.

We have been established in this one industry since 1889 and our long experience in the art of printing Foil Wrappers, places us in position to guarantee High Class Workmanship, Prompt Service.

Write or Wire Us For Prices

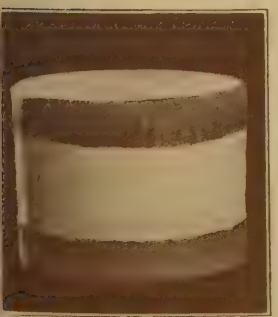
NO TROUBLE WITH WAFERS.

In reply to an inquiry regarding the keeping qualities of the wafers used in Sundae-Ettes, we received the following letter from the Secretary of the Waukesha Ice Cream Company:

"We are glad to say that we are having no difficulty in keeping the wafer on our Sundae-Ettes in good condition, provided, of course, that they are properly taken care of, as ice cream in general should be taken care of. We are using a filled wafer with very great success. We have heard that wafers not filled are not giving satisfaction.

I heard only recently from a man who had eaten one of our own make Sundae-Ettes which he was informed the dealer had then had on hand for two weeks, and which he found in good condition. In reality, however, it had been in the retailer's possession for three and a half weeks, and when a wafer can hold up that length of time, it must be pretty good. Nuf sed.

ANTHONY OLINGER,
Secretary Waukesha Ice Cream Co., Waukesha, Wis.



PART OF A SYSTEM.

This round container for Chocolate Coated Ice Cream Bars is designed to work into a system of selling ice cream that is being developed by The Hunt-Crawford Co. of Coshocton, Ohio. The container will hold one dozen pieces standing on end.



They are Ice Cream and Cake With Chocolate Sauce

Here It Is—The Best Yet in the Form of an Ice Cream Dainty

DEALERS all over the United States and the World now making this wonderful new and pleasing dainty.

Write or wire for full information or send for sample outfit which will make one thousand of these Polar B'ars and costs you very little.

The wafers we furnish are guaranteed to stay crisp.

Polar B'ar Sales Company

Belvidere, Ills.

MAKING CHOCOLATE COATED ICE CREAM BARS IN MINNEAPOLIS PLANTS.

Our representative has just had occasion to call at the Ives Ice Cream Co. and the Kemps Ice Cream Co. of Minneapolis where he had the pleasure of seeing a very novel arrangement for the making of chocolate coated ice cream bars.

Their method of preparing the ice cream is similar to that of other plants. The piece is cut to the proper size and placed back into the hardening room to become thoroughly hard and dry. It is then taken to an Emerson Chocolate Dipping Machine, as shown in the illustration.

This machine is quite different from others in its design, in that six pieces of ice cream are placed on a feed board by the operator; these pieces of ice cream are then automatically picked up and placed onto six pins; these pins then travel a short distance and a chocolate dipper covers the ice cream with chocolate. Instead of lowering the ice cream into the chocolate pot, the pot is raised to the ice cream itself. This chocolate pot has a heating equipment which continuously holds the chocolate at a temperature of about 99 degrees. This pot keeps raising and lowering automatically to take care of each lot of ice cream as it appears.



Photo taken in Ives Ice Cream Plant, Minneapolis, Showing Chocolate Coated Ice Cream Bar Dipping Machine in Operation.

The ice cream then passes on and remains in the machine about one minute and ten seconds, or long enough for the chocolate coating to become thoroughly hardened. At this point the bars are removed from the machine automatically without handling and are deposited on a wrapping table.

With this method very smooth and neat looking bars are produced. They are uniform in appearance. The large holes, caused by the hooks, as well as bubbles, etc, do not appear as has been the case in hand dipping.

This machine dips six pieces of ice cream at a time and this operation is repeated nine times a minute, so that the actual capacity is fifty-four pieces each minute. This capacity, of course, can be reduced if the operator doesn't want to feed so heavy.

One thing that impressed us was the ease with which a large quantity of bars could be produced in a short time, with so little effort and at a minimum cost.

GOOD ADVICE.

"If you want to succeed, son," said Uncle Eben, "you gotter learn to git jes' as busy an' enthusiastic over reg'lar work as you does over a crap game."

ICE CREAM MANUFACTURER INVENTS DIPPING MACHINE.

Mr. A. E. Schumaker, proprietor of the Hoosier Machine Works and the Puritan Ice Cream Company of Columbus, Indiana, has perfected an invention for dipping ice cream bars, which, though only recently placed on the market, has already achieved remarkable popularity. Mr. Schumaker states that, since this machine has been placed before the ice cream industry by advertising, the response has been almost beyond belief, inquiries coming in from coast to coast by wire, phone and mail.

The machine, which is illustrated in an advertisement elsewhere in this supplement, is compact in construction, occupying only five square feet of floor space. It is entirely made of aluminum, with the exception of the moving parts, which are of nickeled steel. It consists of three parts, an upper frame which contains all the mechanism, a chocolate pan and a water pan. The motive power is furnished by a small Westinghouse motor, which may be operated by either direct or alternating current. The method of operation is shown in the illustration contained in the advertisement.

The machine requires only one operator, and will dip from 100 to 160 dozen bars an hour. Mr. Schumaker says that in the plant of the Puritan Ice Cream Company Columbus, Ind., previous to the installation of this machine, three people were kept busy all the time making these bars. The output was about 100 dozen a day. But now the ice cream maker does most of this work himself. He cuts enough brick one day for two or three days supply, and the next day runs the machine for an hour or two and dips them. They are then wrapped by some of the other help.

In this way the entire supply for a day or two can be turned out in about two hours. It is also claimed that the number of bars from a pound of chocolate runs exceptionally high by use of this machine.

It is a simple substantial machine, perfected by a practical ice cream manufacturer, and used in his own plant.

A NEW WATERPROOF CUSHION GASKET.

Mr. Ed. J. Wirfs, former president of the National Refrigerators, Inc., has invented a new type of air cushion gasket for cold storage and refrigerator doors, sectional cooling room and refrigerator joints, etc., that promises to be an important source of economy to the industry.

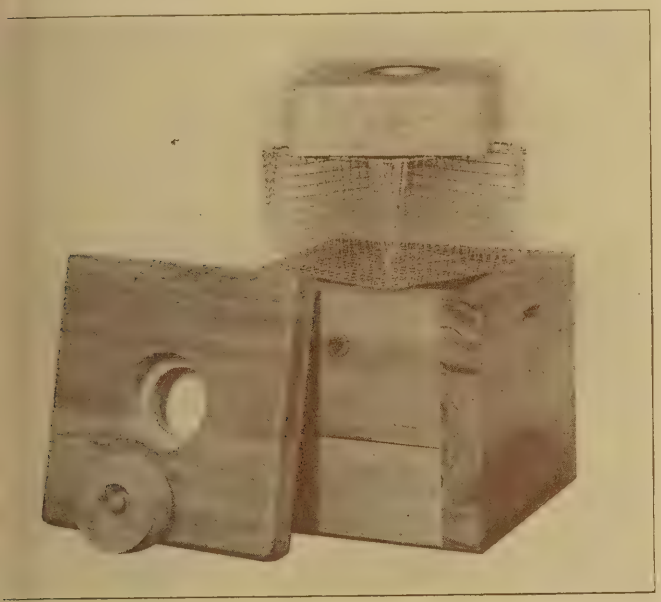
Mr. Wirfs realized the fact that a cold-air leaking refrigerator or cold storage room of any size or type represented a continuous loss to the owner. With the object in view of making refrigerator doors, windows and drawers, as well as the joints of portable refrigerators and cooling rooms, permanently airtight through constant use, he conceived the idea of introducing this gasket. Prospective buyers were quick to see the economy and usefulness of a resilient cushion gasket of this type, with the result that the feature proved very successful.

It is the firm belief of Mr. Wirfs that the waterproof cushion gasket is destined to come into universal use, as it is important in producing an airtight refrigerator, cooling room, cold storage rooms, etc. It will help minimize the ice consumption, and will make it easier to maintain a uniform temperature.

PECIAL REFRIGERATING CONTAINERS FOR CHOCOLATE COVERED ICE CREAM BARS.

A special container has been developed by the Amer-an Balsa, Inc., for handling chocolate covered ice eam cuts. It is a further refinement of the small ix made by the same company for this purpose and designed to hold 30 dozen cuts so that they will be in st class condition and yet easily available for sale.

The cuts are stacked in a basket which sets into a alsa box, and on the basket rests a refrigerating pad furnish dry, clean refrigeration.



The box is made of 3 inches of Balsa and has a plug pe cover fitted with a miniature serving lid, giving a ole 5 inches in diameter. The refrigerating pad has a milar hole and the cuts are shipped with a minimum isturbance of the cold air inside.

There are no projections on the outside of these oxes, so they will stack easily. If desired, boxes may e filled at the factory and delivered in an open truck ithout special body equipment.

This company also manufactures a portable insulated ontainer or "vending box" for use at baseball parks, ailroad stations, etc. This box, which is slung from he shoulder, is replenished frequently from a supply abinet and even in summer will hold the bars in salable ondition for the short periods required without addi-ional refrigeration.

GLOBE ICE CREAM FACTORY TO OPEN NEW PLANT.

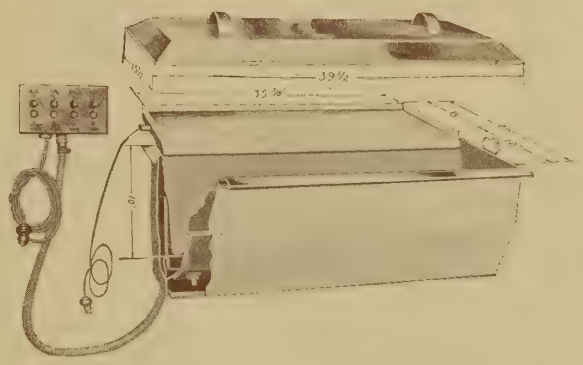
The Globe Ice Cream Company are making rapid rogress with the construction of their new factory lo-ated at the southwest corner of Jefferson and Hill Sts.

This factory is being erected at a cost of $400,000. he entire building is A-1 construction, and will contain he following departments: Strictly sanitary freezing nd mixing rooms with white glazed tile walls and white namel ceilings; a battery of 12 new type freezers will perate in the freezing-room, which will be in full view rom the sidewalk. The mixing room will contain 12 000-gallon glass lined tanks.

The power plant, which will be tremendous in size, ill also be in full view from the sidewalk in front of he buildings.

The newest types of machinery are being installed hroughout, regardless of cost. A complete laboratory

Better Eskimo Pies



Bigger Profits

Isn't that what interests you? You can't accomplish it with temporary makeshift equipment. Nor is it necessary to tie up a large amount of money to obtain efficient production.

INTERNATIONAL *ELECTRIC* Chocolate Heaters

mean smoother and more uniform coatings. They speed up production and lower overhead costs. International Heaters are inexpensive and are economical to operate. They are made in five sizes—25 lbs., 35 lbs., 100 lbs., 150 lbs. (with double pans for two dippers), and 175 lbs.

Write today for complete information and detailed description of these heaters. Tell us what quantity production you are interested in.

Eliminate that fire hazard.

Ask for Bulletin "EP".

INTERNATIONAL ELECTRIC COMPANY
MANUFACTURERS
ELECTRICAL HEATING APPLIANCES
INDIANAPOLIS, U.S.A.

Distributed by

H. A. Johnson Co. Boston, Mass.
Crandall-Pettee Co. New York, N. Y.
Henry J. Walz Co. Inc. Buffalo, N. Y.
The Weideman Co. Cleveland, Ohio.
Savage Bros. Co. Chicago, Ill.
Bessire and Co. Indianapolis, Ind. Louisville, Ky. Atlanta, Ga.
Jas. A. Harper Supply Co. Kansas City, Mo.



H. C. Schranck Co. Milwaukee, Wis.
Gray Mfg. Co. Spokane, Wash.
Gray, McLean and Percy, Inc. Portland, Ore.
L. DeMartini Supply Co. San Francisco, Calif.
Southern California Supply Co. Los Angeles, Calif.

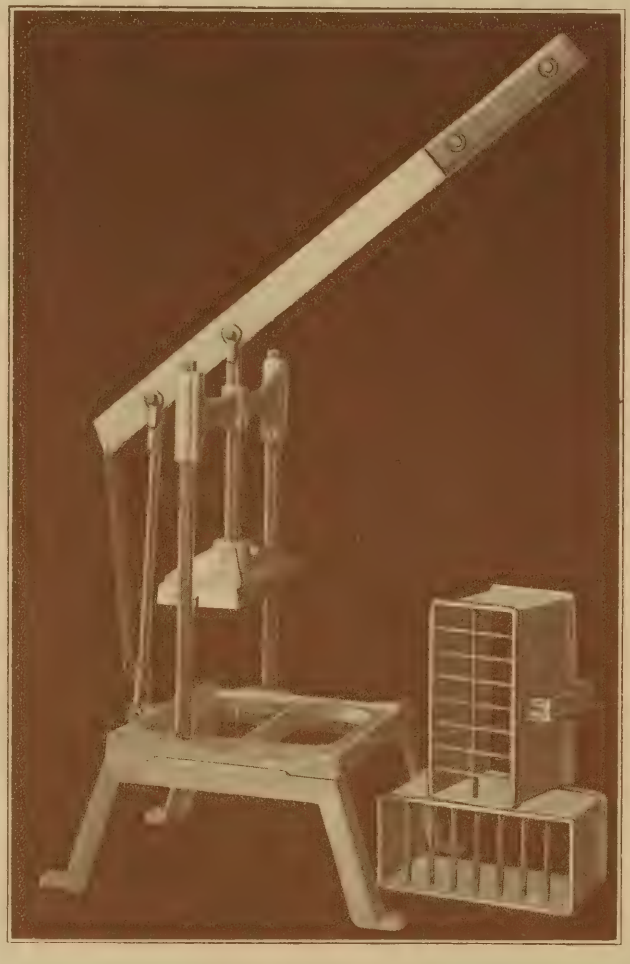
"International Electric Heaters Are Better"

ICE CREAM MIX READY FOR FREEZING IS ON THE MARKET.

IF YOU MAKE

Eskimo Pies

you can increase your output—increase your profits—make better Pies by using



THE ECONOMY

Ice Cream Cutter

Simple to operate—Durable—Saves time and labor—Cuts quart bricks into 16 equal parts for Eskimo Pies and 8 equal parts for Parties and Banquets.

Compresses edges, cuts a nice smooth surface and saves Chocolate.

Machine is made of Aluminum and Brass. Easy to keep clean.

We have so much confidence that this is the cutter you want we will ship to any point in the U. S. A., on ten days trial C. O. D. or on receipt of price $85.00 F. O. B. Salina, Kansas.

Patent applied for.

Lorenson & Raplee Machine Works

Salina Kansas

REFERENCE—Farmers National Bank

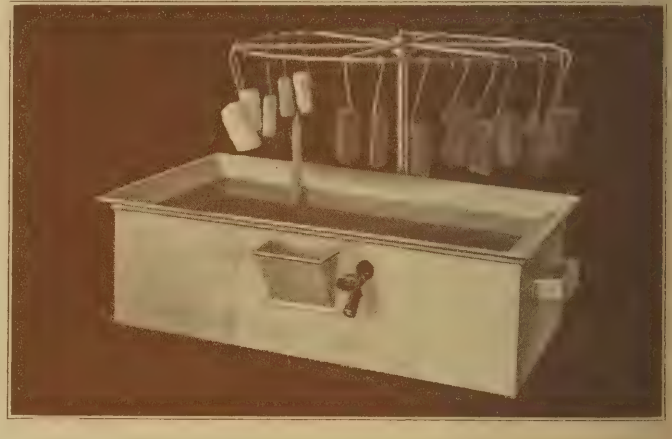
is being installed, which will be in charge of a competent dairy milk and ice cream chemist, this being necessary to insure absolute purity in all raw materials entering the manufacture of high-grade ice cream. Pure fruits will be used in season, and naturally, when the season is off, preserved fruits of the highest quality will be used. The new Globe Ice Cream Company will be ready for operation about June 1st.

The officers of the Globe Ice Cream Company are: Will E. Keller, president; A. A. Comey, vice-president and general manager; Marco Hellman, treasurer; J. M. O'Brien, secretary. The directors are: Will E. Keller, A. A. Comey, Marco Hellman, J. M. O'Brien, C. A. Fellows and Carl Leonardt.—Los Angeles Record.

A HANDY SMALL OUTFIT.

This is made by the Davis-Watkins Dairymen's Mfg. Company. It consists of a water-jacketed, chocolate melting kettle equipped with an electric heater suitable to attach to the ordinary electric lighting wire. It carries a thermometer which is fastened inside the chocolate kettle so that the operator can tell at all times the exact temperature of the chocolate.

It is arranged for operation for either two or three girls. One sticks the wire into the pieces of ice cream and hangs them on to the revolving wheel. Another girl



takes from the wheel two at a time, dips them into the chocolate and hangs them on to the wheel again. Another takes them off for wrapping.

The chocolate quickly dries on the ice cream so that the dripping chocolate drips right back into the kettle.

This is certainly a very handy outfit and very satisfactory for speedy work. The outfit costs little money and is very simple to operate. Many ice cream companies are now using one or more of these outfits, depending on the output of the plant.

Complete details will quickly be furnished if you will write either on a letter or postal card, "Please send information and price regarding Progress Eskimo Pit Outfit," and send it to the nearest office of the Davis-Watkins Dairymen's Mfg. Company.

KEMP ICE CREAM FACTORY ROBBED.

John Johnson, watchman at the factory of the Kemp Ice Cream Company at St. Paul, was overpowered by four yeggmen about 3 a. m., Friday, March 31st. The men pounced upon the watchman as he was entering the basement, bound and gagged him, opened the safe, and escaped with $1,500. Two other employes in the basement at the time were unaware of the robbery.



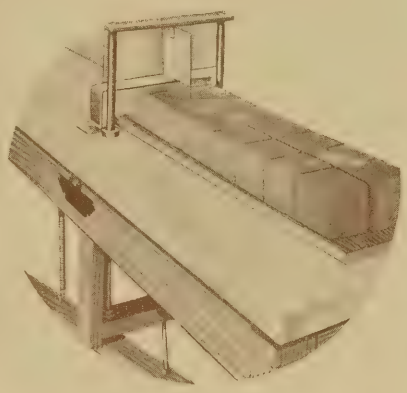
Jiffy Ice Cream Cutter

Will cut any shape that can now be cut with the most expensive ice cream cutter. It will do it just as fast and with only a little practice.

It cuts Eskimo Pies uniformly and the quantity is only gauged by the speed of the operator.

Pints or Quarts require only the omission or insertion of the projecting knife shown in illustration to the right.

Non-rustable table of substantial construction.



Two Weeks Free Trial Offer

To any responsible ice cream manufacturer we will ship one of these cutters on two weeks free trial. Put it to any test. Make any comparison you desire. If not satisfactory all you have to do is to write for shipping instructions and we will pay freight both ways.

Illustrated circular sent on request.

DAMROW BROTHERS CO.

MANUFACTURERS

Fond du Lac Wisconsin

CASHING IN ON THE NORTH POLE.

If the manufacturers of chocolate covered ice cream products will reflect for one moment on the pictorial and artistic allies awaiting them in the advertising of their products, they will be amazed to see the vistas which open along lines that have not already been overworked.

Pity the poor advertiser who gets out a new collar or a new silk stocking! Can you conceive of any new art angle to advertise them which is not reminiscent of Arrow Collars or Onyx Hosiery?

The North Pole at Your Service.

But here we have the entire polar region—so little known in the majesty and beauty of its coloring. Here is a new, fresh, pictorial advertising angle just waiting for the wide-awake manufacturer to link hands with the artist and present it to the public.

It will impress itself through the cooling suggestion of polar scenes of a color range entirely new to the public's eye. The Aurora Borealis, for instance, transformed into advertising designs, is just one suggestion of what a color appeal this "polar" approach would offer in the marketing of chocolate covered ice cream bars.

Why follow in the train of the conventional?

Has this delicious food confection come to stay?

It has. So has the advertising to promote its sales—and in just the ratio of this advertising attractiveness and appeal will the wide awake manufacturer benefit by the opportunity the polar regions offer as a picture.

Cool Colors for Ice Cream.

Experiments in the studio have proved that in order to create the appetite appeal for ice cream the range of colors must be intelligently chosen. Certain shades of blues, greens, lavenders and cool colors picturize the nature of ice cream in all its cooling suggestiveness—whereas reds, browns and other warm neutral tones have the opposite effect.

Here is a rare opportunity to reap the benefit of a fresh new pictorial approach on your advertising. It is an opportunity that means not only more sales but also a contribution to modern advertising art.

Try it on your artist—and watch him respond. It is the "thrill that comes once in a lifetime."

A. W. HUTAF,
Ivan B. Nordhem Company, N. Y.



You'll make better ice cream if you get the "Ice Cream Review."

TO MANUFACTURERS OF

ESKIMO PIE

WIRE OR WRITE FOR PRICES

ON PRIME BRANDS

COCOA BUTTER

FOREIGN OR DOMESTIC

FRANK G. ALDEN, Inc.

26 BEAVER ST. NEW YORK

Boxes for packing

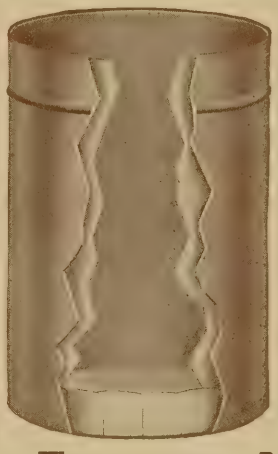
ESKIMO PIES

AND OTHER CHOCOLATE COATED ICE CREAM, CARRIED IN STOCK.



Ice Cream Boxes of "Distinction"

OUR SPECIALTY



BRICK BOXES
in all styles
Plain or Paraffined

PAILS
SENATE—EASY CLOSING
JACK FROST
Tape and wire handles

THIS
"CHICAGO" CAN LINER
has many features you should investigate

Send for Samples and Prices

Ferguson-Lander Mfg. Co.
1733-1737 W. Austin Avenue CHICAGO

BUY

Forbes

ALASKA COATING

A combination of High Grade Milk Chocolate, Chocolate Liquor, and Pure Cocoa Butter, prepared especially for Eskimo Pie.

Write for sample

The Forbes Chocolate Company
CLEVELAND OHIO

OUTLOOK FOR SUMMER BUSINESS.

In complying with your request to write an article pertaining to the manufacture of chocolate coated ice cream bars, I wish to say that I am at a loss just how to express myself.

The manufacturers started the chocolated ice cream bar in this state Jan. 11 to Jan. 18th, and the following week I believe they did more business than anyone expected. This demand kept up to about the 10th of February, and since then there has been a steady decrease.

The manufacture of this chocolate bar is done in this state without extensive equipment, a double bottom boiler heated by an oil stove set in a table, with a wire strung above this table, and drip pans to catch the chocolate until the bar dries. The cutting is done by a brick knife. This is about all the equipment that the ice cream manufacturers who make the bars have at present.

From experiments we made in our plant we find there is quite a difference in the different kinds of Milk Chocolate used for coatings. We have so far found only one kind of coating that nearly fills the requirements that we have set out for it, and we have experimented with nine different kinds. Most of the coatings are too crisp, while some are too rubbery, some dip too thick and others dip too thin a coating. We have set a mark that coating costing us more than 12c per dozen is too expensive.

The cause for decrease in demand for the bar can be laid to several causes. One main cause is that the margin for the retailer in the country towns where ice costs them a cent a pound and express 5c to 8c per dozen, with the chance of losing some, is too small to operate on.

Another cause is the margin to manufacturer is too small unless he has a large volume of business. Most firms have not equipped themselves so that they can make bars with the minimum expense of labor.

One great good that this bar has done is that it has given a taste of ice cream to people that otherwise never would have tasted it, simply due to the novelty of the bar.

G. A. MEYER,
Grand Prairie Ice Cream Co.,
Stuttgart, Arkansas.

WILL TAKE A VACATION.

Mr. E. G. Rippel has resigned his position as sales manager with the Buffalo Foundry & Machine Co., Buffalo, N. Y., in order that he may take a much needed rest and be away from all business cares. Mr. C. W. Pearson, formerly assistant treasurer of the firm, has succeeded Mr. Rippel as sales manager.

Mr. Rippel organized the Buffalo Foundry & Machine Company 21 years ago and has built up the business from a $10,000 corporation to its present enormous proportions. He has been a consistent believer in extensive advertising and trade exhibits, backed up by quality goods. Visitors to the 1921 National Dairy Show still recall the wonderful exhibit put on by his firm there.

Mr. Rippel's many friends will wish him well in whatever business plans he may have after he has had his vacation. He is still a young man and, we predict, can not remain inactive very long.

HOOTON'S

Milk Chocolate Coating

Specially Made For

ESKIMO PIE

DELICIOUS FLAVOR BEAUTIFUL COLOR

READY FOR USE

PURE CHOCOLATE WITH PURE COCOA BUTTER ADDED

We also manufacture high grade dark color COCOA POWDER

HOOTON CHOCOLATE COMPANY

(ESTABLISHED 1897)

NEWARK NEW JERSEY

RYAN'S EXHIBIT AT SOUTHERN EXHIBITION.

It may be a little late but "it is better late than never," to publish a picture of an exhibit at Southern Exhibition of the Association of Ice Cream Supply men. The illustration below is of the booth of the G. R. Ryan Manufacturing Company at the supply men's show in Atlanta last November. The G. R. Ryan Manufacturing Company are dealing in vanilla and vanilla blends exclusively. According to Mr. G. R. Ryan, the aim of this house is "To do at least one thing well, to produce something that is a little better and that gives a little more satisfaction; to gain your entire confidence and in return give you a security in our products that will develop your own means and purpose." The offices of the G. R. Ryan Manufacturing Company are at Rochester, N. Y.



"PROSPERITY PROVES THE FORTUNATE, ADVERSITY THE GREAT."—PLINY.

REASONS FOR THE DECLINE IN SALES AND SUGGESTIONS FOR THEIR INCREASE.

The problems confronting the ice cream manufacturer in the making of chocolate covered ice cream bars are being greatly simplified by the use of various devices for dipping and drying. The main difficulties are to maintain definite temperatures of the chocolate, the ice cream and the room in which the dipping is done. Many of the details have already been explained in an article in the February issue of the Ice Cream Review. In this number the definite temperatures at which the ice cream and the chocolate should be maintained were touched upon. The dipping room should be kept at about 65 degrees F. A cooler room will not interfere in any way except to be an inconvenience to the workers. A higher temperature, by increasing the moisture content of the air in the room, may result in an excessive amount of sweating on the chocolate after hardening.

Lack of uniformity has been one great contributing cause in the decreased sales of the bar. Some manufacturers started out by using a good grade of ice cream with a high butter fat content and when the initial sale of the bar was at its height changed to bulk cream. Many manufacturers are using too thin a chocolate coating with the object in view of reducing the material cost. I think this is a great mistake for several reasons. Thinly coated bars have a tendency to split or crack more readily while being shipped and handled, thus destroying the salability of the bars. If the cream is the least bit soft a very slight pressure of the hand on such a bar when being eaten may cause the cream to spatter on the individual eating it. When the cream is very hard a thinner coating will probably eat with less splitting than a heavier one but the average manufacturer cannot control the condition of the bar all the way to the consumer. The buying public is quick to notice a thin wafer like covering and it gives them an additional reason for thinking the bar is too small for a dime.

Chocolate covered ice cream bars are delicious and satisfying when properly made from high grade ice cream, properly coated with a full cream milk chocolate or a good vanilla chocolate coating and thinned with pure cocoa butter. There is a quality of chocolate coating best suited for the standard each ice cream bar manufacturer has adopted for his ice cream. It is obviously out of order to apply a poor grade of chocolate to a high grade ice cream and it would be equally unwise to attempt to make a high grade ice cream bar by coating a low grade of cream with a high grade chocolate.

The candy manufacturer seldom thins, to any great extent, a coating for the dipping of the cream centers, as he realizes that one of the pleasures of the candy consumer is to bite through a heavy snappy coating into the sweet cream center. High grade candies, almost without exception, are bound to be covered with a heavy coating of chocolate. What the candy manufacturer has learned through his experience should be of profit to the ice cream man.

Having established a standard of quality for the ice cream center and having selected a suitable coating to match the quality of the center, the next important step to consider is the equipment which will enable the manufacturer to compete successfully with those manufacturers who have grasped the importance of this new field of activity and provided themselves with the proper equipment for producing these bars at the lowest possible cost.

One of the best devices seen by the writer for the dipping of bars consists of a worm conveying arrangement for carrying the bars away from the dipper, removing the wire and placing them in position to be wrapped. An electrically heated tank for the chocolate is placed at one end and contains a thermometer in full view of the operator at all times, indicating the temperature of the water bath.

The introductory work in the sale of chocolate covered ice cream bars has been handled in many cities in a masterly manner and with the result that the public is thoroughly sold on the idea.

There is another field which is open to the ice cream manufacturer, not necessarily as an outlet for chocolate covered bars, but as a further means of increasing the consumption of ice cream. The time is coming shortly when the large chain five and ten cent stores and department stores will install machines for the dipping of ice cream bars in full view of the buying public. There are certain machines on the market at the present time which require but one or two operators and a very small amount of space. Such a machine would be ideal for the purpose. The department stores will then look to the ice cream manufacturer for his cream with which to produce these bars. An additional outlet for ice cream which the manufacturer has long been looking for will thus be created.

The answer to the question "How long will the demand for chocolate covered ice cream bars last"? I repeat, as stated near the close of my article in the February Ice Cream Review, the situation is entirely in the hands of the manufacturer of this newest and probably most popular confection.

H. C. KNAUPF,
Forbes Chocolate Co.

ESKIMO PIE PHILOSOPHY.

Said Pie Crust Joe to Pie Crust Pete—
"This Pie Crust Game is hard to beat."
Said Pie Crust Pete to Pie Crust Joe—
"You sure have said a mouthful, Bo."

The Pie Crust Peddlers thus agree,
And view the game in harmony—
Both well aware that Ice Cream Pie
Is doomed to live a day—and die.

The reason for the quick demise
Of Eskimo, and Polar Pies,
Is chiefly 'cause, through greed and lust,
The makers use a rotten crust.

They've all forgotten what's at stake—
That Pies their mothers used to make,
And upon which they placed their trust,
Were never better than their crust.

If they intend to keep alive
The Ice Cream Pies, and make them thrive,
They'll have to learn to place their trust
Upon a high grade chocolate crust.

With this in view, their only hope
To keep alive the Cold Pie Dope,
Is by the slogan, "Best or bust,"
And use of Eline's Ice Cream Crust.

Said Pie Crust Joe to Pie Crust Pete—
"Eline's Pie Crust can't be beat."
Said Pie Crust Pete to Pie Crust Joe—
"You sure have said a mouthful, Bo."

—By Wayne Hornbaker,
District Manager, Eline's, Chicago.

Don't be without a position, when at a small cost you can locate one through the Want Department in The Ice Cream Review.

COAT ESKIMO PIE

WITH

ALASKA CHOCOLATE COATING

A High Grade Milk Chocolate READY TO USE

Prepared especially for Coating Eskimo Pie and any other Ice Cream Delicacies

If you want to build up a lasting trade use ***this*** Chocolate Coating.

It eats right, Looks Better, Dips Easy, ***Coats*** more Bricks, costs less when quality is considered.—Contains ***more*** milk Solids, and more ***Pure Cocoa Butter.***

Made only by

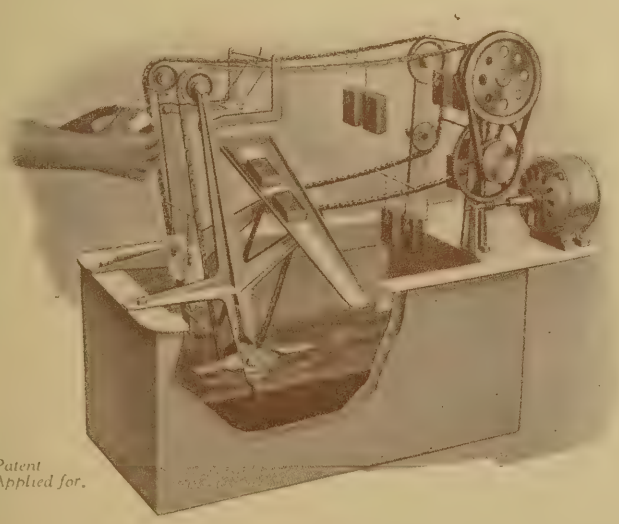
Ambrosia
REG. U.S. PAT. OFF.
CHOCOLATE CO.

331-333-335-337 Fifth Street - - MILWAUKEE, WIS.

Write or Wire for a SAMPLE CASE of 110 Lbs.

100 to 120 Dozen Per Hour

with ONE operator



Patent Applied for.

A Real Machine with which your spare help can do all the necessary dipping.

Study the illustration and note the simplicity and positiveness of operation.

The mechanical part can be quickly lifted off the jacketed coating pan. It occupies only a few square feet of floor space and can be operated from any light socket. Speed of chain is easily regulated. The amount of chocolate saved with this machine is surprising.

Send for Illustrated Circular and Prices.

HOOSIER MACHINE WORKS

816 Jackson Street Columbus, Indiana

EVER HEAR OF ICE COLD CAKES SELLING LIKE HOT CAKES?

NO DIFFICULTY IN KEEPING BARS HARD.

In reply to your letter asking for further particulars in regard to keeping chocolate coated ice cream hard during hot weather: We have had no particular trouble keeping bars hard. As our business is nearly all shipping, of course it is entirely up to dealers after arrival of goods. They require the same care and attention usually given to brick cream.

A great many dealers are handling, in small towns where cabinet is not warranted, direct from tub, and carrying very few over. To date, with two months experience, we have three complaints only, that they were soft on arrival or did not keep well. Have had several days of warm weather; **the temperature at one time being 105 degrees in the sun at noon.**

In regard to cutting and dipping we have a New Era cutter, and special half-thickness slabs holding one gallon and cutting seventy-two pieces very rapidly. We do not reharden after cutting as with cream at 0 to 10 degrees. We can get it out of the way before it gets too soft to dip.

If we find that very hot weather causes us trouble we are equipped to do this work in cold room at a temperature of about 40 degrees.

L. A. CORNING,
President Buttercup Ice Cream Co., Inc., Hamlet, N. C.

FOOLISH QUESTION.

Pretty young lady to salesclerk: "Would you please show me a package of your invisible hairpins?"—Inklings.



STOUT

Schroeder Perfection Cabinets

Our Eskimo Pie Special

Assures proper distribution of this new delicacy



1922 Cabinets now ready for shipment.

"Insulation is the thing"

JOHN SCHROEDER LUMBER CO.

"A Dozen Cabinets or a Dozen Carloads"

WALNUT ST. . MILWAUKEE, WIS.

GLAD THEY WENT INTO THE BUSINESS.

I recognize that chocolate coated ice cream is a timely subject for consideration and one in which the great army of ice cream manufacturers are just now vitally interested.

Chocolate coated ice cream descended upon the industry like an avalanche. Nobody was prepared for it, but everybody went into it and did the best they could. Fortunately, the process was so simple that everybody succeeded and it proved to be a life saver for many, turning the usual winter deficit into a clean balance sheet or providing a profit.

I think the majority of manufacturers of Iowa are making bars. I am incompetent to speak authentically as to the methods employed by the members of the Iowa Association or of their difficulties or successes. I will therefore confine my statements to the experiments, experiences and results obtained in our own individual business.

We commenced the making of chocolate coated ice cream bars last October. Our sales rose rapidly to the peak, which was reached in December, and have since steadily declined to nearly 75% less than the peak, and even with this decline, the bar business is still very satisfactory and we are glad we took it on.

We have installed only such additional equipment as we could make ourselves, awaiting the results of an entire year's experience before buying any of the many labor saving devices that are now upon the market. We are cutting 18 oblong cubes per quart, dipping by hand, using wire hooks and hanging over a home made dripping pan, using about eight ounces of chocolate to the dozen bars.

We furnish packing service in the city, which of course is of great assistance to our dealers in keeping their stock in good salable condition.

W. S. WILCOX, President,
Association of Ice Cream Mfgrs. of Iowa.

"POLAR B'AR" A POPULAR CONFECTION.

Among the most pretentious invaders of the chocolate covered ice cream bar is the "Polar B'ar," invention rights of which are held by the Polar B'ar Sales Company of Belvidere, Illinois.

This "B'ar" is the 1-20th or 1-22nd part of a quart brick of ice cream, placed between two specially coated wafers, then dipped in a thin coating of chocolate and wrapped. The wafers, which are guaranteed to stay crisp indefinitely, act as insulators, and keep the cream from melting when dipping or hardening. It is claimed that the cream can be handled in a much softer condition than when these wafers are not used, for the reason that they make it much easier to handle.

This company sells the wrappers to the manufacturer, at a price which covers his royalty, advertising and recipe also. Two grades of wrappers are furnished, one of a fine grade of foil, the other of another material, which sells for less than half of what the foil costs. These wrappers are cleverly embellished with an Aurora Borealis effect against a blue background, with two polar bears in the foreground, mouths agape and registering pleased expectancy, poised with their forefeet midway against a projection which we presume is the North Pole, on the top of which is a "B'ar."

This "B'ar" is a steady seller and a large repeater.

——— a National Exposition of the ice cream industry will be held in Cleveland the week of October 16th by The Association of Ice Cream Supply Men.

The same week, it has been announced, will be held the the annual convention of the National Association of Ice Cream Manufacturers.

All those whose profits and whose interest is in the business of ice cream will find in Cleveland next October the double focussing point of their great industry.

The Seal



The Association of Ice Cream Supply Men

1328 Broadway New York City



of Safety

GET THE CORRECT WEIGHT RECORD FROM AN ACCURATE CONTROL.

THE CRESCENT CREAMERY COMPANY — ST. PAUL.

They say it is the last word in ice cream plants in the Northwest. The Crescent Creamery Company is one of the latest-constructed and most modern ice cream plants in the country.

The plant is a three story structure with as many windows in it as the architect could find room for. Upon entering, one can see to the left hand side the gen-



eral offices; on the other, the freezing room with a row of Miller freezers, four of them of 80 quart capacity and three of 40 quart capacity.

To begin an inspection tour, one should begin on the top floor. This is where all supplies are kept in store. We find the mixing room on the second floor. The mix is prepared in a large vat which has coils revolving to thoroughly mix the ingredients. The mix is passed from this vat through a viscolizer to the enclosed tubular cooler. From there it is carried to one of the three 1500 pound glass lined tanks. Here the mix is aged



and then drawn by gravity to the freezing room below. Next to the mixing room is a complete Mojonnier laboratory where every test is made.

Also, on the second floor is the churn room in which some of St. Paul's finest butter is made, and which is used in the manufacture of Crescent ice cream. There are three ripening vats and three large churns located in this room.

On the first floor, in the center, are three large hardening rooms with a total capacity of about 25,000 gallons.

The Crescent Company makes all their own ice with mechanical refrigeration in a 50 ton tank.

One of the good features of this plant is the enclosed shipping and loading platform. This is built in connection with the heated garage.

W. R. Cammack is president; G. E. Lindall is vice president; H. E. Cammack is secretary and E. A. Cammack is treasurer of the Crescent Ice Cream Company.

The picture on the left shows the room of the Crescent Creamery Company in which the ice cream mix is prepared. The mix is first prepared in the vat in the foreground. Then it is drawn through the viscolizer and enclosed tubular cooler to one of the three glass lined tanks in the rear. The freezers are located in a room directly below this one.

The picture below shows the room in which the freezers are located. Four of them are 80 quart and three are 40 quart capacity, Miller freezers. The hardening room entrance can be seen to the right. The door in the background leads to the main corridor and general offices.



NATIONAL ASSOCIATION OF ICE CREAM MANUFACTURERS' TWENTY-SECOND ANNUAL CONVENTION TO BE HELD IN CLEVELAND.

Chicago, April 5, 1922.

The Ice Cream Review:

The recent referendum sent out by our Board of Directors for the purpose of deciding the time and place of holding our next annual convention resulted in the selection of Cleveland, Ohio, the time to be after the Dairy Show.

Accordingly, the 22d Annual Convention will convene at Cleveland, Ohio, Hotel Hollenden, October 16th, 17th and 18th.

The convention will be held in connection with an exhibit of machinery and supplies to be given by the Association of Ice Cream Supply Men at the Municipal Auditorium during that entire week.

All available rooms at the Hotel Hollenden have been secured for active members of this Association and other ice cream manufacturers.

The Supply Men's Association has selected headquarters of its own, and Supply men are requested not to make reservations at the Hotel Hollenden, but to do this at the hotel selected by their association for its use during convention week.

Yours very truly,

N. LOEWENSTEIN,
Secretary.



"BETTER ICE CREAM MIX AT LOWER COST."

The above is the title of the 12-page booklet that has just been prepared by Mojonnier Brothers, milk engineers of Chicago, for distribution among the ice cream manufacturers. This booklet explains the advantages of using a vacuum pan in preparing the ice cream mix. It is well illustrated with pictures of dairy equipment and a typical illustration of the equipment necessary to go with it in a large modern plant. Mojonnier Brothers will be glad to send this booklet to anyone interested, upon request.

SPECIALIZED SERVICE



Crescent Creamery Company
St. Paul, Minn.

The Latest Ice Cream Plant in the Northwest

For Ice Cream Making plants covering Buildings, Machinery and Equipment.

Twenty-five years experience in designing and supervising equipment of manufacturing plants using refrigeration.

CHAS. A. BERGER

REFRIGERATING ENGINEER
and ARCHITECT
401 Phoenix Bldg. Minneapolis, Minn.

Member—American Society of Refrigerating Engineers,
American Association of Refrigeration
Registered Engineer and Architect in the State of Minnesota

REFERENCES—Larger Plants

CRESCENT CREAMERY CO. - - St. Paul, Minn.
MINNESOTA MILK CO. - - - - St. Paul, Minn
KEMPS ICE CREAM CO. - - Minneapolis, Minn.
IVES ICE CREAM CO - - - - Minneapolis, Minn
HAYES ICE CREAM CO. - - Minneapolis, Minn.
METROPOLITAN MILK CO. - - Minneapolis, Minn.
FLYNN DAIRY CO. - - - - - Des Moines, Iowa
WATERLOO CREAMERY CO. - - - Omaha, Nebr.

TRY THIS PACKER AT OUR EXPENSE



The Glacifer

A Dry Container for Preserving and Shipping Ice Cream.

You can save your customer from 5c to 10c per gallon with no cost to yourself.

You yourself can save from 5c to 10c per gallon on every gallon you ship.

You can extend your shipping business—reach people you have never reached before—get back some of the business you lost on account of high express rates.

Our circular tells all about this Packer—Write for it.

THE GLACIFER CO.
102 Merrimac Street Boston, Mass.

No Strings to This Offer

We will send a 20-quart Glacifier for bulk cream on 30 days trial. At the end of that time, pay for it if you like it, otherwise return it.

Price for single Glacifer, $12.00; in lots of 25 or more, $10.00.

Try one **now** in your own plant, under your own conditions, at our expense.

Speed Up
Your Brick Cutting Dept. with a "New Era"

Cuts standard ice cream slabs from molds into quarts, pints or any size desired, as fast as the operator can release the ice cream from the molds.

Can be adjusted to cut slices for Chocolate Coated Ice Cream Bars.

Absolutely Uniform

and unfailingly accurate is the "New Era" Ice Cream Brick Cutter. It's simplicity, speed and accuracy.

Reduces Costs

Our circulars tell all about this simple, practical machine. Get one.

Write us or our nearest representatives for circular and prices.

Cherry-Bassett-Winner Co., Baltimore, Md. Philadelphia, Pa. Pittsburg, Pa.
Wright-Ziegler Co., Boston, Mass.
J. W. Ladd Company, Cleveland, Ohio. Detroit, Mich.
Meyer Dairy Equipment Co., St. Louis, Mo.
A. H. Barber Co., Chicago, Ill., Minneapolis, Minn.
Davis-Watkins Dairymen's Mfg. Co., Denver, Col. San Francisco, Cal.
G. Lessenhop & Sons, Lincoln, Nebr.

The New Era Company
146 Merritt St. Oshkosh, Wis.



HOW CHOCOLATE COVERED BARS HELPED REVIVE OUR EXPORT TRADE.

All the thousands, perhaps millions, of American who have been in recent months buying and eating these bars probably do not realize that they have been stimulating our export trade. But that, writes the editor of The Grace Log, house organ of the large export and import firm of W. R. Grace & Company, is exactly what they are doing. He explains:

These bars are small bricks of ice cream covered with chocolate. It is prepared in factories where the temperature is low, wrapt in tinfoil, packed in ice and shipped all over the country. It made its first inroads upon the affections of this, the greatest candy consuming country of the world, about ninety days ago.

At that time the cocoa bean market was sadly depressed. Those foreign countries, such as Ecuador, Santo Domingo, West Coast of Africa, Brazil and Trinidad which in no small degree depended on their export of cocoa beans from which is manufactured cocoa powder, cocoa butter and chocolate, were in the same condition as the farmers of the United States—there was little or no profit in their crop. Consequently their purchasing power dwindled and they were but small buyers of American manufactured merchandise.

The craze for chocolate coated ice cream in the United States tremendously helped to revive the entire cocoa market. Other factors contributed, including some crop shortage. But the millions of little chocolate covered ice cream bars, so delicious to the palate and so easy to eat with the fingers, gave the market its big lift, as indicated by the following average prices per pound of different varieties of cocoa beans on the New York market in November and December, 1921, as compared with the middle of February, 1922:

	November-December 1921	February 1 1922
Guayaquil (Ecuador)	8¼c	12½c
Sanchez (Santo Domingo)	7c	10¾c
Accra (Africa)	7c	10¼c
Bahia (Brazil)	7 1/16c	10¾c
Trinidad (B. W. I.)	7c	12½c

The improvement in the market has been accompanied by an improvement in export, which makes the currency of the producing countries command a greater value in American dollars. For instance in December it required 4.15 Ecuadorian sucres to purchase one United States dollar's worth of American merchandise but on February 16th, 3.90 sucres sufficed. This was an encouragement for Ecuadorean purchase of American merchandise. While it is yet too early to estimate the full extent of this revival, still it is plain that the cocoa producing countries have been put on a greatly improved basis within three months.

All of this shows what the immense consuming power of the United States means to international commerce. A slight variation in the habits or tastes of the American people may turn scales between depression and prosperity in those countries producing foodstuffs and raw materials not grown here in sufficient abundance for our needs.

"Poor darling. You must have been frightened to death when the burglar broke into your room."

"Frightened's no name for it; I was dressing."

"How embarrassing, what did you do?"

"Oh, he was a gentleman burglar, he covered me with his revolver."—Inklings.

THE STORY OF THE HOMOGENIZER SHOWS A SPLENDID RECORD.

The ICE CREAM REVIEW

University of Illinois
Librarian
URBANA, Ill.

Volume Five—Number Nine MILWAUKEE, WISCONSIN—MAY, 1927 Two Dollars a Year



A "Babe Ruth" Autographed Regulation League Base Ball

FREE



A big selling feature that places the sale of chocolate coated ice cream balls in a class by itself.

Chocolate Coated Ice Cream

BASE 

BALL

TWO FLAVORS

"CHOCOLATE COATED ICE CREAM BASE BALL"
TRADE MARK REGISTERED.

10c

Our premium proposition will make big money for you. It is the thing that has made big money for others and the drawing power of a "Babe Ruth" autographed base ball has proved a winner in many leading cities.

The "Babe Ruth" wrappers on these chocolate coated ice cream base balls have a wonderful drawing power and are big sales repeaters. It is its popularity of the day that makes it self-advertising wherever it is tried—this is proved by the upward trend of the sales.

There is no big expense connected with making chocolate coated ice cream base balls, no extensive equipment needed. We furnish everything—molds, wrappers, Babe Ruth Base Balls, and all other necessary details.

Write for full particulars and learn the facts about this repeating sales producer.

Elite Chocolate Coated Baseball Co.

EL PASO, TEXAS

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FROM the affectionate home dessert of American childhood, science and a few years have raised ice cream to be the product of a tremendous industry.

The vegetable, animal and mineral kingdoms of Nature, and all the continents of the world contribute in some way to the materials and processes of its manufacture. Its flavored and refreshing goodness provides strength and pleasure to a hundred million people.

King of many hearts, commander of hundreds of millions of dollars, ice cream is preparing now to write an exclamation point of emphasis and wonder to the record of its romance, in the opening of the ***National Exposition*** for the ice cream industry in Cleveland, the week of October 16th.

At least 2,000 persons from the country over will attend the National Association of Ice Cream Manufacturers' Convention, October 16, 17, 18 and inspect the ***National Exposition*** the same week.

Ice Cream—A National Industry
Come to Cleveland, October 16-21 inclusive

The Seal



The Association of Ice Cream Supply Men
1328 Broadway New York City



of Safety

WHEN SHIPPING ICE CREAM BY EXPRESS, NEVER USE A LARGER TUB THAN THE CAN REQUIRES.

The
ICE CREAM REVIEW

PUBLISHED THE FIFTEENTH OF EACH MONTH BY

THE OLSEN PUBLISHING COMPANY

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OFFICIAL ORGAN

Ice Cream Division Indiana Manufacturers of Dairy Products
North Carolina Ice Cream Manufacturers' Association
South Dakota Ice Cream Manufacturers' Association
North Dakota Ice Cream Manufacturers' Association
Oklahoma Association of Ice Cream Manufacturers
Louisiana Association of Ice Cream Manufacturers
Wisconsin Association of Ice Cream Manufacturers
Mississippi Ice Cream Manufacturers' Association
Nebraska Association of Ice Cream Manufacturers
Michigan Association of Ice Cream Manufacturers
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Kansas Association of Ice Cream Manufacturers
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Arkansas Ice Cream Manufacturers' Association
Texas Ice Cream Manufacturers' Association
Poodle Dog Association of Iowa
National Order of White Caps
The Nebraska Cornhuskers
Michigan Dairy Boosters
Oklahoma Wolfhounds
Kansas Jack Rabbits
Hoosier Wild Cats
Texas Longhorns
Missouri Mules
Badger Flyers
Dixie Flyers

MAY 1922

BULLETIN OF EVENTS

National Dairy Show, Minnesota State Fair Grounds, Minneapolis--St. Paul, Minn., October 7-14, 1922. W. E. Skinner, Secretary, Suite 222, 910 So. Michigan Ave., Chicago, Ill.

National Exhibition, Association of Ice Cream Supply Men. Cleveland, Ohio, October 16-21, 1922, headquarters Hotel Winton. Robert Everett, 1328 Broadway, New York, Secretary.

National Association of Ice Cream Manufacturers. 22nd annual convention, Cleveland, Ohio, Hollenden Hotel, October 16th, 17th and 18th. N. Loewenstein, 155 N. Clark Street, Chicago Secretary.

Southern Association of Ice Cream Manufacturers, annual convention, New Orleans, December 5, 6 and 7. J. W. Clopton, Secretary, Decatur, Ala.

WE BELIEVE our readers will be particularly interested in the special section of this issue devoted to the question of ice cream packages. In compiling the information contained therein we have called upon the experiences of ice cream manufacturers the country over. We know of no one more competent to throw light upon this important subject than the men who are actually confronted with the problems concerned with packaging ice cream and getting it to the consumer in proper condition. Every manufacturer in ice cream, whether selling it in bulk or putting it on the market in some other form, is confronted with the problems which he will find discussed in our special package section.

In securing this information we have invited the cooperation of many people and right here we want to express our appreciation of their hearty response. By giving us their experiences and suggestions they have performed a distinct service for the ice cream industry. We are passing this valuable information along to the readers of The Ice Cream Review, feeling that we are giving them first hand experience which will be of inestimable value to them in their business. In doing so we are but attempting to live up to the confidence reposed in us by the thousands of ice cream manufacturers who look to The Ice Cream Review for the latest and best information relative to their business. We believe that you will find information in this issue which you can use in your business. Even though you may feel that the methods used by other manufacturers are not better than your own you can learn what others are doing.



WE BELIEVE that true friends of the ice cream industry will always have in mind that its interests are closely linked with the interests of the dairy industry as a whole. The ice cream business is a dairy business first, last and all the time. The chief claim for ice cream as a food arises from the fact that it is a dairy food. The various associations of ice cream manufacturers have recognized this fact by discouraging the use of foreign fats in ice cream making.

With this thought always in mind they will be at all times interested in whatever develops and promotes the dairy industry. They are going to continue to support those agencies which are advertising the industry. The National Dairy Show is one of these. We hope that readers of The Ice Cream Review will attend the big show in October in large numbers.

While dwelling upon the subject we want to add that we hope that the good people of St. Paul and Minneapolis will not again let the National Dairy Show be held in their midst without visiting it. Last year they apparently looked upon it as a farmer's show and stayed away. We talked with several of the natives and they gave as their reason for not visiting the show that there was nothing in it of interest to them.

The business men of the Twin Cities have guaranteed 100,000 paid admissions at the 1922 Show. If they merely buy 100,000 tickets and leave them pigeon-holed in their office desks they may be making good, so far as finances are concerned, but they will not be making good so far as the National Dairy Show is concerned, neither will they be living up to their full responsibilities.

It is clearly up to the business men of the Twin Cities to sell the National Dairy Show to their people. The advertising that will be done throughout the Northwest, in one form or another, will insure a splendid attendance from outside points. The men who are putting up this big guarantee need not worry about the success of the National Dairy Show so far as outside attendance is concerned. What they need to worry about is the attendance upon the part of their own people.

When next October comes, if the people of Minneapolis and St. Paul generally look upon the National Dai

ow as they did last October, the business men who ve made this guarantee may well consider that they ve made a dismal failure of the whole proposition. ir suggestion to them is to quit advertising the Na- nal Dairy Show as a farmer's institution. True, the iry cow is the foundation upon which the whole in- stry rests, but the city consumer can find more of real terest and value to him at the National Dairy Show an can the average farmer. He will learn so many portant things that vitally concern his welfare with ich the farmer is already familiar.

We hope that the business interests of St. Paul and inneapolis will not overlook their opportunities as well their responsibilities.



THE ice cream manufacturer who builds up a big gallonage is enabled to buy equipment and employ ethods which he could not hope to do without increased lume. This is not offered to discourage the little fel- w but to encourage him. We believe in increased vol- ne and we don't care how big the business gets so long it is properly cared for. In fact, we believe that the siness must show an increase from year to year or it is a dangerous way. It is seldom that a business re- ains at a standstill. The only safe way for the busi- ss man is to use every effort to increase the volume.

We believe it is a laudable effort when the ice cream anufacturer uses every opportunity to increase volume. creased volume, however, must never be gained at the pense of quality and service. It is a short sighted licy to sacrifice any of the fundamentals of success in der to gain a temporary increase in business. The man the firm who has built up a reputation for integrity, th in the conduct of the business and in the product, n ill afford to adopt any measures to increase volume less such measures will protect that reputation. In her words, increase in volume is only desirable when is procured on the right basis. Some men in business e so greedy to increase volume that they are willing to so at no profit, or even at a loss. They live in hopes at something will happen in the future to enable them make some money on the increased volume. Some- nes something does happen but it isn't usually what ey are hoping for.

Our big successful businesses have not been built in at way. In order to build a big business it is essential at the business shows a profit. A business cannot be tablished right unless it is making money, and it is ite as necessary to show a profit on the increased vol- ne as on the regular volume. When it does not show profit there is a temptation to cut down expenses, to wer the quality or the service, or both. This is one the dangers of increasing volume on the basis of no ofit. Don't do it. Keep up the quality of your prod- t and quality of your service. That is a sure way of ing a successful business.

In building a business in this way don't worry about at somebody is going to say about your increased lume. Put out good goods, run your business so as to show a reasonable profit and employ every means known to good business to increase your volume. Your busi- ness will then be established on a firm foundation and you will be in position to give real service to your cus- tomers and fully live up to the responsibilities which rest upon you as a manufacturer of one of the most delight- ful foods known to mankind.



ON PAGE 12 appears a bulletin issued by the Na- tional Association of Ice Cream Manufacturers in which attention is called to a proposed classification change on ice cream shipments. It appears that some time ago the American Railway Express Company pro- posed to the Interstate Commerce Commission that ship- ments of ice cream in cans less than 5-gallon capacity, packed in outside containers customarily used for 5 gallons, or shipments in cans of less than 10-gallon ca- pacity packed in outside containers customarily used for 10 gallons, should be charged for at gross weight less 25%. Before the matter came to the official attention of the Interstate Commerce Commission the officers of the National Association of Ice Cream Manufacturers held a conference with the Express Company's officials and the result of this conference was that the proposed classifi- cation change was withdrawn and is being held in abey- ance for 90 days, pending the result of the Associa- tion's efforts to discourage the practice followed by some ice cream manufacturers of using oversized packers.

The officers of the National Association of Ice Cream Manufacturers will do everything they possibly can do discourage this practice and in doing so we feel they are absolutely right.



ON ANOTHER page we publish an address delivered by Mr. K. L. Carver, a successful ice cream manu- facturer, at the annual convention of the California As- sociation of Ice Cream Manufacturers. Mr. Carver is fully convinced that the development of the ice cream industry to its fullest proportions depends upon educat- ing the consumers of the country to buy package ice cream instead of bulk. He has some very advanced ideas relative to boosting sales of ice cream in package form and very forcefully presents arguments to back up his ideas. You will enjoy reading his address.



PLANS are progressing nicely for the big doings in Cleveland next October. If you haven't made a resolution to attend the Exposition and the con- vention do so right now. Then keep it.



IF SPRINGTIME, with all its inspiring effects on every live thing, causes you to feel that there are better times just ahead, don't attempt to throw off the feeling. There are other reasons for making you feel that way. Better terms are ahead, and there is going to be lots of business for the "go-getter". If you don't belong to that class you—well, you had better join in because "it's in the air."

A Simplified Method of Instruction in Standardization of the Ice Cream Mix

By PROF. N. E. OLSEN, Dairy Department, Kansas State Agricultural College

FOREWORD.

THE following is offered to beginners in Ice Cream manufacture and others in the hope that what seems to them, a rather puzzling and complicated process may be made simple and easily understandable. It is purposely made intensely practical with the technical submerged in order not to confuse. The reader requires only common arithmetic to follow the reasoning throughout.



PROF. N. E. OLSON.

For the benefit of critics allow me to say that the writer is fully aware that the serum solids in skimmilk are ordinarily taken as 8.91 per cent rather than 9.0 per cent, that sugar sometimes may contain less than 100 per cent solids and that gelatine is never 100 per cent solids and also that flavor is a part of the mix and is often considered as a part of the 100 pounds. However there is always a certain amount of evaporation during pasteurization and so regardless of how technical one may become in standardizing and preparing an ice cream mix the final results can not be as he calculated they would be unless the final mix is analyzed and the necessary corrections made.

To the student, the man who must standardize the mix, the author wishes to say: Strive for uniformity, endeavor always to make an ice cream of essentially the same composition from day to day. You must use the raw materials which are available at the time when a mix must be made. If you will study the method herein given you need have no difficulty with uniformity of composition and quality, in so far as standardization is a factor.

Composition of Materials Used.

Skimmilk—9% serum solids (approximately).
4% milk—4% fat, 8.64 serum solids.
8.64% serum solids.
35% cream—35% fat, 5.95 serum solids.
5.85% serum solids.
Skimmilk powder—95% total solids (serum solids).
Plain condensed skimmilk—20% total solids (serum solids).
Sweetened condensed skim—28% serum solids, 40% cane sugar milk.
Unsalted butter—must be tested for moisture.
Sugar—100% total solids (approximately.
Gelatine—100% total solids (approximately).

In purchasing condensed products always request an analysis of each batch or shipment.

Quality of the Product.

The object of this paper is primarily to teach standardization but the writer can vouch for the quality of product made from any of the formulas, having tested them thoroughly in a make of some forty or fifty thousand gallons.

The Qualities of a Good Ice Cream Mix.

The Kansas Ice Cream Law reads as follows:

"Ice Cream is a frozen product containing not les than ten per cent milk fat, and not less than a total o twenty per cent milk solids; said product consisting o a flavored, sugar-sweetened mixture of cream or crea and milk, or the sweet pure products of cream and milk with or without the addition of gelatine, vegetabl gums, or such other wholesome stabilizers as may b approved by the State Dairy Commissioner, to whic mixture may be added pure, fresh, sweet, wholesom eggs, fruit or fruit juice, cocoa, chocolate, or nuts."

The law requires ten per cent of milk fat and twent per cent total milk solids which means that the mi must contain ten per cent of milk solids not fat o serum solids.

Since the fat requirement for fruit ice cream is th same as for plain ice cream, it is either necessary t make separate mixes for plain and fruit ice cream o carry around twelve per cent of fat in the plain ic cream.

The sugar content of a good mix varies from abou eleven per cent to as high as sixteen per cent, accordin to the requirements of the trade. Twelve per cen sugar is sufficiently sweet for most trade.

Gelatine is our best stabilizer and one-half of on per cent is sufficient if a high grade of gelatine is use More is required where the cheaper grades of gelatin are used.

Standardization by Steps.

In this method a basic formula is adopted whic gives the composition of the mix. For example, a mi is taken with the following composition: Fat, 12 pe cent; serum solids, 10 per cent; sugar, 12 per cen and filler, .50 per cent. This constitutes our basi formula.

Formula No. I. Basic.

Ingredients	Lbs. per 100	Per Ct. Fat	Per Ct. S. S.	Per Ct. Sugar	Per C T.
Fat	12	12	..	..	12
Serum solids	10	..	10	..	10
Sugar	12	..	..	12	12
Gelatine	.50	..	..	..	.
					34.

Formula No. II.

In which skimmilk furnishes the serum solids and pu milk fat the necessary butterfat.

Ingredients	Lbs. per 100	Per Ct. Fat	Per Ct. S. S.	Per Ct. Sugar	Per C T.
Pure milk fat	12	12	..	..	12
Skimmilk powder	10.5	..	..	..	10
Sugar	12	..	10	12	12
Gelatine	.5	..	..	..	.
Water	65	..	..	..	..
	100.0	12	10	12	34.

Calculation.

Skimmilk powder is calculated as 95% serum soli (total solids).

The amount necessary to supply 10 lbs. of serum soli is then $\frac{10}{95} \times 100 = 10.5$ lbs. of skimmilk powder. Enou water is added to bring the total mix up to 100 pounds.

Formula No. III.

Substituting unsalted butter for pure milk fat.

Ingredients	Lbs. per 100	Per Ct. Fat	Per Ct. S. S.	Per Ct. Sugar	Per C T.
Unsalted butter (84% fat)	14.3	12	..	..	12
Skimmilk powder	10.5	..	10	..	10
Sugar	12.0	..	..	12	12
Gelatine	.5	..	..	..	.
Water	62.7	..	..	..	..
	100.0	12	10	12	34.

(Continued on page 8)

The

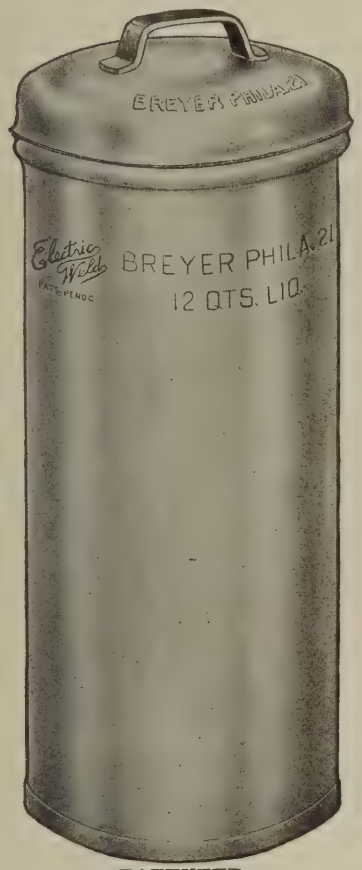
CAN SERVICE AT LOWEST COST

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TRADE MARK REG.

No Solder No Rivets = NO LEAKS

RIVETLESS — SOLDERLESS ICE CREAM CANS



PATENTED.
The Electric Weld Ice Cream Can.

should be judged on a basis of the ratio of cost to service. The can that makes the most trips for the least cost is the best. We have other important features.

WE GUARANTEE to replace any Electric Weld can which in ordinary service—

1. Breaks at the welded joints.
2. Leaks during the life of the can, not only when new, but as long as the can is in use whether it has been retinned or not.
3. Opens at the bottom joint.
4. Shows defective workmanship or material.

WE ALSO GUARANTEE that Electric Weld Cans

1. Are hand dipped in pure Straits tin with an average coating of an ounce and a quarter per square foot of surface.
2. That we do not use solder, lead or rivets.
3. That they can be retinned successfully without using solder or in any way changing the construction.
4. That we use special hard finish steel sheets which are best for tinning and offer unusual resistance to blows, wear and tear.
5. That the capacities are correct on each size within the tolerance permitted by each State.
6. That our covers are interchangeable with standard makes of cans.
7. That no annealing of the can takes place which would soften the metal; our cans permit using the steel in its original hardness without changing, softening or destroying its original structure.
8. That we use full standard gauge material and do not add to the weight with unnecessary re-inforcements.
9. That Electric Weld cans are "water tight" before tinning and remain so always.

THE ASSOCIATION OF ICE CREAM SUPPLY MEN
MEMBER

These cans may be retinned at a saving of 20% over the old type soldered can!

THE **GUARANTEED** CAN

WHY PAY MORE? WRITE FOR NEW LOW PRICES.

JOHN WOOD MFG. CO. Conshohocken, Pa.

CHICAGO OFFICE (320 E. North Water St.) CLEVELAND OFFICE (2041 Warren Rd., Lakewood, O.) BOSTON (60 Pemberton Sq.)
BROOKLYN (No. 5 Bush Terminal Bld.) OAKLAND, CAL. (335 Cypress St.)

WE CAN MAKE PROMPT SHIPMENT OF EMBOSSED CANS

ACCURATE AND INSTANTANEOUS TESTING OF OVERRUN IS THE RESULT OF A GOOD TESTER.

Calculation.

In this formula it will be noted that but one ingredient is different from the preceding (Formula No. II); that is, the butterfat carrier. Since unsalted butter contains moisture and curd in addition to the butterfat it is necessary to test the butter for moisture and assume the curd is 1 per cent. In this case we assume the moisture test to be 15 per cent.

15% moisture
1% curd

16%
84% fat

100%

The butter required to furnish the desired 12 pounds of fat is then:

$$\frac{12}{84} \times 100 = 14.3 \text{ lbs. butter needed.}$$

Water is then added to bring the total to 100 pounds.

Formula No. IV.

In which fresh skimmilk is used in place of the water and part of the skimmilk powder, some of the latter still being retained to bring the serum solids to the desired 10 per cent.

Ingredients	Lbs. per 100	Per Ct. Fat	Per Ct. S. S.	Per Ct. Sugar	Per Ct. T. S.
Unsalted butter	14.3	12	..	..	12.00
Fresh skimmilk	69.2	..	6.22	..	6.22
Skimmilk powder	4.0	..	3.80	..	3.80
Sugar	12.0	..	..	..	12.00
Gelatine	.5	..	..	12	.50
	100.0	12	10.02	12	34.52

Calculation.

Referring back to Formula No. III we find:
Skimmilk powder .....10.5 lbs.
Water .....62.7 lbs.

Which added together gives 73.2 lbs. of skimmilk or serum solids mixture containing 10 lbs. of serum solids. In order to standardize our new mixture of fresh skimmilk and skimmilk powder it is necessary to know what per cent 10 lbs. is of 73.2 lbs. Therefore:

$$\frac{10}{73.2} \times 100 = \text{approximately } 13.7\% \text{ serum solids.}$$

By the Pearson square method of standardization we are enabled to obtain the desired parts of fresh skimmilk and skimmilk powder necessary to make 73.2 lbs. of skim mixture containing 13.7% or 10 lbs. serum solids.

9% serum solids in skimmilk. — 81.3 lbs. skimmilk.

13.25% serum solids desired.

95% serum solids in skimmilk powder. — 4.7 lbs. skimmilk powder.

86.0 lbs. skimmilk mixture containing 13.7% serum solids.

Our proportion then is:

(Mixture from square) 85 lbs. : (Mixture desired) 73.2 lbs. :: (S. M. P. from square) 4.7 lbs. : (S. M. P. desired) X

$$86\ X = 73.2 \times 4.7$$
$$86\ X = 344.04$$
$$X = \frac{344.04}{86} \text{ or 4 lbs. skimmilk powder.}$$

Audel's "Answers on Refrigeration"

A practical treatise for engineers. This book is the most complete work on the subject of refrigeration and ice making on the market today. 690 pages. Half leather binding.
Sent Prepaid on Receipt of $2.00.
OLSEN PUBLISHING CO.
210 Sycamore St. Milwaukee, Wis.

Subtracting 4 lbs. of skimmilk powder from 73.2 lbs. leaves 69.2 lbs. fresh skimmilk.

The results as shown in Formula No. IV proves our calculation to be correct.

Formula No. V.

In which whole milk testing 4 per cent fat is substituted for the skimmilk and part of the unsalted butter. Naturally the calculation will be similar with milk of any other fat percentage. Since the whole milk will carry practically the same amount of serum solids as the skimmilk no calculation is necessary for serum solids except to prove the correctness of the formula.

Ingredients	Lbs. per 100	Per Ct. Fat	Per Ct. S. S.	Per Ct. Sugar	Per Ct. T. S.
Unsalted butter	10.85	9.15	..	..	9.15
Whole milk (4% fat)	72.65	2.90	6.27	..	9.17
Skimmilk powder	4.00	..	3.80	..	3.80
Sugar	12.00	..	..	12.00	12.00
Gelatine	.50	..	..	..	.50
	100.00	12.05	10.18	12.00	34.62

Calculation.

Referring back to Formula No. IV we find:
Unsalted butter .....14.3 lbs.
Skimmilk .....69.2 lbs.

Which added together gives 85.5 lbs. of butterfat mixture or cream containing 12 lbs. of butterfat. In order to standardize our new mixture of unsalted butter and 4 per cent milk it is necessary to know what per cent 12 lbs. is of 83.5 lbs. Therefore:

$$\frac{12}{83.5} \times 100 = \text{approximately } 14.4\% \text{ fat.}$$

Again by the Pearson square method of standardization we are enabled to obtain the desired parts of unsalted butter and 4 per cent milk to make 83.5 lbs. of cream containing 14.5 per cent or 12 lbs. of butterfat.

84% fat in unsalted butter. — 10.4 lbs. butter.

14.4% fat desired.

4% fat in whole milk. — 69.6 lbs. of 4% milk.

80.0 lbs. of 14.4% cream.

Our proportion then is:

80 : 83.5 :: 10.4 : X

$$80\ X = 868.40$$
$$X = \frac{868.40}{80} \text{ or 10.85 lbs. of butter.}$$

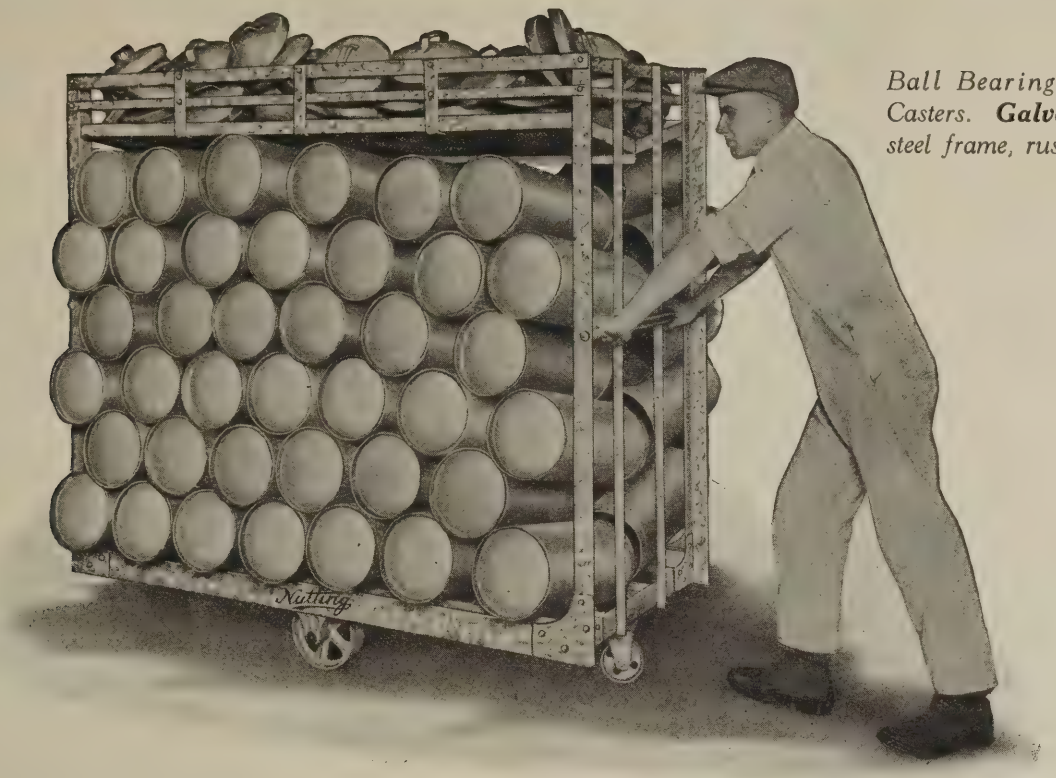
Subtracting 10.85 lbs. of butter from 83.5 lbs. of cream leaves 72.65 lbs. of 4 per cent milk. The results as shown in Formula No. V proves our calculation to be correct.

Formula No. VI.

In which cream testing 35 per cent is substituted for the unsalted butter and a part of the 4 per cent milk. Naturally the calculation will be similar with cream or milk of any other fat percentage. Since the cream will carry practically the same amount of serum solids as we have in Formula No. V, no calculation is necessary for serum solids except to prove the correctness of the formula.

Ingredients	Lbs. per 100	Per Ct. Fat	Per Ct. S. S.	Per Ct. Sugar	Per Ct. T. S.
35% cream	28.00	9.80	1.64	..	11.44
4% milk	55.5	2.22	4.79	..	7.01
Skimmilk powder	4.0	..	3.80	..	3.80
Sugar	12.0	..	..	12	12.00
Gelatine	.5	..	..	..	.50
	100.00	12.02	10.23	12	34.75

Referring back to Formula No. V we find that we require 83.5 lbs. of 14.4 per cent cream. Then by the square method of standardization we have:



Ball Bearing Swivel Casters. ***Galvanized*** *steel frame, rust-proof.*

Built *RIGHT* For Your Work

A Stronger Truck—Better Finished—Easier Running—DURABLE

THE moment you examine the **Nutting** Ice Cream Can Truck you will realize why it gives better and longer service.

Nutting

Ice Cream Can Truck

has a frame built of heavy structural angle steel riveted like a steel bridge, and specially braced at the corners to withstand shocks. The frame is entirely galvanized, instead of merely coated with aluminum paint.

The main wheels are 8¼ inches high, with wide, flat face, smoothly machined to save the floors. Cold rolled steel axle, heavy axle collars and boxes. These features of strength give you a truck that will stand years of hard, daily use and freedom from repairs.

The Easily Handled Truck—ball bearing swivel casters. Balance type, for quick turning. Rail around top holds all covers and keeps them with cans. Wooden bars at bottom fully protect cans from denting.

Note REDUCED Prices

Nutting Ice Cream Can Trucks earn their reasonable cost over and over by enabling you to **keep your cans on wheels,** the handy time and labor saving method for both large and small plants.

30 inch size, without top rail....	**$46**
30 inch size, with rail	**52**
36 inch size, without top rail.....	**52**
36 inch size, with rail	**59**

All prices F. O. B. Faribault.

Ask your jobber or order direct from this ad. Use the coupon.

Nutting Truck Co.

1143 Division St. Faribault, Minn.

The Largest Exclusive Makers of Floor Trucks in the World.

FLOOR TRUCK SPECIALISTS SINCE 1891

(COUPON)

Nutting Truck Co.
Division St., Faribault, Minn.

You may send me.....Nutting Ice Cream Can Trucks as checked below subject to your Quality Guarantee. I will remit on usual terms 1% 10 days, net 30 days.

.....30 inch size, without rail, each....	$46.00
.....30 inch size, with rail, each.....	52.00
.....36 inch size, without rail, each....	52.00
.....36 inch size, with rail, each.....	59.00

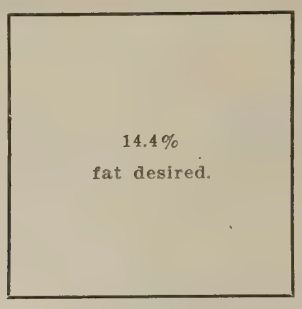
Name .....

Address .....

City..... State.....

SELECT QUALITY FOR SERVICEABILITY IN TUB COVERS.

35% fat in cream. 10.4 lbs. 35% cream.



4% fat in whole milk. 20.6 lbs. 4% milk.
31.0 lbs. 14.4% cream.

Our proportion then is:

$$31 : 83.5 :: 10.0 : X$$
$$31X = 868.40$$
$$X = \frac{868.40}{31} \text{ or } 28 \text{ lbs. of } 35\% \text{ cream.}$$

Subtsartcing 28 lbs. of 35 per cent cream from 83.5 lbs. of 14.4 per cent cream leaves 55.5 lbs. of 4 per cent milk. The results as shown in Formula No. VI proves our calculation to be correct.

Formula No. VII.

In which plain condenced skimmilk furnishes a part of the serum solids, replacing the skimmilk powder and a part of the milk.

Ingredients	Lbs. per 100	Per Ct. Fat	Per Ct. S. S.	Per Ct. Sugar	Per Ct. T. S.
Cream 20.6%	58.3	12.00	4.16	..	17.27
Plain condensed skim	29.2	..	5.84	..	4.73
Sugar	12.0	..	..	12.00	12.00
Gelatine	.5	..	..	..	.50
	100.00	12.00	10.00	12.00	34.50

Calculation.

Referring back to Formula No. II we find that we require:

650 lbs. water
105 lbs. skimmilk powder

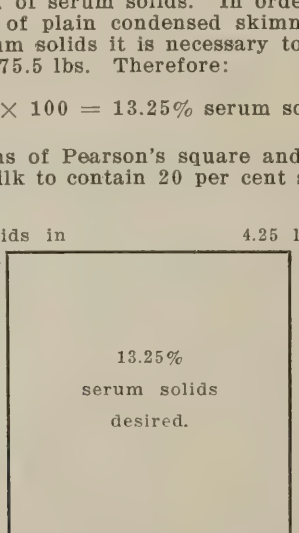
75.5 lbs. skimmilk mixture

containing 10 lbs. of serum solids. In order to standardize our new mixture of plain condensed skimmilk and normal skimmilk for serum solids it is necessary to know what per cent 10 lbs. is of 75.5 lbs. Therefore:

$$\frac{10}{75.5} \times 100 = 13.25\% \text{ serum solids.}$$

Then by means of Pearson's square and assuming plain condensed skimmilk to contain 20 per cent serum solids, we have:

20% serum solids in condensed milk. 4.25 lbs. plain condensed.



9% serum solids in skimmilk. 6.75 lbs. normal skim.

11.00 lbs. skimmilk mixture containing 13.25% serum solids.

Our proportion then is:

$$11 : 75.5 :: 4.25 : X$$
$$11X = 320.875$$

Subtracting 29.2 lbs. from 75.5 lbs. leaves 46.30 lbs. of skimmilk.

Now since this formula is to be made with cream we must add our 12 lbs. of butterfat to the 46.30 lbs. of skimmilk which will give us 58.3 lbs. of cream testing

$$\frac{12}{58.3} \times 100 = 20.6\% \text{ butterfat.}$$

Cream testing 20.6 per cent can then be standardized as in Formula No. VI.

Formula No. VIII.

In which sweetened condensed skimmilk furnishes a part of the serum solids and a part of the sugar.

Ingredients	Lbs. per 100	Per Ct. Fat	Per Ct. S. S.	Per Ct. Sugar	Per Ct. T. S.
Cream 35%	34.3	12	2.007	..	14.007
Skimmilk	44.68	..	4.026	..	4.026
Sweetened condensed	14.2	..	3.97	5.68	9.65
Sugar	6.32	..	..	6.32	6.32
Gelatine	.50	..	..	..	.50
	100.00	12	10.003	12.00	34.503

Calculation.

Sweetened condensed skimmilk is taken to contain 28 per cent serum solids and 40 per cent cane sugar.

It is impossible to make a simple calculation of this mix except by means of higher mathematics (algebra) since we have too many unknowns for ordinary arithmetic. The above formula was calculated in that manner but the method is obviously not given here. It is suggested that for practical purposes the worker use the trial mix system which though a cumbersome method is the only one which a student lacking a knowledge of algebra is capable of using.

A good general rule to follow in the making of a formula containing sweetened condensed skimmilk is as follows. If it is desired that the mix contain 12 per cent of sugar use 15 pounds of condensed milk while if 14 per cent of sugar is desired as much as 20 pounds of condensed milk may be used.

Suppose then in our present case we use 15 pounds of sweetened condensed skimmilk. This would contain 40 per cent of 15 or 6 lbs. of sugar and 28 per cent of 15 or 4.20 pounds of serum solids. Since our mix must contain 12 per cent of sugar it is necessary to add 6 pounds more of sugar and since we desire 10 per cent serum solids the remaining 5.8 lbs. must come from our sweet milk and cream.

Our formula now stands:

Sweet condensed ..... 15.00 lbs.
Sugar ..... 6.00 lbs.
Gelatine ..... .50 lbs.

21.50 lbs.

Subtracting 21.5 lbs. from 100 leaves 78.5 lbs. to be supplied as cream containing 12 lbs. of butterfat.

The necessary cream would test

$$\frac{12}{78.5} \times 100 = 15.3\%$$

or 15.5 per cent for convenience. The cream can be made up in the usual ways by the method hereto given.

Subtracting 12 from 78.5 lbs. leaves 66.5 lbs. 66.5 lbs. times 9 per cent equals 5.98 lbs. of serum solids which appears to be satisfactory. Our formula then is as follows:

Formula No. IX.

Ingredients	Lbs. per 100	Per Ct. Fat	Per Ct. S. S.	Per Ct. Sugar	Per Ct. T. S.
Cream 15.3%	78.5	12	5.98	..	17.98
Sweet condensed	15.0	..	4.20	6.00	10.20
Sugar	6.0	..	..	6.00	6.00
Gelatine	.5	..	..	..	.50
	100.0	12	10.18	12.00	34.68

Preparing the Mix.

Having adopted a formula and standardized according to the ingredients on hand one can make up any quantity of mix simply by multiplying all weights by the following factor:

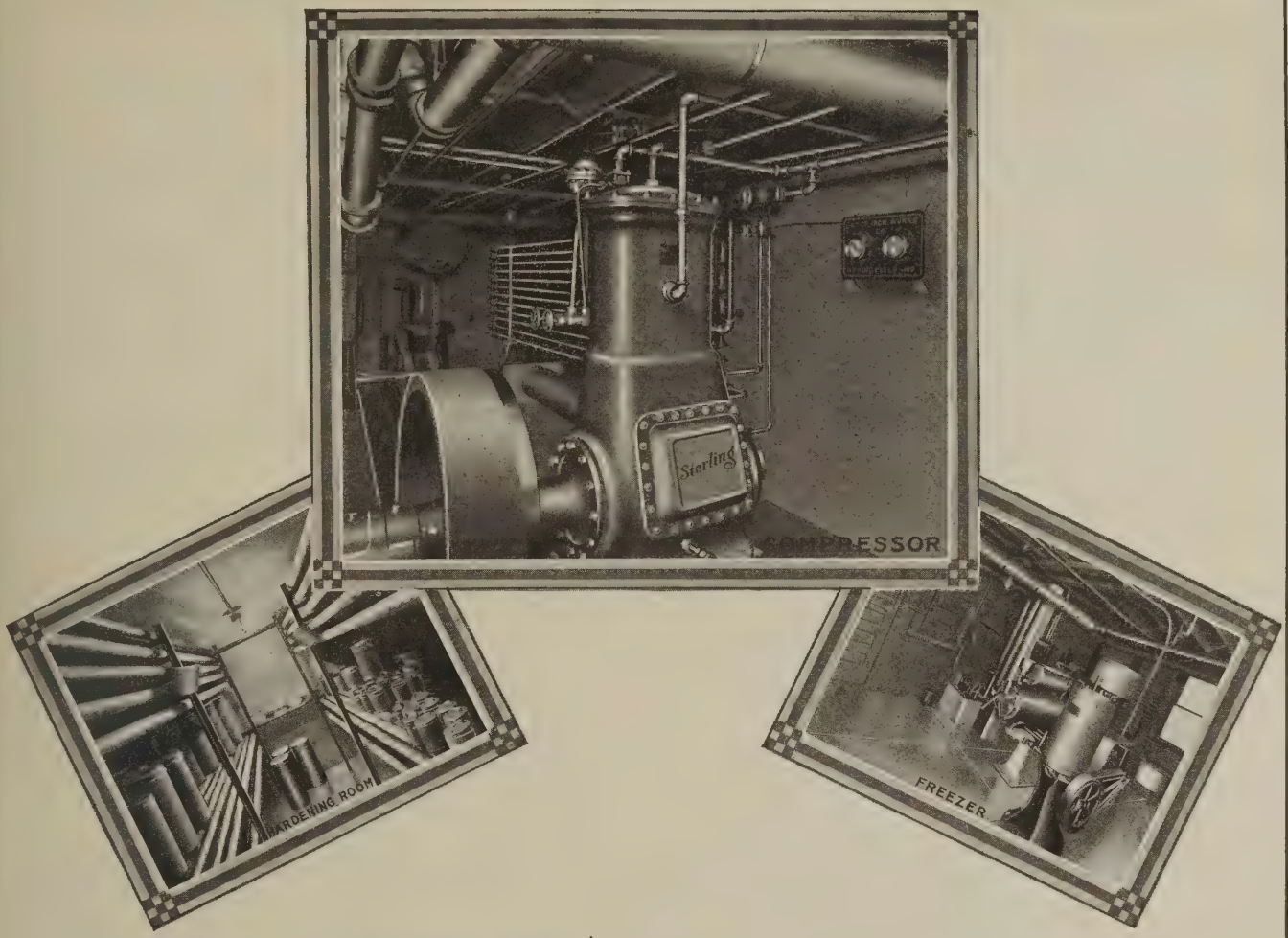
$$\frac{\text{Lbs. of mix desired}}{100} = \text{Factor}$$

For example:

$$\frac{1200 \text{ lbs. of mix desired}}{100} = 12$$

Pasteurize the entire mix at 145 to 150 degrees F. and emulsify, viscolize or homogenize hot, cooling preferably over a cooler and down to 35 to 40 degrees F. Age for 24 to 48 hours in order to restore the viscosity before freezing.

Tell us what you want, or what you have that you don't want, and we'll fix up a little Ad for you and insert it in the next issue of The Ice Cream Review. You just stay at home and wait for results. You'll soon have your hands full.



Typical "STERLING" Ice Cream Installation

Showing Compressor, Hardening Room and Ice Cream Freezer

The name "STERLING" for our equipment was wisely chosen by the pioneers of our organization, as today it is

"STERLING" in design and construction.
"STERLING" in efficient operation.
"STERLING" in economic performance.

"STERLING" users are legion—and they give voice to their extreme satisfaction of the equipment. Ask a "STERLING" user, then communicate with our nearest representative.

UNITED IRON WORKS, Inc.

KANSAS CITY, MISSOURI

915 Union and Planters Bldg., Memphis, Tenn.
214 Washington Ave., St. Louis, Mo.
719 Wainwright Bldg., St. Louis, Mo.
203 Swope St., Greenfield, Ind.
3407 West 66th Pl., Chicago, Ill.
415 No. Howard St., Baltimore, Md.
513 United Bank Bldg., Sioux City, Iowa
810 Spitzer Bldg., Toledo, Ohio
402 Andrews Bldg., Dallas, Tex.
612 Mayo Bldg., Tulsa, Okla.
1994 Grand River Ave., Detroit, Mich.
113 Fifth Ave. North, Nashville, Tenn.

COATED ICE CREAM BARS HELPED TO TAKE STING OUT OF PROHIBITION.

Proposed Classification Change on Ice Cream Shipments

Bulletin No. 53 of the National Association of Ice Cream Manufacturers

IN CLASSIFICATION DOCKET NO. 3 the American Railway Express Co. proposed to the Interstate Commerce Commission the following addition to the classification of ice cream, to become effective June 1, 1922:

"Shipments in cans of less than five gallon capacity packed in outside containers customarily used for five gallons, or shipments in cans of less than ten gallon capacity packed in outside containers customarily used for ten gallons, will be charged for at gross weight less 25%, but not to exceed the estimated weight for a shipment of five or ten gallon capacity, respectively."

Explanation.

"Some ice cream shippers are using outside containers capable of holding five or ten gallons in shipping cans of lesser amount. Charges are computed on the capacity of the can and therefore, in the above cases, the Express Company is not obtaining its proper revenue on these shipments. The change is proposed so that the dealers who use the extra large outside container will pay for the extra weight and space."

This office has sent out two different bulletins calling the attention of members to this unfair practice of shipping three gallons of ice cream in a five gallon tub or five gallons in a ten gallon tub.

We must admit the certainty of the Interstate Commerce Commission's approvel of this item if the proposal reaches that body. It seems most unfair that a majority of our members should be exposed to the possibility of constant and expensive controversy with express agents because of the transgressions of a few shippers.

Realizing what a prolific source of trouble such an addition to the classification would be, and, in an effort to avoid this undesirable happening, President Morris, Mr. T. H. McInnerney, chairman of the Express Committee, and the Secretary, accompanied by counsel, held a conference on April 13th, in New York, with Mr. D. S. Elliott, Vice-President, and Mr. G. S. Lee, Traffic Manager of the American Railway Express Co.

We, of course, could not defend the practice mentioned above, but on our representation that it could and would be corrected through this Association, an agreement was made that the proposed classification change would be withdrawn and held in abeyance for ninety days, pending the result of our efforts to eliminate it in the industry. From the information we have we believe that the number of shippers using larger size tubs than necessary is so small that the practice can be stopped entirely.

The names of persistent offendeds in this respect will be furnished by the Express Company to this Association and that information will be passed on to the Executive Committee for such action as it may think necessary in the premises.

We must again state that it is manifestly unfair that the entire industry should be burdened with such stringent regulations because of the transgressions of a few shippers, and it is strongly urged that this practice be entirely discontinued from now on.

Billing Weight of Ice Cream.

At the above mentioned conference the subject of reducing the estimated billing weights of ice cream shipments to the old 100-lb. basis was also discussed at considerable length.

Efforts to accomplish this relief by agreement failed, but we have not lost confidence in the justice of our case and still firmly believe we are correct in our view that ice cream is discriminated against in so far as billing weights are concerned. However, it is the opinion of the Express Committee that this not the opportune time to again go before the Interstate Commerce Commission for relief, and it is thought further positive action in this respect will be deferred until the subject receives consideration at the National Convention in October.

In shipping ice cream by Express under no circumstances use a larger tub than the can requires.

T. H. McINNERNEY, Chairman, Express Company. N. LOEWENSTEIN, Secretary.



H. E. VAN NORMAN TO ATTEND GENERAL ASSEMBLY AT ROME.

U. S. Department of Agriculture Press Service.

H. E. Van Norman, president of the World's Dairy Congress Association, has been appointed Commissioner of Agriculture and Delegate of the United States to the General Assembly of the International Institute of Agriculture, which is to be held from May 8 to 12, at Rome, Italy.

Other delegates to the General Assembly previously announced are Nat C. Murray, Dr. L. C. Gray, Dr. Perley Spaulding, and Dr. H. H. Kimball, of the United States Department of Agriculture in Washington; E. A. Foley, Agricultural Commissioner for the Department at London; L. G. Michael, Representative of the Department at Budapest; Dr. W. H. Stevenson, Permanent Delegate to the institute at Rome; Dr. J. G. Lipman, Director of the New Jersey Agricultural Experiment Station; Mrs. Charlotte B. Ware, Consultant in Agriculture, Boston, and Francis B. Keene, United States Consul General at Rome.

While in Europe Dr. Van Norman will make observations as to dairy conditions. Accompanied by Mrs. Van Norman, he sailed from New York on April 22nd. Immediately following the Institute meeting, they will visit Switzerland, France, Belgium, Holland, Denmark, Germany, Sweden, Norway, and the British Isles. In each of these countries Dr. Van Norman will call upon government officials, scientists, industrial leaders, and child and social welfare workers to discuss plans for the World's Dairy Congress. He will return early in July.

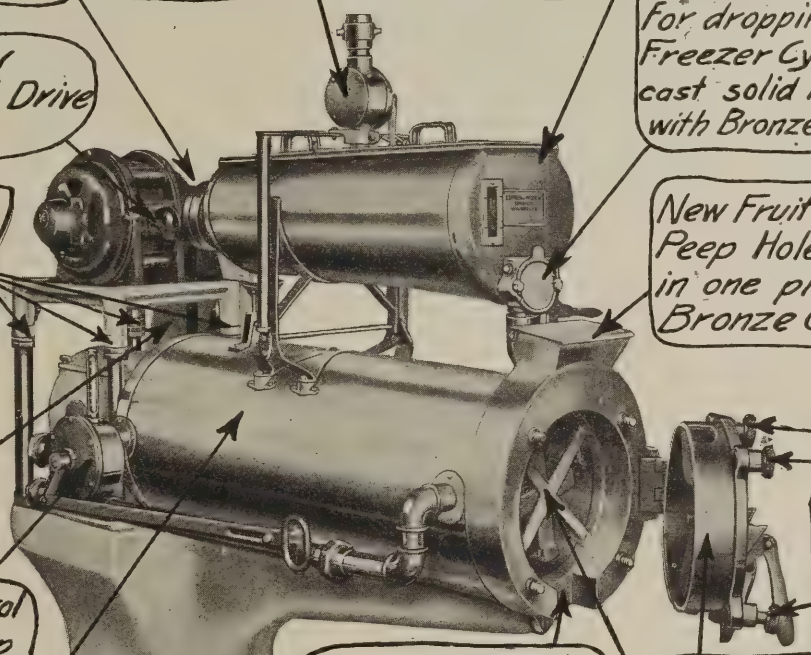
The World's Dairy Congress is expected to attract much attention in Europe, as it will be the first international dairy meeting to be held in the United States, and of broader scope than any similar meeting held anywhere. It was provided for by the Federal Agricultural Act, approved March 3, 1921, which authorized the President of the United States to invite foreign governments to send representatives. The city in which the Congress and show will be held has not been selected.



Anyone who studies the advertisements in this paper does not have to be told that it is a profitbale habit. He collects the profits daily.

U. S. Heavy Duty Freezers

No Others Offer Such Advantages!



Weights on Automatic Batch Weigher – Adjusted to establish Weight of Mix in each Batch.

Main Rotary Disc Cream Valve, mechanically operated by Automatic Batch Weigher Reservoir.

Cream Can made with Solid Cast Bronze Ends.

Rotary Disc Cream Valve for dropping batch into Freezer Cylinder. Housing cast solid in one piece with Bronze End of Can.

Motor Drive – Easily Converted to Belt Drive and vice versa.

Motor Table Easily Adjusted by turning lock nuts on Four pillars to take up slack in driving chain.

New Fruit Hopper and Peep Hole cast solid in one piece with Bronze Cylinder End.

Chain Guard with Chain running in oil, also insures lubrication of Chain Gears.

Four Nickle Plated Knurled Hand Nuts – Always remain in place.

Rotary Disc Brine Control Valve – Won't leak, creep or stick – Controlled from Front end of Freezer by means of rod.

Rapid Vertical Discharge Opening.

Hinged Cylinder Cover.

Patented Removable Bronze Bearing and Support, independent of Cover for front end of Dasher.

Cylinder easy to take apart – Has no soldered joints to leak.

Base and Gear Box Finished in beautiful baked White Enamel – All other parts Nickle Finish.

U. S. Heavy Duty Freezers are made in the Largest Variety of Sizes ever offered – 40, 50, 60, 80, 100, 120, 140 and 160 Qt. Capacities – With or Without Roller Bearings. Whipping Device of Most Approved Double Dasher Type – Easily Removed and Replaced. Shafts and Gears of Finest Materials – Extra Heavy Construction – Accurately Machined.

A REALLY HEAVY DUTY FREEZER THROUGHOUT.

Write for Our New Catalogue Showing the Latest Up-To-Date Freezer Construction.

U. S. FREEZER & MACHINE CORPORATION

Union Avenue and Frost Street BROOKLYN, N. Y.

Representatives and Distributors in All Parts of the United States and Canada.
May we not arrange to have one call on you?

25

INGREDIENTS FOR GOOD ICE CREAM CAN'T BE TOO GOOD.

Interpretative Slogan Announced for National Exposition

Supply Men Already Working Hard for Great Cleveland Week—Believe Industry Has Entered New National Phase

A SLOGAN for the great National Exposition for the ice cream industry in Cleveland next fall has been announced:

"ICE CREAM—A NATIONAL INDUSTRY—Come to Cleveland, October 16-21."

This slogan has been determined upon by The Association of Ice Cream Supply Men, which, after holding six large successful regional exhibitions within the last three years, is now directing plans for a mammoth National Exposition for the industry in conjunction with the Twenty-second Annual Convention of the National Association of Ice Cream Manufacturers next fall.

"This slogan is neither a group of meaningless words nor a mere catchy line," according to O. S. Jordan, president of the Association. "It has a real interpretative and descriptive significance because ice cream **is** a national industry. It extends from coast to coast, from Northern Canada to below the Mexican line. It is just as national as the House of Representatives. It is everywhere.

"Many of those engaged in it, because of the necessity of keeping their minds on their own individual problems, seldom if ever thing of it as such, however. They do not stop to realize that if the industry were not so nationally extensive their own individual activities would of necessity be that much smaller. They do not, some of them, always have time to stop to think that they are, in a large degree—just as is the case in every great industry — making money on the strength of developments, inventions, experiments and experiences of some other man or men in business perhaps 3,000 miles away or perhaps antedating them by five or ten years, but who also are or have been a part of their big national industry.



"Our Association believes that the great week in Cleveland, combining, as it will, a convention of the National Association of Ice Cream Manufacturers and a National Exposition for the ice cream industry will give the great emphasis of action to the fact that all persons engaged in or dependent upon the manufacture of ice cream in any way are part of what has now become literally a **national** industry and that the individual problems of all these persons merge in the end into the national problems coming to the industry as a whole."

According to the Salesmen's Club of the Association, which has 500 members entering every county in every state in the United States and the Canadian provinces sometime during each season, and all of whom are now campaigning for attendance at the great industrial week in Cleveland, this slogan has still another meaning, and one that every ice cream manufacturer can afford to bear in mind in the advertising of his own individual business.

A confidential bulletin of the Salesmen's Club, issued late in April, and for the reproduction of a part of which permission has been received, says of this slogan:

"Ice cream is a national industry in the sense that it goes from coast to coast, from boundary to boundary. Geographically, ice cream stakes its limits no less widely than the country itself does.

"But ice cream is a national industry in another sense as well. It is an indigenous industry. It began in, it grew in, it belongs to just one country—this one. Europe produced the Kaiser, the bull-fight and a philosophy of nations based on a balance of power. This country has produced baseball, practical democracy—and ice cream.

"Ice cream is **the** national industry. It is just as national as George Washington or Abraham Lincoln. Every American child learns ice cream before he learns who discovered his continent. Sir Walter Raleigh found tobacco when he came to America. His countrymen, when they come today, find soda fountains. Histories carry pages telling of two great American contributions to the commodities of the world—Indian corn and tobacco. Ice cream is just as solely, as truly, as representatively and as affectionately an American commodity as either of these. Ice cream is a **national** industry—**the** national industry."

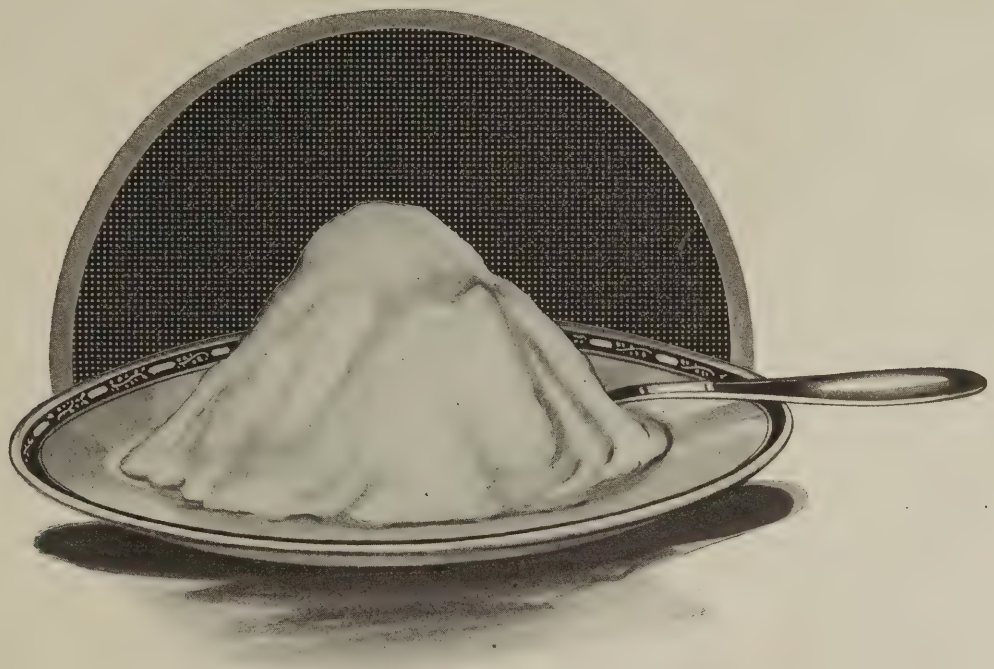
As to the Exhibition itself, the Association of Ice Cream Supply Men is perfecting the minutest arrangements for its great show, which will be held in the magnificent new $6,000,000 Public Hall, a part of a gigantic Cleveland civic development centering around the Mall in the very heart of Cleveland's business section and within two or three minutes' walk of the principal hotels —within two minutes' walk of the Hollenden in which the convention sessions of the National Association will be held.

The plans for the exposition provide for net display space exceeding by 50 per cent the space occupied at the Eastern Regional Exhibition in Buffalo last fall which accommodated 150 booths. Slightly more than half the membership of the Association has already requested the tentative reservation of square footage exceeding by 12 per cent the total display space used at this 1921 Buffalo Exhibition, apparently indicating that Association members will occupy practically all of the space, it being a settled policy of the Association, in fairness to its own members, to take care of their display requirements first, regardless of the size of space each member may desire.

Some very interesting comment and observation on the recent and present growth and status of the ice cream industry are contained in a Confidential Printed Bulletin issued by the Association to its members recently, a part of which has been released for general publication and reads:

"Like many other businesses, the commercial ice cream business since the beginning of the European war has become more and more self-conscious. The war accelerated two tendencies in modern industry: a realization of the minute interaction of all business and all economic groups; and a closer internal knitting together of each separate industry to better solve production problems and to protect and develop markets, legislative interests, etc., etc.

"The ice cream industry has come, for example, to know more today of its inter-relations with the milk, sugar, steel, lumber, tin and salt industries, with the



The Final Touch—

that delicate, delightful, dainty Vanilla Flavor in your ice cream comes only from using high-grade, quality flavor. Hudson's Vanilla Flavors are used by those ice cream manufacturers who put quality before price — because they know from experience that it's a wise thing to do.

Hudson's Vanilla Flavor will not freeze out. It retains its original flavor, always good to the last.

HUDSON'S FAMOUS ICE CREAM FLAVOR VANILLA BLEND No. 52 SPECIAL

$5.00 per Gallon . . . . . in Barrels
$5.50 per Gallon . . . . . in Kegs

HUDSON'S CONCENTRATED VANILLA BLEND No. 52

Six times stronger than Extract.

$25.00 per Gallon. Special prices in quantities.

Both these products are sold on a guarantee of satisfaction backed by a reputation of thirty-four years' standing.

The Hudson Manufacturing Company

(INCORPORATED)

GABE S. WEGENER, President — ESTABLISHED 1888

Vanilla Products

119-121 North Union Ave. — CHICAGO, U. S. A.

Branches at Dallas, Texas — Los Angeles, California

progress of food chemistry and of engineering science and with merchandising resourcefulness, as well as with major national and international political and economic conditions, than it ever did before. Individual ice cream manufacturers, as well as the industry as a whole, have a broader understanding of the part played by the ice cream industry in the general economic scheme.

"Equally, however, the ice cream industry represents the trend of the times in that its manufactures also have come to appreciate specifically the particular and definite problems of their own business. Their interest in and understanding of the production and marketing of ice cream are more scientific and direct. In such times as these of industrial unbalance, abnormal inter-relations of supply and demand, of changing levels of wealth and shifting business dominance, ice cream manufacturers, in order to arrive at and maintain the most practical methods of production, to protect their present investments, and to expand their further field, have been compelled, in the mere survival of the fittest, to consider themselves more and more consciously as constituting a separate, well-defined industry, interrelated with many other industries, but an independent unit, nevertheless."

The Association of Ice Cream Supply Men's hotel headquarters in Cleveland for the big industrial week will be the Winton, East 9th and Prospect Streets.



WEIGHT OF MILK AND CREAM.

The following table taken from Bulletin 98 of the United States department of agriculture, shows the variations in weights of milk from skim milk to 40 per cent cream, as worked out by the Bureau of Standards in connection with the dairy division. Of course it is understood that the milk varies continually in some of its ingredients and yet remains normal, hence, any figures showing exact weights are general:

Milk and Cream Weight Per Gallon.

Per cent		Pounds
.02	skim	8.63
3.00	milk	8.6
3.5	milk	8.59
4.0	milk	8.58
5.0	milk	8.58
6.0	milk	8.57
10.0	modified	8.53
12.0	cream	8.5
15.0	cream	8.47
20.0	cream	8.43
25.0	cream	8.39
35.0	cream	8.31
40.0	cream	8.28



PFAUDLER'S NEW YORK OFFICE CHANGES QUARTERS.

The Pfaudler Company, of New York City, has recently abandoned their old quarters and are now located at 8 West 40th St., Room 1103. They moved from their former location at 1802 World's Tower Building, 110 West 40th St., around the first of the month.



COMPOSITION OF SKIMMED MILK AND CREAM.

	Water	Fat	Casein	Albumin	Milk Sugar	Ash
Skim milk..	90.5	.3	Total Protein 3.4		5.1	.7
Cream	63.74	30.0	1.94	.51	3.24	.53
Cream	72.84	20.0	2.21	.59	3.75	.61

SPEAKING OF CONVENTIONS.

To the Members of National Association of Ice Cream Manufacturers:

From time immemorial men and women have gathered together for the interchange of thought and ideas looking toward their mutual welfare and advancement. Notable among such gatherings, and probably the first on record, is that presided over by old Father Noah, which, after many days, took final adjournment to Mount Ararat. Organization in this case certainly saved the day.

Coming down a little farther in history,, we find Benjamin Franklin advising the Continental Congress to hang together, or they would probably hang separately. The fact that his advice was followed is indicated by the wonderful organization America is today.

A more modern instance of all-important gatherings is the Limitation of Armament Conference just closed, undoubtedly the greatest international convention of all time. And this brings us to the gist of our letter—the announcement of a gathering that we believe is going to be historical in the annals of our own organization.

The 22nd Annual Convention of
The National Association of Ice Cream Manufacturers
will be held at Cleveland, Ohio,
Hotel Hollenden,
October 16, 17, 18, 1922,

and on the same dates the Association of Ice Cream Supply Men will put on an exhibit of ice cream machinery and supplies that will be most complete in every respect.

Three hundred rooms have been reserved at the Hollenden Hotel for the use of ice cream manufacturers. To be assured of the most desirable rooms it is suggested that you make your reservation immediately, and forwarding direct to the Hollenden Hotel.

Application for reduced rates is being made and we shall probably be granted the same concession as last year—fare and one-half for the round trip.

The Program Committee is already at work, and you are requested to advise this office as to any suggestions you may have to offer along this line. If there is any subject in which you have a particular interest and that you would like to have taken up, now is the time to mention it and your expressions will be gladly received.

In the meantime just jot down on your calendar the dates—October 16th, 17th and 18th—and make up your mind that you are going to be there.

The benefit of breaking away from home environment and seeing new things, meeting new and old friends, is refreshing and stimulating and leads to progress. And in these days—even more so than in the days of Noah and Franklin—the more closely bound together an organization is the more effective and far-reaching is the good it can accomplish, both for the individual and for the industry at large. By all means plan to attend this convention.

C. G. MORRIS, President. N. LOEWENSTEIN, Secretary.



HEARD IN PHYSIOLOGY CLASS.

Teacher: "What causes the cracking of the enamel of the teeth?"

Pupil: "Biting hard materials."

Teaeher: "Name some."

Pupil: "Nut shells, rock candies, marble cake and brick ice cream."—Sheboygan Co. News.



SEALRIGHT

Foremost in the practical solution of "Bulk Ice Cream in Package Form." The most efficient and adaptable container; the simplest, most economical and dependable packaging machine; and a carefully planned Merchandising and Advertising Campaign showing you how to get the most good from it.

The "Sealright Way"—the most advanced step in twenty years, meets a long felt need in a practical, satisfactory, economical and efficient manner. Naturally, its adoption is already national in character.



SEALRIGHT CO., INC.

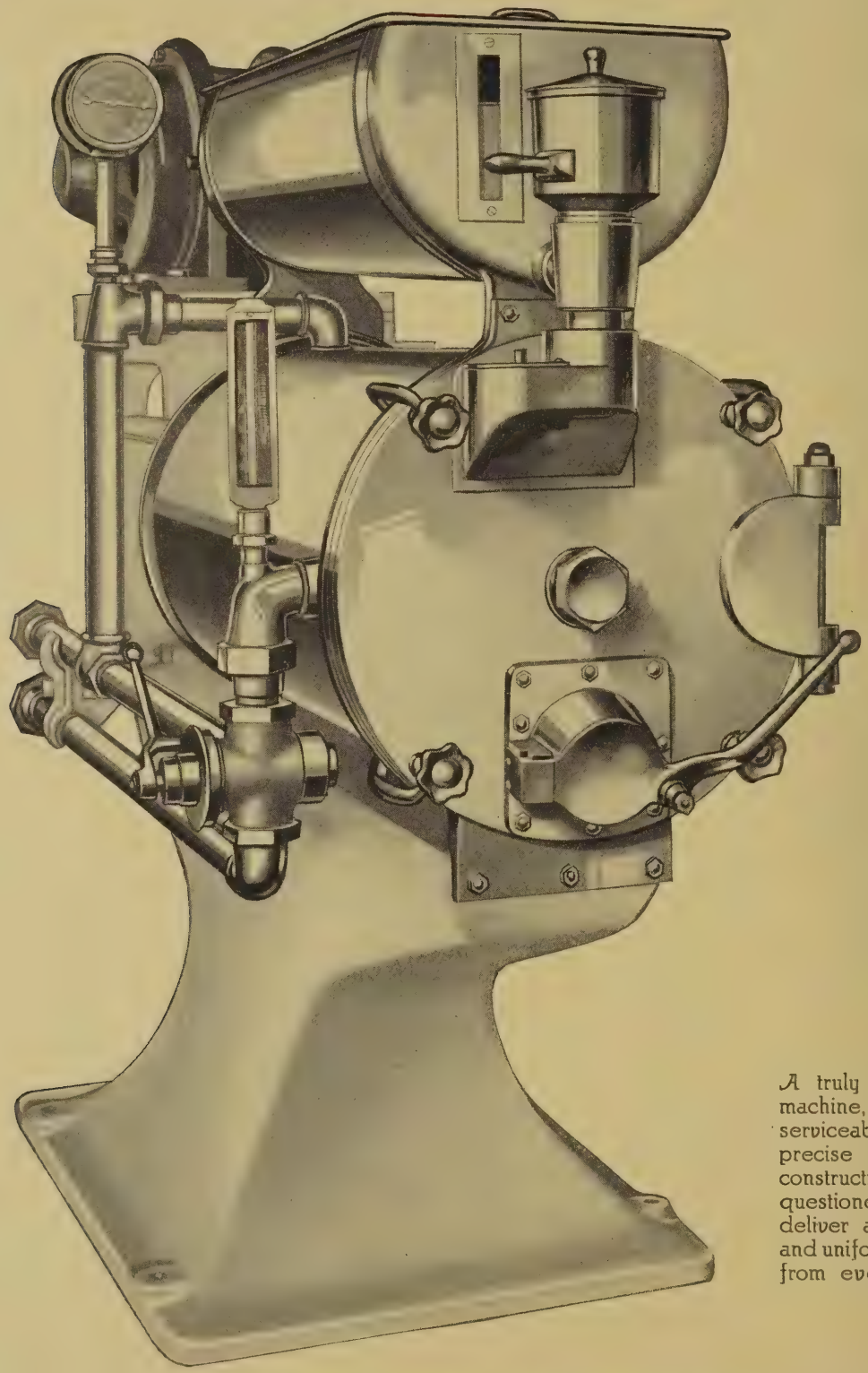
Largest Manufacturers in the World of Cylindrical Liquid-Tight Paper Containers

FULTON - - NEW YORK



HERE IT IS!

That New Cherry 80-Quart Freezer you've been hearing about



A truly wonderful machine, combining serviceability with precise mechanical construction and unquestioned ability to deliver a big yield and uniform product from every batch.

Put it thru in '22

J. G. CHERRY COMPANY

CEDAR RAPIDS IOWA

St. Paul, Minn. Tama, Iowa. Peoria, Ill.

Put it thru in '22

Take off your Hat to the Greatest Ice Cream Brine Freezer Ever Built!

The "Cherry"

80-Quart

ITS massive beauty makes every other brine freezer look cheap, and tawdry.

It is an engineering *masterpiece* built like a machine gun, with equal insistence and precision in every detail of workmanship.

Alloy steel, phosphor bronze, cast brass, rolled copper, and nickel silver are among the materials used—every part made from the metal best adapted to that service without regard to cost.

Driving Mechanism. Totally enclosed cut gears are made of alloy steel.

SKF self-aligning ball bearings are used, (five of them). The only freezer in which they will be found.

Outer Cylinder—a seamless copper tube, nickel plated and securely flanged into front and rear heads.

Brine Cylinder—a 42 oz. copper tube, separated from outer cylinder by a 1 inch layer of insulation. Joints hermetically sealed and leak-proof.

Inner Cylinder—a welded tube made of a heavy sheet of nickel silver. It is fitted with brass baffles set like the threads of a screw and machined so as to fit snugly the 19/32 inch brine-space between the inner and outer cylinders. Brine has to travel round and round, from end to end—a long journey, in which its refrigeration is put to efficient use.

This cylinder is readily removable, giving access to brine space.

Freezing chamber. Holds 111.8 quarts without the dasher, or 106.6 quarts with dasher. But we rate this machine as 80 quarts capacity.

Dasher—made of phosphor bronze and cast brass. Its special design including its 45 degree scrapers, insures quick unloading, while a clutch mechanism prevents sticking when dasher is taken out.

Beaters. Sixteen blades set at an angle of 70 degrees, 1½ inches apart. They assure quick freezing and shipping.

Outlet Gate. Disc and handle in one piece and held against the machined edge of the outlet with 4 "Belleville Washers" or springs, such as used in the recoil mechanism of the French 75 mm guns.

For hundreds of other vital and important features of this truly remarkable machine, consult a "Cherry" Salesman or send for our new Bulletin, just off the press.

Put it thru in '22

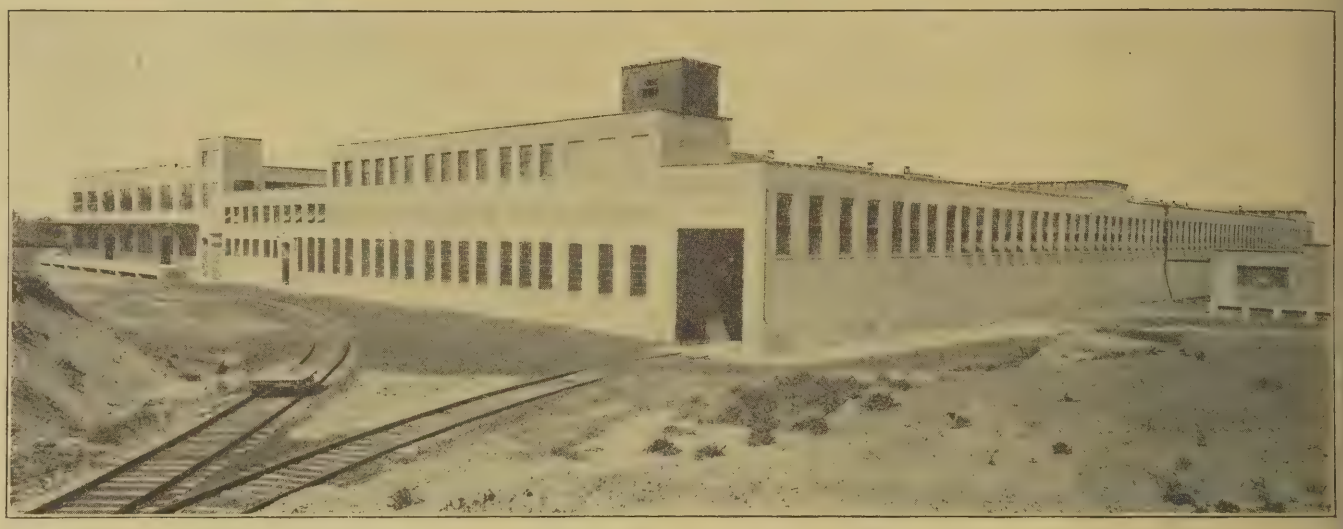
J. G. CHERRY COMPANY

CEDAR RAPIDS IOWA

St. Paul, Minn. Tama, Iowa. Peoria, Ill.

Put it thru in '22

"U. S. GEL"



WORLD'S LARGEST INDIVIDUAL GELATINE FACTORY

UNITED STATES GELATINE CO.

MILWAUKEE, WIS.

U.S. Gelatine is produced in the World's Largest Gelatine Factory, which means Uniformity, Purity, Strength at the Right Price. Stock used in the manufacture assures a bright, clean, odorless Gelatine. Its use means a smooth, high quality and superior texture Ice Cream.

LET US SEND YOU SAMPLES AND QUOTE ON YOUR REQUIREMENTS

FROM GENERAL MANAGER SKINNER.

Chicago, Ill., April 13, 1922.

Governor R. A. Nestos, of North Dakota, realizing hat the agriculture of that State requires diversification and that the dairy cow is important to the success f their agriculture, called a meeting of farmers and usiness men for Bismarck, on March 28. The result was he formation of a committee to carry on an intensive ampaign for dairying throughout the year, culminating n gathering together delegations of farmers, cattle reeders, creamery men and milk dealers from all parts f the state for the purpose of attending the National)airy Show in large numbers this fall.

South Dakota, through its State Dairymen's Asso- iation, organized a similar committee under the patron- ge of Governor McMasters, who accepted the chairman- hip at the annual meeting of that association held at Huron, S. D., March 29th and 30th. On the evening of pril 1st the Sioux Falls Chamber of Commerce held a oint meeting of farmers, cattle breeders, milk and reamery men, merchants and bankers of their part of heir state to begin a forceful dairy program for the ear and a big round-up at the time of the Show. On pril 3rd a conference was held at Ames, Iowa, by the ollege and state leaders of agricultural work in that tate, and a committee named to inform the farming and airy interests of the state about the Show being held n the Northwest, to insure their taking advantage of 's close proximity and attending it.

The General Manager of the Show was present at all these meetings and never before attended such en- usiastic meetings. Wisconsin is in action through ate dairy leaders, creamery owners and breeders, in an ffort to double the attendance this year from that great airy state, and Minnesota has a committee of thirty, ith Governor Preus at the head, ten from St. Paul, ten om Minneapolis, and ten from the state at large, made o of the biggest business leaders and leaders of agri- ltural work of the state. This committee is already action organizing all factors for the purpose of mak- g a drive that will bring their whole agricultural and airy interests to our Show, as also their business people.

This all calls for us to be a part of the greatest edu- tional dairy show yet held and to arrange exhibits at will make the utmost impression upon the visitors the magnitude and importance of this industry.

Many new features are to be added to the Show for e benefit of the farmers and consuming public partic- arly, and we all should feel a responsibility to do our st for this growing and permanent natural dairy coun- y of the Northwest.

Yours very truly,

W. E. SKINNER,
General Manager.

NOWLEDGE OF THE FUNDAMENTALS BRINGS SUCCESS.

Every business, no matter how large or small, is gov- ned by some fundamental principles. The better these inciples are understood the better will be the chances r success.

If you are interested in the city milk business, ether you are a shipper, buyer, or distributor of city lk you will appreciate the fundamental principle of e city milk business as given in chapters five, six and ven of The City Milk Supply by Horatio Parker. This ok can be secured from the Olsen Publishing Co., 210 camore St., Milwaukee, Wis., for a remittance of $5.

DE RAEF Ice Cream Weight Standardizer



The only patented equipment offered to the ice cream manufacturer for the Standardization of all makes of ice cream — Vanilla — Fruit — Nut — Sherbets—without any adjustments of any kind—no charts—no weights regardless of weight of mix—making it practical in any plant, to make an entire day's run and not to vary an eighth of a pound to the gallon.

Let us demonstrate this De Raef equipment in your plant —subject to sale. We will GUARANTEE YOU A SAVING sufficient to justify you to install this equipment.

We will send you the names of Ice Cream Plant Managers who will tell you their opinion of this Standardizer.

Every working part works in bath of special oil making it rust proof from the salt laden and damp air.

Drop us a card

N. A. Kennedy Supply Co.
Kansas City, Mo.

National Distributors



NO advertising medium equals the 24-sheet poster in portraying the tempting appetite appeal of ice cream.

Upon your request we will send you full-color miniatures of the latest series of Nordhem Ice Cream Posters.

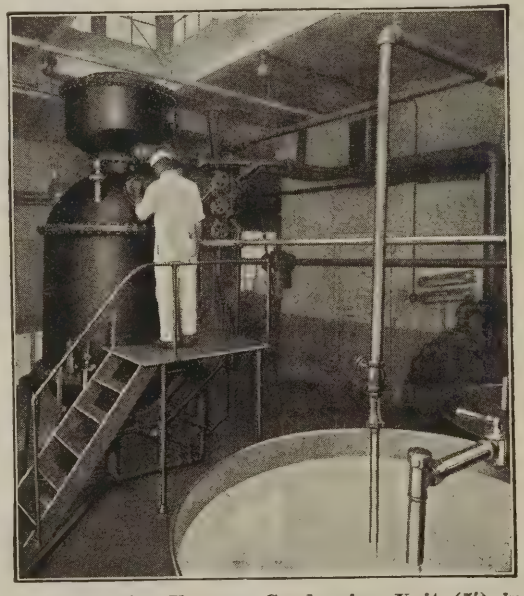
NORDHEM SYNDICATE SERVICE
Advertising and Selling Service for Ice Cream Manufacturers
8 West 40th Street NEW YORK

The Vacuum Pan in the Ice Cream Plant

By H. J. LIEDEL, Mojonnier Bros., Chicago.

EVERY manufacturer of ice cream is interested in making a better product, and it is this desire on the part of the manufacturers to constantly improve the quality of ice cream that has caused the industry to grow from an annual output of 154,000,000 gallons in 1912 to 258,000,000 gallons in 1920. When it is possible to produce not only a better flavored product but to do this at a lower cost the manufacturer is naturally doubly interested. It has been found in actual practice that this is readily possible with the aid of a vacuum pan.

The question immediately arises as to why ice cream made in a vacuum pan should be any better in flavor and texture. Everyone who has been connected at some time with a condensed milk plant knows that often whole milk is taken in, which has bad-off-flavors and that these off-flavors are not apparent in the finished product having been entirely removed in the condensing process. This is due to the violent boiling to which the milk is subjected under vacuum, the maximum temperature being 140 degrees Fahrenheit or less during the entire process since the boiling point of water is 140 F. in a vacuum of 24 inches of mercury and in a vacuum pan this vacuum or higher is easily obtained. In making ice cream in a vacuum pan any off-flavors present in the raw materials are removed in the same way, and also a better flavor is assured because the raw materials used are fresher and the condensation is much less than the condensation of condensed milk ordinarily used, eliminating any possibility of a condensed milk flavor. That a better flavored and cleaner product is produced by this method has been proven in actual practice since it has been found that only two-thirds the amount of flavoring formerly used is now necessary since all the flavoring added acts as a flavor, and not as a neutralizer to counteract off-flavors.



1.—Mojonnier Vacuum Condensing Unit (5') in plant of Lawrence Ice Cream Co., Chicago. Temperature of milk never exceeds 140° either in hot wells or vacuum pan.

However, of equal or greater importance, is the decrease in costs. If every manufacturer could cut down the cost of his mix nine cents per gallon, the cost would in many cases be reduced 25 per cent and in some cases more. In other words, what figure multiplied by nine represents the cost of your mix per gallon? Not many multiples to be sure so that a saving of this amount is a matter of vital importance at a time when the margin of profit is decreasing and competition increasing. This large reduction in cost per gallon is assured when the mix is prepared in the vacuum pan because of the following reasons. The solids not fat are obtained from the product in which they are by far the cheapest, namely, fresh milk. Sweet butter is used to make up the shortage in butterfat, and during the summer months when ice cream production is at its peak, butter prices are the lowest. Also the raw materials used are handled once only, since pasteurization, condensation, standardization and mixing are all thoroughly accomplished in one operation and the labor required is n more than in the pasteurizing process. In Formula N 1 the amounts of raw materials required to make 90 pounds or 100 gallons of finished mix is given followe by the calculations involved in arriving at these figure

From Formula No. 1 it can be seen that the calc lations required for figuring a mix of this kind a relatively simple and by following the same procedur it is possible to obtain the amounts required for mix of any composition desired, also the cost of the m per gallon which will show the saving under local cond tions over the present cost. Cases will arise, howeve when sweet butter is not available in which case 20 p cent cream would probably be used and Formula No. is for a mix making up the fat shortage with 20 per ce cream and shows amounts required for 900 pounds 100 gallons finished mix.

In making up the mix the required amount of wh milk is run into the hot wells, the pasteurizer formerly used f mixing will do just as well, t butter or cream is added, and t weighed sugar and gelati poured in. The mix is th heated to 145 degrees F. T mix can be accurately standar ized at this point by getting t ratio of fat to solids exactly t same as the ratio of the fat solids desired in the finished mi The mix is quickly drawn in the pan, the water removed a the finished mix dropped into drop tank. From here the m is run through the Viscolizer Homogenizer over the cooler to the holding tanks ready to frozen. It will be noted that mix made through the pan w have a greater viscosity, all oth conditions being equal, than o which is not and it is therefo easier to obtain the desired ov run. In most cases where a p is installed, very few changes necessary since the equipment already in use is all t is needed with the exception of the vacuum pan its the vacuum pump and possibly the hot wells. No ad tion in the labor force is necessary since the us number can handle the processing, and the operation a pan can be learned in a few hours.

In addition to proving a valuable asset in procuri a better mix, the vacuum pan always offers an out for surplus milk enabling the manufacturer to turn skimmilk into sweetened condensed milk which w keep for many months, and can be turned back i ice cream or sold on the market. Any possibility waste or loss due to running solids down the sewer a having to buy them later is eliminated.

In order that any amount of ice cream and m may be readily handled the vacuum pan is made various sizes to meet any requirements ranging fr the 3 foot size, having a capacity of 185 gallons finish mix per hour to the 7 foot size having a capacity 1140 gallons per hour finished mix.

(Continued on page 24)



Of Special interest to users of gelatin

That quality of product which has long been associated with the name of Swift & Company now applies to a complete line of gelatin.

And it is significant that the leadership which is granted to other Swift products is fast coming to these gelatins which have been on the market little more than a year.

The reason, however, is plain. In these gelatins, as in the other Swift products, superior quality is achieved by greater care in every detail of preparation,

Even the air is washed

It is not enough for us to have an abundant supply of raw materials from which only the best need be chosen, or to have the most modern equipment for experienced men to use in making the finished product.

Absolute sanitation is the watchword in every step of the process. The air, for instance, which goes into the factory where Swift & Company's Gelatins are made, is thoroughly washed in pure spring water.

So it is that we can offer you gelatins, pure, free from taste and odor, of good strength, unusual clarity and dependable uniformity.

The prices will interest you.

Quick service from nearby warehouses

The quickest deliveries are assured through our established system of warehouses in all parts of the country.

Makers of ice cream, marshmallows or icings, particularly those who recognize the value of purity and quality in their products, are invited to write for samples and quotations on the different grades.

Or, upon request, one of our representatives will call. Address Dept. 6-A.

Swift & Company

Chicago

THE ASSOCIATION OF ICE CREAM SUPPLY MEN MEMBER

From the results obtained by this method, it is natural to expect that the vacuum pan, which has been identified with the dairy industry since its earliest days, will prove as necessary to the ice cream plant as it has to other branches of the industry and this is rapidly being demonstrated by the large number in operation at the present time and they will continue to demonstrate it by giving a lifetime of service.

Formula No. 1.

10% Fat, 14% Sugar, 35% Total Solids.

1098.0 lbs. whole milk, 4% fat, 12.6% total solids.
55.5 lbs. butter, 83 % fat, 84.5% total solids.
5.2lbs. gelatine.
126.0 lbs. sugar.

1284.7 lbs.
384.7 lbs. water to be evaporated.

900.0 lbs. finished mix.

The evaporation of this amount of water requires about 48 lbs. of coal and 750 gallons of 60 degree water.

Calculations.

35% total solids — (10% fat + 14% sugar + .5% gelatine) = 10.5% milk solids not fat.
.105 × 900 = 94.5 lbs. milk solids not fat required.
94.5 ÷ .086 (S. N. F. test of whole milk) = 1098 lbs. whole milk required to make up milk solids not fat.
1098 × .04 (fattest of whole milk) = 43.9 lbs. butterfat in whole milk.
900 × .10 = 90 lbs. butterfat required.
90 — 43.9 = 46.1 lbs. butterfat short.
46.1 ÷ .83 (fat test of butter) = 55.5 lbs. butter required.
.14 × 900 = 126 lbs. sugar.
.005 × 900 = 4.5 ÷ .87 = 5.2 lbs. gelatine (87% solids).
Solids not fat in butter disregarded.

Formula No. 2.

10% Fat, 14% Sugar, 35% Total Solids.

880.0 lbs. whole milk, 4% fat, 12.6% total solids.
275.0 lbs. 20% cream, 20% fat, 27% total solids.
126.0 lbs. sugar.
5.2 lbs. gelatine.

1286.2 lbs.
386.2 lbs. water to be evaporated.

900.0 lbs. finished mix.

Same amount of coal and water is required as in Formula
.10 × 900 = 90 lbs. butterfat required.
.14 × 900 = 126 lbs. sugar.
.005 × 900 = 4.5 ÷ .87 = 5.2 lbs. gelatine (87% solid
.105 × 900 = 94.5 lbs. milk solids not fat required.

Let X represent pounds of milk required and Y rep sent pounds of cream.

.04 X + .20 Y = 90 lbs.
.086 X + .07 Y = 94.5 lbs.
X = 880 lbs. whole milk.
Y = 275 lbs. cream.

With the aid of a slide rule the calculations are grea simplified and reduced.

ELPAM

(*Imitation Maple Flavor*)

For making MAPLE Ice Cream. A trial will convince you as to its quality and business building qualities.

G. W. Wardrop Co., Inc.
450 BROADWAY BOSTON, MASS.

DAVIS-WATKINS' EASTERN SALES ORGANIZATION.

The accompanying picture shows the Eastern Sa Organization of the Davis-Watkins Dairymen's M Company. Mr. E. A. Phillips who is shown in the cen of the lower row is the Sales Manager of this organi



Top row (left to right): E. Redmerski, F. Conway, M. Cutler, J. P. Dorazio, J. Rooney.
Center row (left to right): C. G. Warner, R. D. Britton, J Latham, F. L. Searle, D. F. Killorin, W. F. Holzapfel.
Bottom row (left to right): C. Knauer, C. P. McGuinn W. J. Betty, Jr., E. A. Phillips, G. E. Fuller, C. Kopmann, Knauer.

tion, and the other men have their respective territo throughout the eastern section of the United States. T picture was taken at a recent Sales Convention held the Jersey City Office and at which these men liste to talks given by several executives of the Davis-W kins Organization.

"Why, how did you come to have an accident?"
"I didn't come to have an accident. I came fo joyride."

* * *

Some girls can do better standing at the curb in morning than others could standing under the mistle

* * *

If it wasn't for a few bad roads and ancient tin liz what would some of us have to kick about?

* * *

If ham hangs out in a smokehouse, where doe veal loaf?



Mixing Room at plant of R. E. Rakestraw, Mechanicsburg, Pennsylvania

Pfaudler

An Ideal Plant—

THIS is by no means the *largest* plant we have equipped, but in many respects it is one of the most ideal. Note the light, airy mixing room, the complete absence of shafting and excess piping—the general sanitary appearance. Pfaudler Batch-Mixer and Pasteurizer appears in foreground—in the rear two Aging Tanks, which are suspended directly over freezers on floor below. The plant handles 1000 to 1500 gallons of cream daily.

If you reside in Pennsylvania, near Mechanicsburg, we suggest that you run over to see Mr. Rakestraw, who will be glad to show you his plant. Incidentally, it may help you make your decision on equipment.

Mail the coupon for a proposed plan of operation, stating daily capacity.

The PFAUDLER CO.

The World's Largest Makers of Glass Lined Steel Equipment

ROCHESTER, NEW YORK

NEW YORK
1802 World's Tower Bldg.

CHICAGO
1442 Conway Bldg.

SAN FRANCISCO
206 Sharon Bldg.

FOREIGN AGENCIES:
Enameled Metal Products Corporation, Ltd., Imperial Bldgs., 56 Kingsway, London, England; Mauri Bros. & Thomson, 123-131 Castlereagh St., Sydney, Australia

..... 1922

THE PFAUDLER CO.,
Rochester, N. Y.

Gentlemen:

Make me a proposition. I handle..... gallons of cream daily.

.....

.....

I.C.R.-5-22

NATIONAL DAIRY COUNCIL EDUCATIONAL CONFERENCE.

The National Dairy Council office in Chicago was the meeting place recently of an enthusiastic group made up of 19 men and women leaders from the various District Dairy Councils affiliated with the National Dairy Council. These people assisted by local paid workers have successfully carried on milk campaigns in over one hundred cities and communities during the past year. The meeting was especially worth while in that it afforded the opportunity to talk over future plans and exchange ideas as to the best method of emphasizing the importance of dairy products in everyone's diet.

Several new pieces of literature for use in educational work were adopted. One of the most interesting was the "Mother Goose Milk Rhymes." These rhymes were composed by the children of Walton School, Philadelphia, and have been assembled in a booklet, along with attractive outline illustrations which are to be colored by the children while they are learning the story of milk from the "Mother Goose" jingles. This booklet will be distributed widely among the children of the country.

"The Old Woman in the Shoe," a cut out puzzle for children, shows the old woman surrounded by her healthy brood after she has moved from the old shoe into the shiny new milk bottle home. This cutout puzzle will be used widely in milk campaigns and will also be sold to dealers.

Several new three color posters for schools, showing milk serving and the importance of milk in bringing children up to proper weight, were decided upon. A poster for use in factories entitled, "Milk Puts Power Behind the Blow," and reproductions in miniature of the series of National Dairy Council billboard posters will be ready within the next few months.

A new motion picture entitled, "Highland Lassie," depicting the care exercised in handling milk and emphasizing how many processes it goes through and yet reaches the consumer at a reasonable price will be added to the film library of the Council.

Plans for work during the summer months in all the campaigns were discussed. A special drive will be made to increase consumption of milk drinks at soda fountains and to teach the value to restaurants of dairy products for summer time menus. Some cities are planning to do considerable educational work in play grounds and establish the serving of milk.

Some interesting side-lights on the success of educational work as carried on by the National Dairy Council were brought out at the meeting.

The Philadelphia Inter-State Dairy Council is carrying on work in the City of Philadelphia and is also meeting the demand from both the rural and urban communities of the entire Philadelphia milk shed area.

During the past year, educational work was carried on in Wilmington, Del., Atlantic City, N. J., Harrisburg, Lancaster, Johnstown, Trenton and many other cities.

That the Philadelphia Council is carrying its message home is best shown by the fact that despite industrial depression, the retail sales of milk in Philadelphia last year directly traceable to the educational work which has been done were increased 14 per cent.

The Baltimore Dairy Council has been successful in promoting the serving of milk in all the schools of Baltimore. The Council is carrying out its work according to a plan which has the approval of Dr. E. V. McCollum of Johns Hopkins University.

The New England Dairy and Food Council is reaching all parts of New England with the message of "Milk for Health." Some especially far reaching work is being done in Boston with groups of Italians, Polish and other foreigners in teaching them how to use more dairy products. A number of foreign workers are employed for this purpose.

The Pittsburgh District Dairy Council began permanent educational work in Pittsburgh January 1st. The Milk Fairy Play is being produced throughout the city and splendid co-operation is being given by the leading health agencies and women's clubs. An increase in the consumption of milk is already noticeable.

Columbus, O., is another city which has started, during the last thirty days, to carry on an educational milk campaign. The local parent-teachers organization is fostering the program and plans are being made to introduce the serving of milk into every school in the city.

Cleveland "Milk for Health" campaign has been one of the means of increasing milk consumption there to a remarkable extent. A special feature of the work there is the animal feeding experiments based upon diets supplied by Dr. McCollum. Window displays of chickens and animals which have been fed during the growing period on proper and improper food show by contrast in a telling manner the relation of food, and especially dairy products, to growth and physical efficiency.

The food budget lessons are unique in the Cleveland campaign. Two thousand woman leaders, enrolled in classes of from 5 to 15 attended the course of six food budget lessons this winter. These women in turn taught other women in their communities what they had

BACK OF PUYALLUP QUALITY ICE CREAM FRUITS AND MARASCHINO CHERRIES are modern laboratories with 11,000 bbl. cold storage capacity, situated amid the gardens of 1800 organized growers in the world's finest bush fruit area.

PUYALLUP & SUMNER FRUIT CANNING CO., Puyallup, Wash.

Case of Six 10-Oz. Samples for the Asking.

Distributors Wanted for Complete Line High Quality Products

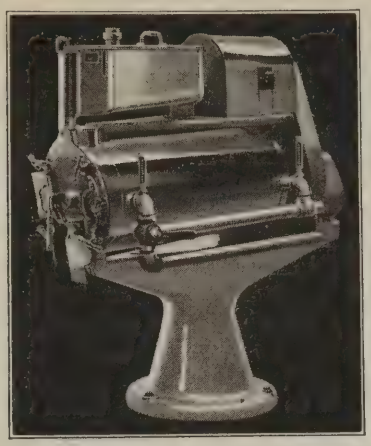


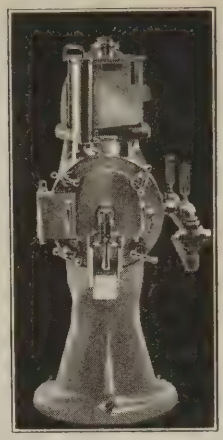
THE PUYALLUP LABORATORIES SITUATED MIDST THE WORLD'S MOST FAMOUS BERRY GARDENS



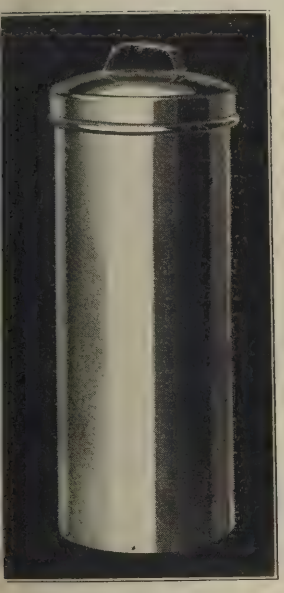


Progress Direct Expansion Freezers.





Progress Brine Freezers.



Dairymen's Memphis Can.

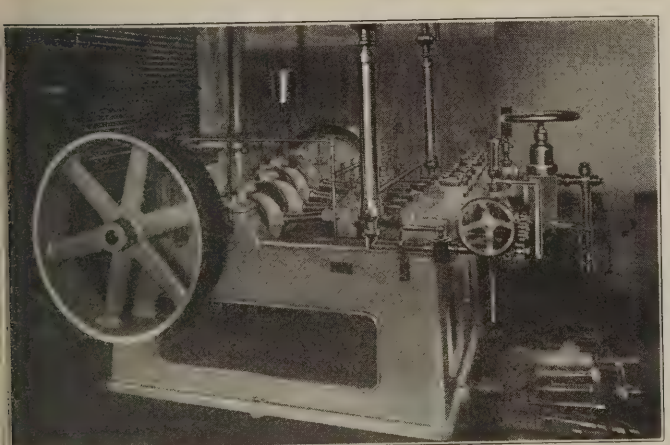
"PROGRESS" is the one word in the Ice Cream Manufacturers' vocabulary which really characterizes that particular business. It is also the trade name of this line of machinery, so familiar to ice cream men everywhere. It is truly the Dominating name of the ice cream industry. And, the machinery it designates is popular because of its sterling worth and value.

It is customary, in this day and age, for price to indicate quality. This is because few of us have the knowledge which will permit us to correctly judge quality, except by price. Trade names are also excellent indicators of quality. "Progress" is a trade name belonging to the Davis-Watkins organization. They are in duty bound to protect its reputation. And, this is an item of protection no careful buyer ever overlooks.

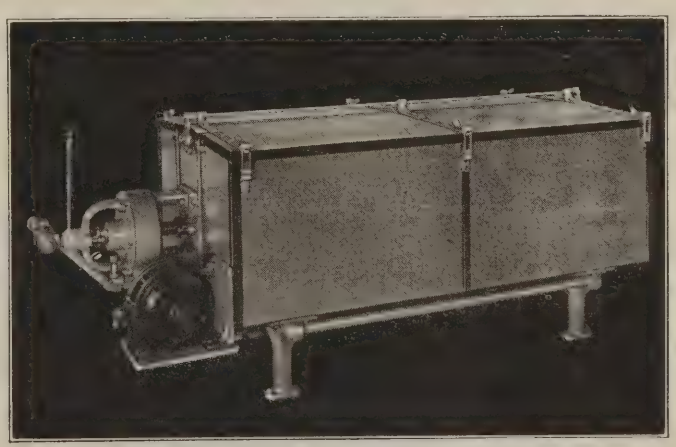
The Davis-Watkins Dairymen's Mfg. Co. is more firmly entrenched in the ice cream industry of America than some of us have understood. In the factories of this great organization ice cream equipment is an important item. Millions of dollars worth are turned out each year. Few ice cream plants in the world are without some of the Davis-Watkins machinery or equipment. And, many of them are completely equipped with it.



Dairymen's Memphis Can.



Progress Homogenizer.



Progress Batch Mixer.

Send for Davis-Watkins Catalog No. 6.

Davis-Watkins Dairymen's Mfg. Co.

CHICAGO, ILL., 710 W. Jackson Blvd.

JERSEY CITY, N. J., 122 Morgan St. KANSAS CITY, MO., 727 New York Life Bldg. SAN FRANCISCO, CALIF., 242 Jackson St
BOSTON, MASS., 498 Main St., Charlestown. DENVER, COLO., 1513-1523 Wazee St. SEATTLE, WASH., 326 Railway Exch. Bldg.

GOOD BOOKS WILL ASSIST IN IMPROVED METHODS IN EVERY MARKETABLE LINE.

learned. The lessons were given by six trained home economics demonstrators in all parts of the city.

The milk campaigns in St. Paul and Minneapolis, Minn., have been in progress since before the 1921 dairy show. In St. Paul the women's organizations of the city co-operating with the National Dairy Council recently held their first annual Child Health Day. About 15,000 people attended the meeting during the day. The program will be made an annual affair in St. Paul and will be duplicated by the National Dairy Council in other cities where educational work is carried on.

Minneapolis is finding their "chalk talk" man, who tells the story of milk through a series of cartoons, very instructive and interesting. Both cities are making elaborate plans to participate in the National Dairy Show again this year and to feature Child Health demonstrations under the auspices of the health organizations of the two cities.

The recent meeting in Chicago afforded all the National Dairy Council and District Dairy Council people present, the opportunity to realize the far reaching results that have been obtained from milk campaigns developed in co-operation with educational departments of cities. It was the consensus opinion that no better slogan could be brought to the attention of parents during the coming year than "It is a sacred right of your children to be as healthy as knowledge can make them," and along with this message to show the vital and necessary part that dairy products have in developing happy, healthy children.

⚜

$300,000 COMPANY FORMED TO MAKE SUNDAE-ETTES.

Following the introduction of the Sundae-Ette in Pennsylvania by Mr. H. L. Carpenter only a few weeks ago, comes the announcement that a company capitalized at $300,000, for the manufacture and distribution of this confection, has been formed in Connellsville. This company will be known as the Tri-State Sundae-Ette Company, and will have territorial rights covering the states of Pennsylvania, West Virginia, Maryland, New Jersey and the District of Columbia.

The board of directors of the company is composed of H. L. Carpenter, R. D. Henry, Frank A. Tarr, C. E. Wilson, William Wishart, J. H. Richter and S. J. I. Morningstar. Officers are H. L. Carpenter, president; R. D. Henry, vice-president; Frank A. Tarr, treasurer, and J. H. Richter, secretary. The company has opened offices in the Citizens' National Bank Building at Connellsville.

The Sundae-Ette Company is the owner of a machine the invention of Frank Bonage, that is a new innovation in equipment for producing chocolate covered ice cream bars. A single machine handles the ice cream, puts it between sugar wafers, dips it into chocolate, and freezes ready for the market, without the touch of human hands. This machine has a capacity of more than 600 dozen a day.

A number of manufacturing plants throughout the East, one to be located at Atlantic City, will be established and operated by the company. Equipment for the Atlantic City plant has been purchased, and will be put in operation soon. A number of contracts have been closed with manufacturers in several of the large eastern towns, who are turning out thousands of the popular confection.

The immediate popularity of this new chocolate covered ice cream commodity in this vicinity indicates the possibilities of a gigantic enterprise, and, speaking in this connection, Mr. Carpenter stated that within a short time more than a million Sundae-Ettes would be turned out daily.

⚜

ARTCRAFT VICE-PRESIDENT JOINS FREDERICK C. MATHEWS COMPANY.

James T. Alton, vice-president of the Artcraft Lithographing Co., Detroit, and in charge of sales for that organization, has resigned to join the selling staff of Frederick C. Mathews Co.

Mr. Alton's fifteen years of sales and creative experience and his study of color in stimulative advertising fits well into the plans of the Mathews Co., who operating their own manufacturing plant, are producing by special process, a type of color printing and illustration that has met with wide approval.

Frederick Mathews in an interview stated that his company had no intention of entering the lithographic field and that Mr. Alton's connection had no significance from that angle. "Alton," said Mathews, "was selected because of his judgment and long experience in the selection and arrangement of color in display advertising.

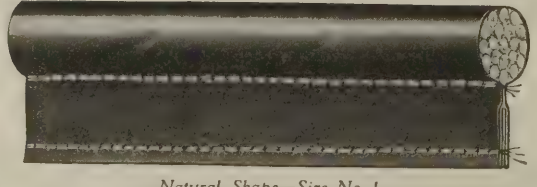
"There has been a need in our work for seasoned well balanced men of experience, and with the great growth of our business, we have been fortunate in attracting men who, seeing its possibilities, will prove invaluable in rounding out an organization which is rendering real service to the dairy industry."

⚜

You'll make better ice cream if you get the "Ice Cream Review."

Stop Cold Air Leaks *with*

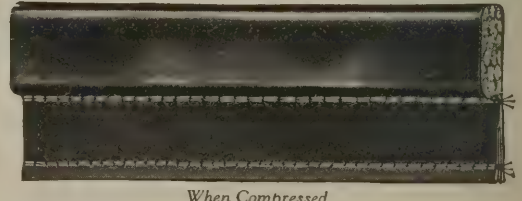
Wirfs Waterproof "AIRTITE" Cushion Gasket



Natural Shape—Size No. 1

(*Pat Applied for*

Stops cold - air - leaks through doors, windows, wall plugs, chutes, joints, etc. etc Also for weatherstripping homes and buildings. Simply tack on!



When Compressed

Get samples and prices, stating quantity needed.

E. J. WIRFS, 703 WAINWRIGHT BUILDING ST. LOUIS

DEPENDABILITY



Hendler's Fleet of C-T Electric Trucks, Capacities 3½ and 1-ton

Walk into the electric garage of any large user of C-T's and notice how few of the electric trucks are undergoing repairs. The repair department is so small you can hardly find it.

Extensive shops and large reserves of parts are not needed to keep electric trucks on the road. It is not unusual for a C-T Electric to be run every day for a year without losing a trip because of repairs or adjustment.

C-T Electric Trucks are always ready for the road and their performance is steady and sure regardless of weather conditions.

For city deliveries, frequent stop routes or short hauls C-T Electrics will save you 25% to 50% on your delivery costs and give you dependable service every day of the year for many years.

Let us know about your particular delivery problems and we will send you complete data.

COMMERCIAL TRUCK COMPANY

PHILADELPHIA

and eighteen other cities

ELECTRIC

WORLD WIDE KNOWN PUBLICATIONS PRAISE THE ASSOCIATION OF ICE CREAM SUPPLY MEN.

The Association of Ice Cream Supply Men which has received editorial comment in many newspapers and periodicals within the last two years has again been honored by the attention of two publications of international circulation and the very highest prestige.

One of these publications is "The World's Work," among the foremost internationally read constructive reviews of international economics, politics and literature, of which the ex-Ambassador to the Court of St. James, Walter H. Page, was long the editor.

"The World's Work" has a monthly department known as "The Council Table," the regular directors of which include such men as Charles W. Eliot, President Emeritus, Harvard University, Edward A. Alderman, President University of Virginia, Henry Morgenthau, former Ambassador to Turkey, Wm. S. Sims, Rear Admiral, U. S. Navy, James G. Harbord, Major-General, U. S. Army, Herbert Hoover, Secretary of Commerce, Robert S. Lovett, Chairman of the Board, Union Pacific Railway System, and Henry L. Stimson, ex-Secretary of War. This department each month carries some article of opinion or fact significant of the more important social, industrial, political or national trends of the moment.

In its March issue the Council Table of "The World's Work" contains an article on "A Business Code of Ethics," by Casper C. Yost, editor of the St. Louis Globe-Democrat. Mr. Yost's article points out the gradual and recent emergence of an ethical conscience in the business of the country. Prominent in his article are the following comments:

"* * * definite ethical standards are being set up by some groups of business men. Not long ago, The Association of Ice Cream Supply Men adopted and put into operation a 'Fair Practices Code' constituting essentially a code of ethics for that particular business. The Code consists of forty rules, fourteen of which govern the relations of the members with their customers, and the others the relations of the members with one another. It applies to concerns with an invested capital of more than $100,000,000 and annual expenditures of more than $200,000,000. Violation of the Code is punished by expulsion from the Association."

"The World's Work is read by leaders of industry, diplomacy and politics in all the capitols of the world, besides enjoying a tremendous and influential circulation in the United States, Canada and Great Britain.

"The Nation's Business," organ of the Chamber of Commerce of the United States, which once before has devoted its editorial columns more or less briefly, to the Association of Ice Cream Supply Men, in an article in its April number, by Warren Bishop, on "A Midwinter Ice Cream Boom," again recognies the important place occupied by the organization in relation to the national ice cream industry.

Speaking of the chocolate coated ice cream bars, and their mid-winter vogue, Mr. Bishop's article says:

"Ice cream plants make profits in August and run into deficits in January, usually. Eskimo Pie has put many ice cream plants even with the world in winter, in the last three months. Results? The members of The Association of Ice Cream Supply Men who sell them their essential ingredients, equipment and supplies under one of the strictest codes of ethics in force today in any industry, are finding fewer accounts still open on their books of last fall's purchases. And the ice cream manufacturer buys 150 varieties of equipment and ingredient for his plant."

"The Nation's Business" as the organ of the Chamber of Commerce is read by the most important leaders of business and industry in the country.

"There are many evidences aside from these significant editorial comments of the new place the ice cream industry is gradually coming to occupy in the business consciousness of the country," according to Roberts Everett, Secretary-Manager of The Association of Ice Cream Supply Men. "It's capital investments, its ever strengthening hold upon the affections of the American public, its closer and closer tie-up with modern industrial science, in refrigeration, in bacteriology, in food chemistry, in merchandising engineering, are more and more winning it the respect and the dignity that it deserves. The day is rapidly passing when the ice cream industry can be alluded to by anyone in any but a respectful tone."

THE ASSOCIATION OF ICE CREAM SUPPLY MEN.

The "Business" Side of Milk Plant Operation

will be found thoroly discussed in chapters 5, 6 and 7 of—

Horatio Parker's Book The City Milk Supply

The material in these chapters alone is worth the price of the book. It goes into the fundamentals of contracting for a milk supply as found in no other book.

Order a copy.

PRICE
$5.00
Sent Postpaid on Receipt of Remittance

The Olsen Publishing Co.

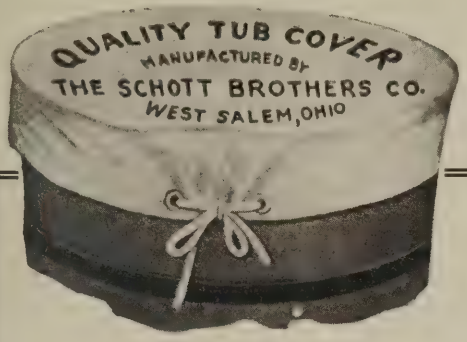
210 Sycamore Street

MILWAUKEE WISCONSIN

WISE WORDS BY WRIGLEY.

"The judicious use of printers' ink is the greatest selling force in the world. If you do business on a world-wide basis, or even in the locality encompassed within a few blocks, you have got to keep the people interested or you won't sell them your goods.

"I have tried them all and I know whereof I speak, that the only effective way to appeal to hundreds of millions, or just a few hundred people, is in advertising space."—Wm. Wrigley, Jr.



Buy from the Originator

We are the originators and patentees of this quality ice cream tub cover. No royalties to pay—no infringements to guard against. All good reasons why

Schott Brothers
Quality Tub Covers
Are Lower in Price

The fact that after six years as users, original buyers of *Quality Tub Covers* send in repeat orders each season for new tub covers, should be proof enough for you to investigate the quality, price and serviceability of Quality Tub Covers.

THE QUALITY TUB COVER COMES TO YOU COMPLETE WITH STAPLES, TIE STRINGS AND YOUR ADVERTISEMENT

Write for Prices Now

THE SCHOTT BROS. COMPANY

"If Made from Canvas We Make It"

WEST SALEM OHIO

FOR LOWER SECOND CLASS POSTAGE RATES.

A movement is under way looking toward lower second class postage rates. The American Publishers' Conference, an organization supported by publishers all over the country, is pushing such a movement, and is entitled to the support of every reader of this paper. When you have read the following statement of the reasons for lower second class postage rates, just sit down and write your Congressman and United States Senators a letter, asking them to give their support to this movement. You will be contributing to a worthy cause. Below we give a brief statement of the publishers' case.

A Brief Statement of the Publishers' Case.

No country can live and grow without information highways. In many ways it is more important to provide the means for the dissemination of intelligence than for the transportation of material commodities.

For this reason the government has always recognized the necessity for low postal rates on newspapers and periodicals. During the war, however, the publications of the country were loaded with increases on the carrying charges in the mails. These increases were provided for in the Revenue Bill of 1917 and now amount to four times the pre-war charges.

While paying this excessive special tax, the publishers have been paying all other taxes of what ever kind, levied upon industry as a whole, and have had to stand and are still suffering under high costs for labor, paper and other essentials.

It is significant, too, that this special tax on the circulation of publications, is a tax on a PROCESS of the industry. It is a recognized principle of taxation that taxes should be levied on the products of industry and not on the processes. Publishers have been paying on both processes and products.

The case is not dissimilar to taxation of traveling salesmen or labor-saving machinery. Indeed the advertising pages of publications may be likened to traveling salesmen. How foolish and futile to make it difficult to get the orders which are the life blood of industry.

Every interchange of commodities must be preceded by an interchange of ideas, of information, of proposals and acceptances, and this important function of our publications needs support and encouragement at this time to build up and restore national prosperity.

We would abhor the idea of taxing schools, yet but 7 per cent of our boys and girls go beyond the grammar grades. The rest of their education must come from reading, and yet the present law is in effect a tax on this source of education which is depended upon by 93 per cent of the people to take the place of higher education.

As a result of these exorbitant postal changes, publishers have had to increase subscription rates greatly, or have ceased soliciting subscriptions from sections of the country where the high postal rates would make it unprofitable. In still other cases publishers have tried to absorb the additional costs and numbers of them have fallen by the wayside in the attempt.

In 1918, the Federal government collected from the publishers $11,712,068.18 and in the last fiscal year this had grown to $25,496,719.94. During the current year it is estimated that the publishers will pay to the government for carrying their papers the huge sum of $33,000,000.

This too, notwithstanding the fact that the high rates have forced out of the mails an enormous tonnage of newspapers and magazines which now go by express, baggage, motor truck, freight or by water for less than Uncle Sam will carry them.

Unfortunately some of the most necessary publications cannot be shpiped in bulk lots and cannot escape the back-breaking postal charges. Among this class of papers are the business and technical papers going to the retailers, factories, and professional men; the farm papers which are raising the standards of agriculture; the religious papers which promote the spiritual life of the country; the fraternal publications which bind together groups of men and women for their common good; the educational papers which carry the light of new knowledge into the humblest homes, and many others of similar kind.

The burden falls heaviest upon the smaller papers of the country, The big papers with a million or more of readers can afford to develop their own systems of transportation. It falls heavily, too, upon the readers who most need the enlightening force of good reading.

In spite of all this the publishers are most modest and moderate in their appeal. All that is asked is the repeal of the last two increases, those which went into effect in 1920 and 1921, retaining the rates in effect just prior to these increases.

This will not affect the zone system in the least, neither will it affect the present free-in-county privilege enjoyed by the smaller weeklies and dailies.

The rates asked for in the bill now proposed in Congress, would still give the government approximately **175 per cent more than the pre-war rates,** and would not relieve the publishing industry of one cent of the other Federal taxes now paid by other industries.

Here is another very important consideration—the special or super-taxes which the War Revenue bill imposed upon some ten other industries have either been taken off or materially reduced. Is it fair that the publishing industry, of all industries, should be singled out as the sole exception and compelled to stagger along under special war taxes to defray war expenses?

This seems all the more unfair, when it is remembered that the newspapers and periodicals of the country did not go over the top for pay, during the war; that they did not profiteer; that they were in no sense a war industry. On the contrary they volunteered space and services to the value of millions of dollars.

In a word what the publishers are asking, would amount in dollars and cents to a gross reduction in rates of about $8,000,000 as against total post office receipts of about $500,000,000.

Furthermore, the effect of lowering the rates would attract back into the mails enough tonnage to largely compensate for the apparent or bookkeeping loss.



Does your business pay? If not, why keep it? Advertise it For Sale in The Ice Cream Review Want Department. Some one may be glad to buy it if they only knew it was for sale.



STRAWBERRIES

Ripe and Luscious from both sides of the Mason and Dixon Line

The finest, brightest strawberries that the 1922 crop from Tennessee, Kentucky and Ohio can supply are ready for you and your ice cream trade. These berries are noted for their luscious flavor and bright color; won't freeze hard, and, best of all—you can obtain them now

At Greatly Reduced Prices

Use them all the year 'round, thereby giving your customers fresh fruit strawberry cream Summer and Winter. Wire us a trial order and prove the palate-pleasing, trade-winning features of this dainty.

Packed in No. 10 cans; 5-gallon stone jars; 10-gallon kegs; half-barrels and barrels.

Write TODAY For Our Latest Price List

422-424 W. Fourth St. **THE CINCINNATI EXTRACT WORKS** Cincinnati Ohio

ESKIMO PIE
Dipping Outfits



Patents Pending

Special Heated Apron Catches All Drip

NO CHOCOLATE WASTED

Pans can be Heated by Steam, Hot Water, or Electricity.
Dipping Pans are Seamless, Round Containers; Sanitary and easy to clean.

Special Reel Saves Space

Reels can be furnished to fit your present outfit.

Price—Outfit Complete as shown (less table), including 100 hooks, $25.00.
Price—Extra Reels, $5.00. Price—Extra Hooks, per 100, $2.00.

We Carry in Stock Standard Eight Quart Single Cover Slab Bricks.

Keiner Williams Stamping Co.

Manufacturers of Milk Cans, Ice Cream Cans and Soda Water Tanks

8746-8782 123rd STREET **RICHMOND HILL, N. Y.**

Pacific Association of Ice Cream Manufacturers

Proceedings of Annual Convention, Seattle, Wash.

(Continued from April Issue)

Address by Mr. Harry Stokes.

Mr. Stokes: I was given the privilege of coming here again to address this association and I feel highly honored that the invitation was extended to me again.

In paying a tribute to the speakers who have preceded me I desire to say that I have been very much interested in their addresses. We all have been particularly interested in what they have said and I believe it would be more to my credit if we had adjourned this meeting at this time.

However, if you will bear with me for a few minutes I will not keep you very long.

After looking over the past season's sales I sat down one evening not long ago to collect my thoughts for some ideas on this address to you—"Creating New Business."

And, the first thought that came to me was—there hain't no such animal existing as ice cream business these cool summers. And then, I thought—well, Bert Walker must think you are some kind of a God 'cause he asked you to create it. And I was puzzled and wished I could do like a great Prince who lived in India thousands of years ago. This Prince used to call unto his God when he was in trouble, to create things for him. The legend of this Prince is—that once upon a time this great Prince was in trouble and sorely distressed because he found his followers were continually betraying him and plotting his downfall. At last he felt there was no one he could trust so in great anguish he closed his eyes and implored his God to create for him, one that would be ever faithful unto him, and when he opened his eyes he beheld a dog standing before him, trustfully, wagging his tail. Since that time we have had the ever faithful dog on earth.

One great essential for the creation of new business, gentlemen, is stop your quarreling and scheming for the other fellow's downfall. Shoot straight. Get your heads together with faith in each other, work with a common interest on plans and suggestions that will increase the demand for ice cream.

Hammer, again and again with your combined, concentrated energies to the public this fact: that ice cream is a delicious and well balanced food. That it is rich with those mysterious vitamines necessary to healthful life. That it is most healthful and should be eaten instead of meat during hot weather.

Suggestions along these lines continually presented to the public would help to a great extent to make ice cream a necessary adjunct to a daily meal and create new business for your attention instead of strife.

A great deal of success of increasing ice cream sales can be found in the spirit of co-operation which permeates manufacturers, teamwork, pulling together for the common interest of greater publicity for greater sales.

The success of any organization depends on the co-operation of its units. Modern business is based, not on the legality but on the sanctity of contracts, on the common faith that a business man will do what he promises. An atmosphere of harmony and the spirit of co-operation which rings true among manufacturers will help to increase the consumption of ice cream through united efforts. You won't get big things done in this world without friends and well wishers.

I believe we must all agree, that the greatest factor for creating business is effective advertising.

All good advertising is expensive, yet it is the best investment that a business man can possibly make.

The last generation began to feel the influence of advertising. The present generation has been brought up on it. Today people quote advertisements; they are surrounded by advertised wares; they use advertised commodities as a basis for judgment of other products.

This essential factor has resulted in the solid advancement in production of commodities of merit. We want to develop a national habit of eating ice cream daily as habit is a mighty factor in life's activities. Get the habit of eating ice cream—pound this thought again and again into the public. Don't relax when you have made your first impression. It is only a step forward. Follow it up.

The sale of ice cream, like every other article of merchandise, can be greatly increased or may remain at a standstill according to the public interest aroused in it.

It is true in order for business to grow and render a real and continued service. It must make a profit, and if you want to be sure of making a profit, charge it in your price.

Many are of the opinion that the present price is too high for wide consumption, as a lower price would be a great incentive to the public to eat more ice cream; and this would increase the volume which cuts such a tremendous figure in costs.

I do not believe in the theory sometimes expressed that we should never lower our prices, but on the con-

ESTABLISHED 1868

Milligan & Higgins Gelatine Co.

222-224 FRONT STREET
New York

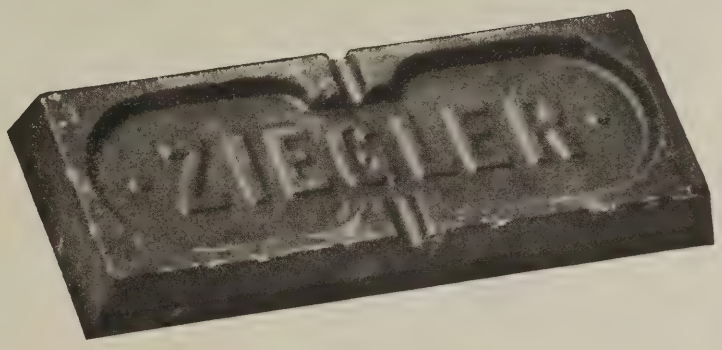
□ □ □

We have built our business on 54 years of satisfaction to our customers.

□ □ □

Quality and Prices always right.

Eskimo Coating—



No additional Coco Butter or Liquor Required.

Zieglers



CHOCOLATE MANUFACTURERS

GEO. ZIEGLER CO.

364-366-368-370-372-374-376-378-380-382-384
FLORIDA STREET

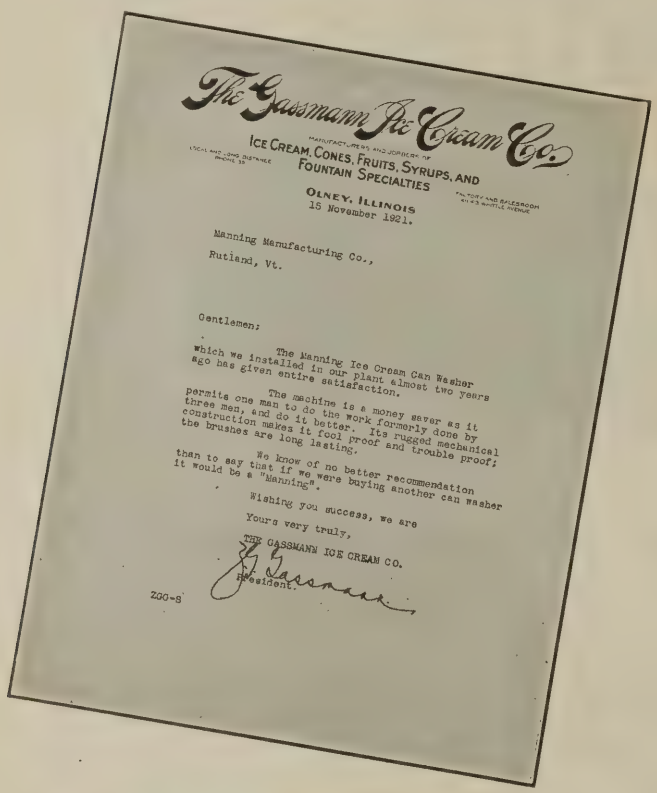
MILWAUKEE, WISCONSIN
SINCE 1861

THRIFT IS DETERMINATION TO LIVE WITH MARGIN FOR ADVANCEMENT.

"Fool Proof And Trouble Proof"

It's very seldom that any manufacturer gets the compliments that this Manning user pays us in the letter reproduced below. However, we think that the Manning Can Washer deserves every one of them.

Next month—a letter from an Iowa creameryman, who has used the Manning for five years.



The Gassmann Ice Cream Co.

ICE CREAM, CONES, FRUITS, SYRUPS, AND FOUNTAIN SPECIALTIES

OLNEY, ILLINOIS
15 November 1921.

Manning Manufacturing Co.,
Rutland, Vt.

Gentlemen;

The Manning Ice Cream Can Washer which we installed in our plant almost two years ago has given entire satisfaction.

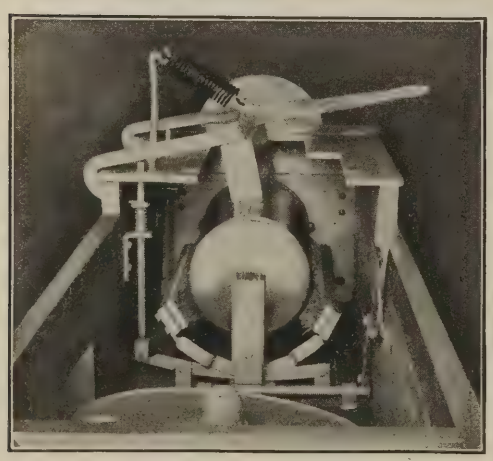
The machine is a money saver as it permits one man to do the work formerly done by three men, and do it better. Its rugged mechanical construction makes it fool proof and trouble proof; the brushes are long lasting.

We know of no better recommendation than to say that if we were buying another can washer it would be a "Manning".

Wishing you success, we are

Yours very truly,
THE GASSMANN ICE CREAM CO.
President.

ZGG-S



The Washer That Grips The Can!

MANNING
MANUFACTURING COMPANY
RUTLAND, VERMONT

MANNING EQUIPMENT

trary, believe that we should try at all times to reduce prices to a legitimate business profit.

On the other hand, it is not good business or good morals for a man to sell goods for less than actual costs delivered. Such a manufacturer cannot do business on this basis. He is unjust to his family and his creditors.

We all want to build up and improve our business; we want to keep adding to our plants those improvements that modern times require, and to do these things it is necessary to get for our products a legitimate profit.

For a time you may sell goods at a price above what they are worth and for a time you may be compelled to pay for the production of goods more than the goods are worth—but eventually, just as water finds its level—the economic chart will show a line curving back to normalcy.

I have never heard of there being a profiteer in this association but many times it has been a case of being a high financier to keep clear from the red side of the ledger.

We in the northwest with our short seasons and high service costs, cannot figure much on creating new business through a reduction in price, while confronted with present high costs and high fat standard of 12 per cent required in Seattle.

The most logical field for increasing the demands for ice cream is through children. They talk ice cream and think ice cream a great deal more than older people. It is a reality to them, something very important.

The schools are one of the best mediums for reaching children. Here we have the willingness to buy and the support of the teachers, who now accept dairy products in all forms as an ideal food for children.

Work to have children get the habit of eating ice cream, once, twice, or three times a day. This habit formed is certain to follow them and make them buy ice cream as they grow older.

I cut the following clipping from a newspaper:

"Tasting ice cream for the first time in their lives.—Joe Joble and his three sons from the mountains near Uniontown, Md., disposed of 61 dishes of it at their first sitting. Fifteen each for the boys and sixteen for the dad."

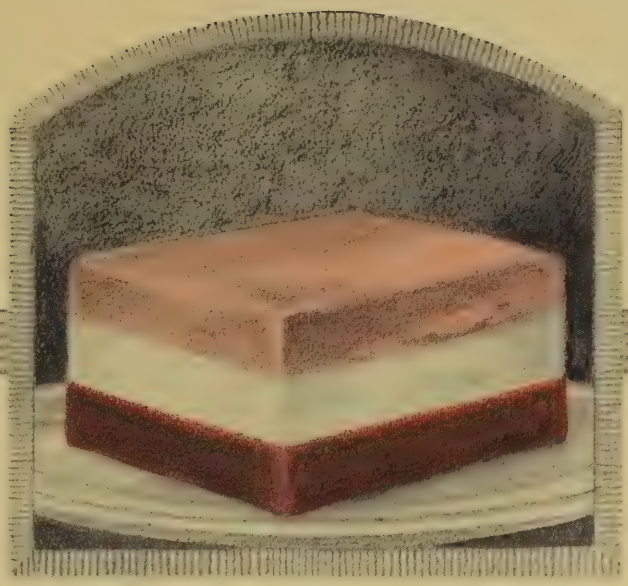
This remarkable consumption of ice cream would naturally lead one to believe that there would be great possibilities for some enterprising person to acquaint the children of our remote mountain districts with the taste of ice cream.

I was interested to learn that the well known Chapin-Sacks Corporation in casting about for a class to be appealed to, decided to direct its advertising at the children. The Chapin-Sacks Co. have taken the Mother Goose rhymes and incidents from Alice in Wonderland, twisted and changed them so ice cream becomes the dominant idea. This combined with illustrations showing these characters in a way that will make them recognizable to children, presents the subject to them in their own language and being backed up with pictures appeals to them in a responsive manner. Such a campaign of advertising stands a good chance of being a big success.

A satisfied retail distributor and the matter of co-operation, between manufacturer and retailer, is of utmost importance to both.

Every means should be used to bring about a better understanding between the two; of co-operation in advertising, selling price to the people and cleanliness in its distribution to the public.

Often ice cream in hands of the retailer becomes soft and unpalatable on account of carelessness and unsanitary conditions. Many retailers do not give any



Our Guarantee

IT does not consist merely of so many words or stereotyped phrases. It is backed up by our known performances, by a reputation of fairness, square dealing, quality and service established thru all these years of our business relations.

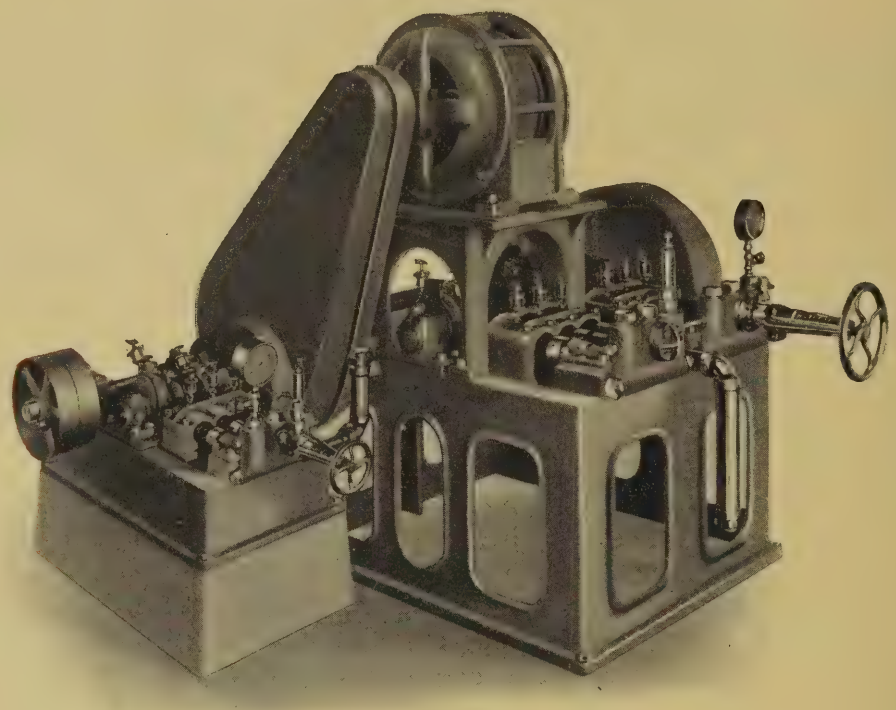
Our present customers' continued satisfaction and confidence in us and our products constitutes, we believe, an implied guarantee which you [who have not used B-F Flavor and Colors heretofore] will regard more highly and sincerely than any stilted guarantee we might try to compose.

The Boerner-Fry Company

Manufacturers of High Grade Extracts

Iowa City, Iowa

The Little Brother to the Big GAULIN Homogenizer



PERMIT us to introduce the new 60 gallon Gaulin Homogenizer—the latest and smallest member of the Gaulin family. The new member has the same family characteristics as its larger brothers.

It is built with the same precision and care as the larger capacity machines. It is made of the same superior selected material and has the same wonderful valve — the Gaulin Spring Homogenizing Valve. Thus, though of smaller capacity and selling at a comparatively low price, it turns out the same exquisite product as does its big brothers.

With the Gaulin Homogenizers the whole mix can be homogenized under pressure of 4000 lbs. per square inch. The Gaulin is the only machine which will operate under this pressure.

Gaulin Homogenizers are built in capacities of 60, 100, 250, 400 and 800 gallon capacities per hour. They may be obtained with belt or direct motor drive as desired.

Manufactured by The Manton Gaulin Mfg. Co., 11 Elkins St., Boston, Mass.

Distributed by

THE CREAMERY PACKAGE MFG. COMPANY

CREAMERY MACHINERY
MILK AND CREAM HANDLING MACHINERY
CHEESE MAKING MACHINERY

SALES BRANCHES—(Write to nearest one)

Chicago, Ill., 61-67 W. Kinzie St.
Boston, 138-140 Washington St. N.
Buffalo, N. Y., 133-137 E. Swan St.
Kansas City, Mo., 1408-10 W. 12th St.
Minneapolis, Minn., 318-20 3d St. N.
Omaha, Neb., 113-15-17 So. 10th St.
Philadelphia, Pa., 1907 Market St.
Portland, Ore., 6-8 N. Front St.
San Francisco, Cal., 699 Battery St.
Toledo, Ohio, 119 St. Clair St.
Waterloo, Ia., 406-8 Sycamore St.

ICE CREAM MAKING MACHINERY
REFRIGERATING SYSTEMS
DAIRY MACHINERY AND SUPPLIES

150° in the Shade

would not interfere with your making a test on the new scientific product

MIX CONTROL

(REG. U. S. PAT. OFFICE)

Does not replace any product you now use. No work connected with it's use. Follow simple directions for a little better bodied and slightly smoother ice cream or ice.

A ten pound can will be sent you and within two weeks a letter stating you are not entirely satisfied, will bring you cancelled invoice. No charge to you or return of material.

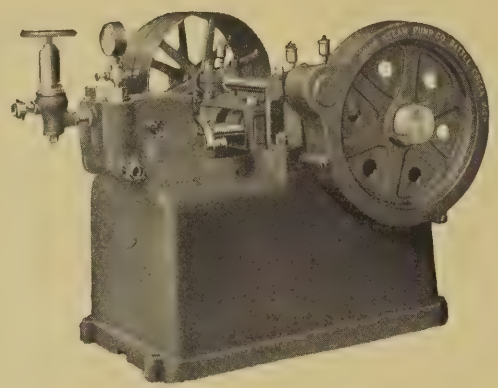
SEND FOR YOUR CAN TODAY

Sani-Dairy Products Corporation

EVANS AND 45th STREET CHICAGO, ILLINOIS

The Viscolizer

IS NOW READY IN 3 STYLES OF DRIVES



STANDARD BELT DRIVE

Size	Gallons Capacity Per Hour	Horse Power Required	Pulley R. P. M.	Price
100	100	5	480	$ 850.00
200	200	7½	500	1000.00
300	300	10	500–600	1250.00
450	450	15	500–600	1500.00
800	800	25	450	2000.00

Standard machine can be furnished with back gearing or with tight and loose pulleys.

(Cut shown is No. 300 Machine.)

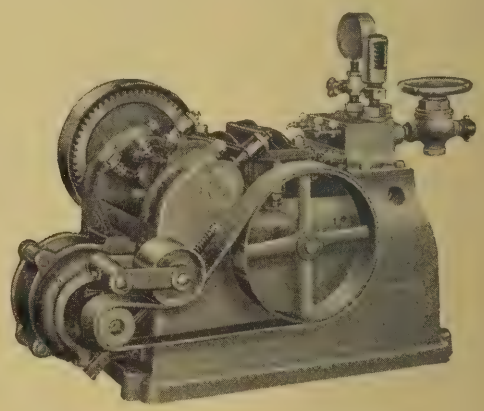
MOTOR BELT IDLER DRIVE

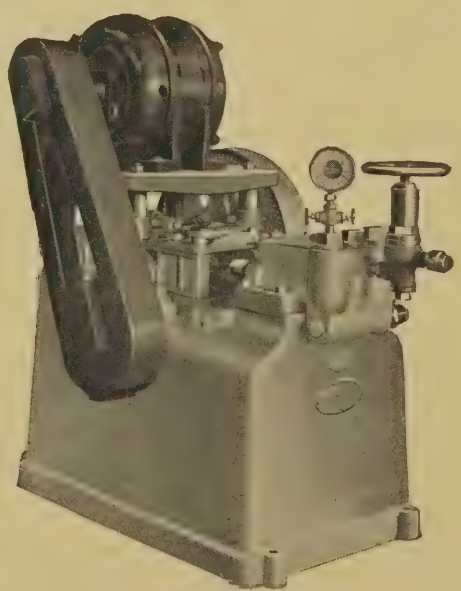
For Two or Three Phase—60 Cycle—220 Volt Only

Size	Gallons Capacity Per Hour	Horse Power Required	Motor R. P. M.	Price
100	100	5	1200	$1125.00
200	200	7½	1200	1400.00*
300	300	10	1200	1700.00*
450	450	15	1200	2100.00*
800	800	25	....	.....

*Includes Conpensator.

(Cut shown is No. 100 Machine.)





A. C. Motor Mounted on No. 300 Machine

SILENT CHAIN DRIVE

Size	Gallons Capacity Per Hour	Horse Power Required	Motor R. P. M.	Howell Motor 3 PH- 60 Cycle 220 Volt	Motor Mounted Direct Current 115-230 V.
100	100	5	1200	$1150.00	$1270.00
200	200	7½	1200	1500.00	1510.00
300	300	10	1200	1875.00	1910.00
450	450	15	1200	2180.00	2260.00
800	800	25	900	2950.00.	3340.00

*Includes Compensator.

One Strainer Furnished with Each Machine.

Factory is running to full capacity and orders are being prompty filled.

John W. Ladd Company

DETROIT CLEVELAND

Cherry-Bassett-Winner Company

BALTIMORE PHILADELPHIA PITTSBURG

more care and attention to ice cream than they do to other articles of merchandise they are selling. They should be shown that ice cream needs attention, sanitary surroundings and neatness in distribution. This care means profit to the retailer and sometimes determines whether ice cream goes into the hands of the consumer in the same condition as it leaves our factory.

You cannot always do the right thing, no matter how zealously you try. The ice cream business requires eternal vigilance to insure things being 99 per cent right, more so than most other businesses, and any time anything goes wrong we should make an opportunity to let your trade know that you are eternally striving to be 100 per cent right.

They say competition is a valuable thing. As competition grows more vigorous our sale efforts in return must become more aggressive.

Ice cream sales can be increased by exercising more aggressive methods than have heretofore marked sales efforts. We must go out and develop the spirit of Get the Ice Cream Habit Daily and when developed, will sell more ice cream than would otherwise be possible.

There is a fable of a husky bull-frog named Wolly, who was somewhat inclined to be indolent. One day Wolly sat idly on a rock in the warm sunshine, eyeing with some disdain the efforts of other frogs to catch the bugs about them.

He conceived the idea that these other frogs were stupid creatures to waste so much effort seeking the foolish flies that flit about them. It was so unnecessary. If they would only sit still with their mouths open these flies would eventually fly in and meet their fate. So Wolly commenced at once to put his ideas into practice. Seated on a nice comfortable stone in the sunshine with his mouth open, he waited for the insects to fly in and furnish him with physical sustenance. The first day's results were somewhat disappointing and so were the next and the next. But Wolly was stubborn and believed in luck and each night thought that tomorrow would bring it luck. After three weeks he was too feeble to hop about and vainly cried for help. But his voice was weak and his neighbors too busy looking out for themselves. So Wooly croaked for the last time.

Moral: Don't wait for business to come to you. Go after it.

In closing, I have not created any new thoughts on this subject, but I trust by presenting it to you as I have, it may be an inspiration and incentive to be more aggressive. The American people are sold on quality and we should expertly cultivate the taste for ice cream.

If we are to progress and attain the ends which we desire for increased consumption, we must fight for them. Keep on fighting for a fighter will be rewarded in his business by its growth and betterment.

Remember, "Only the game fish swims up stream."

Mr. Dunne. Is there any one who desires to ask Mr. Stokes any questions on his address?

I want to call your attention to the fact that between eight and eighty-thirty the machines will be here and we go to the Seattle Yacht Club for our "Ice Cream Mix."

I want to call your attention to the fact that the Crescent Manufacturing Company, the makers of Mapleine, invite you to go through their plant where Mapleine is made.

There are several exhibits here and the salesmen would appreciate your looking at these various exhibits.

We should not close this meeting without paying tribute to those who have passed away during the past year. There has been no active member passed away during the last year, but we had with us last year a salesman named Atterbury. When I was down in San

It Helps You To Make Good

GELATINE is the most delicate ingredient in your whole mix.

Your success, the growth of your business, the profit you make—these depend upon the quality of the product you deliver. It must be of good quality and of standard quality. It must win the confidence of your trade; and hold this confidence. Gelatine is the most delicate ingredient in your whole mix. If it varies in taste, odor, strength, or it is not pure it is impossible to make a uniform ice cream. Essex Gelatine is absolutely constant. Its high quality does not vary. It is a pure, sweet product that you can depend upon. Essex Gelatine helps you to make good; helps you to build your business. Deliveries can be made from warehouses in Boston, New York, Philadelphia, Chicago, St. Louis and San Francisco. Write today regarding your requirements for 1922.

Essex Gelatine Company

Manufacturers

40 No. Market Street
Boston, Mass.

Boston New York Philadelphia
Chicago St. Louis San Francisco

Member Association — MEMBER — Ice Cream Supply Men

Francisco I wrote him a letter that I would be over to see him at the hospital, but he passed away the same day that I was intending to go to see him. He was in an automobile accident and passed away after a lingering illness. We will now please rise and stand in solemn meditation for a moment.

(All present then arose and stood in silent meditation).

The meeting will be adjourned until tomorrow morning at 10 o'clock, and remember, the least courtesy you can extend to those who have prepared papers, will be to be on time. There is a demonstration of a package machine to be made at 9 o'clock in the morning, the Rogers machine. Do not delay being here, because we will certainly give you hell if you are not here on time, if the ladies will excuse the expression.

Whereupon a recess was taken until the hour of 10 o'clock A. M. of the following day, Nov. 15, 1921.

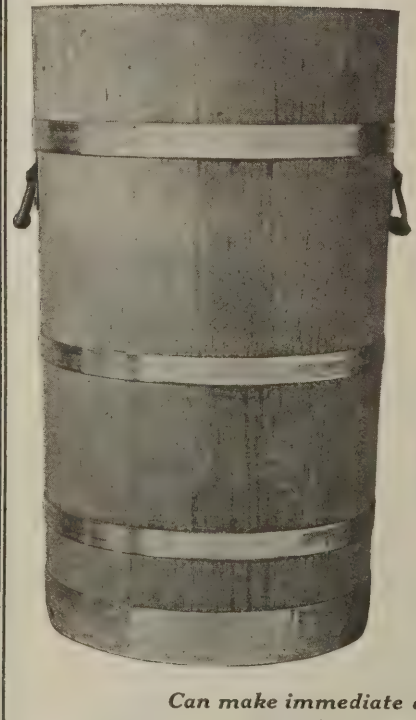
MORNING SESSION.

Meeting called to order at 10:30 A. M., Nov. 15.

Mr. Dunne: The meeting will please come to order. I am sorry the men are not arriving better because there are some important papers to deliver this morning and I wanted them all to be here.

I want to know if there are any committees ready to report this morning?

The Hearst Service wishes to secure a photograph of the members attending this convention and this will be used in moving pictures and sent to all the Hearst papers wherever Hearst Service is maintained and they will be here today at 11:30, and I want to adjourn at that time for the purpose of permitting them to take a photograph just outside the hotel. It will be a little advertisement and every one of you might as well take advantage of it.



The Texas Barrel Company

is still manufacturing the best Ice Cream Tub on the market. Our increased sales assure us of that fact.

We were the pioneer makers of the TALL TUB and all other makes are imitations. While we are improving this TUB all the time, our imitators are content to stand still and hang on.

Specially prepared bottom so constructed as to withstand extremely rough treatment.

Can make immediate delivery. Write for prices.

Texas Barrel Company

HOUSTON *Box 665* TEXAS

The banquet tickets will be here later. We want you all to attend the banquet. And the tickets for tonight's stag will be handed out in due time.

I want to call attention to one other thing. The Mojonnier machine which was to be demonstrated here was wrecked by the railroad company and because of that fact they will be unable to demonstrate it to you. The Mojonnier people feel very badly about it, and so do we. We would like to see it.

We have a telegram here from Charles G. Morris and a telegram from George Burt, a member of the "Portland Chain Gang" which the secretary will read.

(The secretary then read said telegram).

Mr. Dunne: Something broke loose down there and that is the reason the boys are staying on the job.

Whenever you boys get tired and you want to sing after the speaker has concluded, I want you to feel free to do so, or if you want to get up and stretch a little you can do that. Let it be understood this is an informal meeting and you can get up and stretch or do whatever you want to do when a speaker has concluded. The officers of this organization have to pay a fraternal visit to the Butter and Cheese Manufacturers' Association meeting on the floor above us, and if you will excuse us we will go and get back as soon as we can. I will call the Vice-President—but he is not here—I will call Mr. Swanberg to take the chair. Before I go I take pleasure in introducing to you Mr. W. R. W. Nichols, who will talk to you on "The Silent Salesman in Ice Cream."

Mr. Swanberg: (Taking up gavel) This is the first time I ever had a club in my hand.

Mr. Dunne: You usually have a horn. (Laughter).

Address by Mr. W. R. W. Nichols.

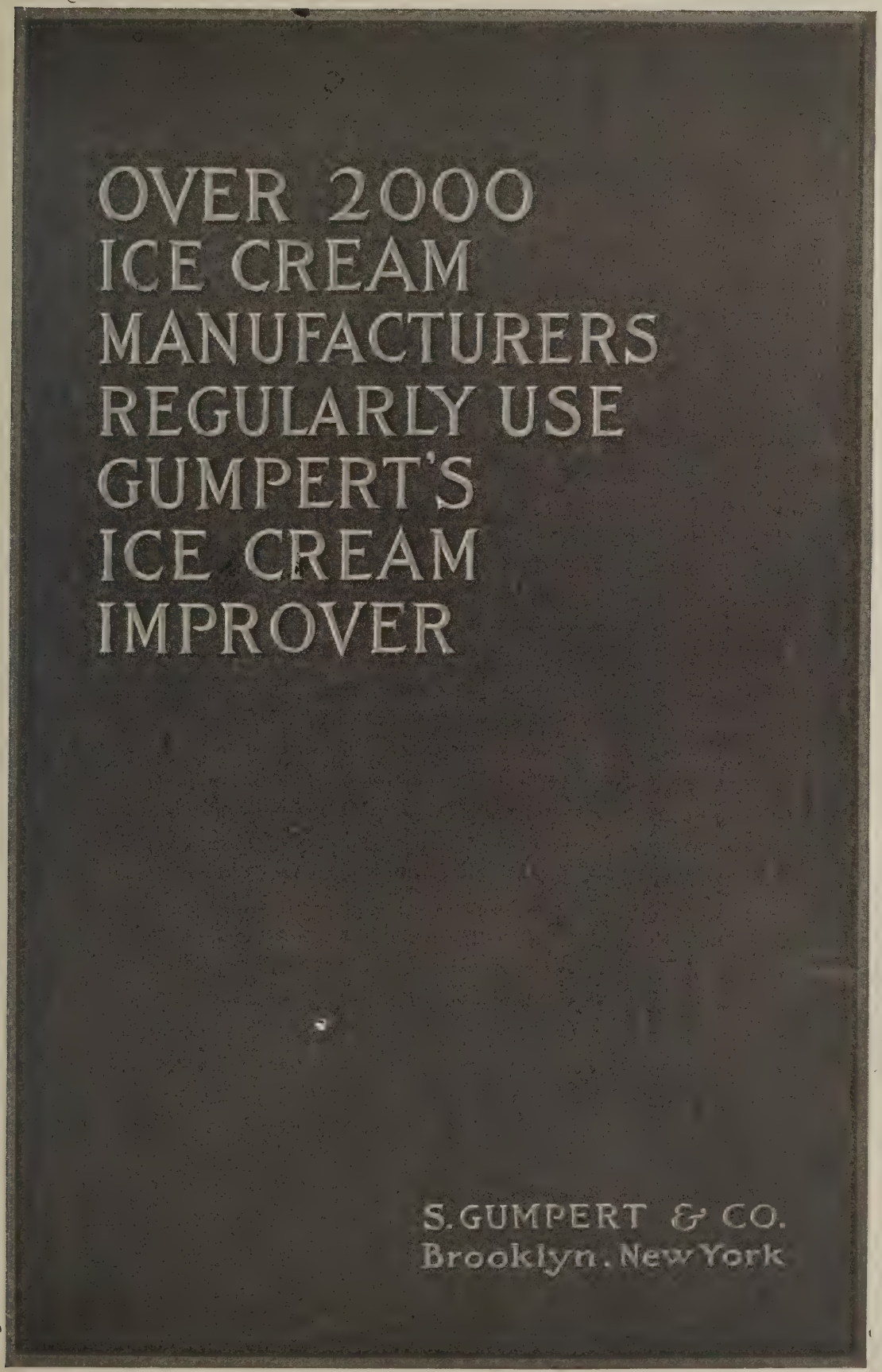
Mr. Nichols: Mr. Chairman, Ladies and Gentlemen of the Convention, I hardly thought when I wrote Bert Walker and said to him why not talk on "The Silent Salesman of Ice Cream" that that little line in that letter was going to bring me here today, but here I am just the same.

I have enjoyed the speeches and discussions that have been heard here. I listened with great interest to the "Silent Partner" and now I come with a paper on "The Silent Salesman," and we are both from Oakland (Laughter). But I enjoyed Mrs. Miller's talk very much. I have a silent partner and she sometimes tells me she is the general manager and I sometimes think she is. (Laughter). I am very close to advertising and I enjoyed Mr. Fernald's talk. I believe in advertising, I believe in publicity, and I believe in quality in the manufacture of ice cream, for without it all the advertising in the world is thrown away. We want people to get acquainted with ice cream not only as a dessert but as a food.

I called on a man in the east who was making ice cream in one end of the building and at the other end he had his horses and in the middle he had his ice. I do not see that in this country, as today you people have wonderful plants, well equipped, and have scientific methods for producing your ice cream.

Now we will get back to that "Silent Salesman in Ice Cream." In the manufacturing of ice cream we first realize that you must have pure milk, the best machinery and the best of ingredients to produce a satisfactory product.

The purity of ice cream starts from the milk and cream that you buy; the dry milk powder which you use; the sugar that turns it into a finished product, the cleanliness of the can or containers in which you distribute it to the consumer, even the ice that you pack around it; and last, but not least, the silent salesman flavor, which



WHEN SHIPPING ICE CREAM BY EXPRESS, NEVER USE A LARGER TUB THAN THE CAN REQUIRES.

creates the desire in the consumer for more of that real ice cream.

This silent salesman flavor has been abused for years, profit more fancy than real; has ever kept minds busy in trying to imitate or substitute flavor, when you order ham you want ham, you don't want vegetable ham; when you order coffee you want coffee, not a substitute for coffee. How many substitutes do we find for real flavor? Have you ever found an imitation that produced that luscious flavor which you secured from a well ripened peach? have you ever found a substitute for the twang we get in a lemon? Flavor is the basis of satisfying food, but is ever the aim of some chemist or some concern to imitate flavor. And let me say right now whenever the sale of imitation for true fruit flavor is made it is done either because there is a larger percentage of profit in the imitation product, or manufacturers are forced to do it to meet the demand for cheap flavor.

If you will refer to any formula that you have for making any class of ice cream, such as plain flavored ice cream what do you find? They are, for instance, always called by a flavor name— vanilla, chocolate, coffee, mint, maple. Suppose they are a fruit ice cream, they are called peach, strawberry, cherry, pineapple, raspberry. You don't call them by an imitation name—you call them by a true fruit flavor name. If it is nut creams, you call it walnut, almond, chestnut or pistachio.

Take cooked ice cream, such as French or Neopolitan, it is made from sugar, eggs and flavor. There is that silent salesman in ice cream.

Parfait or fruit creams are flavored with vanilla, chocolate and various fruits. Frozen puddings are flavored with fruit flavor; custard ice creams are practically always flavored with vanilla. Sherbets are flavored with fruit flavors or other natural flavor. Ices are fl vored with orange or lemon, or some other fruit flavor.

Punches are flavored with fruit flavors, spice flavo or wine flavors, and even when the country is dry can get wine flavor.

No matter what recipe you have for making i cream, you will always find that silent salesman—flav —the most prominent constituent for ice cream. Now flavor is the silent salesman in ice cream, if it is t salesman that brings repeat business, is it not to the a vantage of every ice cream manufacturer to study t quality of flavor? Take an item of cost, and say th every ten gallon batch has cost sixty cents to flavor wi the purest of flavor, would the overhead cost of six cen per gallon be too great to secure a real salesman?

The best paying salesman in our employ are tho to whom we are glad to pay the largest remuneratio It costs just as much to ship 150 pounds of live weig as it does to ship 150 pounds of dead weight.

The consumer purchases, asks for, and buys ice crea by a flavor name; then why not study flavor from scientific basis as you do milk solids and butterfat?

The silent salesman that is most prominent in i cream is vanilla, and there is nothing that has been imitated compounded, camouflaged, in fact, everythi that is within the conception of the human mind, as h this poor vanilla bean. You are told we are only usi Mexican vanilla beans, with a total production of Me can vanilla beans of about 500,000 pounds per year a about 150,000 of this 500,000 pounds cuts and splits, have often wondered where they get those Mexican v nilla beans from. Then take into consideration oth facts. Mexican vanilla beans are graded as follows:

Primes, goods, fairs, cuts, splits, and in fact th even increase this grading. Some concerns have t grading run up as many as seven different kinds of Me ican vanilla bean.

Then we have Bourbon beans, with a production something around 750,000 to a million pounds. We a have Guadeloupes beans, which run around twenty twenty-five thousand pounds per year. Then we ha South American, called Javas and Angostus, which r somewhere between forty thousand and fifty thousa pounds. We also have Tahiti, which runs from five hu dred and fifty to six hundred and fifty thousand poun per year.

You will note that we have enough of the differe kinds of vanilla beans. Take the Mexican vanilla bea for illustration and what do we find? A Mexican vani bean has a wonderful boquet and aroma, but lacks strength of flavor.

If you take this vanilla bean and cut it open, y find myriads of little black seeds and among these see you find crystal like particles which is the natural va lin, or, as they call it, the active flavoring principle vanilla beans. With due regard to the fact that che ists call natural vanillin the active flavoring princi of vanilla beans they all admit that these small bla seeds or resinous matter add to the flavoring prope of true vanilla.

As before stated, Mexican beans have bouquet a aroma but they lack in strength of flavor. In oth words, this resinous part and vanillin do not predomin as they do in other beans.

Bourbon vanilla bean as you all know, come from French possessions. They are strong in natural vanil but lack in resinous matter. In other words these sm black particles do not predominate in a Bourbon be so as to back up the excessive amount of vanillin fou in this bean.

(Continued on page 46)

TUB COVERS



TARPAULINS

ETC.

Samples and prices
on application.

CLIFTON MANUFACTURING CO.
Everything in Canvas
WACO TEXAS

What Will It Cost

TO BUILD or REMODEL ?



Freezing Room, Imperial Ice Cream Co., Wheeling, W. Va.

To start construction of a new plant or a remodeling job without a definite knowledge of its total cost, as well as its final efficiency and capacity, is a "cat-in-a-poke" practice which often causes disappointments, financial embarrassment and plant congestion.

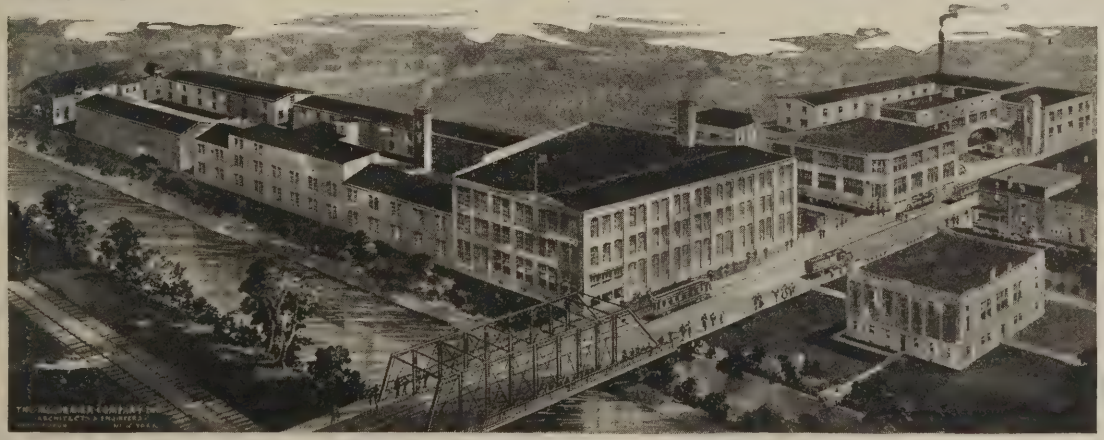
McCormick Architectural and Engineering Service

is guided by long experience in the planning and construction of ice cream and dairy plants throughout the country, from which has been compiled exhaustive and invaluable cost data of materials as well as dependable knowledge of final capacities and operative ideas. That is why our plans and estimates are so accurate, and why the cost of the Service is so quickly made up by the numerous economies effected.

Regardless of the size or nature of your contemplated new plant or remodeling job, it will not obligate you to get McCORMICK SERVICE estimates. Just write us that you are interested.

THE McCORMICK COMPANY, Inc.

PITTSBURG Century Bldg. **Architects and Engineers for the Dairy Industry** NEW YORK 41 Park Row



York Sanitary Milk Company, York, Pa.

Construction Executed by Your Own Local Contractors Under the Direction of Our Special Superintendents

FANCY FORMS MAKE "SPECIAL DAY" ICE CREAM SERVING POPULAR.

Then next in order we come to the vanilla bean known as Guadaloupes. These guadaloupes were transplanted on the island of Guadaloupe from Mexico, and have an excessive amount of small black seeds or resinous matter but do not predominate in natural vanillin.

If we will take these three vanilla beans and blend them together, we first have aroma and bouquet; second, strength of natural vanillin; and third, an excessive amount of total solids or a real foundation from which to build flavor.

We all know that nature produces both the strong and the weak, not only in human character but as well in plant life, and it is the blending of these together that produces uniformity and strength. We all know that it is true that every food manufactured on the American market is blending the strong, the mild and the weak, and it is this blending which produces satisfying flavor.

Another vanilla bean which we have not taken into consideration, and which is produced in large quantities, is the Tahiti bean. The Tahiti vanilla bean contains an excessive amount of resinous matter, or what might be called mucilage matter, and although kept in solution in the solvent or carrier alcohol, will invariably come out of solution, and if any time you purchase a Tahiti bean vanilla in kegs or barrels you will find an excessive amount of the resinous matter deposited at the bottom of the keg or barrel, as it seems almost impossible to keep these resin from Tahiti beans in solution. The Tahiti bean does not lend itself to the blending with others, as it has a predominant flavor which is closely associated with heliothrope and you can almost immediately detect it from this peculiar aroma, and consequently this particular vanilla is not much desired in the manufacturing of food products.

The next point we come to is the adulteration of pure vanilla; that is, the imitation and compounding of a pure vanilla flavor. The most prominent adulterant is vanillin, which is used to reinforce cheap vanillas or vanillas that are low in total amount of vanilla beans used to each gallon of extract, and is called reinforcing.

The next adulterant of pure vanilla is Tonka beans. Although some people would associate the tonka bean with true vanilla bean there is no association, whatever. One is a long bean like this one I have here, and the other is a small round bean similar to a cocoa bean. If we go back to the time of our grandfathers, we find that tonka beans were called snuff beans, and were used by them to flavor their snuff boxes, and it has been impossible to take tonka beans away from the tobacco industry, for today the majority of tonka extract manufactured is used by tobacco manufacturers, and will you tell me what conncetion this has with ice cream? I am sure that a flavor that sells tobacco is not a success salesman in ice cream.

The active flavoring principle of tonka beans is c marin and it is this chemical coumarin which we f used as an adulterant for pure vanilla, same as the ch ical vanillin which we spoke of.

Tonka beans, chemical vanillin or coumarin alw remind me of adding chickery to coffee. Have you co or have you chickery coffee? You have a rank ha flavor. When any imitation is added to a pure vani or another article is compounded with it, it invaria reduces the quality of that product also the cost at wh it can be made. Imitation vanilla or compound van pays a larger percentage of profit to the manufactu than does pure vanilla, and it is a simple process to m a price to meet requirements. You can reduce first grade of beans used in the manufacturing of a pure nilla, next cut down your alcohol content to the low minimum possible to hold your vanilla beans in soluti next add chemical vanillin, coumarin or tonka bean. other words, subtract quality and add chemicals water.

Now you will invariably find if you have a real g friend and ask him the truth about the flavor busin he will tell you the truth that the manufacturer w sells you imitation or compound flavors instead of pu is making a larger percentage of profit on the imitat or compounds than he is on the pure goods. In ot words, if you want a real silent double-fisted, go-gett salesman, put pure vanilla in your ice cream.

(Continued on page 144)

TEN COMMANDMENTS OF BUSINESS.

Handle the hardest job first each day. Easy o are pleasures.

Do not be afraid of criticism—criticise yourself oft

Be glad and rejoice in the other fellow's succes study his methods.

Do not be misled by dislikes. Acid ruins the fin fabrics.

Be enthusiastic—it is contagious.

Do not have the notion that success means sim money-making.

Be fair, and do at least one decent act every day the year.

Honor the chief. There must be a head to eve thing.

Have confidence in yourself, and make yourself fit

Harmonize your work. Let sunshine radiate a penetrate.—Impressions.

"Crescent"
Ice Cream Packing Tubs
Made right
Keep tight
Write For Prices
Crescent Tub Manufacturing Co.
Johnson City, Tenn.

PURE
STRONG
CONSUMERS GELATINE CO.
ST. LOUIS, MO.
PEERLESS
Gelatines
Pure White India Gum
PERFECTION Ice Cream Powder
ODORLESS
UNIFORM



The Flavor Sells Your Ice-Cream

Here are 4 Types of Vanilla Flavoring that will sell your product

GIANT VANILLA COMPOUND
is all that the name implies.

MAMMOTH VANILLA COMPOUND
Different to Giant but equally strong.

VANILLA AND TONKA
Moderately priced. Hundreds of ice-cream makers swear by it.

STRAIGHT VANILLA BEAN EXTRACTS
Mexican, Bourbon, All Bean and Suva.
Contain 1 lb. of beans in a gallon of extract.

Inquire about our contract prices.

—o□o—

RED SEAL COLORS

Prices for 1922 are materially reduced. Our pure certified colors excell in strength and brilliancy.
Powder, Liquid or Paste.

—o□o—

RED SEAL RIPENER

Helps age the mix. Improves your ice-cream.

WARNER-JENKINSON CO.
ST. LOUIS

Finance Committee Reports Tariff Bill

VERY satisfactory protection has been given to dairy products in the revised tariff bill just reported out to the Senate by Senator McCumber, of North Dakota, the new chairman of the Senate Finance Committee. Never before have agricultural duties been fixed at such a high level, and never before has the farmer's argument been more respectfully listened to.

President Milo D. Campbell, of the National Milk Producers, expresses his approval as follows: "Dairymen have cause to be pretty well satisfied with the bill reported to the Senate. It gives them adequate protection against Canada and the dairying countries of Europe, like Denmark and Holland. It gives us a chance to control our home markets to a certain extent, and the home market means much more to us than foreign trade. Ninety per cent of all our products are sold at home, and with a revival of trade so that the country can buy more city products and the city more country products there will be prosperity for all. The principal thing is to protect our own markets and then to upbuild them. Nearly half our population lives on farms, and their best interests must be served before you can have national prosperity."

Senator Gooding, of Idaho, one of the Senate champions of agriculture, was enthusiastic over the bill, saying: "It is the first all-American tariff bill, because, for the first time, the farmer is getting his full measure of protection, the same as the manufacturer. The farmer is getting 99% of all the duties he asked for. Considered from every angle, and with a few provisions only excepted, it is a very fine measure."

Representative Dickinson, of Iowa, a staunch "farm bloc" leader, was equally pleased with the bill, in spite of many corrections which the Senate committee has made upon the House draft. He said: "For the first time in history the farmer is getting his just dues. This is because he has organized, and worked hard and made a good showing here at Washington. The farmer figured out what he wanted, then he fought for it. The only provisions which are harmful are those affecting vegetable oils. The Southern farmers who produce cottonseed and peanuts are the ones chiefly hurt by this, and it is largely their fault. They did not work for a duty on vegetable oils as they should have and their Congressmen, being free traders in most cases, have actually voted against protecting their constituents."

The only "fly in the ointment" then is vegetable oil duties. Paragraph 50a of Schedule 7 permits the importers of foreign vegetable oils to "drawback" the duties they pay, in case the oils are used in making non-edible products, such as soaps, paints and varnishes. All farm organizations agree that this is as dangerous a practice as it is a new and untried practice when applied to goods for domestic use.

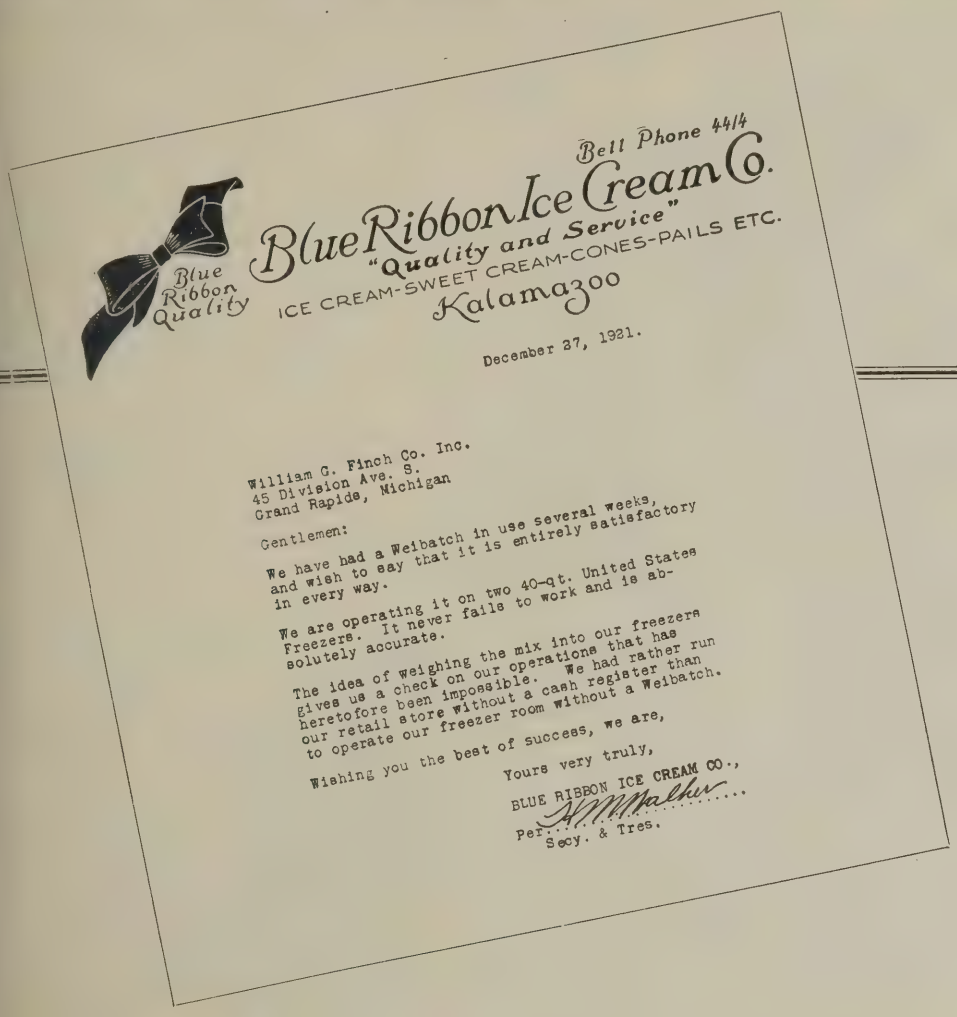


The National Milk Producers' Federation is particularly incensed also at the placing of copra (cocoanut rind) on the free list, for 2,000 pounds of copra will make 1,100 pounds of cocoanut oil, an adultrant which is used in increasing quantities for the manufacture of "oiled" milk, an imitation.

The following table will show exactly what the situation is, what has been granted and what has been denied:

What Dairy Organizations Want.

Par. 707. (to read) Whole milk, sweet or sour, 3½ cents per gallon; cream, sweet or sour, having not more



Bell Phone 4414

Blue Ribbon Ice Cream Co.

"Quality and Service"

ICE CREAM-SWEET CREAM-CONES-PAILS ETC.

Kalamazoo

Blue Ribbon Quality

December 27, 1921.

William G. Finch Co. Inc.
45 Division Ave. S.
Grand Rapids, Michigan

Gentlemen:

We have had a Weibatch in use several weeks, and wish to say that it is entirely satisfactory in every way.

We are operating it on two 40-qt. United States Freezers. It never fails to work and is absolutely accurate.

The idea of weighing the mix into our freezers gives us a check on our operations that has heretofore been impossible. We had rather run our retail store without a cash register than to operate our freezer room without a Weibatch.

Wishing you the best of success, we are,

Yours very truly,

BLUE RIBBON ICE CREAM CO.,

Per H. M. Walker

Secy. & Treas.



The WEIBATCH

It Weighs

AS AN ice cream batch control, one Weibatch, placed between two freezers, will automatically weigh, record, and deliver to the freezers a definite number of pounds of ice cream mix. It will save time, prevent waste, and give the factory manager a check on the mixing room, freezing room, and hardening room that has heretofore been impossible.

Every ice cream manufacturer knows that the specific gravity of ice cream mix is constantly changing, and that any measuring device, no matter how accurate it may be in volume, is very misleading when checking back against the mixing room or the freezer room.

Eliminate Guesswork—Weigh the Mix

Manufactured by

WILLIAM G. FINCH CO., Inc.

45 Division Avenue, S.

GRAND RAPIDS MICHIGAN

A GOOD ICE CREAM BRICK CUTTER WILL CUT IN UNIFORM SIZE.

than 20 per centum of butterfat, 15 cents per gallon, for each additional 5 per centum or fraction thereof of butterfat, 5 cents per gallon additional; skim milk, 1 cent per gallon; ice cream mixtures, unfrozen, having not more than 15 per centum of butterfat, 15 cents per gallon, for each additional 5 per centum or fraction thereof of butterfat, 5 cents per gallon additional; frozen, having not more than 15 per centum of butterfat, 9 cents per gallon, for each additional 5 per centum or fraction thereof of butterfat, 3 cents per gallon additional.

Par. 703. (to read) Milk, condensed or evaporated: In hermetically sealed containers, unsweetened, 1 cent per pound; sweetened, 1½ cents per pound; all other, 1⅜ cents per pound; whole milk powder, 3½ cents per pound; cream powder, 8 cents per pound; and skimmed milk powder, 1½ cents per pound; malted milk and compounds of or substitutes for milk or cream, 20 per centum ad valorem.

Par. 709. (to read) Butter, 10 cents per pound; butter substitutes, 10 cents per pound.

Par. 710. (to read) Cheese, valued at less than 30 cents per pound, 5 cents per pound; valued at 30 cents or more per pound, 25 per centum ad valorem; cheese substitutes, 5 cents per pound; lactorene or casein, 4½ cents per pound (this article now appears on the free list); all other dairy products not otherwise provided for, 20 per centum ad valorem.

What Senate Bill Allows.

Par. 707. Milk, fresh, 2½ cents per gallon; sour milk and butter milk, 1 cent per gallon; cream, 22½ cents per gallon.

Par. 708. Milk, condensed or evaporated: In hermetically sealed containers, unsweetened, 1 cent per pound, sweetened, 1½ cents per pound; all other, 1⅜ cents cents per pound; whole milk powder, 3 cents per pound; cream powder, 6 cents per pound; malted milk, and compounds or mixtures of or substitutes for milk or cream, 20 per centum ad valorem.

Par. 709. Butter, 8 cents per pound; oleomargarine and other butter substitutes, 8 cents per pound.

Par. 710. Cheese, valued at less than 30 cents per pound, 5 cents per pound; valued at 30 cents or more per pound, 25 per centum ad valorem; cheese substitutes, 5 cents per pound.

Casein on Free List.

VEGETABLE OILS SCHEDULE.

Product	Duties allowed in Senate Bill	Duties sought by Farm Organizations
Cottonseed oil	3c per lb.*	4c per lb.
Cocoanut oil	4c " "	4c " "
Soya bean oil	3c " "	4c " "
Peanut oil	4c " "	4½c " "
Copra (dried cocoanut cake)	Free List	2c " "
Soya beans	4/10 of 1c per lb.	¾c " "
Cottonseed	⅓ " " "	¾c " "

*Provided, That such oils may be imported under bond in an amount to be fixed by the Secretary of the Treasury and under such regulations as he shall prescribe; and if within three years from the date of importation or withdrawal from bonded warehouse, satisfactory proof is furnished that the oil has been used in the manufacture of articles unfit for food, the duties shall be remitted.

This vegetable oil situation has developed because of the strenuous and ceaseless activities of the "soap lobby" which is working, not only for the big soap makers, who also make lard compounds and oleos, but for the big makers of paints and varnishes as well.

For over a year this group has maintained headquarters at Washington and has propagated a veritable flood of letters from laundries and retail grocers and other commercial consumers of soaps and oleos in all parts of the country. Senator Calder of New York, member of the Senate Finance Committee, declared he was informed that over 25,000 letters urging the free importation of vegetable oils had been received at the office and held unanswered.

When a 2 cent per pound duty was imposed by the Fordney Committee in the House, the Soap Lobby was very much incensed. They didn't like it a bit. They won over the butter dealers. They won over a large number of cottonseed crushers in the South, which gave then a strong leverage.

Long hearings were held at which they pleaded their case and the crying need of the American laundryman and groceryman for a cheap soap. They had little to say of the cotton grower, the corn grower, the hog raiser and the American producers of peanut oil and flaxseed, etc.

As a result the Senate Finance Committee decided to compromise the situation and please everybody. They tried to protect and please the dairy interests by putting a duty on any foreign oils imported for edible purposes, such as oleos, lard compounds, salad dressings, etc. The soap lobby agreed heartily to that, and so they put on the highest duty that had been asked. Then they pleased the soap people by arranging a "drawback" of all duties paid on oils that were used for non-edible purposes, such as paints, soaps, varnishes, leathers, etc.

Thus it happens that vegetable oil imports which totaled in 1920 over 1,379,126 tons may yet be brought into thsi country free of duty, by simply diverting them all to non-edible products. Such a rapidly increasing business as this has proved to be, would soon be able to cut the markets away from the American producer, who has to pay American labor prices instead of the 5 or 10 cents per day that is customary in the Orient. It would disorganize our home-grown fats and oils industry more than can now be calculated.

Senator Gooding of Idaho has introduced four different amendments affecting this situation which should be supported by all concerned. He is asking:

a. 3 cents on peanuts unshelled; 4 cents on shelled.
b. 2 cents a pound on rice.
c. 1½ cents a pound on soya beans.
d. Full duty on vegetable oils, as requested by the farm organizations, and for 2 cents a pound on copra.

There is no import problem more serious to agriculture than that of these Oriental oils which closely resemble our own home-grown products and which can be used interchangeably for edible and inedible purposes. This final fight must be won in order to properly stabilize the whole fabric of American agriculture.



Don't be without a position, when at a small cost you can locate one through the Want Department in The Ice Cream Review.

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Ice Cream Cartons, Can Liners and Butter Cartons

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CHICAGO CARTON COMPANY

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DENVER, 1526 Blake Street
SALT LAKE CITY, 355 Pierpont Ave

FREEZE YOUR ICE CREAM IN AN ADVERTISED FREEZER.



PROF. BAER'S INQUIRY DEPARTMENT

Dear Sir:—I am sending you a formula which I would like to have explained in the next Ice Cream Review number.

I am just lately running the sugar through the homogenizer, have heretofore never done it. I think it is an improvement doing so. F. S.

Reply: You will find the analysis of both of the mixes you sent below in Table No. 1 and Table No. 2.

Table No. 1.

Ingredients	Fat	Serum Solids	Total Solids
595.0 lbs. 20% cream	119.0	38.08	157.08
258.0 lbs. 3% milk	7.74	22.30	30.04
180.0 lbs. condensed	10.80	32.40	43.20
168.0 lbs. sugar	....	....	159.60
1201.0 lbs.	137.54	92.78	387.32
Per cent	11.45	7.73	32.28

Table 2.

Ingredients	Fat	Serum Solids	Total Solids
680.0 lbs. 20% cream	136.0	48.42	184.42
258.0 lbs. 3% milk	7.74	22.30	30.04
270.0 lbs. condensed	16.20	48.60	64.80
196.0 lbs. sugar	....	....	186.20
1404.0 lbs.	159.94	119.32	465.46
Per cent	11.39	8.5	33.24

Your mix as shown by Table No. 2 is a little better balanced for butterfat, serum solids, and total solids than the mix in Table No. 1. Good commercial ice cream should have 20 per cent milk solids. Your mix No. 2 shows 19.89 per cent. Your mix No. 1 is also a little low in total solids compared with No. 2.

You should have no difficulty in making a satisfactory ice cream from your mix as shown by Table No. 2. You also stated that you believed your mix was improved by running the entire mix, including the sugar, through the homogenizer. I have been recommending this process for many years as you cannot get through pasteurization of your mix if you leave the sugar out and you will also get much better results from your sugar if you heat it with the rest of the mix and homogenize it all together. I am glad to know of your good results in this respect.

Dear Sir:—We are endeavoring to check by actual measurement our calculation of the gallonage in the mix and we are having considerable trouble making these two figures agree.

Can you advise just what difference in liquid gallons, the introduction of sugar, powdered milk and cocoa into this raw mix would make? G. M. B.

Reply: If I analyzed your problem correctly 100 lbs. of your ice cream mix would contain 74 lbs. of milk and cream and 26 lbs. of sugar, cocoa syrup and powdered milk. The 74 lbs. of milk and cream weighing 8.4 lbs. to a gallon would equal 8.8 gallons. Your ice cream mix would weigh 9 lbs. to a gallon. Dividing 100 lbs. by 9 lbs. would yield 11.1 gallons of ice cream mix or you would have an increase of 2.3 gallons over the milk and cream.

This will probably help you solve the question.

* * *

Dear Sir:—I would like very much for you to make up a formula of the ingredients I am sending you with a 12 per cent butterfat, and solids which you think best. How much finished ice cream should 100 lbs. of the mix make? I intend to pasteurize and run it through an emulsifier and let ripen 24 hours. E. F. H.

Reply: I am suggesting below in Table No. 1 how you could proportion the various ingredients which you desire to use into a well balanced ice cream mix.

Table No. 1.

100 lb. mix—12 per cent fat, 9 per cent serum solids and 35 per cent total solids.

Ingredients	Fat	Serum Solids	Total Solids
14.0 lbs. sugar	....	....	13.50
.6 lbs. gelatine	....	....	.57
3.0 lbs. skimmilk powder	....	2.85	2.85
43.0 lbs. 25% cream	10.70	2.87	13.57
39.4 lbs. 3.5% milk	1.30	3.39	4.69
100.0 lbs.	12.00	9.11	34.98

I believe if you will follow the suggestions given you will have no trouble in securing a satisfactory ice cream.

* * *

Dear Sir:—The mix I wanted you to figure is as follows: 4 per cent whole milk, 20 per cent cream and sweetened condensed skimmilk, with skimmilk powder. A 100 lb. mix is what I suggested. You also stated in your letter you would show me how calculations are made figuring the various percentage from the various ingredients. F. E. S.

Reply: I am assuming that you want a 10 per cent mix and I am suggesting below in Table No. 1 how such a mix could be prepared from the ingredients given in your letter.

Table No. 1.

100 lb. mix—10 per cent fat.

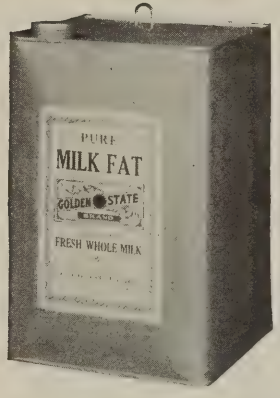
Ingredients	Fat	Serum Solids	Total Solids
10.0 lbs. sugar	....	....	9.50
.5 lbs. gelatine	....	....	.47
10.0 lbs. sweet condensed	....	2.70	6.70
2.0 lbs. skimmilk powder	....	1.90	1.90
43.5 lbs. 20% cream	8.70	3.09	11.79
34.0 lbs. 4% milk	1.37	2.90	4.27
100.0 lbs.	10.07	10.59	34.63

In making your calculations, beginning with the 10 lbs. of sweet condensed milk which contains 27 per cent serum solids and 40 per cent sugar, you arrive at the figure 2.7 and 6.7 for the serum solids and the total solids. The skimmilk powder is figured at the rate of 95 per cent solids and 2 lbs. would yield 1.9 lbs. The



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with this



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SAN FRANCISCO CHICAGO LOS ANGELES

THE RIGHT KIND OF COLD STORAGE DOORS FIGURE PROMINENTLY IN THE PLANT.

43.5 lbs. of 20 per cent cream would yield 8.7 lbs. of butterfat. To arrive at the serum solids I subtracted 8.7 from 43.5 and multiplied the result by 8.9 per cent. In similar manner you would calculate the serum solids from the 4 per cent milk.

* * *

Dear Sir:—I will be pleased to have you tell me which of the following ways is the better plan for making a high-grade ice cream: First—By using pure cream, evaporated condensed milk, or milk powder, uncooked or heated in any way. Second—Or from a homogenized cream made from sweet butter and skimmilk powder.

Please give me a recipe for making a 12 per cent butterfat ice cream by using pure cream, evaporated condensed milk, milk powder, or both, same to be uncooked.

Kindly tell me what you would consider the thing to use for a substitute as a "Rum" flavor in making frozen egg-nog or frozen punch. F. F. V.

Reply: I am glad to state for your information that the first method mentioned in your letter using pure cream, evaporated condensed milk, or milk powder will in most cases make a more satisfactory ice cream than one made from sweet butter and skimmilk powder by the use of the homogenizer.

It is possible to make as good an ice cream by the latter method providing one can make it from a fresh, well flavored butter and a good fresh powder. It has been my experience, however, that it is not always possible to obtain first grade materials in this way.

I am suggesting below in Table No. 1 and Table No. 2, 100 lb. mixes made up according to the suggestions in your letters.

Table No. 1.

100 lb. mix—12 per cent fat, 10 per cent serum solids.

Ingredients	Fat	Serum Solids	Total Solids
14.0 lbs. sugar	....	....	13.30
.5 lbs. gelatine	....	....	.47
20.0 lbs. Evap. milk 8%	1.60	3.60	5.20
2.0 lbs. skimmilk powder	....	1.90	1.90
63.5 lbs. cream & milk	10.40	4.72	15.12
100.0 lbs.	12.00	10.22	35.99

Table No. 2.

100 lb. mix—12 per cent fat, 9 per cent serum solids.

Ingredients	Fat	Serum Solids	Total Solids
14.0 lbs. sugar	....	....	13.30
.5 lbs. gelatine	....	....	.47
19.0 lbs. evap. milk	.72	1.62	2.34
2.0 lbs. skimmilk powder	....	1.90	1.90
74.5 cream & milk	11.28	5.62	16.90
100.0 lbs.	12.00	9.14	34.91

Relative to a substitute for a "Rum" flavor I am sorry that I cannot suggest anything to you but you can undoubtedly secure such a substitute from some of the dealers in extracts and flavors.

* * *

Dear Sir:—My mix consists of the following, would you please analyze: 10 quarts 40 per cent butterfat cream, 10 quarts 3.5 per cent fresh milk, 8 lbs. sugar, 3 ounces gelatine, 8 ounces flavor.

What is the per cent butterfat? What is the per cent serum solids? What is the per cent total solids?

C. E. G.

Reply: Relative to the per cent of butterfat, serum solids, and total solids in your mix, I am glad to give you below in Table No. 1 the analysis of your mix and the per cent of the various ingredients.

Table No. 1.

Ingredients 10 quarts or	Fat	Serum Solids	Total Solids
20.0 lbs. 40% cream	8.0	1.07	9.07
21.5 lbs. 3.5% milk	.752	1.85	2.60
8.0 lbs. sugar	....	....	7.60
.02 lbs. gelatine	....	....	.19
.5 lbs. flavor	....	....	.07
50.2 lbs.	8.752	2.92	19.53
Per cent	17.50	5.84	39.06

* * *

Dear Sir:—You have given previously formulas for a 10 and 12 per cent ice cream. In both of these, evaporated milk, butter and skimmilk powder are used. Will you please tell me the practical advantages of using these different sources of fat and solids instead of straight butter or cream and skimmilk powder.

W. D. D.

Reply: You referred to a formula for a 10 and 12 per cent ice cream. I am glad to say by way of information that the evaporated milk contained in these two formulas to which you undoubtedly refer was put there at the suggestion of the inquirer who wanted the formulas calculated.

There is, in my opinion, no advantage in using the evaporated milk unless you desire the particular flavor which this product imparts to the ice cream.

* * *

Dear Sir:—One question relative to fat and solids contents. Is it possible to have a uniform test for fat in every can run from a 1,000 lbs. mix? In this the agitator was working during the time of freezing and the mix tested 10 per cent for fat.

I have at different times had samples taken from my plant by inspectors and have noted if the sample is taken from the top before any cream is removed the

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A HIGHLY CONCENTRATED VANILLA
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Will Not Freeze or Cook Out.
THE IDEAL FLAVOR FOR CONFECTIONERY OR ICE CREAM
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3 drams (10 cents) Flavors 100 lbs. Candy ¼-oz. (5c) Flavors a 5½ Gal. mix of Ice Cream.
Can be made into an extract by adding warm water—1 pound makes 2 gallons.
Price—Per Pound
1 pound Bottles $5.00
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Special Contract Price Order Now
Guaranteed to please or money back
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WANTED—Experienced plant superintendent for large ice cream manufacturing plant on the coast. Must have practical experience and knowledge in the latest methods of ice cream mix and freezing. **Must know condensed milk thoroughly** as applied to manufacturing of ice cream. Must have the best references. This is a big job. Only capable men need apply. Address: R-265, Ice Cream Review. 4-22

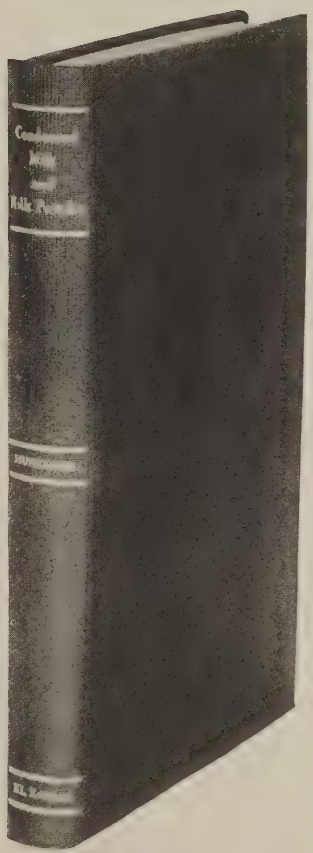
This Ad appeared in the April issue of The Ice Cream Review. It goes to show that the "Big" opportunities are open to those with a thorough knowledge of subjects relating to ice cream making other than just being able to draw a satisfactory product from the freezer.

You can get a thorough knowledge of all the ins and outs of condensed, evaporated and powderedmilk from

Prof. Hunziker's Book

CONDENSED MILK AND MILK POWDER

Have a copy handy for ready reference. Much of the information therein can be applied in the conduct of present day ice cream manufacture. It gives you a better understanding of qualities and values of the goods purchased to make up an economical and trade getting mix.



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The Olsen Publishing Company

210 Sycamore Street **MILWAUKEE, WIS.**

THE EAGLE IS AN INSPIRING BIRD, BUT THE NATION'S FUTURE DEPENDS UPON THE COW.

report has always been more than 10 per cent fat. In 1920 a sample was given an inspector from the bottom of a five gallon can and the report came back 7.5 per cent fat. However the total solids as in this case was about correct. I am at a loss to account for this difference when a homogenizer is used. O. S. P.

Reply: Relative to your inquiry regarding the butterfat and solids content of the homogenized mix secured by taking samples at different times in the process of mixing, I am sure that if the product were perfectly homogenized it would not make any difference in the way the sample is taken.

There is, however, no question but what in an ice cream factory one may expect variations in the composition of the mix unless the entire mix is thoroughly agitated. If the homogenizer is not working properly you might expect considerable difference when taking samples before and after agitation.

* * *

Dear Sir:—Is it possible for me to obtain rules for calculating solids contained in different ingredients used in the manufacture of ice cream such as serum, milk, sucrose, other solids not fat, water, etc.

Thanking you in advance for any information rendered. W. F. S.

Reply: To calculate the solids of the milk serum or the skimmilk you multiply the number of pounds of skimmilk or serum used by the factor 8.9. This will give you the number of pounds of serum solids. To calculate the amount of the solids in whole milk, not fat, subtract the number of pounds of fat furnished by the milk from the total weight of the milk which will give you the milk serum or skimmilk. Then you again multiply this by 8.9 per cent.

Sugar or sucrose on the average contains 95 per cent solids. Gelatine 95 per cent; skimmilk powder 95 per cent; evaporated milk 8 per cent of butterfat and 18 per cent serum solids or a total of 26 per cent solids. Sweetened condensed skimmilk usually contains 40 per cent sugar and 27 per cent serum solids.

* * *

Reply to R. B.: I have your letter of recent date with request for our method of testing ice cream for butterfat by the Babcock test. I am glad to advise that we are getting excellent results. Our method is known as the Glacial Acetic Sulfuric Acid Test and in making this test weigh nine grams of ice cream mix into a nine gram, 50 per cent bottle, then add the acid mixture, consisting of the two acids mixed in equal parts.

We usually find that it takes from eighteen to twenty cubic centimeters of this acid mixture to produce the right results. The acids may be added separately. Add the glacial acid first and the sulfuric afterward. We found, however, that we could get better results by mixing the two acids just immediately before adding them to the contents of the test bottle.

I may state further that this method of testing ice cream was first suggested by the Oklahoma Agricultural Dairy Department about five years ago and is now used quite extensively through the country.

* * *

Dear Sir:—We submit herewith formula for ice cream mix which is causing us trouble with sandiness: 80 gallons of 20 per cent cream, 50 gallons of 3 per cent milk, and 20 gallons of unsweetened skim condensed, 180 pounds of sugar, and 7 pounds of gelatine.

The above is the contents of mix, which we are at present using, and causing us much trouble with sandy ice cream.

This mix is pasteurized to 150 degrees, and held for 30 minutes. We are using Manton Gaulin homogenizer. We obtained 85 per cent overrun.

Would appreciate very much if you could show us wherein the fault lies. Is it in the mix itself, or the temperature at which the finished ice cream is held after freezing, which caused the sandiness?

A. I. C. CO.

Reply: I have analyzed your ice cream formula and you will find an analysis given below in Table No. 1.

Table No. 1.

Ingredients	Fat	Serum Solids	Total Solids
80 gals. or 672 lbs. 20% cream	134.40	47.84	182.29
50 gals. or 430 lbs. 3% milk	12.90	37.12	50.02
20 gals. or 180 lbs. skim condensed	.....	57.60	57.60
180 lbs sugar	.....	.....	171.00
7.0 lbs. gelatine	.....	.....	6.65
1,469 lbs.	147.30	142.56	467.56
Per cent	10.02	9.8	31.1

Your table does not contain a large amount of milk serum solids and there is just two possible reasons why you should get "sandy" ice cream. First, the unsweetened skim condensed is probably the cause of your trouble. This milk may have been held in storage for sometime at a very low temperature which causes the crystalization of the milk sugar and thus produces this sandy condition. Another possible reason for the sandy ice cream is a too low a temperature of the hardening room. You are usually bound to get sandy ice cream if your product is held at a temperature above from 10 to 20 degrees below zero.

I shall be very glad to hear from you again if you find that that is not the reason for your trouble and try to help you locate it.

(Continued on page 111)

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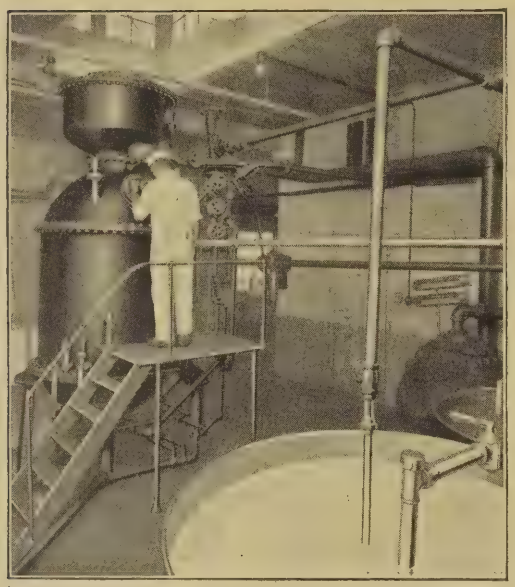
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Standardize the Flavor in the Mojonnier Vacuum Condensing Unit



Mojonnier Vacuum Condensing Unit (5') in plant of Lawrence Ice Cream Co., Chicago. Temperature of milk never exceeds 140° either in hot wells or vacuum pan.

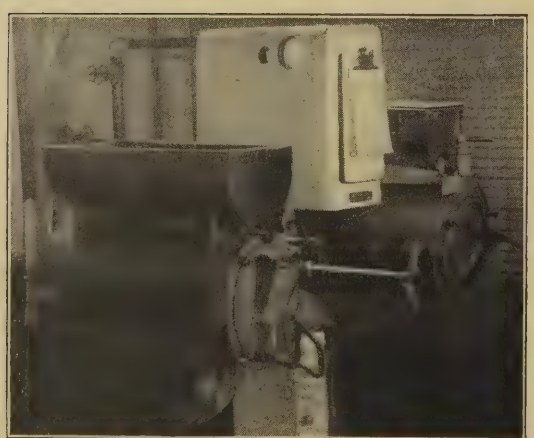
ICE CREAM manufacturers everywhere are fast recognizing the invaluable advantages of the Mojonnier Vacuum Condensing Unit. By displacing the pasteurizer and mixing tank it enables the manufacturer to make his mix from fresh milk direct from the producer and cut the cost of his mix 10c per gallon.

The Mojonnier Vacuum Condensing Unit is a scientifically designed combination of Vacuum Pan, Hot Well, Vacuum Pump, Steam Piping and Traps, steps and all other accessories necessary for a complete Condensing Unit.
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The Mojonnier Overrun Tester enables you to control your overrun absolutely. You don't have to guess. You can test it while the cream is still in the freezer and control the factors that affect the overrun.

Each per cent of overrun represents just .4c per gallon of mix. Increase your average overrun only 10% and it means a saving of 4c a gallon, or $4,000.00 a year on 100,000 gallons. It is savings such as these that are attracting ice cream manufacturers to the Mojonnier Overrun Tester. Used by the largest ice cream plants in the country: Hortons, Telling-Belle Vernon Co., Hydrox, Abbotts, etc. Also by progressive ice cream manufacturers operating two or more freezers. *Write for Circular*

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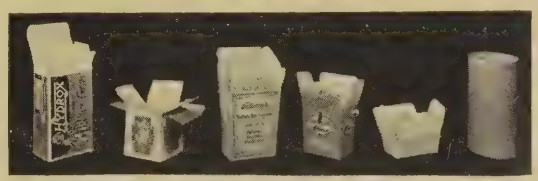
Standardize the Package with the Mojonnier Packaging Machine

THE Mojonnier Ice Cream Packaging Machine is a LABOR SAVER. In one plant it reduced the labor of packaging from twelve to seven operations; reduced number of helpers from seven to three; has reduced hardenings from three to one. Eliminates pouring into molds, dipping, cutting, wrapping and exposure to heat and air after hardening, improving quality and texture of the brick ice cream. It prevents loss of ice cream and does not reduce overrun.

The Mojonnier Packaging Machine is positive in action and of the measured feed type. Fills all shapes illustrated herewith—quarts to individuals — accurately. No overweight; no air-pockets; nothing taken for granted. Fills either one, two or three flavors at the rate of twelve hundred bricks per hour. Finished brick wrapped in parchment can be unwrapped just the same as brick wrapped by hand. Used for making quart slabs for Eskimo Pie—no dipping necessary. Write for circular.



Mojonnier Ice Cream Packaging machine in opertion at the big plant of the Hydrox Co., Chicago, where they package their entire output of one, two and three flavor bricks.



Fills any of the types illustrated above.

Standardize the Butter Fat and Solids with the Mojonnier Milk Tester



Mojonnier Tester in the splendid plant of Carroll Co., Chicago, where they test all the milk products that are used in the mix, and standardize the mix.

TO BE able to buy your raw materials absolutely on the basis of actual butter fat received—to be able to standardize your ice cream mix to within .05% and eliminates all guess work—these are advantages which you desire for your plant.

With the Mojonnier Milk Tester you can standardize your butter fat and total solids in your mix to within a few hundredths of one per cent. Thus you can control all of the ingredients—butter fat, milk solids (not fat), sugar, gelatine, etc. If your ice cream maker gives your laboratory analyst a sample of the complete mix at 8 o'clock, in forty minutes or less the operator can tell him the exact butter fat and total solids content in the mix.

The Great Hydrox Company advise that the Mojonnier Milk Tester pays for itself every month in the flush season.

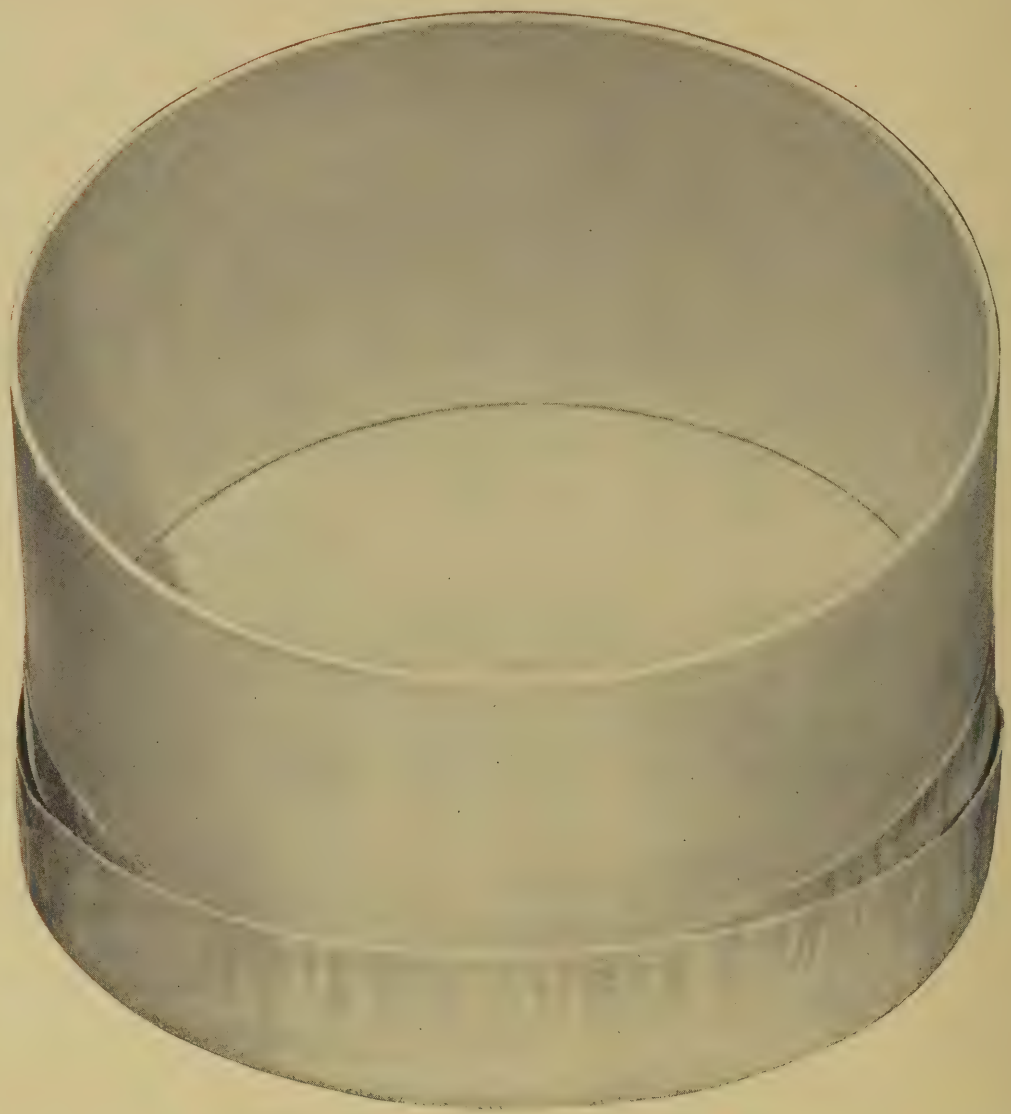
With the Mojonnier Milk Tester, you can test, check and absolutely control the factors entering into your overrun. And that kind of accuracy pays big dividends. Write for circular.

Further Information on any of these Four Items Given on Request.

Chicago, Illinois

739 W. JACKSON BOULEVARD

ST. LOUIS, 4931 Margaretta Ave. **SEATTLE, 513 Pioneer Building** **COLUMBUS, 123 E. Frambes St.**



Consider The Advantages

The Illustration Shows an H-C Bulk Package "one quart" Container Full Size

The large diameter and shallow depth makes filling easy. Consumers like it because it is easy to empty. Filling direct from Freezer is practical and efficient. H-C Bulk Containers are excellent for filling with Mojonnier Packing Machine. Equally ideal for ices as well as ice cream.

H-C Bulk Package Containers are lined with genuine vegetable parchment paper worked right in with the walls of the container. This makes them leak proof and undisputedly sanitary. No danger of contaminating flavor. Paraffining is unnecessary and permits the use of rubber stamp marks on outside for marking flavor or advertising.

The H-C Bulk Package Containers fit into bulk or brick cabinets equally as well as do containers of less diameter.

Made in Pint—Quart —One-Half Gallon. Full Gallon and Eskimo Pie sizes

WRITE FOR SAMPLES AND PRICES

HUNT-CRAWFORD CO., Coshocton, Ohio

Ice Cream Package Section

IN PRESENTING this Special Package Section of The Ice Cream Review we feel that we are touching upon a very important question. The wealth of information that is contained in the following pages has been largely gleaned from men who are wrestling with the problems of caring for The Nation's Dish from the freezer to the consumer's table. These men have first hand information and their opinions and their suggestions should be valuable, not only to other ice cream manufacturers but to the men who manufacture the appliances and supplies used in packaging and handling the product. Even good ice cream loses its popularity when it reaches the consumer in poor condition. The particular form in which it shall reach the consumer is important, but not so important as the condition in which it reaches him. Manufacturers and users of special equipment for packaging and caring for ice cream all have one aim in view, i. e., getting it to the consumer in good condition and in the form that he likes best.



Bulk ice cream is the big seller in this country, but it is just as necessary to package it properly as when sold in other forms. Getting it to the consumer in good condition is a big problem. It must not only be protected from contamination, but it must be kept at the proper temperature — not too soft and not too hard. It must be just right in order to create highest consumption. Good cans, liners, tubs, tub covers and cabinets all play an important part in carrying the ice cream to its destination and keeping it right after it gets there.

Manufacturers of special containers for bulk ice cream are helping to solve the problem of getting the ice cream from the retailer to the consumer's table in good condition. They make it easy for him to respond to the suggestion to "Take Home a Package of Ice Cream."

Ice cream in various other forms is helping to swell the gallonage in most localities and men in the business agree that the sale of package ice cream is going to keep right on increasing from year to year. They realize that increased gallonage will be the result for most manufacturers and that they can develop a profitable package business without seriously decreasing their bulk business.

There is little demand for package ice cream in some communities. This is not the fault of the consumer. The demand must be created. It can be created in any community by putting good ice cream in good packages and getting it to the consumer in good condition. This, however, must be backed up by advertising and herein lies the possibility for any ice cream manufacturer to build up a consumer demand for his particular brand of ice cream.

The larger cities, of course, offer the best opportunities for successfully advertising packaged ice cream under the manufacturer's brand. This does not mean, however, that it can not be profitably done in smaller places. Many are doing it and people in the smaller cities and towns are quite as responsive to effective advertising as other folks.

We believe that some ice cream manufacturers make a mistake, when attempting to push sales of package ice cream, by trying to save money on the cost of packages. A cheap container is a poor investment, especially if your name and brand appears thereon. An attractive container whets the appetite of the buyer for its contents, and if the ice cream is up to expectations, the taste and the memory of the brand is going to result in repeat orders. The same rule holds good in regard to advertising. Make it of good quality. Let the consumer associate your high class advertising with your good ice cream and he will gain the impression that the purity and wholesomeness of your product is beyond question. Gain his confidence to the right degree and he will even pay more money, if necessary, to enjoy your ice cream.

Appreciating the importance of this question of packaging and handling ice cream, we submitted a series of questions bearing on the subject to various ice cream manufacturers in all parts of the country. The compilation of the answers to these questions should be of interest to every reader of the Ice Cream Review. We have emphasized what the answers indicate are the more important questions by a quite lengthy compilation of those answers.

The list of questions as submitted is as follows:

ICE CREAM CANS

1. What is your method of keeping track of empty cans and packers?
2. Please send us any blanks you use in keeping a record of cans and packers that are out.
3. What percentage of cans must be replaced annually?
4. What is your depreciation cost on cans and packers per gallon of ice cream during the year?
5. Do you use liners?
6. Are present cans on the market heavy enough?

A GOOD BEGINNING IS HALF THE BUSINESS.

7. Are you retinning?
8. If so, have you found it profitable?
9. Do you have a state law requiring cans to be rinsed and returned as soon as emptied?

PACKERS OR ICE CREAM TUBS

1. Do you charge retailer with a deposit on packer or cans furnished him?
2. If so, what percentage of the value?
3. Do you charge irregular customers a deposit?
4. If so, what percentage of value?
5. How many trips does a packer make in a year?
6. Have you tried the duplicate checking system, similar to baggage checks?
7. If so, with what success?
   Note—Please send us a sample of check used.
8. Have you tried metal bottoms on outside of tubs?
9. If so, with what success?
10. What improvements can you suggest in building tubs to make them last longer?
11. Do you repair and paint your tubs each year?
12. How are empty cans and packers stored when not in use?
13. How do you prevent rusting of cans in storage?
14. What is the average life of a tub in your business?

ICE CREAM CABINETS

1. Do you loan cabinets, or require retailers to buy them?
2. If you loan cabinets, do you keep them out the year round?
3. Do you furnish larger capacity cabinets in summer and smaller in winter?
4. What terms of rental?
5. What size cabinets are most generally used in your community?
6. Do you charge for icing?
7. If so, on what basis?
8. How often do you overhaul and paint cabinets?
9. What is average life of a cabinet?

CONTAINERS

1. What percentage of your gallonage is sold in bulk?
2. What percentage in brick?
3. What percentage in other containers?
4. Do you use a packaging machine?
5. If so, is it satisfactory?
6. What special effort have you made to encourage the consumer to "Take Home a Package of Ice Cream"? **Note**—Kindly send us samples of advertising that has pulled best. Is the growing tendency to put ice cream in cartons and sanitary containers building up a greater gallonage in your community?
7. If you pack a special container, ready for the consumer to carry home, do you experience any trouble in getting the retailer to properly care for it?
8. Is such a container building a satisfactory trade for you?
9. Which business do you prefer, bulk or package?
10. Why?
11. Have you tried iceless containers for shipping?
12. If so, with what success?
13. Have you tried to increase your sales of package ice cream through grocery or chain stores?
14. If so, with what success?

Ice Cream Cans.

Question No. 1 under this section reads, "What is your method of keeping track of empty cans and containers?" This is of interest because of its direct bearing upon keeping down the cost of distributing the ice cream, and its consequent effect upon the percentage of profit.

In smaller towns where the number of customers is not so great, a duplicate tag system is in most common use. This simply gives a record of the number of cans that are out, but does not record where they are. However, most of these manufacturers do not feel that it is necessary to keep a more complete record than this.

A development of this system which is in use in larger plants is a duplicate checking system in which the can or packer is tagged with a check similar to a baggage check, and the stub or duplicate check retained. In the most thorough instances of the use of this method, the can is numbered, and a corresponding number entered upon the check, with the customer's name. This tells the whole story at a glance, even to the size of the can, for in most cases where the cans are numbered a letter is prefixed to the number which indicates the size and type of the can.

Another system in common use is the duplicate card system, with one card for the customer and one for the tub. When a tub is taken out, the number is entered on the customer's card, and the customer's name on the tub card. When the tubs are returned the customer is automatically credited by posting from the tub card.

Another firm uses a ledger sheet for record, every customer being charged with the packers he gets. Each sheet is numbered, as A1-A2-B1-B2-C1-C2, etc. In the back of the ledger is an index. If packer 637 goes out to B2, then B2 is placed in the out column under 637. If 637 is returned without a tag, then by referring to 637, it will be found that B2 is due credit for this packer. This firm reports that this system is the most satisfactory of several they have tried.

A Nebraska firm numbers every tub and enters the number under the dealer's name. If the records do not show that it has been returned in a week, the dealer is notified and an invoice is mailed. If after seven more days the container has not been returned it is charged to his account, and an invoice is mailed. This plan has worked very satisfactorily, for after a year's trial of this system it has been necessary to charge only two dealers with the cans, and after the invoice was sent to them, they were returned at once.

A unique and simple system is used by a North Carolina firm. A large board is placed in the shipping room with the numbers of the packers on it. A nail is driven under each number. When a packer goes out a duplicate check with the number, name of buyer, date and amount is filed on this board. Every packer that comes back is checked off on this board. The others are written to within a reasonable time.

One firm keeps track of the cans through the route men. Each man is charged with the number of cans he takes out, and is credited with the empties returned. The commissions paid to the route men are based on the empties returned.

An effective method employed by another North Carolina firm is the use of a numbered salesbook. The customer's name and other data are entered in the salesbook, and the number of the order entered on the tag, a duplicate of which is kept at the office. By referring to this duplicate and then to the original order, the cans that are not returned can be easily traced.

A Wisconsin firm is very enthusiastic over the system they have in use, having tried several methods and found this one most advantageous. They have a slotted board which is numbered to correspond with the numbers on the tubs. For tubs and packers that are sent out by express, red, white and blue tags are used consecutively, one color for each month. We presume that the customers' names are entered on these tags. For all deliveries not made by express, yellow tags are used. Thus at a glance they can tell how the tubs and packers are coming back.

To insure prompt returns, one Missouri firm makes a demurrage charge on all cans and packers that are out over ten days. The depreciation cost and replacement percentage of this firm is very low, therefore this system must be very satisfactory in keeping down distribution expense. However, we cannot help but feel that in territories where competition is severe, this system might react very unfavorably upon the volume of sales.

Numerous other systems are in use which are slight variations of the methods above named. The need of



Nelson (Patented) Ice Cream Cabinets

"Confessed The Best When Put to Test"

are constructed along scientific and practical lines to conserve ice and salt supplies and keep the ice cream in perfect condition until sold. The manufacturers have devoted thirty years of study and experiment toward the building of the best possible ice cream cabinets for the manufacturing trade. Each particular make of cabinet of the Nelson line is sold with a guarantee and on a plan of "You Must Be Satisfied"



Three Compartment Cabinet



42 Qt. Brick with Ice Rail
Patented Nov. 11, 1919 1321120



Brick Cabinet
Also for Eskimo Pies

This Proposition Will Interest You

Any responsible ice cream manufacturer—particularly wholesale ice cream manufacturers and dealers—may order from 1 to 100 Nelson patented Ice Cream Cabinets, place them in practical use, and after 30 days, if not entirely satisfactory, return at our expense for freight, both ways.

Can any manufacturer offer a more liberal or fair proposition? You owe it to yourself to thoroughly investigate the price, merits and construction of the Nelson Patented Ice Cream Cabinets before making any further purchase.

Plan on your season's requirements now, and have your supply on hand when needed.

C. Nelson Manufacturing Co.

2308 Division St.
St. Louis, Mo.

STOCK OF CABINETS CARRIED BY THE FOLLOWING REPUTABLE JOBBERS.

James M. Decker Co., Inc..... ...Baltimore, Md.
Jos. Middleby, Jr., Inc..... ....Boston, Mass.
N. A. Kennedy Supply Co. .....Kansas City, Mo. / Oklahoma City, Okla.
Kennedy & Parsons Co..... ....Omaha, Nebr. / Sioux City, Iowa
Huey & Philp Hardware Co.....Dallas, Texas

some simple, efficient system was expressed by several manufacturers, and it is hoped that the suggestions contained in the foregoing paragraphs may prove helpful.

Question 2—What percentage of cans must be replaced annually?

The average percentage was 20, with a number at 15 and many at 10. Only a few were above 25, and these ran as high as 33 1-3 and in one case 40 per cent. On the other hand, quite a number were below 10 per cent, many as low as ½ of 1 per cent.

It was noted that in some cases where the percentage ran exceptionally high there was no accurate system employed for keeping track of containers. This would seem to indicate that considerable loss can be incurred by carelessness on the part of dealers in returning the cans. Of course, there are other causes which contribute to the cost of replacement, which the answers to later questions will show.

In practically every case where the replacement percentage was extremely low, every precaution was taken to insure the return of the cans. The containers were well taken care of in other ways too, but this fact was particularly noted.

Question 3—What is your depreciation cost on cans and packers per gallon of ice cream during the year?

Most manufacturers figured the depreciation as a percentage of the total investment in cans and containers. In such cases it averaged 20 per cent, with a few as high as 33 1-3 per cent.

Where the figures were given as a percentage of the cost of a gallon of ice cream, they showed great variety, ranging from ½ of 1 cent to 7c on a gallon. A very few were above 7c, and the general average was 2c.



Boost Your Sales
The Sanisco Way

Extra Business

Awaits the progressive Ice Cream man who lets the fact become known that he can furnish a "SANISCO"—the popular, clean, sanitary and rapid dispensers of ice cream for social events, as

Dances—Parties—Bazaars

Full Details on
Prices on Request

SANISCO CO. MILWAUKEE WISCONSIN

This percentage ran in direct ratio to the percentage of replacement as referred to in the previous question. Where one was high the other was, and vice versa.

Question 4—Do you use liners?

Answers to this question were quite evenly divided. Out of 145 manufacturers who replied to this question, 71 used the liners and 64 did not.

In a great many cases the liners were used only on "second season" cans, or on cans that were a trifle rusty. A few manufacturers reported that they used the liners with chocolate ice cream only. No reason was given for this practice.

Question 5—Are present cans on the market heavy enough?

Most manufacturers seemed to feel that the cans were heavy enough, for out of 92 replies to this question 84 were in the affirmative. However, many of the affirmative replies contained reservations to the effect that only the more expensive grades of cans were, and that too many were made to fit a cheap price. Also a great many said that, though the cans as a general thing were heavy enough, the tinning was too light and wore off readily, causing the can to rust. It was from this source that the greatest loss on cans was incurred.

One criticism of the construction of the cans at present on the market was that the rims were not heavy enough, especially at the top, as heavier rims would facilitate handling.

Question 6—Are you retinning?

Of 129 manufacturers who replied to this question, 71 were retinning and 58 were not. One manufacturer said that he had been, but as cans declined in price he had discontinued, as it was more satisfactory to replace the cans than to send them away for retinning, due to the high freight rates.

Question 7—If so, have you found it profitable?

Of 62 replies to this question, 45 were in the affirmative. The main reason for stating that retinning did not pay was that the transportation to and from the tinners ate up all the savings that were made by having the cans retinned. In the case of soldered cans, it was found in most cases to pay only when the can was finished with the same sanitary seam as the new ones.

A few manufacturers said that with cans at their present low prices it was not found to be as profitable to retin as it was when the cans were higher priced.

The others were almost unanimous in saying that retinning did pay, if it was done well, because it lengthened the life of the can by preventing rust, and consequently lessened the percentage of leakers. It also gave a better, more sanitary appearance to the cans, and made it unnecessary to use liners.

The general consensus of opinion of the majority was that it did pay provided the cost of retinning, transportation included, was less than half of the cost of the can. Practically all large plants that had their own retinning machines found that it paid.

Question 8—Do you have a state law requiring cans to be rinsed as soon as emptied?

The following states from which replies were received have such a law: Texas, Kansas, Nebraska, Tennessee, New York, Montana, Georgia, Washington, Wisconsin, North Carolina, Mississippi, Oklahoma, Virginia, Colorado, Illinois, Missouri, Louisiana, Iowa, California, North Dakota, Michigan, Minnesota, Indiana, Massachusetts, Pennsylvania and West Virginia. Replies from states which have no such law include Kentucky, Maryland and Connecticut.

However, it would seem that in most cases where

"The Package Sells the Goods"



Does your ice cream brick box design and printing add to or detract from the effectiveness of your advertising? Everything else being equal, the attractiveness of your package will be a big factor in building brick ice cream sales. MENASHA has specialized in the creation of designs that properly advertise your product.

We are in position to reproduce your carton design on ICE CREAM PAILS---ask us for samples and full information on this.

MENASHA PRINTING & CARTON COMPANY

CHICAGO-1606 Conway Bldg. NEW YORK-200 Fifth Ave. MENASHA, WISCONSIN CLEVELAND-755 Hippodrome Bldg. Annex LOS ANGELES-431 I.W. Hellman Bldg. KANSAS CITY-301 Scarritt Arcade Bldg.

IT IS EASIER TO GIVE ADVICE THAN TO LEND A HAND.

such a law exists it is not enforced. In fifteen states this condition was reported to be in existence. One North Carolina manufacturer said he believed that the enforcement of this law would save thousands of dollars a year for the manufacturers on account of lowering the percentage of depreciation on cans. When such a law as this exists, the enforcement of which would tend to decrease the manufacturing cost of ice cream, and which at the same time encourages sanitation and thus has a beneficial effect on the public health, it is difficult to understand why its enforcement is not insisted upon.

* * *

PACKERS, OR ICE CREAM TUBS.

Question 1—Do you charge retailer with a deposit on cans and packers furnished him?

Most manufacturers evidently do not find it necessary or good policy to charge a deposit for cans and packers, for out of 146 manufacturers who replied to this question, 132 did not charge a deposit and 14 did.

One manufacturer reports that he is now using 1-trip waxed manila carrier pails, which cost him 10c each. These pails hold the cream in good condition for about eight hours. It was not stated, but it is presumed that these pails are used in the tubs in place of the cans.

A few manufacturers state that they do not charge a deposit, but if the dealer does not return his cans and packers within a reasonable length of time he is billed for them. One manufacturer charges a deposit on city trade only, it being easier to keep track of cans and packers shipped out by express. One Washington manufacturer who has quite a bit of Alaska trade charges his Alaska customers only for packers, crediting them when they are returned.

This Book Tells How



HOW to cut down your percentage of solids fat and at the same time improve the quality of your cream — when and how to most successfully use cream, sweet butter, condensed milk or powdered milk—how to make brick ice cream without redipping—how to increase your overrun — most successful brine temperatures —best methods of using gelatine — proper sugar proportions in relation to quality and overrun—savings and improvements possible by correct use of ripeners.

These are just a few of the subjects covered in Mr. Thomas' "Profitable Ice Cream Making." Page after page is devoted to this kind of valuable, profitable, useful information. It is a book that you cannot afford to be without. Order yours now.

The price is only $1.00 postpaid

J. G. Cherry Company
Dept. 301
Cedar Rapids Iowa

A North Carolina manufacturer says that if the sanitary law which requires that tubs be rinsed and returned directly after using were enforced, it would cover this situation and it would not be necessary to charge a deposit.

In most cases where a deposit is charged to regular customers, it is charged only when ice cream is delivered to an address other than the retailer's own.

Question 2—If so, what percentage of the value?

Most manufacturers charge full value or the cost of the container, which gives them full protection in case of loss. Some charge a flat rate of from $1 to $3, and others charge various percentages of the value ranging from 10 to 75 per cent. One manufacturer charges a fixed rate of $3.50 for 1, 2 or 3 gallon cans and $5 for 5 gallon cans.

Question 3—Do you charge irregular customers a deposit?

Manufacturers who answered this question were almost evenly divided in their reports, 78 of them charging a deposit to irregular customers and 69 of them not doing so.

It was noted that almost all of the manufacturers who were located in the larger cities charged a deposit, while those who were located in smaller towns did not. In almost all cases, especially in larger places, a deposit was charged when the ice cream was taken out to picnics, conventions, and similar gatherings where there was no efficient system of keeping track of the packers, hence a greater risk of loss.

The main reason for not charging a deposit, especially in smaller places near the large cities, was that competition was so keen that there was a great danger of loss of trade is such a charge was made.

Question 4—If so, what percentage of the value?

Answers to this question showed such a great diversity that it seemed almost as if every individual manufacturer made a different charge. The various percentages of the value charged ranged from 20 per cent to full value, and the flat rates ranged from $1 to $5.

One manufacturer charged sufficient to cover the expense of sending for the packer if it was out of the regular delivery zone. There seemed to be no general method employed for making this charge. Rather, it seemed to be an arbitrary matter, the decision of which is influenced by the local conditions found by each manufacturer.

Question 5—How many trips does a packer make in a year?

These answers also showed a wide diversity, and it is difficult to determine an average, due to the fact that quite a few firms do not manufacture ice cream in the winter.

In large city plants where a year round business was done, the number of trips made by packers used in city trade ranged from 100 to 200, and in country trade from 35 to 40. In smaller towns the packers made from 15 to 50 trips on local deliveries and from 1 to 20 trips on express deliveries.

In this connection one manufacturer says: "We have been in business 50 years, and I believe we still have a few packers left that Dad started with." If the manufacturer of these tubs is still making them as hardy as this, he has advertising material here that will put all other makers out of business. Probably the original Old Oaken Bucket is among them.

(Continued on page 76)



BUILT Better Because Built With The Craftsman's Pride—

The true reason for the pronounced supremacy of the "No-Swet" ice cream cabinet is more than a matter of inventive genius.

Into the "No-Swet" cabinet goes the carefull painstaking workmanship, the constant striving for perfection of the creator and the craftsman working hand in hand to make their dream become a practical reality. Thus, this pride, united with modern business ability, and efficient production has made it possible to offer the ice cream manufacturer of today a cabinet that is unequalled in every respect.

"No-Swet"

The Swet-less Cabinet

Built on the principal of the thermos bottle, adopted and used exclusively by many of America's largest ice Cream manufacturers.



"No-Swet"

Ice Cream Cabinet

Positively guaranteed to keep ice cream in perfect condition from 24 to 30 hours with one packing, if it does not, return at our expense, and we will refund purchase price.

Without obligation, we will be pleased to send detailed information regarding these cabinets. Write for it today.

The Grand Rapids Table Company

GRAND RAPIDS MICHIGAN

ADEQUATE REFRIGERATING MACHINERY PREPARES FOR THE SEASON'S RUSH.

The Future of Brick or Package Ice Cream

Address of K. L. CARVER, Before California and Southwestern States Ice Cream Manufacturers' Ass'n

THE manufacture and sale of ice cream can hardly be considered as any other than an "infant industry." I venture that no other industry, with the possible exception of that built up around the "automobile" has developed to such a magnitude in so short a period of time. It is estimated that 250,000,000 gallons of ice cream will be used during 1921 in the United States alone, which, at wholesale prices, would represent a money exchange of approximately $25,000,000.

The American public has taken to ice cream like "a duck to water." Neither highly efficient production nor scientific and intensive merchandising have been required to sell it. If such had been the case, the ice cream industry of to-day would show a far greater development along those two lines.

Conditions during and following the war period nave been most decidedly favorable to ice cream manufacturers. Our commodity is perishable and is made and sold almost from hand to mouth, so we have not been obliged to carry large stocks with the hazard of a declining market; and we have received consistently good prices for our merchandise, being more or less protected until quite recently, from the advent of new competition, by the high price and scarcity of ice cream equipment. The result is that most of the firms in business to-day are well organized, well financed and apparently thrifty, (the only exceptions being in a few localities where ruthless and useless price wars have been and are being waged.

There is no question, however, but that we are now facing a new era in our business—an era in which efficiency is going to play one of the leading rolls. Our history has been one of constant rebuilding, remodeling, enlarging and re-equipping, and the continual adding of tubs, cans, cabinets, freezers, delivery trucks, hardening rooms and such simple necessities for conduct of our business. But the noticeable downward trend of all prices, the curtailing effect of wage reductions on household expenditures and the competition being attracted by the apparent success of ice cream manufacturers indicate that we must pay more attention to every form of economy and efficiency in order to be able to meet the inevitable price readjustments of the future. Compare in your mind the efficiency in the modern ice cream plant with that in a modern printing establishment, in a large textile mill or in an up to date shoe factory. This illustrates one of the reasons why I consider that the ice cream industry is still in its "infancy." The ice cream freezer and the ice cream dry hardening room are almost the only parts of our equipment that have been developed entirely within our own industry and they are both comparatively simple in principle and construction. We owe our newest type of storage and mixing vats to the brewing industry, our refrigeration machinery has been developing through a long period of years in various industries, the Babcock testing apparatus and the homogenizer are the outgrowth of the milk industry and so on down the line we go. Having temperature, flavor, texture, appearance and extreme perishability to contend with, our problems are more or less complex, but as the printer, the weaver and the cobbler have designed and wrought the wonderful pieces of machinery we see in their institutions, so can ice cream manufacturers construct equally efficient equipment for their own factories if they will only put their minds to it. A continuous freezer (which, by the way, is being developed by Fred Martin, of Portland, bids fair to revolutionize ice cream freezing) an automatic overrun regulator, automatic can fillers and washers, conveying systems for handling full and empty cans, brick making machines, automatic ice and salt mixing machines for tub packing, mechanically refrigerated truck bodies, cabinets and soda fountains and automatic ice cream vending machines are all within the very conservative range of possible development and perfection.

The subject of brick or packaged ice cream is at present receiving a good deal of attention because of the placing on the market of two or three different types of brick or packaging machines. I do not want to speak too discouragingly of these machines, but I do believe that the better principles of the several machines will have to be combined and the packages somewhat modified and standardized before the results will be entirely satisfactory. It is gratifying, however, to note the number of machines designed to fill various of the above needs that have been placed on the market within the last few months. We have yet to find out just how effective or practical they will prove, but it certainly indicates that the era of rapid mechanical advancement and development of efficiency is at hand.

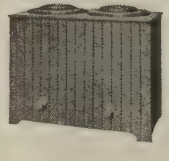
Now, as to our merchandising. We have as yet made only a fair sized dent on the surface of our possibilities. The older companies came into being in the larger cities where plenty of business lay close at hand or within easy shipping distance. The development and exploitation of the soda fountain really did more to increase ice cream sales than any effort put forth by the ice cream manufactures themselves. Next came prohibition and the re-



STOUT

Schroeder Perfection Cabinets

For the utmost in refrigeration at lowest possible cost.



We are ready for the hot-weather rush — are you?

"Insulation is the thing"

JOHN SCHROEDER LUMBER CO.

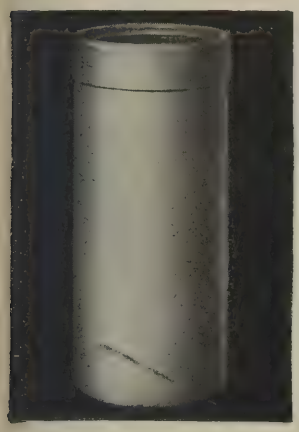
"A Dozen Cabinets or a Dozen Carloads"

WALNUT ST. MILWAUKEE, WIS.



The Buyer's Page





Sealright Paper Containers

The ideal ice cream container—exact measure—saves time and money. Prices, 1000 or more.

	Regular Stock Per M	Extra Heavy Paraffined Per M	Packed Per Case
¼ pint	$16.50	$19.50	...
½ pint	17.50	20.50	300
12 ounces	18.50	21.50	250
Pints	19.50	22.75	200
Quarts	24.00	27.50	100
½ gallon	46.50	51.50	50





De Luxe Ice Cream Plates

Made of waterproof stock, clean, sanitary and retains its shape when moist. 500 plates to the box.

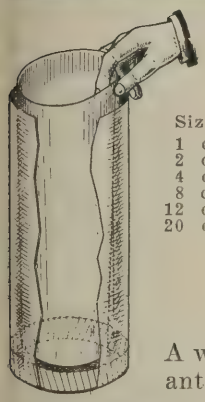
1,000 lots	Per 1,000, $2.40
5,000 lots	Per 1,000, 2.30
10,000 lots	Per 1,000, 2.25
25,000 lots	Per 1,000, 2.20

Paprus fibre plates 20c per M less.

Sanispoons

	Demi-Tasse	Teaspoon Size	Soda Size
1,000 lots, per M	$2.50	$4.50	$6.00
10,000 lots, per M	2.25	4.25	5.75

Packed 1,000 to the package, 10 packages to the case.



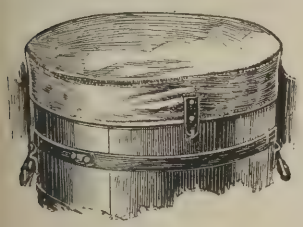
Chicago Perfect Can Liners

(Two Piece)

Size	½ M	1 M	2½ M	5 M	10 M
1 quart	$ 3.25	$ 3.85	$ 5.60	$ 5.35	$ 5.10
2 quart	3.70	7.20	6.70	6.40	9.10
4 quart	5.35	10.35	9.95	9.55	9.20
8 quart	7.15	13.70	13.35	12.80	12.25
12 quart	8.75	16.70	16.00	15.40	14.75
20 quart	11.15	21.45	20.60	19.75	18.90

Stay-On Tub Covers

A water-proofed, brine proof, mildew proof, guaranteed cover. Attaches to the tub and stays with it. Ties in front with metal tipped strings.



Prices per Hundred

Size	No.14 oz.	No. 16 oz.
4 quart	$48.00	$53.00
8 quart	50.50	56.00
12 quart	53.00	57.00
16 quart	56.00	59.00
20 quart	58.00	60.00
32 quart	64.00	69.00
40 quart	69.00	75.00

Discounts

Lots of 250	5%
Lots of 500	10%
Lots of 1000 or more	15%

Send for Prices on Ice Cream Pails, Boxes, Straws, Etc.

Parchment Circles

WASH AND RETURN EMPTIES PROMPTLY
M&B Ice Cream
Manufactured by
T. M. McCOLGAN & SONS
Factory 301-303-305 N. Water St.
SAGINAW, MICH.

Net Prices (plain)

Circles for	Quart Cans	1M	2M	5M	10M	25M
5 in.	1	$0.72	$0.68	$0.64	$0.60	$0.55
6 in.	2	.98	.92	.86	.81	.75
6½ in.	3	1.15	1.08	1.01	.95	.88
7 in.	4	1.28	1.20	1.13	1.05	.98
7½ in.	8	1.53	1.44	1.35	1.26	1.17
8½ in.	12	1.91	1.80	1.69	1.58	1.46
9 in.	16	2.17	2.04	1.91	1.79	1.66
10 in.	20	2.68	2.52	2.36	2.21	2.05
10½ in.	20	2.93	2.76	2.59	2.42	2.24
11 in.	20	3.27	3.08	2.89	2.70	2.50
12½ in.	40	4.21	3.96	3.71	3.47	3.22

Special printing on stock printed circles extra. Send for price list.

Stock Printed Squares for Ice Cream Cans

Either with plain corners or choice of four flavors printed on the corners: Cherry, Chocolate, Strawberry, Vanilla. 30-lb. K-V-P genuine vegetable parchment—printed one color—blue. Any variation in color or size, extra. When ordering always refer to as "stock printed ice cream can squares," giving size of square required and whether with or without flavor on corners, and quantities of each flavor required.

Capcy. of Can	Size of Sq.	Quantity 1M	2M	5M	10M	20M	50M	100M
4 qt.,	9x9	$2.66	$2.41	$2.16	$1.86	$1.64	$1.59	$1.43
8 qt.,	9x9	2.66	2.41	2.16	1.86	1.64	1.59	1.43
12 qt.,	10x10	2.98	2.73	2.48	2.18	1.93	1.81	1.69
16 qt.,	10x10	2.98	2.73	2.48	2.18	1.93	1.81	1.69
20 qt.,	11x11	3.35	3.10	2.85	2.60	2.33	2.15	2.02
20 qt.,	12x12	3.65	3.40	3.15	2.90	2.70	2.40	2.30

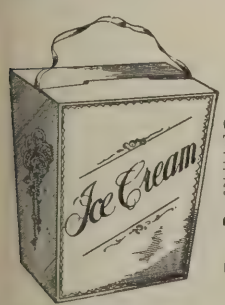
Stock Printed Wrappers for Ice Cream Bricks

Printed two colors—red and blue. 30-lb. K-V-P genuine vegetable parchment. When ordering always refer to as "stock printed ice cream brick wrappers," giving size, whether pint or quart; otherwise it will be assumed that plain sheets are wanted.

Size Brick	Pint 7x13	Quart 10x13	Size Brick	Pint 7x13	Quart 10x13
1M	$2.99	$3.75	20M	$1.92	$2.58
2M	2.86	3.59	50M	1.75	2.39
5M	2.60	3.26	100M	1.63	2.20
10M	2.28	2.92			

TIN ICE CREAM SPOONS

3½ inches long	Per M	Picnic size	Per M
1,000 lots	$1.40	10,000 lots	$1.30
5,000 lots	1.35	25,000 lots	1.25



Genuine Vegetable Parchment Paper

Net Prices (plain)

	5M	10M	20M	30M	50M	100M	200M
6½x13, for pint bricks	$1.46	$1.42	$1.34	$1.32	$1.28	$1.22	$1.19
7x14, for pint bricks	1.65	1.61	1.51	1.48	1.44	1.37	1.34
10x13, for quart bricks	2.16	2.07	1.98	1.96	1.89	1.80	1.76
10x14, for quart bricks	2.33	2.23	2.14	2.10	2.04	1.94	1.90
3½x8, for small slices	.52	.52	.52	.50	.48	.48	.46

Order NOW. *All prices listed here are subject to change. We give you the benefit if lower than quoted.*

A.H. BARBER CREAMERY SUPPLY CO. CHICAGO, ILL.

A.H. Barber Creamery Supply Co.
302 W. Austin Ave., Chicago, U.S.A.

THE TROUBLE WITH SOME BUSINESS MEN IS THEY ARE NOT SET TO GO.

placement of the saloon by confectioneries and soft drink parlors. Our own sales work has been more in the nature of keeping business away from or actually taking it away from our competitors, than in developing more or new lines of consumption. Volume has been a more detail to us because our gallonage has come too easily. I am not claiming that the ice cream man's berth is a "bed of roses" but I do claim that we can congratulate ourselves in that our market has in a measure presented itself, grown of itself, or has been enlarged by and fostered by other lines of business. Self-preservation has not forced us to go out and seek and develop our own market.

Much could be said on the merchandising of ice cream but I am going to limit myself to just three phases of the subject, phases that I believe, are prying at the door of a future that will surprise us and that will ultimately lead to a fuller exploitation of brick or packaged ice cream.

First. Closer co-operation with the dealer in selling ice cream.

Second. The development of home consumption of ice cream.

Third. The development of individual package consumption of ice cream.

First, take the matter of co-operation with our dealers. We advertise our ice cream through our dealers' stores; we furnish them with signs; we give them "specials" for holidays; we deliver private orders for them; we supply them with menus and I have even heard of giving them fresh ice for their "coils," all to convince them that we want to co-operate with them. Yet we overlook the importance to them of knowing and to us in having them know what their margin of profit actually is. Too often their measure of the quality of an article is based upon the profit they can realize on its turnover. Thus, variation of overrun is a very potent factor in their determination of quality. You can give a dealer ice cream that is perfect according to your own individual standards ninety-nine times out of a hundred, but you cannot avoid under the present methods involving human attention and regulations giving him a "light" or "high overrun" can once in a while, and it is upon such a faulty can that the reputation of your ice cream, and your dealer's willingness to push its sale, are dashed to pieces. This is particularly true in dipping ice cream for carry-home trade which, as I stated above, is the direction in which our future lies, rather than in fountain use. In sodas, sundaes and cones the portions are so small and profits so large that the shrinkage, or rather the variation in shrinkage, is lost sight of. In making a test to prove to the dealer that your ice cream shows only a nominal shrinkage of perhaps a pint to the gallon, you use an average can, while it is human nature for him to base his figures on the worst can he has received. Nevertheless, I confess that I have a good deal of sympathy for the dealer. As a rule his figures are not so far off because he has the human equation and labor problem to contend with exactly as we have in our own business. The sum and substance of it all is that the dealer does not like to handle bulk ice cream, incidentally because of its inconvenience, but primarily because regardless of the facts, he is convinced in his own mind that he cannot get a fair margin of profit out of it. A principle of merchandising and commerce, as sound as the Rock of Ages, is—"give the customer what the customer wants." We do not wish to sell ice cream by weight, so it is high time then, that we select one of two alternatives: develop a positive means of regulating over-run—prove to our dealers that this has been successfully accomplished and then assist by the simple process of education, in stabilizing their margin of profit on bulk ice cream, or better yet, develop a satisfactory and economically prepared form of brick or packaged ice cream—sell it as cheaply as possible, then by intensive advertising make the public want it and buy it in this form.

In considering home consumption of ice cream, one can get a prospective of its possibilities by considering how limited the sales of prepared breakfast foods would be if sold only in lunch rooms, restaurants and cafes and not in packages for home use. Ice cream is decidedly harder to package than "corn flakes" and more difficult to get into the home in good condition for serving, but these drawbacks can and will be overcome sooner or later.

Aside from developing better methods of packaging and forms of packages, we will have to make generous advertising appropriations to educate the public out of the habit of buying bulk ice cream which is wasteful, inconvenient and unsanitary, but we will still be ahead of the game for the proper packaging of food products has always quickly stimulated their sales. You all remember the molasses barrel, the cracker box, the butter tub and the lard can. Today these and many other products crowd the grocers' shelves and fill our market baskets, all in package form.

In discussing the advisability of developing individual package consumption of ice cream, I have occasionally heard manufacturers belittle the idea, claiming that "individual bricks are a nuisance to handle" and that "such sales will get us nowhere anyhow." This is genuine pessimism. Compare it with the courage and foresight of the California Raisin Growers Association in developing the market for their raisins. The merchandising problems confronting the raisin grower were more

The "RICHMOND"

CEDAR PACKING TUBS



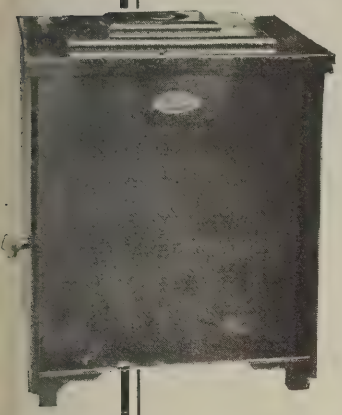
NEW STANDARD PKG. TUB (VA. CEDAR)

Quality and Workmanship Count. In the "RICHMOND" Tubs—we have both. Made of Selected Virginia White Cedar. Heavy galvanized iron hoops—thick staves and stout bottoms. Prices gladly given on all sizes. Historical Catalog upon request.

RICHMOND CEDAR WORKS

RICHMOND, VA.

ECONOMY CABINETS



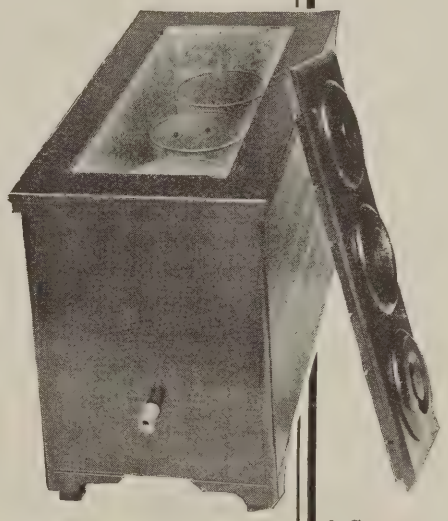
21-quart Brick Cabinet 32 Dozen Eskimo Pies

Economy Brick Cabinets

The best keeper of Brick Ice Cream or Eskimo Pie. Very heavily insulated and icing space on all four sides of brick container, thus giving perfect refrigeration to each pie or brick. Liner and brick container made of Armco Iron.

Economy Metal-lined Cabinets

Especially designed to keep bulk ice cream at its best quality with the least possible amount of ice. Strongly constructed, heavily insulated and lined with Armco Ingot Iron. Supplied with slip rings to keep can in place and convenient for re-icing. Finished in mahogany.



3 Comp. Metal-lined Cabinet

Economy Tub Cabinets

This separate compartment cabinet is especially designed for rural trade so that one compartment alone can be used without being compelled to ice the entire cabinet. The tubs in these cabinets are especially treated to prevent leakage. Finished in highly polished mahogany.

3 Comp. Tub Cabinet



Send for Catalog and prices

HOMER MFG. CO.

Homer City **PENNA.**

nearly parallel to the present merchandising problems of the ice cream manufacturer than anything I know of. A few years back raisins were sold in bulk and in clusters principally for use in cakes and puddings and for the holiday trade. This use most nearly compares with the mere use of ice cream at soda fountains. A remendous advertising campaign was then inaugurated suggesting the use of raisins as a food in the form of raisin pies and in raisin bread with the result that both of these articles are now nearly as common to us as apple pies and graham bread. This step in the development of their problem compares with our efforts to educate the people to use ice cream for an every day dessert and for "a la modes"—as a food and not as a luxury. Next the raisin growers placed on the market in pound packages a select seedless raisin for general use in the home. This kind of raisin put up in this form were handy, economical and ready for immediate use, corresponding exactly to our fertile field of home consumption for brick or packaged ice cream. Again, the earlier method of seeding Muscat raisins mechanically and putting them up in packages was just about as unsatisfactory and inefficient as our present method of brick making by hand. Just recently we have seen the individual package of seedless raisins appear on the market. They have been placed in every grocery store, drug store, candy shop, cigar stand and even in cafeterias and on the trains. The owner of a motion picture show at a beach resort told me recently that every morning he sweeps dozens of empty raisin packages out of his theater. He says they now have the lead over candy boxes, peanut shells and cigar stubs. It is just as possible for us to secure an equally wide distribution and sale for ice cream put up in individual package form. It is daintier, it is as high in food value, and with a little wooden spoon included in each package, it is even handier to eat. Yes, the raisin growers advertise—"Have you had your iron today?" We can advertise—"Have you had your Vitamines today?"

In most localities these little packages of ice cream are gradually appearing for picnic use and for sale in ball parks, theaters and amusement centers, but I believe that the automatic ice cream brick vending machine will be the big factor in the development of this individual package consumption of ice cream. If packages of ice cream could be put out in the open like candy, cigars, chewing gum, nuts and raisins, automatic venders would be altogether unnecessary. They would advertise themselves, they would require but little clerical attention and practically no floor space. The automatic vending machine will overcome all of these difficulties. It can be placed in a small but conspicuous space, the only attention necessary will be the daily repacking and restocking and an occasional emptying of the money box which will, no doubt, prove a surprisingly pleasant task.

Vending machines may be placed advantageously in schools, picture shows, pool halls, dance halls, cigar stands, department stores, depots, factories, Y. M. C. A.'s, amusement piers and parks and in office buildings. They will pick up many a dime that is now being spent for hot dogs, dill pickles, beverages, chewing gum and tobacco and a lot more that are not being spent at all because no ice cream is obtainable at hand. In addition to enjoying the direct increase in gallonage resulting from these sales, the opening of new outlets for ice cream and the widening of our distribution, will tend to develop among the masses and classes alike, a stronger desire and a keener taste for ice cream and a better appreciation of its value as a daily food.

In closing, let me say that the advantages of brick or packaged ice cream are all in line with the accepted principles of good merchandising. Bricks are more sanitary; more convenient and appetizing to serve; easier to get into the home in good condition; handier, less wasteful and more profitable to the dealer—which are important factors, because they have a direct bearing on the dealers willingness to push ice cream sales. They place upon the manufacturer a more complete responsibility for the quality and cleanliness of his product. They permit of a wider assortment and variation of flavors and a better opportunity for the expression of the manufacturers individuality.

The disadvantages of selling brick ice cream are in the line of production and distribution, which fortunately are possible of being overcome mechanically—by devising new types of cartons or packages, by perfecting brick making machines, by developing more efficient and handier methods of cabinet storage, and by the use of automatic vending machines.

While these problems are being worked out, let us lay a foundation for the future by using in our advertising an idea such as "Buy Brick Ice Cream." Why should Mrs. Brown continue to buy dipped bulk ice cream just because Mrs. Smith does.

Boxes for packing

ESKIMO PIES

AND OTHER CHOCOLATE COATED ICE CREAM, CARRIED IN STOCK.



Ice Cream Boxes of "Distinction"

OUR SPECIALTY



BRICK BOXES
in all styles
Plain or Paraffined

PAILS
SENATE—EASY CLOSING
JACK FROST
Tape and wire handles

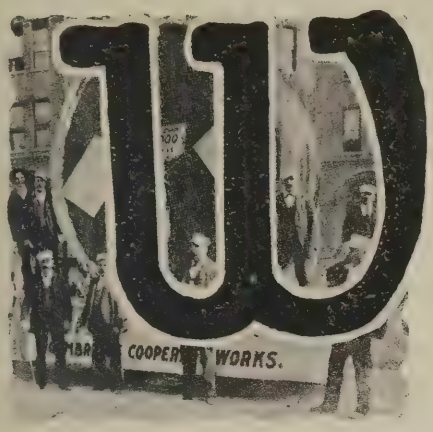
THIS
"CHICAGO" CAN LINER
has many features you should investigate

Send for Samples and Prices

Ferguson-Lander Mfg. Co.
1733-1737 W. Austin Avenue CHICAGO

"IMPERIAL" MANAGER INJURED IN AUTO ACCIDENT.

Mr. W. M. B. Sine, general manager of the Imperial Ice Cream Company, Clarksburg, W. Va., spent the early part of May away from his office as the result of an automobile accident. His many friends will be pleased to know that there are no permanent injuries.



WE Have Learned Much in the Past 44 Years

Since 1877 we have enjoyed the distinction of being leaders in the Cooperage Field.

THROUGH years of experience we know the proper seasoning necessary for timber that goes into the construction of containers where the wood comes in close contact with liquids. We fully realize the importance of careful, painstaking workmanship in the life of every ice cream tub and cabinet.

Therefore, every process in the manufacture of Gambrinus Containers is personally supervised by their creator and expert coopers—many of whom have been in our service upwards of a quarter century. This protects the buyer against the carelessness which so often creeps into modern production methods.

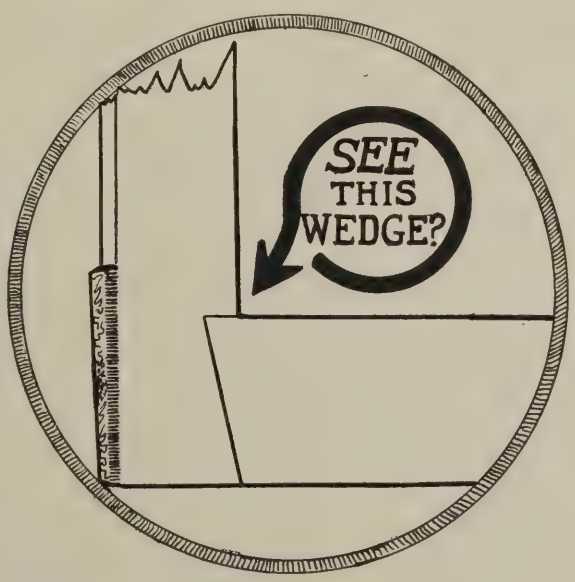
THESE important advantages together with many exclusive features in the construction, have made it possible for us to offer you the strongest ice cream tub and cabinet on the market today.



The Strongest Ice Cream Tub on the market.

The Greater the Weight Inside the Tighter the Bottom.

The wedge shape construction of our tubs absolutely prevents the bottom being forced out, while the shoulder or offset also keeps the bottom from going in.



Gambrinus Products in use 36 years— Still in Service.

The life of Gambrinus products is indefinite. A number of our large casks have been in constant service for 36 years and are still giving satisfactory service.

WRITE FOR QUOTATIONS

Gambrinus Cooperage Works

LOUISVILLE, KY.

"IF YOU WISH TO BE GOOD, FIRST BELIEVE THAT YOU ARE BAD."—EPICTETUS.

North Carolina Ice Cream Manufacturers' Association

Bulletin No. 1, by A. E. DIXON, Secretary

THIS will introduce another new member, Mr. Harvey C. Hines. Mr. Hines is a very prominent citizen of Kinston, N. C., an ice manufacturer, wholesale grocer and bottler, who now enters the ice cream game.

The American Railway Express Co. has a proposition they expect to place before the Interstate Commerce Commission, under certain conditions, as follows:

They ask relief from parties underbilling ice cream shipments, viz, shipping three gallons in five gallon tubs and five gallons in tubs larger than necessary. We feel quite sure none of our members are making this a practice. It is very unfair to the Express Co., and as we wish and hope to secure their co-operation on matters which we do not fail to ask, it is only right that they should be protected in wrong practices. It is also unfair to us that we should be constantly exposed to friction and expensive controversies which this practice will lead to, all over the wrong doing of a few members. Our Association as a body will frown on anything of this sort.

Efforts are being made by Congress to have a tariff placed on Cuban sugar of practically 2c. This will be an increase over the present price of possibly 36%. It is also reported in the same bill that a tariff on salt of $4 per ton in barrels and $3.20 in bulk is proposed. This duty being nearly 100% of the foreign value of salt, the importation of foreign salt will be practically prohibited. As these two articles are used extensively by ice cream manufacturers, it might be well to take this up with your Representatives and Congressmen, although no doubt the Democratic members will oppose it . Anyway, it would be unwise to be caught short.

Only two states prohibit the use of certified coal tar colors, Minnesota and South Dakota. In these states it is absolutely necessary to us vegetable colors.

It was gratifying to receive certain responses to the last Bulletin, and one which might appeal to you is as follows:

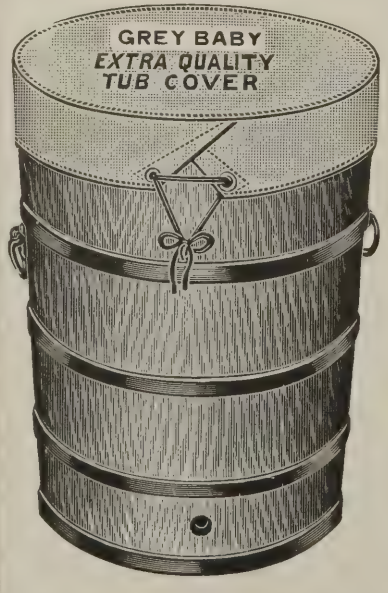
"From different reports I am inclined to think there is a possibility that some of our membership is overlooking the question of what costs are in manufacturing ice cream today, based on rates we have of various prices that have been quoted. If it could possibly be done, it occurs to me it would be of interest to have the price list of our various members."

Another:

"May I offer the suggestion that a letter be sent your membership calling their forceful attention to the importance of making an acid test in order to know just exactly what is the acidity of every batch of ice cream before they freeze. This would unquestionably produce more uniform and more regular ice cream. And I think it would be in order for your Association to show the members how to make this test. It is our opinion that the Mann test is the best one. It is so simple to make and yet it means so much to the manufacturer of good, uniform ice cream. The ice cream manufacturer knows where he is at all times if he will just take a few minutes to determine the acidity of his mix before making a batch of ice cream." (Note: The method for operating this test is given on page 82 of this issue.)

The writer will be glad to put you in touch with the company handling this apparatus for making the test.

Match these Covers for Quality—



"Grey Baby"
"BrownPansy"
"White Rose"

Three Styles of tub covers, each designed for a specific requirement and tested to give maximum service.

Write us for prices and details

ST. LOUIS AWNING & TENT CO.
ST. LOUIS, MISOURI

WE EVEN GOT A FREE MEAL.

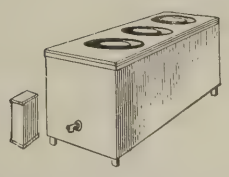
Two Abel Gentleman called at The Review office one day recently. Mr. Abel, of New York City, of "Impruv-Mix" fame, and Mr. Gentleman, of the Russell Stover Co., Chicago, who made "Eskimo Pie" possible, met for the first time and the former's salutation was "I am glad to be Abel to shake hands with a Gentleman." This, in spite of the fact that he had just shaken hands with the editor. But editors can't be sensitive.

These two estimable gentlemen were bubbling over with optimism regarding prospects for the future for the ice cream business. Good looking and dispensers of good cheer, they made the whole office force feel better by their presence. Come again folks.

PERSONALS.

Mr. A. L. Baylor, manager of the engine and boiler department of the James Leffel & Co., manufacturers of steam engines, boilers and hydraulic turbines, Springfield, O., was a welcome visitor in The Review office recently. Mr. Baylor reports business as fine with the Leffel Company and they are working to capacity trying to keep in line with their orders. His work has always kept him quite close to the home office, but due to business demands, Mr. Baylor has been on the road almost continuously lately.

THE C-B-W CALENDAR



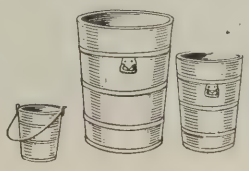
GRAND RAPIDS CABINETS

Grand Rapids Cabinets were manufactured long before the variety of cabinets that flood the market today were thought of, and in spite of this flood of competition they still stand apart and above the others. Comparisons always favor Grand Rapids.

Made in every style, including the Zero brick cabinet; packed with cork insulation; finished with the best grade heavy varnish. Send for cabinet catalog and latest prices.



Cherry Freezer
Equipped with
Thomas Batch Measure



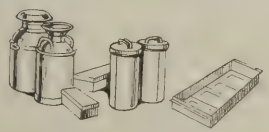
RICHMOND CEDAR TUBS

Virginia white cedar outlasts all other woods for tubs. It resists the brine. Our **Richmond Cedar Tubs** are made of nothing but **Virginia** white cedar.

Clear A-1 lumber only is used; extra heavy galvanized and double riveted hoops on every tub. Handles are made of the finest stamped steel, galvanized.

Buy Richmond Cedar Tubs, painted to your order in three colors if you wish that many. Buy them of us! We have several carloads of standard green painted tubs in stock.

Send for latest price sheet.



Cans, Molds and Slabs. We can give you superior service on ice cream cans, and we can give you real cans, at real prices! With our three large warehouses stocked with cans you stand a better chance of prompt execution of your orders than anywhere else in the east.

Of course, you know about our Superior Brick Molds and Slabs. Our factory in Baltimore is roaring with the additional activity, usual at this time of the year.

There is no reason why anyone who wants the Superior Superware Brick Tanks or Molds can't get them. Our factory is now enlarged to several times its former size.

3 Points in Our Favor

They are:

1 Philadelphia
2 Baltimore
3 Pittsburgh

We carry complete stocks and maintain complete organizations in all three cities. Shipping is prompt and convenient in and out of all of them.

By having our three Divisions in these three cities we are in close touch with the entire East and the South. We are the largest organization in the eastern half of the U. S. selling complete ice cream equipment.

In other words, we are **three** jumps ahead. All this of course, is incidental. The best reason for being a customer of ours is: we handle the famous line of Cherry machinery and an unusually high grade of supplies at **fair prices.**



Gelatine Melter

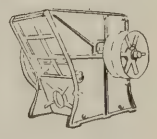
We are proud to be able to supply our customers with the famous Delft Gelatine. It is our policy to furnish our trade the best the market affords provided the price is not unreasonable. Delft Gelatine is not the lowest priced by any means, but it is a uniformly high quality product. You may rely on one barrel being as good as another, and it has strength—weak, cheap gelatines never equal the strength of Delft. Also, Delft Gelatine is practically sterile.

Let us send you the Delft booklet which gives valuable information on gelatine and its uses. Let us quote latest prices.



Our **Hendler Patent Truck** was the first to solve the problem of can handling. That the idea is a correct one is demonstrated by its extensive use in all sizes of plants.

Sturdily built throughout with galvanized steel, it withstands the hard usage such trucks are put to. Many improvements make our latest trucks faultless in every respect.



Creasey Ice Breaker

All sizes from hand power to direct motor driven 40-ton an hour size.

SUPERWARE

We urge every ice cream manufacturer who makes brick ice cream (in any quantity) to ask us for a copy of our new Superware Booklet. This 24 page pocket size booklet describes our Superware line of metal specialties, which includes brick tanks, molds, slabs, etc. It is worth your while to know how we make these articles, because they are recognized everywhere as superior and the most desirable ware of this kind to be obtained.

Latest list prices are included in the book.

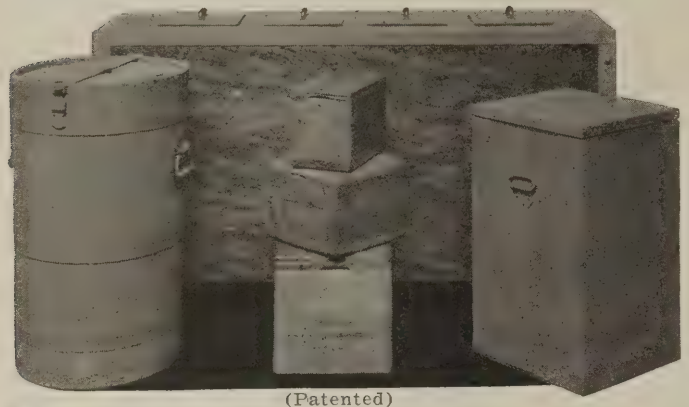
Just use a postal card. We won't regard your request as an inquiry.

Successors to:
Dairymens Supply & Construction Company

Cherry-Bassett-Winner Company
BALTIMORE PHILADELPHIA PITTSBURGH

Philadelphia Farmers & Dairymens Supply Co.
Cherry-Bassett Co.

A PRETTY PACKAGE PROVIDES PLENTY OF PURCHASERS FOR YOUR PRODUCT.



(Patented)

BALSA ICE CREAM EQUIPMENT

INSULATION IS A GOOD INVESTMENT

BALSA is the only heat insulating material possessing real structural strength.

Balsa containers are built without non-insulating hardwood frames.

Balsa insulation entirely surrounds contents, reducing heat leakage to a minimum.

Balsa
Insulated
Containers

Shipping Tubs
Dry Packed Cabinets
Special Eskimo Pie Boxes
Ice Packed Cabinets
Brick Containers

Let Us Figure on Your Requirements

AMERICAN BALSA CO.

305 Vernon Ave.
Long Island City, N. Y.

PACKERS, OR ICE CREAM TUBS.

(Continued from page 66)

Question 6—Have you used the duplicate checking system similar to baggage checks?

Manufacturers were about evenly divided in this practice, for of 142 who answered this question 74 used the system and 68 did not. A few manufacturers used it only with tubs sent to other than regular dealers. Several of them used the system in connection with numbering the tubs. The checks were given the same number as the tubs, and part of the check retained at the office. By this means it was possible to keep track of the tub even though the attached check should be torn off.

Question 7—If so, with what success?

Not many of the manufacturers were enthusiastic over this system, the general opinion being that it was the best system they knew of, but unsatisfactory. However, only 14 of those replying expressed themselves definitely to the contrary. The main complaint against the use of the system was that the tags were too easily torn off in transit. The greatest success with the use of this method was reported when it was used in connection with numbering the tubs and giving the checks corresponding numbers.

A few manufacturers preferred a card system, in which the tubs were numbered and the numbers recorded on cards.

Question 8—Have you tried metal bottoms on outside of tubs?

This idea seems to be something entirely new to most manufacturers, for of 128 who replied to this question, only four had tried it.

Question 9—If so, with what success?

Three of the manufacturers who tried these bottoms on tubs found that their use was entirely satisfactory, and the fourth had just begun their use, hence was not in a position to pass an opinion.

Of those who were not using the bottoms, one man said that he imagined the salt brine would eat them up. However, there should not be any more trouble in this respect with the bottoms than with hoops, as they do not come in direct contact with the brine except when it is spilled. Another manufacturer said that he imagined they would make the packer heavy for shipping, and questioned whether it would be a paying proposition when shipping by express, but thought it would be a fine thing for increasing the life of tubs used in city delivery.

Question 10—What improvements can you suggest in building tubs to make them last longer?

The outstanding fault that manufacturers have to find with the majority of tubs that are now on the market is that the bottoms are too weak. It is here that the greatest room for improvement seems to exist. Some suggestion to remedy this fault include the use of metal bottoms or double cross grained wood bottoms, or extra heavy bottom hoops. One suggestion in this connection that seemed particularly good was the use of a bottom hoop that would extend under the tub. With such a hoop, the bottom of the tub would have to be flush with the staves, and the pressure would fall on the hoop when the can is dropped into the tub. This would eliminate the danger of spreading the staves and would reinforce the bottoms as well. Also, it would give protection in shipping without a great deal of additional weight.

Some manufacturers also have trouble with hoops, and suggest the use of heavier iron instead of galvan-

d hoops as a remedy. One man says that he thinks bs should have 1¼ inch bands, 4 to a tub, with the ttom band extra heavy. Another says that most of trouble comes from the rusting of hoops, and says at a tub with rustproof hoops would be worth much re to the manufacturer. He suggests the use of monel tal or some rustproof alloy in making the hoops. An klahoma manufacturer states that he has much better ccess with the use of welded wire than with the ordiry hoops, as in his business they last about four times long. Metal bungholes are also suggested as an imovement.

One manufacturer says he thinks that the bottoms the tubs should be treated with Tarvia or some binder prevent leakage. Another states that the length of e of the tubs would be increased if they were painted th inside and out, and recommends the use of a better ade of paint than is in general use now.

Quite a few manufacturers think that the better ades of tubs now on the market give very satisfactory rvice provided they are given reasonably careful treatnt by dealers. One man recommends standardizing e size of tubs, as he sees no reason for having several zes as is now the case.

The express companies come in for a good share of ndemnation for alleged carelessness in handling the bs. One New York manufacturer's feelings are so ong on this point that he recommends the murder of out half the express messengers. This seems a trifle vere, but reports indicate that something should be ne among express employes and retail dealers for evention of cruelty to ice cream tubs.

Various minor improvements, including the addition canvas tops, etc., were suggested, but heavier hoops d better bottoms seem to be the most desired improvents.

uestion 11—Do you repair and paint your tubs each year?

Of 139 manufacturers who answered this question ly one did not repair or paint his tubs or do both ch year. Some found it necessary to paint the tubs ly every second year, but everyone found it a good an to look over the tubs before storing them and make e necessary repairs.

uestion 12—How are empty cans and packers stored when not in use?

Regarding the storage of packers, some found it derable to store them in a dry place and some in a damp ace. However, there were objections to both methods, when the tubs were placed in dry storage they were ry likely to leak when they were put into use again, d if they were stored in a damp place the hoops were danger of rusting. The best method, one that would em in part to overcome the latter difficulty, was to oil grease the hoops before storing them in a damp place.

In many cases the cans were simply placed in a dry om. Some manufacturers greased or oiled the cans fore storing them, or put newspapers in them to abrb the moisture. A few painted the outside of the ns.

Tubs, as a general rule, were stacked on the floor, ly a few manufacturers using skeleton racks or elves. Cans were generally placed on shelves or on cks.

One manufacturer who found it desirable to econize on space piled the tubs on their sides and put a n in each tub, filling the surrounding space with per. In this way it was not necessary to disturb the

"Packaged Ice Cream"

Rogers

Automatic Ice Cream Brick Maker

Compare the present bulk ice cream cabinet with the old fashioned cracker barrel, —reaching below the counter, removing the lid, scooping out the crackers. This is done today with ice cream in thousands of stores—but—just endeavor to buy a bag of bulk crackers. You can't do it, not because Boards of Health forbid it, but because manufacturers of crackers have made it impossible. They force the public to buy a Sanitary package.

The public protested in the beginning but they like it now, and so they will with Packaged Ice Cream.

This is an age of neatness, cleanliness, healthfulness, in fact, a Packaged Age, and what is true of all packaged food stuffs is true of ice cream. The day of bulk ice cream for the consumer to take to his home is past, and in its place has come the cleanly, wholesome looking, attractive, neat, quickly handled Package —the BRICK ICE CREAM.

PACKAGED ICE CREAM can now be put into the hands of the consumer without raising the price and the dealer can at the same time have larger, surer profit — a profit that he cannot get out of bulk ice cream.

PACKAGED ICE CREAM goes to the consumer in the original package, having never been opened, handled, etc., in its journey from freezer to table.



JOHN W. LADD COMPANY

"National Approved Ladd Distributors Specialties"

DETROIT CLEVELAND

PAPER VESSELS ARE POPULAR FOR SANITARY CONTAINERS.

tub in order to remove the can. Others who wanted to save space nested the tubs.

A Wisconsin manufacturer who is very thorough in his methods, repairs and thoroughly paints his tubs inside and out, stencils and numbers them and treats his cans the same way except that he paraffines the cans instead of painting them. This man's depreciation percentage was very low.

Question 13—How do you prevent rusting of cans in storage?

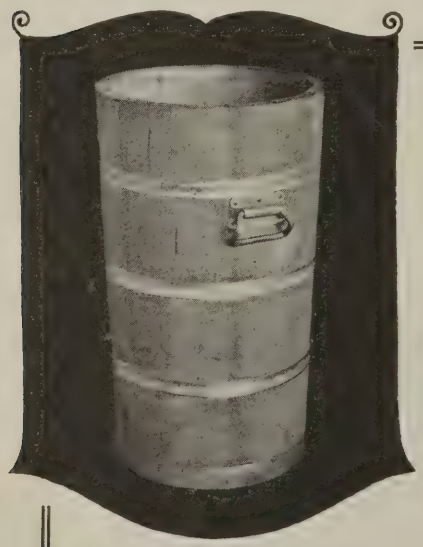
The main requisite for keeping cans from rusting seems to be to keep the room in which they are stored as dry as possible.

A great many manufacturers oil or grease the cans before storing them, with good success. Several paint the cans on the outside, and a few dip them in hot tallow. Some manufacturers find the use of newspapers sufficient to absorb any moisture that might cause rust. One manufacturer stores his cans in sawdust, but with only a moderate degree of satisfaction. A few manufacturers use a grease called No-Oxide, and one man applies this with a revolving power brush which he had made specially for this purpose.

One man says that he has no trouble in keeping the cans from rusting while they are in storage, but finds that the customer who lets the cans stand around dirty is responsible for the rust.

With all precautions, some find that it is almost impossible to prevent a little rust. A consensus of the experiences expressed in the replies proves that tendency to rust is reduced in proportion to the extent in which moisture is kept from direct contact with the metal.

(Continued on page 96)



A New Packing Tub

Built of Douglas Fir, a Pacific Coast shipbuilding timber; selected for its ability to withstand salt water and "stormy" handling.
A dove-tailed, double bottom 2 inches thick; armoured with a 12 gauge, galvanized iron band.
Using the expert knowledge gained from the manufacture of tubs since 1849, the Menasha Tub combines every quality calculated to give it Stamina and Carrying ability.

Menasha Wooden Ware Company

Branch Offices: MENASHA, WIS.
CHICAGO CINCINNATI NEW YORK ST. LOUIS
FOUNDED 1849

TEXAS ASSOCIATION CONSIDERS PLANS TO REDUCE MANUFACTURERS' EXPENSES.

An invitation is extended by Secretary A. J. White to the members of the Texas Ice Cream Manufacturers' Association to write him stating their ideas on the subject of reducing cost and expenses to the manufacturer by eliminating or remedying harmful trade practices that tend to keep up the price of ice cream. It was recently proposed to the Association to eliminate one needless source of expense by charging the country dealers for tubs, the dealer to re-charge the company when the tub was shipped back. In this way the Express Company would be responsible for the safe return of the tubs, and claim could be entered for it if it was lost.



A. J. WHITE.

Realizing the importance of the effect of this and similar harmful trade practices in keeping up the cost of ice cream, Mr. White says:

"Aren't such questions worthy of most careful consideration? Every other manufacturer in the country who ships his product in containers makes a charge for such containers. The ice cream men say that when it comes to charging for cans and tubs on country shipments, it cannot be done. They will advance plausible reasons why such a move cannot be put into effect. Such arguments can be answered by the same reply we give to similar arguments in our organization; that is, we are not interested in reasons why such and such a thing can't be done, but what we want to know is how can it be done. If we attack a problem with our minds made up that it can be done, it invariably will be done.

"The Secretary asks that every member realize that he is a part of the Association, and that if the Association becomes a helpful force, it will be the result only of the effectiveness of the members' efforts. No one man can carry the load, and no one man intends to. Feel free to write the Secretary on any of the foregoing subjects as they appeal to you, or recommend others to be discussed.

"We sent to all members a list of associate members who attended the Fort Worth Convention, and all these fellows are good live salesmen. They are boosters for our Association and we should reciprocate by patronizing them whenever it is possible to do so. Keep the list before you and when they call on you let them know you are thinking about them, and thank them for their co-operation.

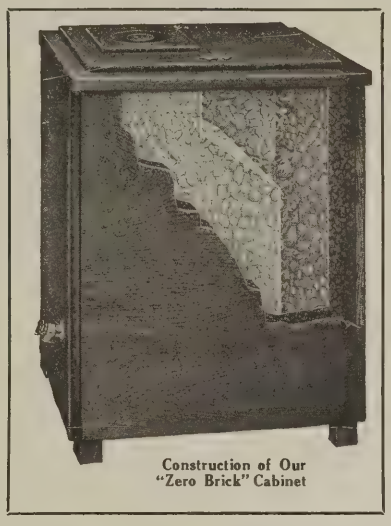
"Everyone learned to do his bit during the war. Now help put your Association over and do it big."

We have no business to spend years of valuable time in idle wondering if it will pay to know more. I believe the time has come when we should deal with facts as if they were facts.—Hoard.

The Grand Rapids
ICE CREAM CABINET OF QUALITY

Watch Your Expenses and Profits Will Take Care of Themselves

The Grand Rapids Zero Brick Cabinet



Construction of Our "Zero Brick" Cabinet

Ice bills play an important part in expenses and anything you can do to keep this item at the minimum is a sound business move.

The use of Grand Rapids Ice Cream Cabinets means the lowest possible ice bills because of the high efficiency of their insulation. The employment of special processes, the use of the highest grade materials obtainable and a thorough understanding of the scientific laws governing heat and cold combine to produce a cabinet unequalled in insulating efficiency.

THE ASSOCIATION OF ICE CREAM SUPPLY MEN MEMBER

THE ASSOCIATION OF ICE CREAM SUPPLY MEN MEMBER

Keep Eskimo Pie in Our Zero Brick Cabinets

This cabinet is particularly well adapted to handling the new confection—Eskimo Pie. It is radically different in design from the usual brick cabinet.

Are you familiar with our reduced prices this season? See them before making any cabinet replacements.

GRAND RAPIDS CABINET COMPANY

Successors to CHOCOLATE COOLER COMPANY

55-59 Alabama Avenue N.W. GRAND RAPIDS, MICH.

New England Sales Office and Warehouse, MERROW BROS., Inc., 44 N. Market St., BOSTON, MASS.
South Eastern Sales Office and Warehouse, CHERRY-BASSETT CO. { 33 So. Charles St., BALTIMORE, MD. / 1106 Arch Street, PHILADELPHIA, PA.
North Western Sales Office and Warehouse, A. C. BLACK, 515 Lumber Exchange, MINNEAPOLIS, MINN.

Mann's Test for Acidity of Milk and Cream*

By Farrington & Woll

THE acid in milk or cream is measured by using an alkali solution of certain strength, with an indicator which shows by a change of color in the milk when all its acid has been neutralized. Any of the alkalies, soda, potash, ammonia, or lime can be used for making the standard solution, but it requires the skill and apparatus of a chemist to prepare it of the proper strength. A tenth-normal solution of caustic soda is the alkali solution used most frequently in determining the acidity of milk, and is the solution labeled Neutralizer of the Manns' test.

Normal solutions, as a general rule, are prepared so that one liter shall contain the hydrogen equivalent of the active reagent weighed in grams (Sutton). Caustic soda (NaOH) is made up of an atom each of sodium (Na), oxygen (O), and hydrogen (H); its molecular weight is therefore

$$\begin{matrix} 23+16+1=40 \\ \mathrm{Na\ \ O\ \ H} \end{matrix}$$

A normal soda solution then is made by dissolving 40 grams of soda in water, making up the volume to 1,000 cc.; a one-tenth normal solution will contain one-tenth of this amount of soda, or 4 grams dissolved in one liter. One cubic centimeter of the latter solution will contain .004 gram of soda, and will neutralize .009 gram of lactic acid. The formula for lactic acid is $C_3H_6O_3$, and its molecular weight is therefore $3\times12+6\times1+3\times16=90$.

* This is the test referred to in Bulletin No. 7, of the North Carolina Ice Cream Manufacturers Association, printed on page 74 of this issue.



A tenth-normal solution of lactic acid contains 9 grams per liter, and .009 gram per cubic centimeter.

The indicator used is a solution of phenolphtalein, a light yellowish powder; its compounds with alkalies are red, in weak alkaline solutions pink colored, while its acid compounds are colorless. The phenolphtalein solution used is prepared by dissolving 10 grams in 300 cc. of 90 per cent alcohol (Mohr).

In testing the acidity of either milk or cream it is necessary to measure out with exactness the quantity of liquid to be tested; Manns recommended using a 50 cc. pipette. This amount of milk or cream is measured into a clean tin, porcelain or glass cup, a few drops of the phenolphtalein solution are added, and the neutralizer (or alkali solution) is cautiously dropped in from a burette, the point at which the solution stands before any is drawn off being noted. By constant stirring during this operation it will be noticed that the pink color formed by the addition of even a drop of alkali solution will at first entirely disappear, but as more and more of the acid in the sample becomes neutralized, the color will disappear more slowly, until finally a point is reached when the pink color remains permanent for a time. No more alkali should be added after the first appearance of a uniform pink color in the sample. This color will fade and gradually disappear again on standing, owing to the effect of the carbonic acid of the air, to which phenolphtalein is very sensitive. The amount of the alkali solution used for the test is then obtained from the reading on the scale of the burette. The per cent of acid in the sample is calculated by multiplying the number of cc. of alkali solution used, by .009 and dividing the product by the number of cc. of the sample tested, the quotient being multiplied by 100.

$$\text{Per cent acidity} = \frac{\text{c.c. alkali} \times .009}{\text{c.c. sample tested}} \times 100$$

If 50 cc. of cream required 32 cc. of alkali solution to produce a permanent pink color, the percent of acid in the cream would be

$$\frac{32 \times .009}{50} \times 100 = .58 \text{ per cent.}$$

A part of this calculation may be saved by using a factor for multiplying the number of cc. of alkali added in each test. This factor is obtained by dividing .009 (the number of grams of lactic acid neutralized by one cc. of alkali solution) by the number of cc. of sample tested, and multiplying the quotient by 100. If a 50 cc. pipette is used for measuring the sample to be tested, the factor will be $(.009\div17.6)\times100=.018$; if a 25 cc. pipette is used, the factor will be $(.009 \div 25) \times 100 = .036$; and if a 20 cc. pipette is used, $(.009 \div 20) \times 100 = .045$ will be the factor to be applied in calculating the per cent of acidity, the number of cc. of alkali used being in all cases multiplied by the particular factor corresponding to the volume of the sample tested.

If a Babcock milk test pipette is used for measuring the milk or cream to be tested for acidity, the factor will be $(.009 \div 17.6) \times 100 = .051$. This so nearly .05 that sufficiently accurate results may be obtained by simply dividing the number of cc. used by two; the result will be the tenths of per cent of acid in the sample tested, e. g., if 17.6 cc. of cream required 12 cc. of one-tenth normal alkali to give a pink color, then the



The Hutchinson Company say: "We are more than pleased to give them this recommendation, for we certainly have nothing but the highest praise for them."

The Hutchinson Ice Cream Company of Cedar Rapids, Iowa have five 400-gallon Elyria tanks, used for storage, pasteurization and mixing of the Ice Cream mix.

Pasteurize in Elyria Glass Lined Pasteurizers

ELYRIA Enamel—a preparation evolved from hundreds of experiments to find a grade high enough in quality to bear the Elyria name is fused into welded steel containers. Elyria Pasteurizers are equipped with silver flush outlet valve, recording thermometer and other improvements which insure sanitation, easy of operation and efficiency service.



Free Booklet

This illustrated booklet on Elyria Equipment for the Ice Cream plant, together with a complete description of the Elyria Pasteurizer, will be sent to you upon request. Write today.

The mix is agitated during the pasteurizing process by a propeller agitator driven by two-speed electric motor fastened directly to the tank or by belt drive from shafting.

Heated in from 20 to 30 minutes by low pressure steam in the jacket; held at 145 degrees for 30 minutes, and partially cooled by spray coil forcing brine on the outer surface of the inner tank.

Elyria Pasteurizers are being used successfully for heating only, or for heating, holding and partial cooling. They are adaptable to any system, and are installed in the plant by an experienced engineer.

Supplementing Elyria Pasteurizers and other Ice Cream plant equipment is a completely equipped Laboratory and Research Department to co-operate in improving your product or your plant routine.

An Elyria representative can prove why and how Elyria Pasteurizers are superior to any other kind you can install. A man can reach you in less than two days time—at no obligation whatever. When may he call?

ELYRIA ENAMELED PRODUCTS COMPANY, ELYRIA, OHIO

Pittsburgh New York Chicago San Francisco Boston Los Angeles
Indianapolis Minneapolis St. Louis Canadian Milk Products, Limited, Toronto, Ont.

per cent of acid is 12 ÷ 2 = .6 per cent. If one-fifth normal alkali is used for testing, the per cent of acidity is shown directly by the number of cc. used (Vivian.)[1]

The apparatus and chemicals needed for testing the acidity of milk or cream by the so-called Manns' test include one gallon of a one-tenth normal alkali solution; four ounces of an alcoholic solution of phenolptalein, a 50 cc. glass burette stand, and a pipette for measuring the sample. This outfit will make about 100 tests.[2]

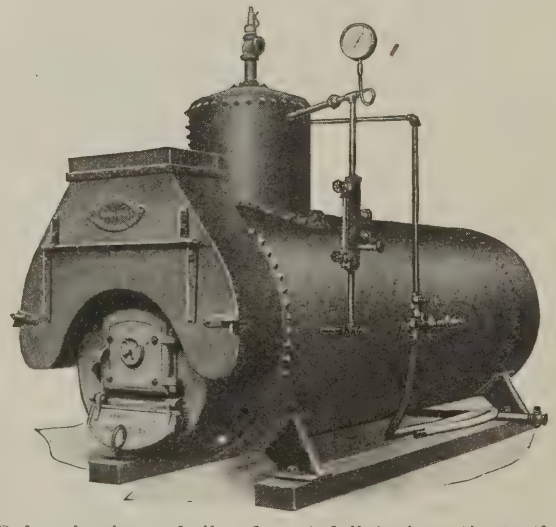
[1] Van Norman recommends the use of 50th normal solution for testing cream. 37 cc. of a normal soda solution is diluted to 1850 cc. in a two-quart bottle, such as is used for mineral waters. Each cc. of this solution represents .01 cc. of acidity when 17.6 cc. of cream is measured off. The titration is made in the usual manner, using phenolphtalein as an indicator.

[2] Devarda's acidimeter is based on the same principle as Manns' test, one-tenth soda solution is added to 100 cc. of milk in a glass-stoppered graduated flask, 2 cc. of a 4 per cent phenolphtalein solution being used as an indicator. The graduations on the neck of the flask give the "degrees acidity" directly.

CORRECTION.

Through an uncorrected slip of the typewriter in the April issue of The Ice Cream Review, we unconsciously interfered with the rights of suffrage of the members of the Wisconsin Association of Ice Cream Manufacturers by stating that C. A. Carver was President and Charles Touton was Secretary. As it happens, just the reverse is true; Mr. Touton wields the presidential gavel and Mr. Carver is Ye Worthy Scribe. We're sorry it happened, and hope that all who received a wrong impression will hereby have it corrected.

It is not all of life to live—it is not all of farming to dig.—Hoard.



Before buying a boiler do not fail to investigate the superior merits of the famous

Leffel Scotch Marine Boilers

built in a variety of sizes from 6 H. P. to 100 H. P., and to meet all requirements of the different State Boiler Laws. This boiler meets in fullest measure and most economical and satisfactory manner every requirement of the trade.

This Company also builds Vertical Boilers in sizes of 2 H. P and larger.

Complete catalog with information of interest and value on request.

The James Leffel & Company

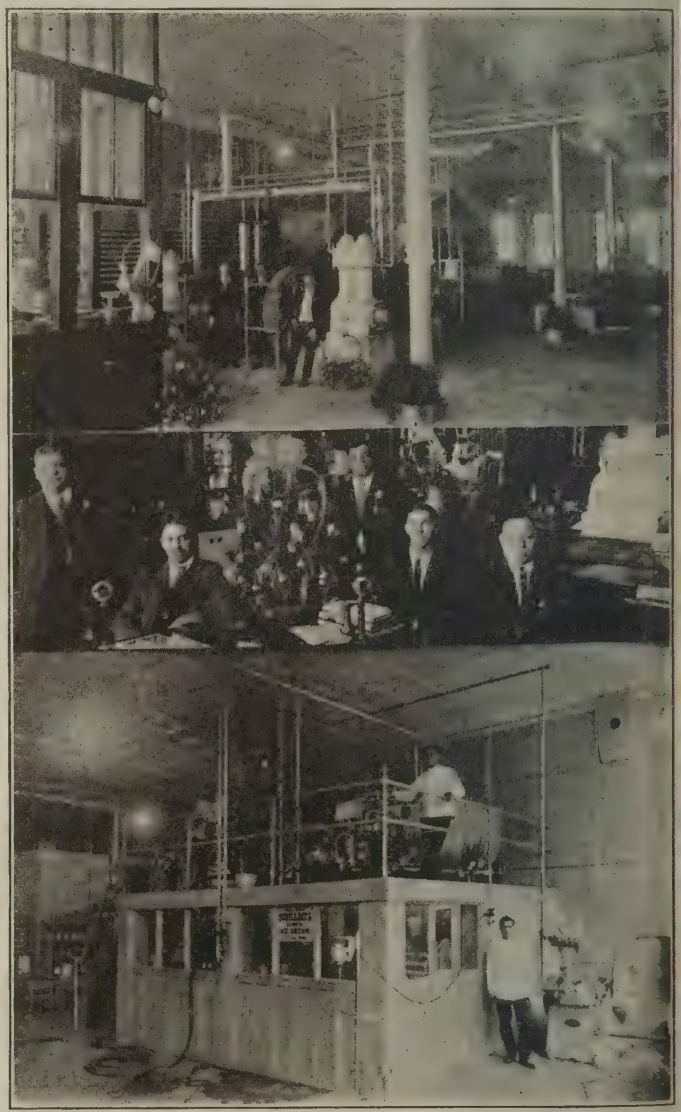
Box 328. SPRINGFIELD, OHIO

A THRIVING SMALL PLANT.

It isn't always size that counts for efficiency and production, even in the ice cream business, proving that there's some truth in the maxim about good things coming in little packages, P. N. Miller, Secretary of the Dixie Flyers, tells about a particularly interesting "small package" he has discovered in the ice cream industry in Bessemer, Alabama, in a letter to The Ice Cream Review, which follows:

To the Editor of The Ice Cream Review:

Under separate cover I am sending you a picture of one of the neatest small ice cream plants in this part of



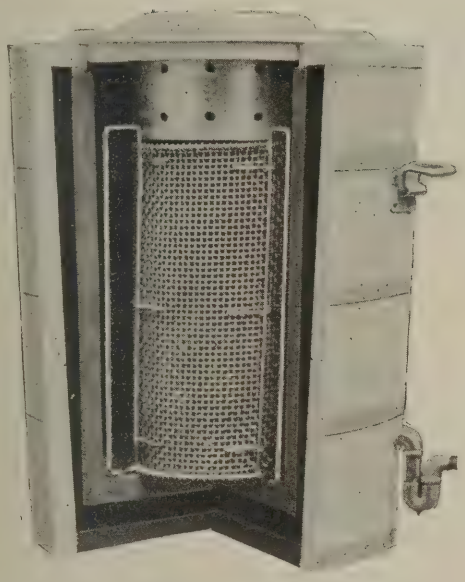
the South. It is located in Bessemer, Ala., but a few miles from the wonderful City of Birmingham, and is owned and operated by Schilleci Bros.

These boys have been in the ice cream business about four years, and have built up a very interesting business. They are men the travelling men love to call on, as they always have time to give their attention to what the travelling man has to offer.

The plant was installed by The Standard Milk Machinery Co., of Louisville, Ky. The York Refrigeration Co. installed two twelve ton compressors. There are two fine hardening rooms, and three Emery Thompson ice cream freezers.

The "Ice Cream with the Chocolate Kimona" received its portion of consideration when they built. A

The Thermos Ice Cream Cabinets

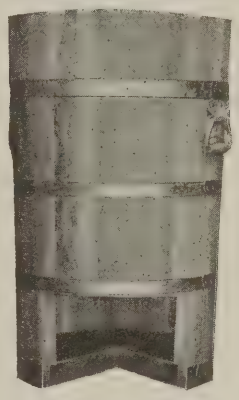


Patent Pending.

Built like a Thermos Bottle — Works on the Same Principle

The simple fact that other manufacturers are imitating our Thermo Idea of insulation proves it to be not an experiment but an assured success.

Made in 3 and 5 gallon size in singles and in 5 gallon sizes in double, tripple and quadruple compartments.



Cut showing one of our Regulars with section cut out. Note heavy construction.

The heavy Tinned wire can container in the fives are for convenience to user as well as separating ice and can chamber, thus making cabinet sanitary. Empty cans may be removed without disturbing packed ice chamber.

LARGE DESCRIPTIVE CIRCULAR AND PRICES ON REQUEST.

Our White Cedar Ice Cream Packing Tubs are

LUMBER JACKS

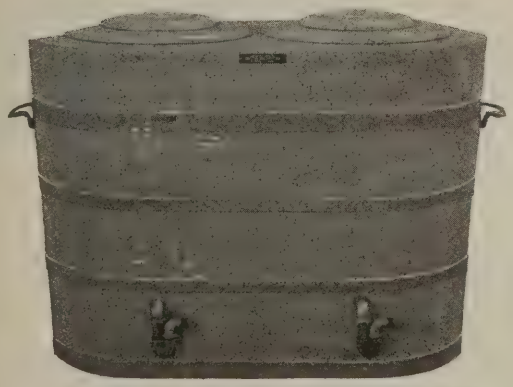
for Toughness, Strength and Durability

They will not waterlog and are the nearest possible resistant to acid and salt brine. They are built of **Michigan White Cedar.**

The heaviest built and lightest weight tub combined. Compare one of our 20 quart standard size weighing 27 lbs. with any other make for weight. See what that means in hauling and freight.

Note heavy construction and dovetailed bottom on sectional cut, also 1¾ inch solid bottom, built flush with bottoms of staves.

We sell **direct** to the **Ice Cream Manufacturer.** Our product is built in our own factory from the **Raw to the finished, complete,** by **skilled** mechanics.



Cut shows one of our two compartment Cabinets.
Patent Pending.

Prompt service and satisfaction guaranteed.
Send for our circular and prices.

Archie J. Verville Co.

Manufacturers and Dealers in

Forest Products

HANCOCK, - MICH.

room with proper cooling facilities for handling the Pie was installed, which in this part of the country is very essential.

The writer returned from his trip to the Pacific Coast in time to attend the opening of this plant, and on that day several thousand people visited the plant, wishing the Schilleci Bros. everything that was good. Judging from the past there is no reason why they should not be very successful.

Personally, I wish them much success, and I know this same wish is extended to them by every travelling man who has come in personal contact with them, also the house which said travelling man may represent.

With kindest regards to The Ice Cream Review, I am,

Sincerely yours,

P. N. MILLER, JR.

IMPORT DUTIES ON SALT.

The Louisiana Association of Ice Cream Manufacturers have informed their members that the pending tariff bill, as reported by the Finance Committee of the Senate, levies an import duty on salt as follows:

If in bags or barrels, 20c per 100 lbs., which is equal to $4.00 per ton; in bulk, 16c per 100 lbs., which is equal to $3.00 per ton.

If the bill is passed with this duty, it means an advanced cost of salt to ice cream manufacturers of $3.00 to $4.00 per ton over the present prices, according to statement issued by Chas. W. Priddy & Company, Inc., of Norfolk, Virginia.

The Louisiana Association suggest that members call this matter to the attention of their Congressmen and Senators, asking for a reduction in this duty, or rather, for the salt to be put on the free list, where it is at the present time.

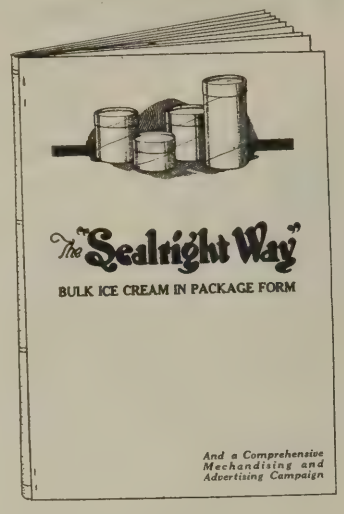
FREE FOR THE ASKING.

The Elyria Enameled Products Co., of Elyria, Ohio, has just issued a folder describing the construction and advantages of their latest development in storage equipment. The booklet is very well arranged and is free for the asking.

The blessed spirit we enshrine and call a cow teaches us better. She tells us that from the laboratory of her body there comes the delicate fluid we call milk; from it we make cheese, and from out of this elaboration we make fortunes. The wilderness is made to blossom; we stand side by side with life, not with death.—Hoard.

THE SEALRIGHT PORTFOLIO.

Herewith is a reproduction of a portfolio recently issued by the Sealright Co., Inc., giving details of a comprehensive merchandising and advertising campaign explaining to users of Sealright packages how to get best results.



Efforts to educate consumers to take home bulk ice cream must be directed right in order to build up the highest possible sales. The portfolio shows how to go about it and the proposition is divided into three main divisions (1) to show the manufacturer how the "Sealright Way" must be handled in his own plant; (2) how it must be presented to his retailers and how they in turn must "carry" it on; (3) how to present the merits of the "Sealright Way" to consumers—reaching the consumer through advertising, both by the manufacturer himself and through dealer co-operation. The portfolio is a beautifully arranged booklet, 12x18 inches in size, and the advertising plan covers everything in detail. Ice cream manufacturers already report their entire approval of the practical suggestions offered.

THE DAIRY WORLD.

"The Dairy World" is the name of a new publication which will bid for favor in the dairy manufacturing field beginning with June 1st. Mr. Roscoe C. Chase, formerly advertising manager of the Davis-Watkins Dairymen's Mfg. Co., will father the new publication and, according to his announcement, "it will deal with advertising selling, purchasing, distribution, accounting, organization and National and International Progress."

Mr. Chase's new publication will be unique among dairy trade publications. It will be pocket size, 4½x6 inches, and distinctive in general make-up and subject matter. We welcome The Dairy World and wish it and its publisher a liberal measure of success.

Wrapped up in the animal we call a cow are the darkest mysteries of animal life.—Hoard.

Before Contracting For Your
SWEET BUTTER
this season, get a sample tub and prices from
Stricker Bros., Inc.
Makers of Good Butter
220 W. Pratt St. BALTIMORE, MD.

The EMERSON
AUTOMATIC
Eskimo Pie Chocolate Coating Machine
It picks up the ice cream, dips it, and discharges the finished piece without handling at the rate of 250 doz. per hour – only one operator required. It makes a better looking pie with uniform coating and no large holes – better than spraying or hand dipping.
For further particulars write
EMERSON MANUFACTURING COMPANY
1701 MADISON ST., N. E. MINNEAPOLIS, MINN.

RETINNING ICE CREAM CANS

Special Department

WE DO REFINISHING of old ice cream cans in a special department of our plant which devotes its entire time throughout the year to doing this one thing and doing it well.

OLD CANS MADE NEW AT LOW COST

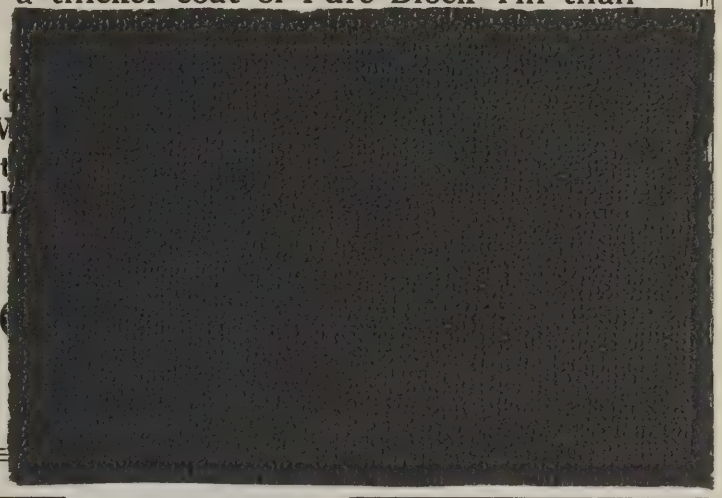
And we do know how to fix up your otherwise hopelessly rusty old cans so they will be tight and bright and good as new. IT IS NOT EXPENSIVE and PAYS YOU A DIVIDEND. A can retinned by us has a thicker coat of Pure Block Tin than when new.

SAMPLE CAN RETINNED FREE

This is the time of ye
sample can NOW. W
and return it prompt
Write us when you sh
we will do the rest.

OAKES & BUR

Established 1873





Regular Standard Style
With Double Bottom

TITAN

Ice Cream Packing Tubs

GUARANTEED

to withstand severe conditions to which tubs are subjected

Staves 1 3/16 in. thick, Tongued and Grooved.
Heavy 1⅛ in. Galvanized 18 Gauge Hoops,
2½ in. Hoop at the Bottom.

Inside Diameter Top	Inside Diameter Bottom	Inside Depth	PRICES
15 in.	13 in.	26 in.	F.O.B. St. Louis, Mo. " Topeka, Kan. " Memphis, Tenn. " Dallas, Tex.

Special Size Tubs Made To Order
Also Ice Cream Cabinet Tubs

PRICES ON APPLICATION

MEYER DAIRY EQUIPMENT CO.

3rd and Vine Sts. St. Louis, U. S. A.

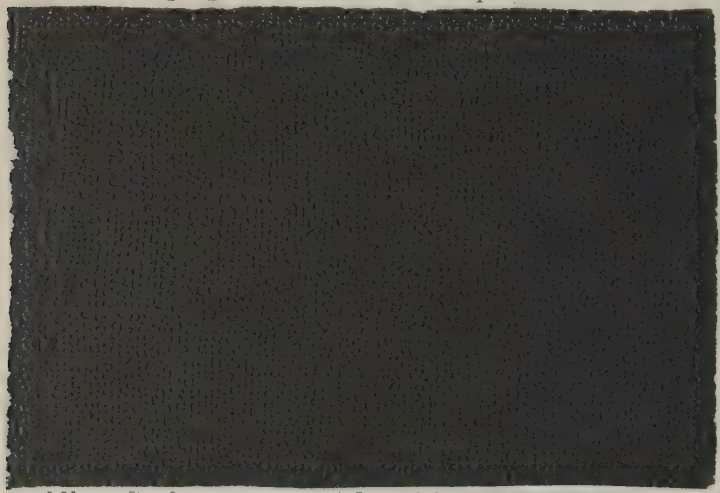
What Part Does Your Package Play in Advertising Your Ice Cream

By T. S. MACONKEY, of the Burdick-Garrison Co., Inc., N, Y., Advertising Specialists to the Ice Cream Manufacturer

THE value of advertising, as a means of promoting the sale of ice cream, cannot be estimated. The true significance of advertising itself may never be reduced to a comprehensible definiteness.

. . Progress is marked by stations left behind. . . In the days of yesteryear the manufacturer contented himself with individual salesmanship;—he made most of his sales by word of mouth.

But today an ever increasing volume of business, and the stress of keen competition, have proved to him the value of keeping his trade name and product before the



public. So he turns to Advertising. Advertising becomes his medium for selling to the masses: advertising is group selling.

The printed word has this significance over an oral sale; it has a definite value; its meaning cannot be changed or influenced by a mood of thought or a state of mind. It becomes a permanent record which makes for consistency; which makes for a sincerity of purpose.

Advertising keeps a trade name, slogan and product in the mind's eye of the public. . . A quality product, plus constructive advertising, builds, for the manufacturer and his article, a reputation. And the manufacturer's reputation is now recognized as his guarantee to the consumer that he will always maintain his product at the highest standard of quality. Thus, he inspires the confidence of the public and establishes prestige.

But now to advertise ice cream in package form. . Whenever ice cream is sold in package form it is usually packed in a box, a cylinder-like container, or a carton bearing the special design or trade mark of the individual manufacturer.

The first object of your package should be to establish an individuality for your product; hence the importance of striving for a difference in the appearance of your package as compared with that of your competitor. . . Too many ice cream manufacturers are willing that their package shall resemble those already in use. They make them different only where necessary to avoid the possibility of the consumer not being able to identify their product. Avoid prosaicism; individualize your package. If your package is somewhat similar to your competitor's you destroy the impression of the individuality of your product.

The second object of your package is that it should serve as a continual reminder of the existence of your ice cream. . . Make it easy for the public to remember your product. Give careful consideration to your trade name and slogan. A distinctive style of lettering should characterize your logotype, and its uniformity should be adhered to, at all times, in all of your advertising.

Be consistent in your policy and don't allow the public to lose sight of your trade name or slogan, not even for the shortest interval of time. If you do the effect will be injurious; the public has a short memory. And never forget to remember that, "Keeping everlastingly at it brings success."



LEWISTOWN PURE MILK COMPANY PURCHASES ICE CREAM PLANT.

The plant and all equipment formerly owned by the Mount Union Ice Cream Company of Lewistown, Pa., have been purchased by the Lewistown Pure Milk Company, who are remodeling the building and making extensive improvements. The plant will be fully equipped for the manufacture if ice cream and the distribution of market milk. An ice plant with a capacity of three tons daily will be part of the equipment.

NORTHEY
Ice Cream Cabinets
Refrigerators - Coolers
For All Purposes—Any Size, Style or Finish
Quality - Service - Price
NORTHEY MANUFACTURING CO.
DAIRY SUPPLY HOUSES
39 PARK AVENUE WATERLOO, IOWA



CONDENSED MILK MACHINERY
The Better Kind
We teach you to make condensed milk
C. E. ROGERS
Builders of Better Condensing Equipment
8731 Witt St. Detroit, Mich.

TRY THIS PACKER AT OUR EXPENSE



The Glacifer

A Dry Container for Preserving and Shipping Ice Cream.

You can save your customer from 5c to 10c per gallon with no cost to yourself.

You yourself can save from 5c to 10c per gallon on every gallon you ship.

You can extend your shipping business—reach people you have never reached before—get back some of the business you lost on account of high express rates.

Our circular tells all about this Packer—Write for it.

T O.
102 Mass.

No Strings to This Offer

We will send a 20-quart Glacifier for bulk cream on 30 days trial. At the end of that time, pay for it if you like it, otherwise return it.

Price for single Glacifer, $12.00; in lots of 25 or more, $10.00.

Try one **now** in your own plant, under your own conditions, at our expense.



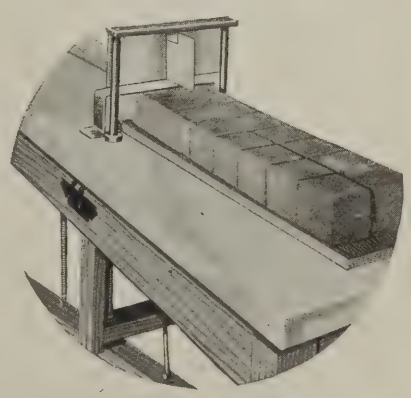
ce Cream utter

Will cut any shape that can now be cut with the most expensive ice cream cutter. It will do it just as fast and with only a little practice.

It cuts Eskimo Pies uniformly and the quantity is only gauged by the speed of the operator.

Pints or Quarts require only the omission or insertion of the projecting knife shown in illustration to the right.

Non-rustable table of substantial construction.



Two Weeks Free Trial Offer

To any responsible ice cream manufacturer we will ship one of these cutters on two weeks free trial. Put it to any test. Make any comparison you desire. If not satisfactory all you have to do is to write for shipping instructions and we will pay freight both ways.

Illustrated circular sent on request.

DAMROW BROTHERS CO.

MANUFACTURERS

Fond du Lac Wisconsin

Hitch Your Carton to Your Advertisements

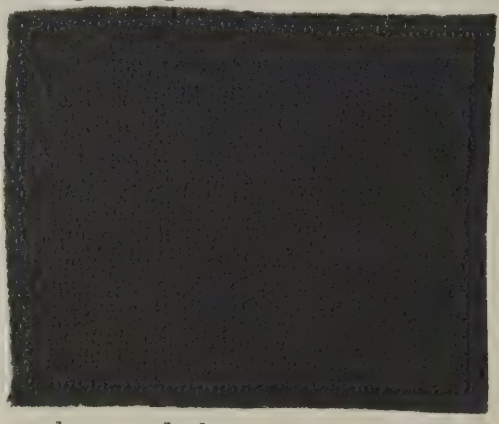
By F. B. WILLIAMS, Nordhem Syndicate Service

PEOPLE buy Old Dutch Cleanser because they instantly recognize on the can in the store the self-same Old Dutch lady that has been made so famous thru countless advertisements. It is the same way with Aunt Jemima Pancake Flour, Wrigley's Spearmint, 3-in-1 Oil, Bull Durham, and many others of the most outstandingly successful manufactured products—the package is the final link in the advertising campaign.

Ice cream manufacturers have for the most part overlooked the obvious selling lesson involved in this "hitching up" of the carton with the advertising. It is only lately, in fact, that the possibilities of the decorative or distinctive carton for ice cream have begun to be realized. But now that a few pioneers have replaced the old-time cheap paper box—labelled "Fine Ice Cream, 1 Qt.," or words to that effect—with artistically colored and designed boxes of paraffined cardboard, there will probably be a grand procession to get in on the decided selling advantage which the new type of container means.

A Fertile Field Cultivated.

The few steps which have been taken in this direction are only hints of what may happen when the manufacturers, artists, box-makers and advertising men get to working together to make the ice cream carton a real asset in retailing.



The possibilities for a definite appeal to the children, in particular, thru this medium are almost limitless. Take, for instance, the example of one commercial artist who—working in the interests of an ice cream manufacturer—conceived the idea of developing the containers into a series that would unfold a picture story to the kiddies who were fortunate enough to have this cream bought for them. The central figure in these box-dsigns was that of a little girl, with a catchy fictitious name, who served also as the trade-mark for all of the company's products. (There's that idea of the "hitch-up" bobbing up again.)

"Among Those Present"—the Ingredients.

In the picture-story which the carton told, the little girl of the trade-mark proceeded to give a party. And her guests marched across the sides of the box in fantastic procession—the demure peach, the hectic strawberry, the self-important chocolate bar, the perspiring cake of ice, that sour old chap—the lemon, the modest little vanilla bean—all gathered together to give pep and flavor to the occasion. What child wouldn't be thrilled to find all these important personages come to life,—and for the sole purpose of giving him the very best of ice cream?

Then the plan went on (always featuring the trade-marked figure of the little girl, who became the familiar playmate of all the children in the city) to portray each month a new adventure for the little girl and her fantastic companions.

Expense Justified by Results.

A great additional expense, you may say, to change the design of the carton every month or so. Really not at all great when you consider the amount of salesmaking interest developed thru a field hitherto untouched.

But a container of changing and timely interest without proportionate extra expense for special art work etc., is possible for the enterprising manufacturer who adopts another plan which occurs to the seeker after original advertising possibilities.

This second suggestion takes it for granted that the manufacturer is advertising his cream on outdoor poster-boards, on car-cards, or both. This is a safe assumption to make, inasmuch as nowadays there are few of the really big ice cream men who have not come to realize the value of these particular mediums for picturing their product in all its color and appetite appeal to the greatest number of prospective buyers.

Enter the Poster-Carton.

The idea is to make one or two sides of your box simply a miniature reproduction of the current month's poster and car-card. Inasmuch as the manufacturers are able to secure posters which represent the very highest type of art work, this means that customers will find in these novel and timely cartons an unusual artistic appeal.

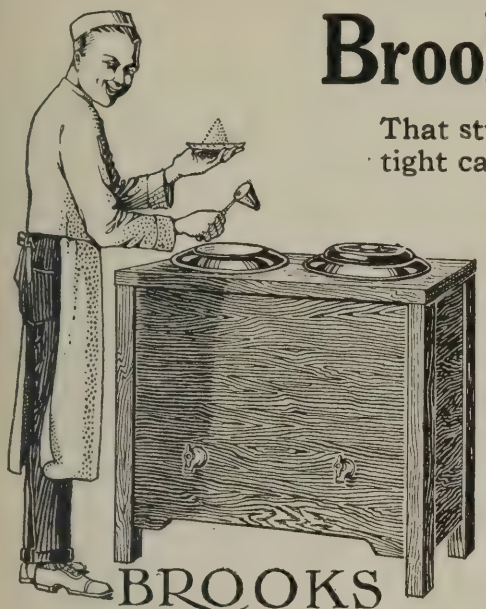
There are scores of other possibilities that come to mind once this interesting question of making the ice cream box a selling asset is broached:—such as diagrams showing the children how the colored boxes can be used as blocks to make all sorts of things; or can be cut up as paper dolls; or how the folded boxes can be opened out and fastened together to make a big cardboard doll-house, etc. Doubtless there's no end to the suggestions a professional advertising man would have on such a fertile subject as this.

Hang on to This.

But the big idea—the all-important thing not to be forgotten, whether you change your design once a month or only once a century—is to connect up your carton with your other advertising material, so that the customer recognizes it as an old friend. Distinctive and attention-getting trade-marks are one of the hardest things in the world to create; but once you have one—a figure that is beyond a doubt **yours,** the public symbol of your ice cream and all that stands behind it—once you have this you have the biggest part of your advertising problem solved for all time.

Then all that is necessary is the reiteration of this trade-mark in public attention;—and using it on your carton is simply part of the logical sequence which makes it impossible for your brand to be confused with others in the buyer's mind.

Remember again the Bull Durham bull, the Old Dutch Cleanser sunbonnet lady, and the legion of trade-marked figures that are synonymous with individualized brands; remember the nation-wide reputation for quality chocolate candies which Whitman's Sampler has built up—simply by the advertising of a most unique and desirable box;—remember these things and you will grasp the significance of the distinctive carton in the selling of your ice cream, and of the consistent advertising which makes this distinctive carton "what the public wants."



BROOKS
ICE CREAM
CABINETS

Brooks Ice Cream Cabinets

That sturdy corner-post construction makes a strong and tight cabinet. The Brooks requires less ice and keeps the ice cream in perfect condition because it's built that way.

Write for a 1922 Catalogue

—with full descriptions and illustrations of the newest models and the latest prices.

Counter Cabinets

Made for Chocolate Coated or Brick Ice Cream

They are portable and can be used anywhere—White Enamel Finish—Pure Cork Board insulation—Container has tapering tops permitting ice all around and cannot shift or float—Other exclusive Brooks features—Immediate deliveries—Every one guaranteed. Write or wire for detailed information.

ANY KIND YOU WANT
TUB COMBINATION
BRICK METAL LINED
We can make you any kind of ice cream cabinet you want.

BROOKS CABINET CO.

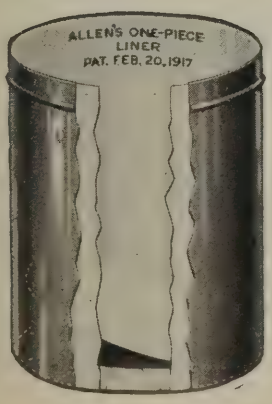
1003 West 27th St. Norfolk, Va.

A Letter recently received reads in part:

"The effect of **ALLEN'S ONE PIECE SANITARY CAN LINERS** in our Ice Cream Cans is magical.

Suggestive of Health, Purity and Prosperity, which combined with our own Sanitary Methods of Manufacture insure our product to be Superior to all others.

Our Slogan hereafter will be **A LINER IN EVERY CAN.**"



What an Advertising possibility. Can you afford to miss it?

ORDER FROM YOUR JOBBER OR WRITE TO

The Allen Candy Company

PONTIAC, ILLINOIS

Manufacturers

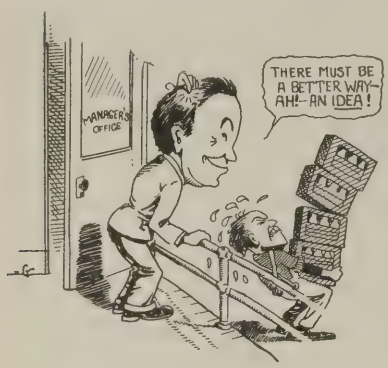


Lifting the Burden in the Freezer Room

How the Simple Floor Truck Can be Used to Save Time, Labor and Hard Knocks

COMPETITION is becoming so keen among ice cream manufacturers that every possible device that can possibly cut down costs or expedite production is being considered. The keener the competition, the farther this searching for the small leaks in the business goes, and many things ordinarily unthought of or unnoticed are turned up. Some of these losses, however, turn out to be quite large instead of small.

One loss of this type often occurs in the handling of supplies and finished product in the plant. The job was done that way years ago and it keeps right on being done that way. Nobody realizes that it ought to be changed because it looks like only a very small and unimportant detail. Good modern floor trucks will save a lot of time, energy and space in the handling of supplies and ice cream inside the plant.



Trucks are usually made in two, four and six wheeled types, both balance and non-tilting style. The balance type is so named because the trucks balance from the center wheels and the caster wheels at the ends are slightly off the floor. Sueh a truck can be pushed from either end and will turn around in its own length and can be handled very efficiently in narrow aisles and around square corners. They are far preferable for crowded aisles and crowded factories. The non-tilting type has two casters at one end of the truck and two main wheels near the other end, and can only be pushed from the caster end. This type of truck takes a little larger space to turn around in, and is not quite so easily handled as the balance type, but is preferable for use on inclines. Naturally, these platform trucks can be used for handling any article in the creamery from cartons of butter to loaded milk cans or ice cream cans, as well as tubs of butter and any other package article. In the handling of ice cream, either the balance type or the non-tliting type can be used. The illustration of the balance type truck, showing fifteen loaded five gallon cans, gives a good idea of this.



Balance Type of Truck.

Commencing from the time in which the ice cream cans are sterilized, we see them put on the ice cream can and cover truck, with the covers thrown onto the enclosure at the top of the truck. This keeps the cans and covers together at all times and allows them to drain. The cans and covers are kept on this truck, pushed into a corner or any other place that may be desired, and left there until needed in the freezer room.



Can and Cover Truck.

The trucks loaded are then run into the freezer room and the cans taken off at the freezers as desired. This truck acts as a movable rack for storing the cans as well as a truck. As soon as the cans are filled with ice cream, the value of the platform type of truck is seen, because fifteen to twenty-four of these cans can be put on the truck as soon as they are filled. The truck can be run into the hardening or storage room, no matter how far it is from the freezers, and kept there until such a time as a load is wanted at the delivery wagon. The truck, still loaded, is then run out to the delivery platform and the cans transferred in the wagon.

It is evident that a great deal of time is saved in handling by this method as it saves at least two handlings of the ice cream cans empty and at least three to four rehandlings of the filled cans. This saving in labor pays for the investment of the trucks in a very short time. Many plants have found, upon keeping actual figures of these things, that they should consider floor trucks more of an investment than an enpense. The Crescent Creamery Company, who have one of the most modern plants located in St. Paul, Minnesota, are using this method and find it works very profitably indeed.



Factory of the Nutting Truck Co., Faribault, Minn., Where Nutting Trucks Are Made.

In the handling of butter, either in tubs or large packages, containing many one pound packages, these



Patent Applied For

WRITE FOR FURTHER DESCRIPTION

List price **$15.00** *Each*

LIBERAL QUANTITY DISCOUNT.
ORDER A SAMPLE NOW.

A Self Advertising Counter Cabinet

Here is the Cabinet that solves your problem of keeping Eskimo Pies or Individual Portions—

Capacity eight dozen —

Keeps cream hard 36 hours with one icing —

Ice compartment and cream compartment have individual doors —

Cabinet is self advertising. Three sides arranged to carry card signs, and is well worth purchase price for advertising value.

Manufactured by

Virginia Tub Company

(INCORPORATED)

BRISTOL VIRGINIA





A Valuable Impression

A pleasing impression upon customers is of value. You can create one and at the same time save your goods from damage by spreading sheets of **TANGLEFOOT** in your show windows, especially over Sunday.

TANGLEFOOT will then be at work for you and will not only catch the flies, but attract the attention of people who pass your store to your efforts to keep your stock clean and fresh, and create in them a desire to use **TANGLEFOOT** themselves. This means extra sales to you. For 1922 **TANGLEFOOT** has been reduced 60 cents per case. This will allow you to sell at the old price, two double sheets for 5 cents, and make a profit of 50 per cent.

Remember **TANGLEFOOT** *catches the germ as well as the fly, and that poisons, traps or powders cannot do it.*

"SLIGHT NOT WHAT'S NEAR THROUGH AIMING AT THE FAR."—EURIPIDES.

trucks are valuable in allowing the butter to be piled on them the minute it is packaged and if it is kept in the storage or refrigerator room for any length of time, the material can be left right on the trucks without any handling, because the truck will take up no more room than a shelf would take, holding an equal amount of butter. These trucks can be made with three or four shelves to hold loads anywhere from 750 pounds to 6,000 pounds, which is more than would ordinarily be put on any shelves. The butter is kept on these trucks until shipping time arrives and delivered direct to the packing room or shipping room for crating or delivery direct to the wagon, or trucks.

We are indebted to the Nutting Truck Company, Faribault, Minn., for the cuts. This firm has been in the floor truck business for over thirty years and maintain a department especially for trucks for the dairy industry. Their product has received commendation from ice cream manufacturers, milk dealers, and creamerymen everywhere for its money-saving qualities. A photograph of their Faribault plant is shown.



NEW CONE FACTORY FOR CHICAGO.

The Cone Company of America, head office and plant Long Island City, N. Y., manufacturers of Havacone pure cake ice cream cone have recently taken a large portion of the Central Bag Manufacturing Company's plant located at 6001-6033 So. Western Avenue, Chicago, Ill., where they will manufacture Havacone for their mid-west trade. This plant is a modern sanitary building of the very latest design and suitable in every way for the production of a pure food product.

The men identified with the Cone Company of America have been associated with the manufacture of some of this country's outstanding successes in pure food products for many years and have a reputation to maintain, hence the success of the new enterprise is practically assured.



NEW ICE CREAM PLANT IN HOUSTON.

The Co-operative Dairy Products Company, Houston, Texas, recently purchased the business of the Houston Co-operative Dairy Association. This firm will remodel and equip the plant for the manufacture of butter and ice cream, and will erect an ice and cold storage plant to be devoted entirely to butter and eggs.

The officers of the company are: T. J. McCabe, president; W. P. Magill, vice-president; J. E. Wilson, secretary-treasurer.

This company will get most of its milk from its own herd.



FIRE CONSUMES PART OF CABINET PLANT.

On the 25th of April fire destroyed a part of the plant of the Archie J. Verville Co., Hancock, Michigan. According to report received from Mr. Verville, the fire has put the plant out of commission for a short time but expects to again begin operation on the 15th of May.

They are building the thermos bottle type of ice cream cabinet.



CHANGE OF ADDRESS.

The Russell Stover Co., recently changed its Chicago headquarters from the Mallers bldg. to the Kesner bldg. The company's address is now 5 N. Wabash Avenue, Chicago, Ill.

THROUGH THE MILL IN PENNSYLVANIA.

The Bureau of Foods of the Pennsylvania Department of Agriculture has given a clean bill of health to the chocolate coated ice cream bars sold in Pennsylvania. Since March 10, agents of the Bureau have collected 90 samples sold in thirty cities and towns of the State.



Director Foust's O. K.

These samples were submitted to the six chemists of the Bureau for analyses. Director James Foust of the Bureau announced that the reports of the chemists showed that each of the ninety samples was entirely free of paraffine, cocoanut fat or adulteration of any kind.

Early in the year it was reported that a few dealers were substituting paraffine in the coating of the ice cream bars. A crusade instituted by the Bureau of Foods has resulted in the industry aurning out a first class product.

The annual report of the Bureau of Foods, Pennsylvania Department of Agriculture, submitted by Director James Foust to Secretary of Agriculture Fred Rasmussen, shows the vast amount of work that was required to protect the people of Pennsylvania in 1921 from the dangers of impure foods and beverages.

The report also shows the growth of the Bureau since 1907 when Director Foust assumed charge. One of the features of the report is the fact that a decrease in expenditures in the operation of the Department in 1921 over 1920. is shown.

In 1920 the Bureau expended $102,284.45, while last year the expenditures were reduced to $91,894.73. The report indicates another unusual fact—that each year since the inception of the Bureau of Foods, the number of analyses of the food and drinks of the State have been practically the same. Thus in 1907 there were 7,400 samples analyzed by the Bureau chemists, while last year there were 7,422 samples collected and analyzed.

Last year there were 1,031 cases terminated by agents of the Department, a decrease of just two cases over the number terminated during the previous year. The receipts of the Bureau also fell off somewhat last year, due largely to the fact that a number of firms handling oleamargarine went out of business. The receipts in 1921 were $596,524.01, while during the previous year the receipts amounted to $626,472.25, the largest amount in the history of the Bureau.

In the fifteen years covered by the report, the Bureau of Foods has collected and analyzed 106,656 samples while during the same period the agents have terminated 14,172 cases in the courts of the State and during this time the Bureau received $4,173,441.52 in receipts. The cost of operation of the Bureau during this period was $1,234,467.01.

During the first two years of Mr. Foust's administration the Bureau was not self sustaining; now the receipts are more than three times the amount of the expenditures. The receipts are deposited with the State Treasurer for the use of the Commonwealth and the expenditures are provided for by appropriation.

NEW MILK PRODUCTS COMPANY ORGANIZED IN WELLAND, ONTARIO.

The Martin Milk Products Company, Limited, a $200,000 corporation recently organized at Welland, Ontario, is a business of interest and importance in that part of the country. This company will manufacture a fine quality of bulk and brick ice cream, as well as butter, cream cheese, pasteurized milk, and other products along the dairy line. The Niagara Peninsula can now supply these products to its citizens first hand, instead of being obliged to import such foods from far-away points.

The chief promoters of the company are Martin Brothers, who are pioneers in the pasteurized milk business in Welland, and the reputation of their products, which are acknowledged to be among the finest put up in Canada, speaks well for the products to be turned out by the new firm; it is, practically a guarantee that the goods produced will be of the best quality, thus assuring a success from the start.

The new firm has purchased the plant of the Goodwillie Canning and Preserving Company, and are installing the best up-to-date machinery and cold storage equipment that can be bought. The plant will be a model of sanitation and cleanliness, and if it is possible to make any estimate from the number of ice cream orders now coming in, it will be taxed to its utmost capacity right from the start.

The management of the firm and its directors are as follows: E. L. Martin, dairyman, Welland, president and general manager; J. D. Martin, dairyman, Welland, vice-president. Directors J. E. Martin, dairyman, Welland; Thos. C. Bald, farmer, Thorold township; H. D. Rice, farmer, Thorold township. A. A. Marshall, accountant, Welland, secretary-treasurer.

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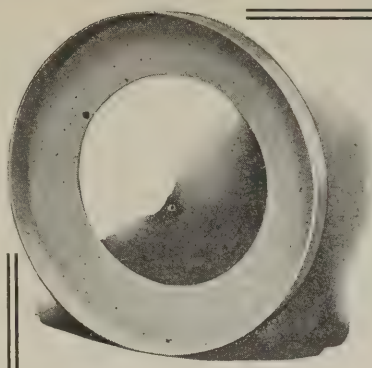
NEW HOME FOR "PRIDE O' UTICA" ICE CREAM.

The Pride O' Utica Ice Cream Company has leased a large two-story building for a new plant. The building will be repainted and remodeled throughout immediately, and when the work is completed the company will have one of the finest, most modernly equipped ice cream plants in New York State.

Since starting in business about three years ago, the Pride O' Utica Ice Cream Company, by making an excellent ice cream, and by rendering to its dealers and consumers a service of the most sterling character, has made unusually rapid progress and the need for a better and larger factory to care for its ever increasing business has been keenly felt for some months past. The building they are about to occupy is ideally located, has superb shipping facilities and with adequate floor space the company will have no difficulty in filling their requirements for some time to come.

This firm will spare no effort or expense in making its new home a model ice cream plant. It will be a commodious, well lighted, well ventilated, clean factory embodying every conceivable sanitary feature and every convenience. The latest, most improved machinery for manufacturing and packing ice cream will be installed, which will make it possible for the company to, not only manufacture a still better quality ice cream, but to increase its production.

The Pride O' Utica Ice Cream Company is to be congratulated on their progressiveness. Their success is the result of their ability to manufacture an ice cream that never fails to meet with the approval of discriminating people plus a desire to make friends of their customers by giving at all times prompt, pleasing, courteous service.



B. L. R. Re-inforcing Tub Bottom Hoops

"Makes Tub Bottoms Last As Long As The Sides"

The weakest part of all tubs (the groove or chime) has always been a source of trouble and responsible for the expenditure of thousands of dollars.

The usual method of repairing tubs by cutting them down, soon renders the tub useless. Three cuttings usually finish the tub.

B. L. R. REINFORCING HOOPS, eliminate all temporary repairs and expense and make the bottoms of ice cream tubs last as long as the sides.

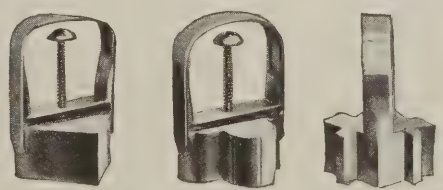
SIZES.

B. L. R. Hoops are furnished in the following sizes: 14½", 14¾", 15", 15¼", 15½", 15¾", 16", 16¼", 16½", 16¾", 17", 17¼", 17½", 17¾", 18", 18¼", 18½".

Order from your nearest jobber.

"A. B. L. R. Hoop On Every Tub Bottom"

Evans Speed-O-Stamps





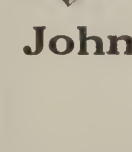














For Your Individual Ice Cream Favors

SOMETHING NEW, STAMPING INDIVIDUAL ICE CREAM SERVINGS FOR CLUBS, LODGES, BANQUETS PARTIES, HOLIDAYS, ETC.

"Just Like Mother Stamping Cookies"

SOLD ONLY IN SET OF SIX DESIGNS—HEART — SHAMROCK—MASONIC — SHRINE —KIWANIS—SPADE.

Complete Set—

$27.50

John W. Ladd Company

"National Approved Ladd *Distributors Specialties"*

DETROIT **CLEVELAND**

IT IS EASIER TO GIVE ADVICE THAN TO LEND A HAND.

PACKERS, OR ICE CREAM TUBS.

(Continued from page 80)

Question 14—What is the average life of a tub in your business?

The life of the tub is of course affected by the service required from it. However, average figures show that the life of a good tub with reasanable care is five years. Some few manufacturers find that they last twice as long or longer, but these cases are quite exceptional. The grade of tub used also makes a difference. The Wisconsin manufacturer mentioned in question 12 reports that his tubs last 8 to 10 years.

* * *

Ice Cream Cabinets.

Question 1—Do you loan cabinets or require retailers to buy them?

Of 131 manufacturers who answered this question, 98 loaned the cabinets, 9 required the retailers to buy them, and 24 did not handle cabinets at all, which, of course, made it necessary for dealers to get them elsewhere.

Although most of the manufacturers loan the cabinets to dealers, the majority of them feel that this is a bad practice, and do it only because competition makes it necessary. One man says, "I think there should be a law passed prohibiting ice cream factories from furnishing cabinets. This is a big expense for the manufacturer, and dealers do not take proper care of them." Another says, "Such a practice should not exist, but after it is started it is hard to stop. If the retailers can't get cabinets from me they do from someone else, and I lose a customer."

Since in the long run the dealer in most cases has to pay indirectly for the cabinet anyway, it would seem that it would not be such a great hardship to require him to furnish his own. However, due to competition, it is very difficult for manufacturers to abandon this practice unless it is generally agreed upon.

A few manufacturers sell the cabinets to dealers at cost, either cash or on weekly or monthly payments. Some loan them locally and sell to outside dealers. A few manufacturers require dealers to sign contracts for the loan of the cabinet in which they agree to pay certain stipulated amounts in case less than the required gallonage is sold. These contracts permit the manufacturer to remove the cabinet at any time conditions make it advisable.

Question 2—If you loan cabinets, do you keep them out the year round?

Practically all manufacturers who answered this question kept the cabinets out all year when the dealer did a year-round busines in ice cream. If the customer handled ice cream in the summer only, the cabinets were brought in at the end of tthe season. This was done without exception in the case of resorts and beaches. In some cases where the dealers were known to be reliable they were allowed to keep the cabinets all year provided the condition of the box was satisfactory to them.

In large cities where in most instances the cabinets were in use constantly the manufacturers endeavored to get the cabinets in once a year at least for painting and repairing, in which cases an exchange was made.

Question 3—Do you furnish larger capacity cabinets in summer and smaller in Winter?

Of 110 manufacturers who answered this question, 38 furnished smaller cabinets in winter and 82 did not. A great many who did not make a change in the case of a two or more compartment cabinet, furnished icing service for a reduced number of compartments in winter. In the big cities customers using large quantities of cream used more than one cabinet in summer, and in fall those not needed were taken back.

Question 4—What terms of rental?

In only a very few cases was rental charged for cabinets, and in some of those instances it was charged only when the dealer did not sell the amount of ice cream stipulated in the contract. One manufacturer said that the suggestion of rental would be met with violent protest and probably loss of customers.

An eastern manufacturer who rents cabinets to dealers who sell other brands of ice cream than his own charges at the rate of 25c for a 5-gallon cabinet, 30c for a double 5-gallon size, and 35c for a three compartment 5-gallon size. Other rentals are on a monthly basis ranging from $1 to $2.

Question 5—What size cabinets are most generally used in your community?

The most popular size cabinet, regardless of the size of the city or town, is the two-compartment 5-gallon size. In large cities where a great deal of ice cream was used two of these cabinets were furnished in preference to one of larger size. In some instances where two of these cabinets were furnished, one compartment of one of the cabinets was for brick.

Other popular sizes were the three-compartment 5-gallon cabinets with one compartment for brick and two and three compartment three-gallon size. A great many single compartment 5-gallon cabinets were also in use, particularly at small places which did a cone and dish business.

The 5-gallon cabinets, single, double or triple compartments, sometimes in combination with a compartment for brick, were by far in the greatest demand.

Question 6—Do you charge for icing?

One hundred and twenty-four manufacturers answered this question. Of these, 45 did not give icing service, 28 gave this service and charged for it and 51 gave it without charge.

Of those who gave icing service without making an extra charge, quite a number stated that payment for this service was accounted for in the price of the ice cream. A few manufacturers gave the service without charge when the ice cream used was in excess of a certain number of gallons, and when it was less than this amount a small charge was made.

In the number of those who do not give icing service are included those who pack the cream in ice only for delivery, and do not give packing service beyond this.

One manufacturer who includes the charge for icing in the price of his ice cream makes an allowance of 5 to 10c a gallon when the customer furnishes the ice himself.

One manufacturer speaks his mind very emphatically on the subject of giving free icing service. "The manufacturer who does that," he says, "should pay the dealer's rent and furnish at least one clerk."

Here, as in question 1, it seems that the manufacturer gives this service free because he is forced to by competition. Because of his facilities for chopping and delivering the ice he can do so very satisfactorily, and it would not seem that the customer should object to the small charge it would be necessary to make to cover the cost of this service. However, in localities where competition is keen, it may be readily seen that it would be impractical for one manufacturer to eliminate this free service unless the others did also.

Question 7—If so, on what basis?

Most manufacturers base their charges for icing on he number of gallons of ice cream purchased, averaging 0c a gallon. Others base their charges on the amount f ice that is used in excess of what is necessary for acking in delivery. The amount ranges from 10c a ucket to 40c a hundred pounds. Some charge a flat eekly rate for this service averaging $1.

Question 8—How often do you overhaul and paint cabinets?

With only a few exceptions, all manufacturers answering this question overhauled and repainted their abinets each year. Some found it necessary oftener, nd others not so often, but, judging from the number vho made it an annual practice, this seems to be adisable and profitable.

Question 9—What is the average life of a cabinet?

Answers to this question showed quite a diversity, anging in time from 2 to 15 years. The general average or an all wood cabinet of a good grade which is given easonable care is 5 years. The life of a cabinet depends o a great extent upon the care given it by the customer, nd an inferior cabinet which is well cared for may last lmost as long as a good cabinet which is given careless reatment. However, cases of extreme carelessness on he part of the customer are the exception rather than he rule, therefore most manufacturers find that it pays o get a good cabinet.

Manufacturers using metal lined cabinets find that t is necessary to reline them once every second season, r oftener. One manufacturer states that a 22 gauge alvanized iron lining will last in the average cabinet bout four years if painted each winter.

* * *

Containers.

Question 1—What percentage of your gallonage is sold in bulk?

Of 133 manufacturers who answered this question, eplies were received as follows: 5 sold 98 per cent in ulk; 20 sold 95 per cent in bulk; 39 sold 90 per cent; sold 85 per cent; 25 sold 80 per cent; 16 sold 75 per ent; 10 sold 70 per cent; 2 each sold 65, 60 and 79 per ent; 1 each sold 100, 99, 96, 92, 89, 78 and 50 per cent.

Question 2—What percentage in brick?

One hundred and twenty-three manufacturers gave eplies to this question. Of these, 24 sold 5% in brick; 30 old 10 per cent in brick; 8 sold 15 per cent; 24 sold 20 er cent; 9 sold 25 per cent; 6 sold 30 per cent; 1 sold 5 per cent; 2 sold 40 per cent; 5 sold 2 per cent; 4 sold per cent; 3 sold 7 per cent; 2 sold 4 per cent; 1 each old 8, 11 and 21 per cent, and 1 sold none in brick.

Question 3—What percentage in other containers?

Only 40 manufacturers sold ice cream in other containers. Of these, 14 sold 5 per cent in this manner, 8 old 10 per cent, 3 sold 15 per cent, and the others sold arious percentages ranging from 50 to 1 per cent. hese figures can give only an approximate idea of what ercentage is sold in special containers, for quite a few anufacturers included their chocolate coated ice cream ar sales in this percentage. The average for ice cream old in special molds and other containers, as far as we re able to estimate averages 3 per cent.

Question 4—Do you use a packaging machine?

One hundred and seventeen manufacturers replied to his question. Of these 6 used a packaging machine and he rest did not. One manufacturer who did not use a



The "STAY-ON" is made right by men who know how, and have studied the requirements of the Ice Cream manufacturer and shipper.

Thats why the "Stay-On" today is the biggest seller, and enjoys the widest distribution.

Get the information from your jobbers' salesman or address below.

Canvas Products Corporation
BOX 66
FOND DU LAC, WIS.



Pat. 6-29-1920—Pat. Pndg.

"Save the Bottom and you Save All"

When the bottom hoop goes and the staves begin to spread, the particular tub in this condition is "on its last legs." Another trip and only an empty shell remains.

Use The Frick Bottom Hoop

and your tubs will start life all over again.

With this hoop you can replace bottoms that are out, or repair weak bottoms. Making them stronger than when new. In either case, your tubs if equipped with Frick Hoops will last two or three times longer than a new tub of the present type.

This is not a cheap repair job but a permanent improvement. We use heavy rust-resisting metal and hot galvanized after hoop is made complete.

Note: Our hoops are riveted to the staves far enough up in the wood to make them absolutely secure.

Write us today for further details and prices.

Frick Hoop Company

Corsicana, Texas

machine filled the Sealright containers directly from the freezer, which process seems to be satisfactory in his case.

Question 5—If so, is it satisfactory?

Very few manufacturers had had these machines in use long enough to consider that they had been given a fair trial, but none of them expressed dissatisfaction. One man said that the machine was O. K., but it remained to be proved whether or not the sale of the package would be a success. A southern manufacturer had had such excellent success with the packaging and sale of one color cream in containers that he is going to put two flavors in a carton.

Those manufacturers with whom the use of a packaging machine was in the experimental stage were unanimous in stating that they were certain it would be successful.

Question 6—What special effort have you made to encourage the consumer to "Take home a package of ice cream?"

The methods of publicity to encourage the sale of package goods were for the most part the use of general newspaper advertising, window strips and billboards. A few manufacturers most of them in smaller towns and cities, used movie slides to push these sales. Week-end specials were strongly advertised by quite a number of manufacturers with good results.

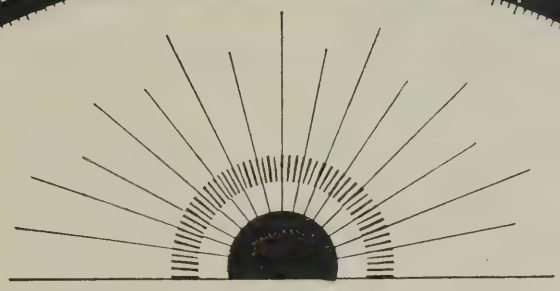
Altogether too great a number of manufacturers made no effort of any kind to encourage the sale of ice cream to home trade. It seems that the field of developing the habot of home consumption of ice cream offers sufficiently rich possibilities to the average manufacturer to make it well worth his while to cultivate it.

One manufacturer sums up the situation thus: "Make a quality product, sell it at as low a price as you can, let the public know about it, and in time your efforts will bring profitable results."

Question 7. Is the growing tendency to put ice cream in cartons and sanitary containers building up a greater gallonage in your community?

The majority of manufacturers who replied to this question found that this situation did increase their total gallonage, though most of them stated that it had not as yet been given a fair trial. One Indiana manufacturer stated that he noticed a marked increase each year, and had reasons to think this year would surpass all previous records. A few manufacurers said that in the absense of mechanical refrigeration they did not push the sale of package goods, because it was more difficult to pack than bulk.

Most retailers prefer the sale of bulk ice cream because they think it allows them a greater margin of profit, hence they are not pushing the sale of packaged ice cream. One manufacturer who found this to be the case filled the cartons and sold them to the retail trade directly from the factory. The result was that many of the customers passed up the retailer and came to the factory for their cream. This indicates that the sanitary features of packaged ice cream are appreciated by the general public, and if these features are brought to their notice they prefer to buy it this way. In this connection one Illinois manufacturer says, "We feel that the ice cream manufacturer must educate the consumer to buy packages put up by the manufacturer. Ice cream put up in a sanitary package at the factory reaches the consumer in better shape than when dished up by the merchant." If such a plan would be carried



ESKIMO PIE

TRADE MARK REGISTERED

Won! The first flagrant infringer of the Eskimo Pie patents has been enjoined by a Federal Court—the honest right of the inventor has been upheld. And the way is clear for still greater successes with this phenomenal ice cream product. Russell Stover Company, 5 North Wabash Ave., Chicago.

10c

out, it is reasonable to expect that the result would be a generally increased gallonage the year round.

Question 8.—If you pack a special container ready for the customer to carry home, do you experience any trouble in getting the retailer to properly care for it?

Altogether too many manufacturers have difficulties in this respect. One manufacturer had so much trouble that he discontinued packing in such containers. His was the only instance where such an extreme situation prevailed, however. In many cases the trouble was confined to careless dealers.

Some manufacturers feel that if they provide a cabinet and keep it iced their responsibility ends there, and it is not their fault if it is not in a good condition when it reaches the consumer. We feel that in the case of packaged goods it is more important that it should reach the consumer in a good condition than in the case of bulk, for in most instances the manufacturer's name appears on the package, and it would react to his disadvantage to have it delivered to the customer in any but a good condition.

A few manufacurers overcome this difficulty by delivering directly to the consumer. It is difficult to see how this can be made profitable unless engaged in on a big scale, and with proper facilities.

It would not seem that keeping the packaged cream in good condition would offer such difficulties to the average dealer that he coud not overcome them with a little extra care. Many dealers have found that they were well repaid for such effort.

Question 9—Is such a container building a satisfactory trade for you?

With only eight exceptions, manufacturers who answered this question found that it did build a satisfactory trade for them. The main reason why it did not was that it was not pushed hard enough.

One manufacturer says in his reply, "We believe that the consuming public like the non-returnable packages, as they are certain that the package has not been used previously for ice cream or anything else."

The use of a special container which will keep ice cream several hours without ice was found to be satisfactory by several manufacturers who sold directly from the plant, but no retailers were found to handle them.

Question 10—Which business do you prefer, bulk or package?

Of 128 manufacturers who replied to this question, 96 preferred bulk business and 32 preferred package.

Question 11.—Why?

The main reasons given for preferring bulk were that it was less trouble, easier to handle, required less ice per gallon for freezing and packing, was kept in better condition by the retailer, and was more profitable. Bulk ice cream was preferred almose unanimously for shipping trade.

A Pennsylvania manufacturer says that he prefers bulk because package goods requires more attention to keep it in good condition, and is likely to lose it flavor or absorb other flavors.

Another manufacturer said that he preferred bulk, although the sale of brick kept up the winter trade, because it required a great deal of effort to satisfy the public taste in the matter of flavors, as they were constantly expecting something new. Practically all small town manufacturers preferred bulk, because there was little demand for brick and it was hard to keep.

There were a number of what appear to be excellent reasons for preferring brick or package trade. The main reasons were that it was more sanitary, easier for the retailer to handle, and eliminated the expense of supplying tubs. A few manufacturers also found it was more profitable, and quite a number of them expressed the opinion that they believed it would continue to gain in popularity as the public became educated to its advantages. The possibilities of advertising also came it for considerable mention.

A prominent Wisconsin manufacturer says, "Brick is the best from an adevrtising standpoint because our name goes into the house on the carton." An Arizonia manufacturer who prefers package trade seems to have difficulties of an unusual nature in developing this trade, for he says, "We are having our hands full trying to educate our trade to package goods. The inhabitants of this country are about 40% Mexicans who prefer bulk, and the redder the better. Consequently we have a large sale of strawberry." The situaion is not typical, but interesting.

Question 12—Have you tried iceless containers for shiping?

Of 107 manufacturers who answered this question, 12 had tried the iceless containers for shipping.

Question 13—If so, with what success?

The main objection seems to be on the part of the dealer, for by use of this system he does not get ice for packing.

One Wisconsin manufacturer reports that these containers give excellent satisfaction where the dealer has a refrigerating plant. A Missouri manufacturer says that he could ship cram 1000 miles in the hottest weather without repacking by this mehod.

Question 14—Have you tried to increase your sales of package ice cream through grocery of chain stores?

Of 125 manufacturers who answered this question 31 had tried this method and 94 had not.

Question 15—If so, with what success?

The consensus of opinion here was that this business was satisfactory where these stores were located in the outlying residence district, and did not interfere with the business of the regular dealers. One manufacturer reported that all his last year's dealer's were back, and with them several others.

The main reasons for finding this business unsatisfactory were that the gallonage was not sufficient to make it pay, and that the dealer was usually not equipped for handling this business. Also,, in many cases these stores undersell the regular dealers, which causes dissatisfaction. In almost all instances it was found to be only a summer business.

Here as in other instances, the dealer who takes active steps to push the sale of ice cream as a general thing makes a succes of it. Pushing of course takes the form of advertising of some kind. In fact, it is safe to say that the sale of ice cream in general will increase in proportoin to the amount of intelligent, well directed advertising it receives, particularly in the direction of increasing home consumption of this commodity. It is assumed that this advertising will be backed up by quality and a fair price.



PACKAGING MACHINE PAYS.

The Corbett Ice Cream Company of Denver, Colorado, advise that thru the recent installation of the Mojonnier Bros. Co. ice cream packaging machine, they were enabled to turn out 13,000 pint bricks of different flavors. One of their dealers, the Scholtz Mutual Drug Company put on a special sale for one day selling pint bricks at 10 cents. They sold over 11,000 in one day.

Get the Frozit Facts—Today

The Frozit Mfg. Co., Columbus, Ohio.
Send by return mail literature and price of the FROZIT DIPPING MACHINE.

Name .....

Firm Name .....

Address .....



For More and Better Eskimo Pies—

FROZIT Dipping Machine

25,000 to 30,000 Eskimo Pies Per Day!

Every piece uniformly coated—cakes dry and ready to wrap IMMEDIATELY on being taken off—and only two girls needed to operate the machine!

Here is a thoroughly practical dipping machine capable of super-production—at the smallest possible cost. It was proved out in the Columbus plant of Telling-Belle Vernon Co. The FROZIT is staunchly built to give the limit of long service. It does perfect work—all the time—with no waste of materials.

Mail The Coupon Today. Find Out How To DOUBLE Your Profits In This Big-Profit Field!

IF YOU are making Eskimo Pies or similar Ice Cream confections you will want the facts about the FROZIT DIPPING MACHINE. Delay means a big profit-opportunity slipping away from you. FILL OUT THE COUPON NOW and get the details and interesting production figures on this low-priced, dependable money-maker.

The Frozit Mfg. Company

Clinton Building, Columbus, Ohio

WESTERN OFFICE: Transportation Building, CHICAGO, ILL.

Packaged Ice Cream and Service

YOUR first consideration of Service is the time element. Good telephone service is a call completed quickly. Good retail service is a transaction completed promptly.

Brick ice cream can be served much quicker than bulk ice cream. This item of time means much to the busy retailer, and it means much to the consumer. Most of us think we are in a hurry, whether we really are or not.

Packaged ice cream means more than the time element of service. It is clean, sanitary and is always exact measure. A few days ago four traveling men were eating lunch at a prominent hotel. The sugar was individually wrapped. In the sugar bowl were two cubes not wrapped. Not one of the four selected the unwrapped sugar. It didn't mean much except that all of them **preferred** the packaged sugar. No doubt it **was** cleaner—and all of them, either consciously or unconsciously appreciated it.

Sooner or later the public will realize the advantages of brick ice cream. The brick sales of most plants are increasing. In several cities the retailers are refusing service of bulk ice cream. This is due to the time required to serve and the uncertain quantity of bulk cream required to fill a quart pail.

Vanilla cream is seldom packaged, yet it is most in demand. The brick has always meant an assortment of flavors. When the public realize they can buy vanilla bricks they will buy them. Already most dealers charge ten cents per quart more for bulk than brick cream. This is a step in the right direction. The public will recognize the advantages of an ice cream brick, especially at a less price.

It is human nature to do things the easiest way. Heretofore it has been easier to handle bulk cream in the factory. The making of bricks meant a large expenditure of labor. The manufacturer passed the labor of packaging the ice cream to the dispenser. Many dispensers are today refusing to accept this added burden and very shortly the manufacturers of ice cream will be compelled to package ice cream.

Modern machinery has eliminated most of the labor. The brick box costs but slightly more than the pail. The labor required to package the ice cream in the factory is not ten per cent of that required to achieve the same results at the fountain. Any unnecessary labor is a waste, and the customer must pay for it one way or another.

You are urged to try plain vanilla bricks—packaged vanilla ice cream. Let the consumer know he can purchase the same good old-fashioned vanilla ice cream in a fresh, clean, sanitary package.



Rogers Brick Maker in Operation in General Ice Cream Co. Plant in Detroit.

SMITH & CLARK CO. PURCHASES NEW PLANT.

The Smith & Clark Company, makers of the famous Smith's Ice Craem, well known throughout all of northeastern Pennsylvania, have purchased the Scheffield Farm Dairies plant at Middletown, N. Y. The plant will serve as a distributing and manufacturing center for the territory of which Middletown is the center.

The Scheffield Farm Dairies plant is considered one of the finest of its kind in New York State, and is tiled throughout. The work of installing additional equipment is nearly completed.

The Smith & Clark Company have also opened a large station at a large station at Port Jervis, New York, which will serve as a destributing center for that territory. The purchase of a large plant at Newburgh, N. Y., is the final link in the great chain which links the Hudson River section with the home plant at Wilkes-Barre, Pa. It is no uncommon sight now to witness the pilgrimage of large fleets of orange-colored trucks over the Allegheny mountains in the direction of the Hudson river.

The Smith & Clark Company now have stations and plants at Wilkes-Barre, Scranton, Hazleton and Stroudsburg, Pennsylvania; Middletown, Port Jervis and Newburgh, N. Y.

The new $250,000 plant under construction at Scranton, Pa., is nearing completion and will be one of the finest ice cream factories in the East. It will be three stories high, of fireproof materials. It will more than double the present capacity of the company, and place them in a class among the leading ice cream manufacturers of the United States.

PUMPS

A customer once gained, is sure to repeat. If you are not already a user, you owe it to yourself and your business to investigate.

Blackmer Rotary Pump Company 2 SHERIDAN ST. PETOSKEY, MICH.

What one user told a fellow ice cream maker

J. C. KREUSCH
MANUFACTURER

ICES, SHERBITS AND SOFT DRINKS — KREUSCH'S ICE CREAM — SODA FOUNTS CARBONATED GAS

109 MERIDIAN STREET

ANDERSON, IND., April 25, 1922.

The Marion Ice & Cold Storage Co.,
Marion, Indiana.

Gentlemen:—In reference to your letter of inquiry as to our opinion of the merits of the Four C cutting machine which has been in use in our plant some time, we are glad to state that we have found the machine to be practical, efficient and a labor saving device in the cutting of Eskimo Pies.

The machine as you know is made right here in Anderson at the plant of the Computing Cheese Cutter Company. We have had one of the first machines which they built, and from the practical operation in our plant they have had an opportunity to make some changes to increase the efficiency of the machine. This is true, with reference to the interchangeable head by which all operations were performed on the one unit cutter, necessitating the removing of one cutter for the quart brick and substituting the cutter for the 8 small pieces. This has been done away with, by the two units separately and increasing the operating the two units separately and increasing the speed in operation. We cut our bricks in the cooler outside of the hardening room, and return the pieces to the hardening room, dipping them the following day. In this way the machine can be used at any time during the day that the ice cream maker can use to best advantage. It does not therefore require an extra employee for the operation of this machine.

Yours very truly,

Superintendent.

If you are having trouble cutting Eskimo Pies, — if your cutting is taking up too much of your time, if it is costing a lot in labor

Investigate the "FOUR C" Eskimo Pie Cutter

It computes the slabs into pints and then cuts the pints into pie size. (any size you want) 12,000 to 15,000 pies per day can easily be cut.



Machine complete ready for use—
$175.00
F. O. B. Anderson

Computing Cheese Cutter Co.

ANDERSON INDIANA

AGENTS OR SALES AGENCIES WANTED—WIRE FOR TERRITORY

WASHINGTON—MAINE

News From Far and Near

CALIFORNIA—FLORIDA

Conway, Ark.—A. H. White has purchased some property and is having a brick building erected there to house his ice cream manufacturing plant.

Bakersfield, Cal.—The Meadowland Creamery will install an ice cream department. Mr. Nelson is manager of the plant.

Hayward, Cal.—The Hayward Ice Cream Company recently moved into their new two-story brick building. The building is modern in every respect and large enough to allow for greater expansion of the firm. It was erected at a cost of $14,000. This firm began business about a year ago and in less than six months after starting, they were crowded for room on account of the growth of their business.

Huntington, Cal.—The Consumers Quality Ice Cream Company has been organized here with capital of $50,000. H. E. Wayland, Natalie B. and Emma Gould, all of Los Angeles, are the incorporators.

Los Angeles, Cal.—The Globe Ice Cream Company is the new corporation, with Will E. Keller as president; A. A. Comey, vice president and general manager; Marco Hellman, treasurer; J. M. O'Brien, secretary; these with C. A. Fellows and Carl Leonardt forming the directorate.

By June 1 of the present year the new company will be manufacturing ice, ice cream and sherbets in an entirely new and modern $400,000 plant.

Mr. Comey, the general manager, on whose initiative the new ice cream company was formed is a trained expert; and he is the cause of having incorporated in the new plant and its distribution methods all the improvements that have suggested themselves to him during his years in the business.

Special attention has been given to the perfection of all measures for sanitatíon in the plant and the exterior will be parked and gardened so that the total effect will be in harmony with the land of sunshine and flowers. It is proposed to make a feature of inviting the public to inspect the plant and guides are to be provided for this purpose.

As soon as the ice cream and ice plants are producing, Mr. Comey states, an additional catering plant for a general catering service will be built on the same location.

Redlands, Cal.—H. Hoffman, of the Model Creamery, has just established here a large ice cream factory, which will be devoted to making ice cream in quantities for wholesale distribution to this section, including the various mountain resorts. The latest type of machinery has been installed and it is planned by the middle of the summer to have an output of several hundred gallons per day.

Richmond, Cal.—Barikas Brothers, B. J. Clark and Frank Clark announce the purchase of the plant of the Polar Ice Cream Company.

San Francisco, Cal.—Announcement of the reorganization and incorporation of the Miller Ice Cream Company of Oakland was made recently by F. E. Miller, formerly sole owner of the company. Miller was elected vice-president and general manager of the new company, with Will E. Keller of Los Angeles as president and A. S. Hopwood of Oakland as secretary.

Under the new incorporation the company will have a capitalization of $500,000.

During the last 16 years that the Miller Company has operated in Oakland there has been a rapidly growing expansion of its business, according to Miller, last year's output of some 400,000 gallons promising to be increased this year to about 700,000 gallons.

Santa Rosa, Cal.—S. Harrison, assistant manager of the Acme Ice Cream Company, San Francisco, states that his firm is contemplating building a plant here.

Tulare, Cal.—The Armour Company, manufacturers of ice cream, has sold its business to Clarence Shirk, a local business man. The latter took possession recently.

Washington, D. C.—The Chapin-Sacks Corporation will open branch ice cream plants at Winston-Salem, Greensboro, and High Point, North Carolina, in the near future.

West Palm Beach, Fla.—The Palm Beach Creamery Co. has purchased property here on which to build an ice cream plant and milk depot. Mr. Alf. R. Nielson is president of the concern.

Rome, Ga.—Donald C. Hancock has purchased an interest in the Purity Ice Cream & Creamery Co. and it is announced that he will become general manager of the business.

Mr. Hancock is well known in Rome, where he was engaged in the ice manufacturing business. Recently he bought a large ice plant at Canton. It is understood that he will have complete control of the ice cream and creamery business here and will make extensive expansion especially in promotion of the creamery business.

Chicago, Ill.—The Armick Ice Cream Company of this city has been dissolved.

Collinsville, Ill.—The Champion Milk and Ice Cream Company have remodeled a building here and began the manufacture of ice cream recently. They will also deal in other dairy products and have a very modern plant.

Clinton, Ill.—The new two-story brick building with full basement to be erected by the Clinton Ice Cream Company, was commenced recently.

East St. Louis, Ill.—The Highland Ice Cream Co. is building three additions to their plant at a total estimated cost of $75,000. Mr. A. Range is president of the concern.

Galena, Ill.—The Galena Citizens Ice Co. opened its new ice cream department recently. This is a very well equipped ice cream plant. It is strictly sanitary in every way, with cement floors, all the wood work white enameled and the machinery is enameled or nickel plated over copper. The plant has a complete laboratory for making every test.

The capacity is 600 gallons per day. L. H. Barrett is the manager of this department and with his experience in this line will make it a successful venture.

Hillsboro, Ill.—S. W. Andrews, of Greenville, was in Hillsboro recently arranging with L. L. Walcher to open their ice cream factory at Hillsboro, which they hope to have ready for business on April 1st.

This firm expects to buy milk and manufacture ice cream exclusively. At a later date they expect to enlarge their plant and take up other dairy work.

Streator, Ill.—M. C. Coppin's ice cream plant is almost finished.

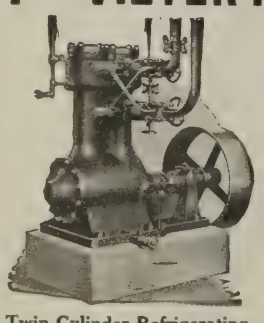
Elkhart, Ind.—The Elders Ice Cream Company will open branch plants at Goshen and Warsaw.

A new ice cream plant will be started here by the Goshen Ice Cream Company.

Fort Wayne, Ind.—The Muldoon Dairy Company is building an ice cream plant. Andrew Muldoon is general manager of the plant.

Wallas, Ind.—Messrs. Jones and Buell have opened a retail ice cream plant. They will make their own ice cream.

THE VILTER MFG. CO. 830 Clinton St. Milwaukee, Wis.



Twin Cylinder Refrigerating Machine,

You are NOT prepared to handle your Season's Trade until you have installed a

VILTER Refrigerating Machine

If interested write for bulletins.

ICE CREAM DISPENSERS CATALOG

We have issued an illustrated price list for ice cream dispensers containing twenty-four pages of illustrated up-to-the minute supplies used by ice cream manufacturers, confectioners, druggists, and candy shops. The most complete ice cream dispensers illustrated price list ever issued.



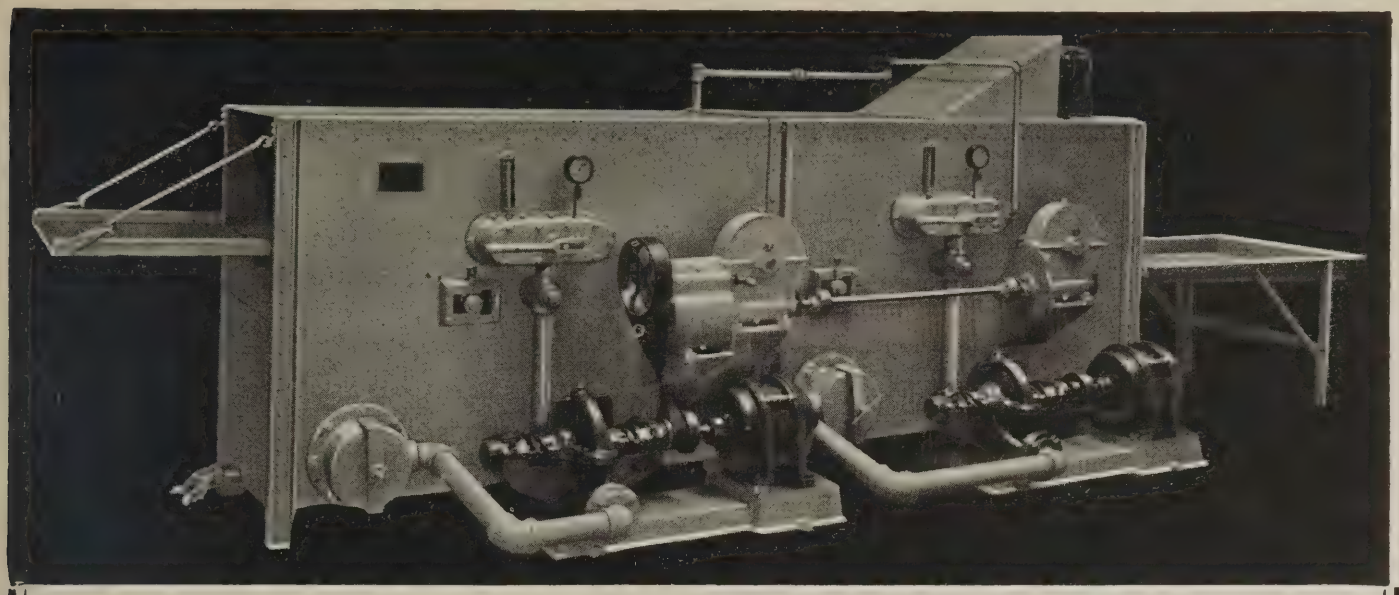
Write us today for copy

B. RILEY, HAUK President

Dairymen's Mfg. and Supply Co.

403 NORTH MAIN ST.

Saint Louis, Mo.



Progress Pressure Ice Cream Can Washer

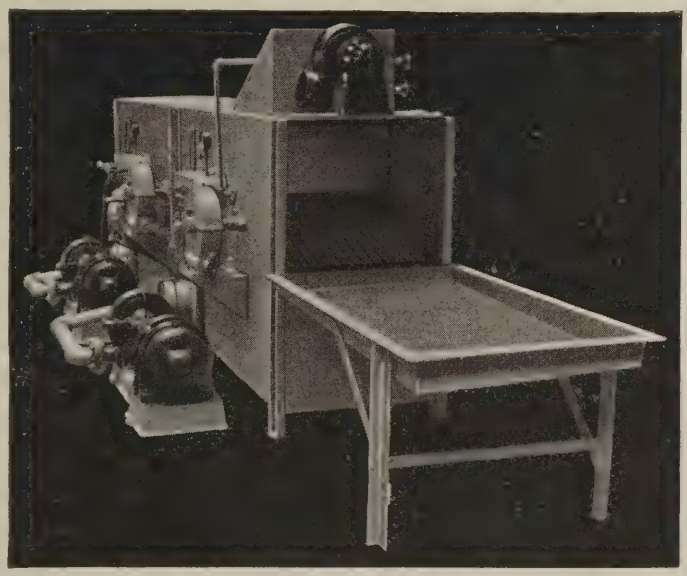
MADE IN TWO SIZES

Here is a machine which will wash, rinse and sterilize ice cream cans and covers. All sizes may be fed into the machine, just as they come in on the wagons. You simply dump them onto the platform, at the receiving end (to the left in the picture), and the automatic feed carries them through the machine in a satisfactory manner for a thorough cleaning.

Capacity—The two-compartment washer, as shown in the illustration, has a capacity of ten cans and covers per minute on high speed, and six cans and covers per minute on low speed. The larger size has three compartments and three pumping units. It will handle fifteen cans and covers per minute on high speed, and ten cans and covers per minute on low speed.

Compartments — In the two-compartment machine, the first is for washing with solution; the second is for rinsing and sterilizing. In the three-compartment washer, the first is for washing with solution; the second for rinsing; and the third for a second rinsing and sterilizing.

Floor Space—The Number One machine consists of two six-foot sections. It requires a floor space five feet five inches wide, by eighteen feet long. The Number Three machine is the same width, but requires an additional six feet in length to cover the third compartment.



Strong, Substantial Construction

Being constructed in sections, the Number One machine can be easily converted into a Number Two machine at any time, by simply adding the extra section.

Construction of Tanks—The tanks are 3/16 inch rustless boiler steel, with all seams riveted and calked. The bottoms are pitched so as to readily drain to suitable three-inch perfection gate outlet.

Pumps — One pump is required for each compartment. These are of the split-shell type. Each pump has a capacity of one hundred gallons, with a nozzle pressure of 25 to 30 pounds.

Motors—Each pump is direct connected to a General Electric 1800 R. P. M. 50 degree motor, with flexible coupling. Both pump and motor are mounted on suitable cast iron sub-base. No extra motor is required to operate the machine, as transmission for the same is direct by belt drive from the motor on the solution compartment.

Covers—Each compartment is fitted with removable cover. If desired, the sterilizing department may be equipped with motor blower for removing the exhaust steam.

Special Features — Complete explanation along with the detail plan drawings and any additional information you are interested in having can easily be secured by addressing our nearest sales office.

Davis-Watkins Dairymen's Mfg. Co.

710 West Jackson Blvd., Chicago, Ill.

BOSTON, MASS., 498 Main St., Charlestown
JERSEY CITY, N. J., 122 Morgan St.
KANSAS CITY, MO., 727 New York Life Bldg.
DENVER, COLO., 1528-30 Blake St.
SAN FRANCISCO, CALIF., 242 Jackson St.
SEATTLE, WASH., 326 Railway Exc. Bldg.

IT IS EASIER TO GIVE ADVICE THAN TO LEND A HAND.

Arlington, Ia.—The Hutchinson Ice Cream Co. of Cedar Rapids recently opened a factory here. The local plant will be under the management of John Rupert of Cedar Rapids, who has had considerable previous experience in the Cedar Rapids plant. Mr. Hutchinson, president of the company, also made arrangements for the building of an ice house in connection with their plant here. The company is planning on serving a much larger territory from their plant at this place this year than was handled last year.

Charlton, Ia.—L. P. Douglas, who for some years has been at the head of the local home office of the Douglas Ice Cream Company, with houses in several neighboring county seat towns, has accepted a position as sales manager of the Vital Products Co., Des Moines.

The Douglas Company here will be under the management of Ray Adams, who has for about a year been actively associated with the firm. Mr. Douglas will continue to hold an interest in the plant.

Dexter, Ia.—Dexter made ice cream will soon be for sale due to the recent purchase by the Blohm cafe of a new ice cream machine. This machine will make it possible for them to manufacture all the ice cream used in their cafe. They have purchased the machine with the idea of using it for their own use and unless they change their plans they will manufacture exclusively for their own trade.

Eddyville, Ia.—Frank Reed, who for several years has been employed at Shadeland farm, is engaging in business for himself. Mr. Reed has rented and remodeled a building, making it sanitary and convenient.

Mr. Reed is an energetic worker; he has the hearty support of the trade, and with the co-operation of the cream producers he can create a worth while industry.

Fairfield, Ia.—The Hartman Ice Cream Company has just finished the installation of the most approved and efficient machinery for making frozen dainties.

The entire plant has been rebuilt, new floors laid, a new condenser and brine tanks installed and the new brine freezer is on its way.

There also is a new refrigerator in the front office where ice cream and sherbets are kept for the retail trade, and all the interior is to be finished in white enamel.

Cleanliness and sanitation are the keynote throughout the factory.

The factory will have ample capacity to take care of the local trade and also to supply a branch house which is just being established at Eldon from which shipments will be made to local points there.

Humboldt, Iowa.—The Humboldt Creamery Company has been making extensive improvements to their plant, planning to make an expenditure of over $2,000 for this purpose. They will install a viscolizer, a two hundred gallon holding vat and a two hundred gallon mixing vat in their ice cream department.

In addition to the ice cream department, this company has a creamery and a poultry and egg department.

Maquoketa, Ia.—The new ice cream plant which is being built by Kirchoff Brothers is nearly completed.

Newell, Ia.—Newell Creamery Company is having plans drawn for a handsome two story brick building to be put up in the business section of town.

Webster City, Ia.—The Webster City Ice Cream Company is to engage in business here.

H. C. Forrester, state dairy inspector, who will manage the concern, is now upon the ground supervising the work of remodeling a building. A concrete floor has been laid on the first floor and sewer connections are being made. In the basement will be placed the ice crusher and boiler.

On the first floor will be located the churn, the ice cream freezer and the wrapping room. The front part of the building will be used for an office.

It will be probably thirty days before the machinery will be in order and the place ready to run. It is proposed to turn out 2,500 gallons of ice cream per day. Butter will also be manufactured. The cream from the surrounding country, it is hoped, will supply the butter, but that for the ice cream will all be shipped from Waterloo to the ice cream factory here for the making of ice cream.

Winfield, Ia.—Doyle Shy has bought an up-to-date ice cream making outfit for his own use. Mr. Shy feels that he can give his large trade a better article with his new undertaking, and also protect himself in supply and demand. Whether he will undertake to supply other confectioners with cream and ices is not known at present.

Cherryvale, Kan.—The Bennett Ice Cream Co. was incorporated here recently with capital stock of $13,000.

Colby, Kan.—The ice cream factory will soon be ready to start.

Hutchinson, Kan.—The Cloverdale Dairy and Ice Cream Co. is installing a new ice cream machine to take care of the increase in the ice cream business.

Pittsburg, Kan.—With the purchase of the Gerhard ice cream plant, part of which will be moved to Pittsburg, and the addition of new and modern equipment, the Pittsburg Candy Company will have one of the most modern and best equipped ice cream plants in the southwest.

Stratford, Ky.—Howard Newland, proprietor of The Princess, is now making ice cream wholesale and capable judges say it is the finest ever. He has put in a plant with a capacity of 100 gallons daily and is ready to supply the merchants and others of Lincoln and adjoining counties.

Alma, Mich.—An ice cream plant is to be opened here by the Connor's Ice Cream Company of Owosso.

Bay City, Mich.—A branch of the Freeman Dairy Company of Flint has been established here.

Coldwater, Mich.—Clisbe and Brown have opened a wholesale ice cream plant here.

Grand Rapids, Mich.—The Hookstra Ice Cream Company is installing a new hardening room.

Jackson, Mich.—The Fleming Ice Cream was recently incorporated here with capital stock of $100,000. The incorporators are R. E. Fleming, Jay C. Fleming and Mrs. K. E. Fleming.

Kalamazoo, Mich.—The Beatty Ice Cream Company has opened a plant in the building formerly occupied by the Blue Ribbon Ice Cream Company.

Norway, Mich.—A new 60x80 one story brick and tile building is being constructed here to house the growing business of the Asselin Creamery Company. The new building will be equipped with all that is new and modern in creamery machinery, including a high-grade refrigerating plant of large capacity. The old plant will also remain in use, and both plants, together, will have a daily capacity of 2,000 gallons of ice cream and 6,000 pounds of butter.

Mr. Asselin states that the erection of the new building was necessitated by the growth of the business. In 1919, when Mr. Asselin secured control of the plant of the Norway Creamery Company, the yearly output of the plant was 50,000 pounds of butter and 25,000 gallons of ice cream. Under his management this output was increased in 1921 to 250,000 pounds of butter and 25,000 gallons of ice cream. During 1922 he plans to increase the output twenty-five per cent. The present daily output is 500 gallons of ice cream and 4,000 pounds of butter.

The butterfat used represents the product of about 4,000 cows.

Saranac, Mich.—The Saranac Ice Cream Company recently began the manufacture of ice cream.

Bemidji, Minn.—A meeting of ice cream makers of Minnesota was held here recently.

St. James, Minn.—The Purity Ice Cream & Dairy Co., one of the most progressive concerns of this city, are installing a larger churn for their butter business, and are also planning to enlarge their building by an addition to the rear, so as to enable them to install an eight-ton icing machine in place of their old three-ton machine, which is too small for their needs.

New Albany, Miss.—The ice cream plant now occupies a new building and have added more modern machinery.

Jackson, Miss.—New 300 gallon vats have been installed in ice cream plants at Macon, Lexington, Columbus, Aberdeen, and Kosciusko, Mississippi, and new churns have been installed in the last three of these plants. Columbus also has a new homogenizer. A 500 gallon vat was installed in the plant at Laurel.

Tupelo, Miss.—The McLeran Ice Cream Company has installed a new 500 gallon vat.

West Point, Miss.—The King Ice Cream and Creamery

If You Make ESKIMO PIES

you can increase your output—increase your profits make better Pies by using

The ECONOMY Ice Cream Cutter

Simple to operate—Durable — Saves time and labor—Cuts quart bricks into 16 equal parts for Eskimo Pies and 8 equal parts for Parties and Banquets.

Compresses edges, cuts a nice smooth surface and saves Chocolate.

Machine is made of Aluminum and Brass. Easy to keep clean.

We have so much confidence that this is the cutter you want we will ship to any point in the U. S. A., on ten days trial C. O. D. or on receipt of price $85.00 F. O. B. Salina, Kansas.

Patent applied for.

LORENSON & RAPLEE MACHINE WORKS

SALINA *Reference—Farmers National Bank* KANSAS



Let's Get Acquainted

YOU use Gelatine—we make it. You want the best and purest—we can furnish it. Our methods of manufacture insure the highest degree of purity and give us UCOPCO GELATINE unsurpassed for stabilizing qualities. Our interests are mutual, so let's get acquainted.

There is a grade for every purpose. Write us.

If you attend the National Confectioners' Association Convention call at our Exhibit at the Coliseum — Space 104.

THE UNITED CHEMICAL & ORGANIC PRODUCTS CO.

4200 S. Marshfield Avenue
Chicago, Ill.

401 E. 45th Street
New York, N. Y.

"UCOPCO Comes Sealed in Red Drums"

Ucopco Pure Food Gelatine

Company have remodeled and repainted their plant, and have ordered a new churn.

Meridian, Miss.—The Sealle-Lilly Ice Cream Co. have purchased a building here and are remodeling it for an ice cream plant.

Brashear, Mo.—Fervid and John Scott have started an ice cream factory here. They are using electrically driven power freezers, and expect to put out a first class product.

Kansas City, Mo.—The erection of a one million dollar dairy products plant in Kansas City, Kansas, this summer is being contemplated by the Co-operative Dairy Association, an organization embracing a membership of 1380 milk producers in territory surrounding Greater Kansas City. The association will manufacture ice cream as a part of its business.

St. Joseph, Mo.—The Green Ice Cream Co. recently completed preparations and began operating their plant. Mr. O. D. Miller is manager of the new plant.

Marshall, Mo.—Contract has been let and work begun on the building for the Missouri Ice Cream Company, recently organized. The principal investors are W. A. Sparks and Thomas Rumans.

With the building completed and fully equipped ready for business this enterprise will represent an investment of approximately $15,000.

St. Louis, Mo.—Dorr and Zeller have opened a large modern factory here. Half of the building will be used for manufacturing ice cream and the balance as a catering shop.

West Plains, Mo.—The Coca Cola Bottling Company will soon start an ice cream plant here. S. W. Paris is the manager.

David City, Neb.—J. L. Case, of David City, is preparing to open a wholesale business for the manufacture of ice cream at Wymore.

McCook, Nebr.—McCarty Brothers have sold their ice cream plant here to Claude Miller, who has taken possession.

Norfolk, Neb.—The Lewis Ice Cream Company has opened a factory at Norfolk for the manufacture of ice cream exclusively. This plant will have a capacity of 1,000 gallons a day. It is owned by Lewis Bros. Thomas Lewis is the manager.

In the fall the company intends to erect a new brick building and install a modern plant to take care of their product.

CHOCOLATE COVERED
Ice Cream

Everybody wants it
Everybody buys it

The finest and best results may be obtained by using the following:—

Klondike Star Milk Chocolate
Klondike Milk Chocolate
Ice-Kreme Kote Chocolate

These WILBUR coatings are manufactured only with PURE COCOA BUTTER and the very finest raw materials. Tested to insure very thin dipping. No waxy after-taste. May be used either for machine or hand dipping. Bright in lustre.

Made in the same careful way as the celebrated Wilbur Quality Coatings and Liquors.

Send for samples

H. O. WILBUR & SONS INC.,
Philadelphia, Pa.

Auburn, N. Y.—The Dairymen's League Co-operative Association has opened its first ice cream plant here.

Cortland, N. Y.—The Cortland Ice Cream Company have begun the erection of an addition to their plant.

Jamestown, N. Y.—Peterson, Tibbett and Bufton have started an ice cream plant here. All three men were formerly in the employ of Harris Bros.

Middleton, N. Y.—Smith & Clark of Wilkes-Barre, Pa., have merged with the ice cream plant of Chas. Brunkhurst of Middletown.

New York, N. Y.—The Eskimo Manufacturing Company has been incorporated here with capital stock of $20,000. H. H. Rudloff, A. A. Stading and L. Friedland are the incorporators.

New York, N. Y.—The Manhattan Victory Ice Cream Corporation has been incorporated here with capital stock of $10,000. M. Napoli, L. Kotok, and I. Rindone are the incorporators.

Niagara Falls, N. Y.—The Grambo Ice Cream Company, Inc., is erecting a new two-story addition to its present plant, at an estimated cost of $30,000.

Norwich, N. Y.—The Norwich Ice Cream Co. has increased its capital stock from $50,000 to $100,000.

Utica, N. Y.—Joseph Zimbero will conduct an ice cream plant here under the name of the Sunshine Ice Cream Company.

Yonkers, N. Y.—The Westchester Ice Cream Company intend to remodel their plant and install new equipment.

Whitesboro, N. Y.—M. C. Copeland has sold his ice cream business to the Ideal Ice Cream Company.

Ahoskie, N. C.—Z. V. Bellamy will soon begin the operation of an ice cream plant to supply the counter trade in his drug store; he also expects to branch out into wholesale work.

Mebane, N. C.—W. S. Crawford, secretary of the chamber of commerce, is interested in establishing an ice cream, creamery, and ice plant here.

Minot, N. D.—O. A. Amundson, manager of the Bridgman-Russell Creamery at Jamestown and president of the Jamestown Chamber of Commerce, was elected president of the ice cream dealers' branch of the North Dakota Dairymen's Association which closed its three day session at Minot recently. The other officers of the ice cream branch of the association are: Vice president, S. J. La Due, Minot; secretary-treasurer, G. B. Caraway, Fargo. The executive committee consists of R. F. Bridgeman of Grand Forks and N. O. Hefte of Devils Lake, and the officers.

Velva, N. D.—A. F. Lange has sold the Velva Creamery to C. Hinkle of Athens, Wis., who expects to arrive here soon. Mr. Hinkle intends to operate an ice cream factory in connection.

Cleveland, O.—The Frizzell Ice Cream Company was recently incorporated here with capital stock of $10,000. Ralph E. Frizzell and Robert E. Kershaw are the incorporators.

Cleveland, O.—The Peerless Ice Cream Co., newly incorporated, recently began the manufacture and distribution of ice cream in Cleveland.

The plant has a capacity of 6,000 gallons a day. The product is to be distributed through retail stores and by delivery to homes.

Isadore Budin is president; Albert Joseph is secretary and treasurer, and Harry D. Zirker sales manager.

Hamilton, O.—The Ohio Ice Cream Company, of Hamilton, is opening a plant at Anderson, Indiana, under the name of the Anderson Ice Cream Co.

Hamilton, O.—A new plant will be opened here shortly under the name of the McGregor Ice Cream and Cold Storage Company.

Johnston, O.—James St. John states that he has completed the placing of the machinery in his new ice cream plant at his farm, and has begun to make ice cream. He has a very complete and modern plant, and will use the cream from his own dairy for making his cream.

McConnelsville, O.—L. D. Eveland, proprietor of the Eveland restaurant, expects to engage in the manufacture of ice cream for retail and wholesale trade in the county. Mr. Eveland has done considerable experimenting in the making of cream and has succeeded in producing a high grade quality.

Norwalk, O.—The Norwalk Dairy Co. is installing a modern ice cream freezing department. Under the new system the cream will be frozen through the use of brine instead of cracked ice. This with the installation of a modern storage room for ice cream, will put the local plant on a level with the best plants of larger cities.

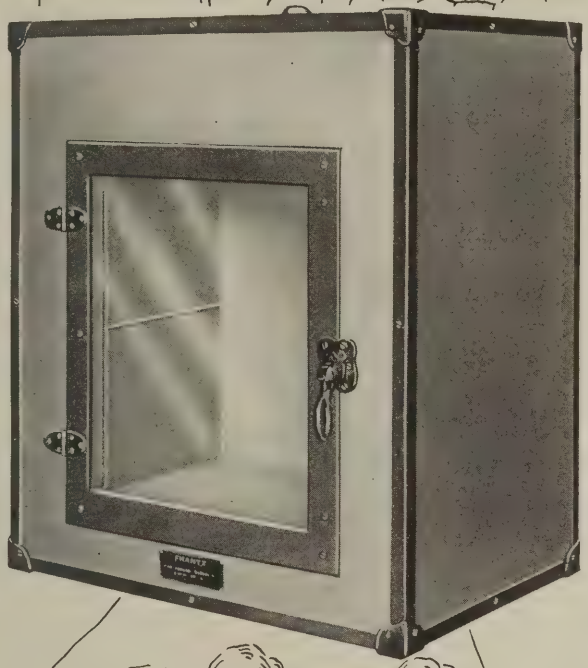
Youngstown, O.—The Isely Dairy Company is opening branches in Salem, Warren and Sharon, Pa.

Muskogee, Okla.—The Muskogee Ice Cream Company has increased its capital stock from $50,000 to $75,000.

Muskogee, Okla.—The Toasted Alaska Corporation of



WHY HIDE YOUR PRODUCT *behind your dealer's counter?*



YOU spend a lot of money on cartons to attract the consumer of ice cream; you spend still more money, for advertising, to influence him to find his way to your dealer's. And then you HIDE your product in those attractive packages behind your dealer's counter!

Think of the people that make daily trips to your dealer's store who could be easily influenced to take home a package of your ice cream if the product were in full view as other purchases are being made.

The Frantz Ice Cream Counter Display Case

(Patented Feb. 1922)

now makes it possible to display an inviting array of package ice cream or chocolate coated ice cream bars, right on your dealer's counter, retaining the original temperature of the cream for 48 hours without re-icing.

The Frantz Ice Cream Counter Display Case operates on the same principle as our low temperature household refrigerating system and was developed at the request of several ice cream manufacturers who realized the tremendous advantage of constantly displaying their product instead of burying it in the old-fashioned, unsanitary and inaccessible cabinet.



Display your product— and sell more

Write for Complete Information and Prices

FRANTZ REFRIGERATION CO., Inc.

406-16 N. Front St. FRANTZ International Refrigeration **READING PA.**

America was organized here recently. The incorporators are Wm. L. Lindbard, Chas. A. Berry, and Oliver E. Cramer.

Welectka, Okla.—Prothro & Son have opened an ice cream factory here.

Guelph, Ont.—Yates and Thomas are completing a large modern wholesale ice cream plant here.

Blairsville, Pa.—The Nelson Ice Cream Company, with plants at Portage and Newport News, has leased the packing plant of T. C. Brown here, and when necessary alterations are made, will make their main plant here. Machinery will be installed within the next few weeks, and when operations are begun in full the plant will have a capacity of one thousand gallons a day. The big factory will use all the surplus cream in this community, and because of the excellent shipping facilities here it will be the center of shipping for the Nelson company in this district.

Danville, Pa.—The McClow Ice Cream Company of Shamokin has purchased a former brewery plant here and will convert it into an ice cream plant.

Bradford, Pa.—The Walter Noilly Ice Cream Company is enlarging its plant.

DuBois, Pa.—Smith Brothers are planning on building a new ice cream plant.

Harrisburg, Pa.—Improvements are being made at the plant of the Hershey Creamery Company to take care of the increased demand for ice cream which, Hershey said, almost reached the summer sales record during a week of warm weather.

Larger ice cream freezers are being installed and the refrigerating facilities are being almost doubled. The improvements are to be completed in about sixty days.

Harrisburg, Pa.—Vast improvements are being made at the plant of the Hershey Creamery Company to take care of the increased demand for ice cream which, Hershey said recently, almost reached the summer sales record.

Larger ice cream freezers are being installed and the refrigerating facilities are being almost doubled. This makes possible a larger output of ice cream and the refrigerating and storage rooms have been enlarged to take care of this increased production. The improvements are to be completed in about sixty days.

Honesdale, Pa.—Gammell & Kimble will erect a two story brick building, construction to begin at once, to enable them to take care of their fast growing ice cream business. The new place will have a capacity of 500 gallons of ice cream a day and with additional equipment double that amount will be handled easily.

The ice cream will be manufactured on the first floor while the second will be used for salt and material storage. Convenient arrangements will enable the enterprising concern to make their product with minimum amount of labor.

Middleton, Pa.—Ardel Light, formerly of this place, but a recent resident of Elizabethtown, recently purchased the ice cream manufacturing machinery of Stype and Cain.

Light will remodel a building here and expects to be open for business shortly.

Clymer, Pa.—The Clymer Dairy Products Company was recently organized here with capital stock of $15,000. The firm is putting up a new building which will be completed in about three weeks. This company will make butter and ice cream and handle dairy products generally. A dairy plant is a new undertaking in this community, but the prospects look good, and the promoters are enthusiastic about the business.

Pottstown, Pa.—Ground was broken here recently for a $60,000 addition to Burdan Bros. ice cream plant.

St. Marys, Pa.—The Shaffer Ice Cream Company, which recently purchased the plant and good will of Hedberg and Co., is growing rapidly.

A number of alterations have been made by the new manager. A new refrigerating machine has been installed. A new 100 gallon mixer, and the added freezing facilities gives the plant a capacity of 500 gallons of ice cream a day.

Mr. Shaffer has had 15 years' experience in the ice cream business, and knows the business from both ends. Later on in the season he expects to institute family service, When ice cream will be delivered to families in any part of the town.

Scranton, Pa.—The plant of the famous Sheffield Farms Dairy at Middletown, N. Y., has been acquired by the Smith & Clark Company, of Scranton and Wilkes-Barre, manufacturers of Smith's ice cream.

Shamrock, Pa.—Breyer's Ice Cream Co., of Philedelphia, will erect an $80,000 milk station and ice cream plant here.

Stroudsburg, Pa.—Smith and Clark of Wilkes-Barre, Pa., have taken over the White Ice Cream Company and are making extensive alterations on the plant.

Washington, Pa.—The Carothers Dairy Company has established a branch or service station in Waynesburg, from which all of Greene County will be served with the Carothers ice cream and ices. The new branch will be in charge of Thomas Griffin, who has been in the employ of the Carothers company in Washington for the past three years.

The Carothers Dairy Company has enlarged considerably during the past year, and its products are sold over a large area. Last year a service station was established in Carnegie, which has been very successful. This, with the Waynesburg station, makes an area of about 50 miles that is covered.

Williamsport, Pa.—Mr. Chris. Frey, proprietor of a small ice cream plant here, is remodeling an adjacent building and will use it in his business.

Wilkes-Barre, Pa.—The M. & G. Ice Cream Company of Allentown, was granted a permit to erect a service station on Scott Street, East End. It is to cost $11,000.

Youngsville, Pa.—The Miller Ice Cream Company, of which Tony Miller is proprietor, is building an addition to the present plant.

Providence, R. I.—The Kelley Ice Cream Company is building a new one-story brick plant.

Chester, S. C.—The Gastonia Ice Cream Company have purchased an 8-ton belt driven York refrigerating machine.

Memphis, Tenn.—W. H. Fortune, manager of Fortune's Ice Cream Plant, is going to install a 12-ton York belt driven refrigerating machine.

Nashville, Tenn.—Union Ice Cream Co. are having plans prepared for a three story, brick and reinforced concrete factory to cost approximately $200,000.

Sweetwater, Tenn.—Machinery has been installed in the cold storage building of Chapin-Sacks Corporation, recently completed, and the firm is now manufacturing ice cream.

Austin, Tex.—The Meyer Dairy Company is to establish an ice cream plant here which will be in operation in about six weeks. Mr. Meyer, founder of the Meyer Dairy Company, was formerly with the Austin Ice Cream Company.

Corpus Christi, Tex.—The Cloverdale Ice Cream Company has increased its capital stock from $25,000 to $50,000.

Lubbock, Tex.—The Lubbock Creamery is beginning the remodeling of the building at the corner of 1st Avenue and 14th Street, in which place they expect to install one of the most modern ice cream factories and cold storage plants in this part of the state.

(Concluded on page 164)

"Insulation is the thing"

STOUT



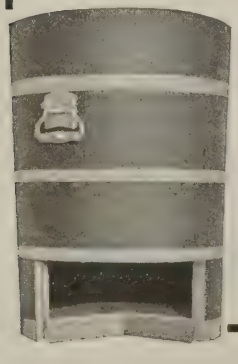
Schroeder Perfection Cabinets

Tub Lined — insulated with fine regranulated cork — packed by our process which actually effects "complete" insulation.

Metal Lined — insulated with "baked" pure cork board—the "baked in air" in the cells conserving the "perfect" insulation values of the board.

Stout Cedar Tubs

Close grained, treated to resist water absorption and rough usage.
Lighter weight than others.



SEE THAT PROJECTING BOTTOM—IT IS DOUBLE

Bottom projecting below staves protects them against careless dropping. Furnished plain, painted or oil treated.

We Guarantee Satisfaction and Prompt Shipment.

Stout Manufacturing Company
375 Broadway—Milwaukee, Wis.

PROF. BAER'S INQUIRY DEPARTMENT.

(Continued from page 56)

Dear Sir:—I obtained a formula recently, which I would like to have you pass on, if you will be kind enough.

For a 30-gallon ice cream mix: Thoroughly dissolve 13½ pounds powdered skimmilk in 25 gallons 12 per cent cream (place powder on top of cream and whip in with bakers' whip). Then add 33¾ pounds sugar and 2 pounds gelatine dissolved in seven-eighth gallon water. Flavor and freeze.

Will this test out 9.5 per cent butterfat and 33.5 per cent total solids. A. I. C. CO.

Reply: I am giving you below in Table No. 1 my analysis of this mix. You will notice that the final result of the per cent of all ingredients is very nearly what you expected it would be.

Table No. 1.

Ingredients	Fat	Serum Solids	Total Solids
25 gal. 12% cream, 210.0 lbs.	25.2	16.47	41.67
Skimmilk powder, 13.5 lbs.	....	12.82	12.82
Sugar, 33.75 lbs.	....	.....	32.06
Gelatine, 2.00 lbs.	....	.....	1.90
Water, 7.30 lbs.	....	.....	.....
266.55 lbs.	25.2	29.29	88.45
Per cent	9.47	11.0	33.2

* * *

Dear Sir:—Below is the formula for mix we are using now. Our ice cream has a good body and holds up well with this exception. When not kept perfectly hard, becomes sort of sticky. In transferring or dishing it sticks more or less to anything used in the operation.

Ingredients	Fat	Serum Solids	Total Solids
125 lbs. sugar	....	.....	118.7
8 lbs. gelatine	....	.....	6.0
600 lbs. milk 3%	18.0	52.4	60.4
109 lbs. butter 84%	92.0	.....	92.0
50 lbs. milk powder	....	48.0	48.0
108 lbs. water	....	.....	.....
1,000 lbs.	110.0	100.0	325.1
Per cent	11.0	10	32.5

We use a viscolizer, run it at 1,300 pounds after having been heated to 145 degrees and held 30 minutes. We run gelatine and all through the viscolizer. Would that make any difference?

If you can suggest any change in this would appreciate your doing so. C. & A.

Reply: I have your letter of November 9th and I am glad to advise that on looking over your mix I am of the opinion that you are using too large an amount of gelatine. This large amount of gelatine is what makes the ice cream "sticky." You are now using, according to your formula, .8 per cent. You undoubtedly have a grade of gelatine which would produce good results if you used from .4 to .5 of one per cent.

I suggest that you try cutting down the gelatine and see whether your trouble is not eliminated.

* * *

Dear Sir:—A customer in trouble writes that he has been making ice cream using a formula of 5½ gallons, 25% butterfat cream, 7 lbs. sugar and vanilla to flavor, making a ten gallon batch. He finds this too expensive and, while his product is extremely rich, he believes he could get more customers if it were not quite so rich.

He would like to try about a 10% product. While we are not entirely familiar with the requirements it would seem that a 10% product would be pretty low in butterfat. We would be very gland to have you give us a little knowledge along this line, also give us formula

The Covers Are Insulated

There is absolutely no waste of heat or cold in the Manning Batch Mixer. Even the covers are insulated with heavy linofelt.

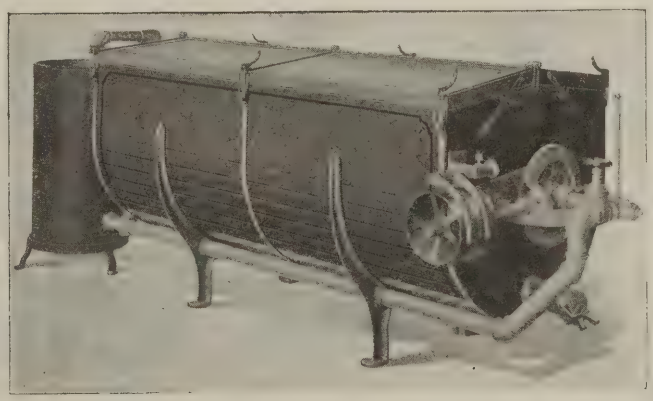
This feature, found only on vats of Manning construction, is just one of the many details that go far to make the Manning the most perfectly built vat on the market.

Ice cream manufacturers, everywhere, have found that they can depend upon the Manning.

MANNING EQUIPMENT

MANNING MANUFACTURING COMPANY

Rutland, Vermont U. S. A.



The First Cost,— Low as it is,— Is Practically the Last!

which would comply with requirements in the state of ——. W. K. J. Co.

Reply: If your customer is making ice cream entirely from 25% cream, sugar and flavor he is making a product which will test about 18 to 20% butterfat. Your customer must be a small manufacturer of ice cream, as I know of no large manufacturing concern which would make ice cream of that composition. The law of —— requires 8 per cent butterfat and most of the large manufacturers make an 8 per cent article.

I would suggest the formula for a 10% ice cream, but it probably would not be satisfactory to your customer unless he is familiar with the manufacture of a 10% product. It might be well to write to him and ask him whether, if the butterfat content is reduced to 10% he would want to increase the milk serum solids in the products. This would make it necessary to not only reduce his 25% cream with milk or skimmilk but also to use skimmilk powder or condensed milk to break up the serum solids. You might suggest to your customer that he write to me direct giving more detailed information, and I am sure that I can help him out in a satisfactory manner.

* * *

Dear Sir:—Will you please give me the following formulas for making a 14% butterfat ice cream, 35% solids, using the following ingredients: sweet butter, 189 pounds; skim milk powder, water and sweetened condensed skim milk containing 28 to 30% milk solids and 40% cane sugar.?

We use 7 lbs. of sugar to 5½ gallons of mix, 6 oz. of Purity ice cream powder and 1 oz. of gum and 3 oz. vanilla. We wish to use gelatine instead of gum.

We use a homogenizer and run the entire mix thru at 2,500 lbs. pressure at 160 degreese F.

The reason for giving the amount of butter at 189 lbs. is it is three tubs and that is all we can mix at a time as our mix is small.

We hold from 24 to 48 hours in the holding vat at from 40 to 45 degrees above zero.

Also please give us a formula to make a 14% ice cream, 35% solids, using 189 lbs. butter, skim milk powder, water and sweetened skim condensed milk, 32% solids and 44% sugar. The only difference in the first and second formulas is in the sweetened skim condensed milk. J. R. D.

Reply: You will find below in Table No. 1 the ice cream which you gave in your letter analyzed the best I could from the information which you gave me. I am also suggesting in Table No. 2 a similar formula made up with a different kind of sweetened condensed milk and skim milk powder.

Table No. 1.

Ingredients	Fat	Serum Sol.	Total Sol.
81.2 lbs. sugar	.....	.....	67.60
5.0 lbs. gelatine	.....	.....	4.70
200.0 lbs. sweet condensed	.....	56.00	136.00
189.0 lbs. 80% butter	151.20	.....	151.20
21.0 lbs. skimmilk powder	.....	20.00	20.00
593.8 lbs. water	.....	.....	.....
1080.0 lbs.	151.20	76.00	379.50
Per cent	14.0	7.0	35.0

Per cent sugar, 14.0.

Table No. 2.

Ingredients	Fat	Serum Sol.	Total Sol.
80.8 lbs. sugar	.....	.....	76.70
5.0 lbs. gelatine	.....	.....	4.70
160.0 lbs. sweet condensed	.....	51.20	121.60
189.0 lbs. 80% butter	151.20	.....	151.20
26.0 lbs. skimmilk powder	.....	24.80	24.80
619.2 lbs. water	.....	.....	.....
1080.0 lbs.	151.20	76.00	379.00
Per cent	14.0	7.0	35.0

* * *

Dear Sir:—Could you kindly advise me what the trouble is with my cream? My ice cream mix turns stringy when I add the gelatine.

I use a mix that tests about 20% butterfat. I add 9 lbs. sugar to a 10 gallon mix, finished, and ½ pound gelatine and 4 oz. vanilla. What do you think about this mix? I use nothing but sweet milk for reducing my cream, which tests about 35%. P. M.

Reply: The reason why your ice cream turns "stringy" when you add the gelatine is because the gelatine is not incorporated into the mix. You are trying to incorporate hot gelatine into a cold mix without having the gelatine hot enough and without giving sufficient agitation while you stir it into the mix.

You are undoubtedly making ice cream from raw materials without pasteurization for you would not have the trouble with "stringy" mix if you pasteurized it.

I suggest that you heat your gelatine a little hotter and then stir it into a part of the mix first so that it will not congela or become stringy and then add it to the remainder of the mix.

* * *

Dear Sir:—Do you consider that I would get as good an ice cream by using cream and skim milk powder, as by using a mix consisting of cream, milk, condensed milk and skim milk, as I find so many plants do?

W. D. D.

Reply: We have hundreds of factories that are using skimmilk powder instead of condensed milk and I know that they are having good results. It must be remembered, however, that the skimmilk powder should be the perfectly soluble product and have no "off" flavors.

SOUTHERN TINNING COMPANY
Johnson City Tennessee
RETINNERS

We solicit your correspondence and business on the basis of PROMPT SERVICE, BEST OF WORKMANSHIP AND MATERIAL, REASONABLE CHARGES AND THE SAVING WE CAN MAKE FOR YOU. We will gladly retin a sample can for you, free.

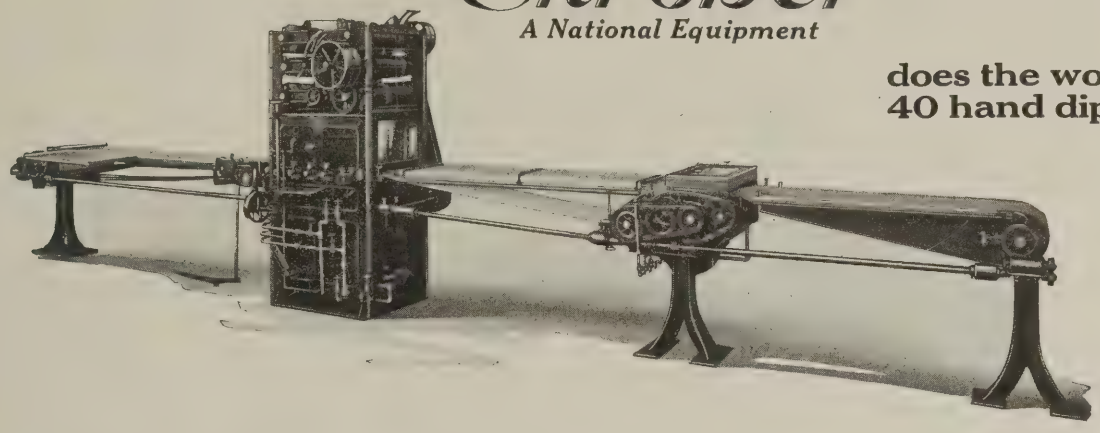
"WE MAKE NEW ONES OUT OF OLD ONES"

for chocolate coating ice cream

The Enrober

A National Equipment

does the work of 40 hand dippers



The Enrober method will make over 15 dozen ice cream chocolate coatings a minute, and is the fastest, cheapest and best way to coat this popular ice cream confection.
One complete Enrober and one 1000 pound melting kettle does the work of from 15 to 40 hand dippers more efficiently—uniformly—sanitarily—and with a big saving of time and space. The Enrober is a substantial, economical machine and is used by the largest chocolate coating candy manufacturers in the country.

We are prepared to give immediate service. Wire for particulars.

NATIONAL EQUIPMENT CO. *Largest Manufacturer of Candy and Chocolate Machinery in the World* **SPRINGFIELD, MASS., U.S.A.**

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The World's Best Food Gelatine

HAROLD A. SINCLAIR 160 Broadway NEW YORK

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"Price is a relative term—quality always a concrete fact."

A NEW PRICE BUYING BASIS

Among the new Standards set by Delft—aside from Purity and Freedom from Bacteria—is **UNIFORMITY.**

With **100 per cent** UNIFORMITY, the Buyer has a **guarantee** against loss and worry. Having this, we can figure the actual usage necessary and, at the price for a grade, give the actual per unit MIX. This proves that the **highest** grades are the **cheapest.**
Buyers should **forget** the **first** cost and buy the grade, which, at amount used, figures the cheapest.

We have scores of the wisest buyers now buying on this **new** price basis. It's a **revelation** to buyers—and it saves money for them.

MEMBER

Harold A. Sinclair

We have experimented quite a bit along this matter and we find that we get less flavor imparted to our ice cream by using powder than by using condensed milk.

* * *

Dear Sir:—Your letter and analysis at hand and greatly appreciated. In reply wish to say that we wish to have our fat and sugar run at 14% each. Last season we run our mix (80 gal.) as formula No. 1, as given below, but were advised we were low in fats and solids so we changed to No. 2, but this wasn't satisfactory so we appeal to you for your valued correction:

Table No. 1.	Table No. 2.
20 gal. 40% cream.	30 gal. 40% cream.
20 gal. 8% condensed milk.	30 gal. 8% condensed milk.
40 gal. 3.5% milk.	10 gal. 3.5% milk.
1½ gal. water.	1½ gal. water.
3 lbs. gelatine.	3 lbs. gelatine.
100 lbs. sugar.	100 lbs. sugar.
32 oz. flavor.	32 oz. flavor.

F. V. H.

Reply: I have your letter relative to your two ice cream mixes which you desire to have analyzed. I am glad to show you below in Table No. 1 and Table No. 2 the analysis of your two mixes:

Table No. 1.

Ingredients	Fat	Serum Sol.	Total Sol.
20 gal. or 158 lbs. 40% cream	63.20	8.46	71.66
20 gal. or 180 lbs. 8% condensed	14.40	32.40	46.80
40 gal. or 344 lbs. 3.5% milk.	12.04	29.55	41.59
1½ gal, or 12.5 lbs. water	.....	.....	.....
3.0 lbs. gelatine	.....	.....	2.95
100 lbs. sugar	.....	.....	95.00
2 lbs. vanilla	.....	.....	.30
799.5 lbs.	89.64	70.41	258.30
Per cent	11.2	8.8	32.28

Per cent sugar, 12.5.

Table No. 2.

Ingredients	Fat	Serum Sol.	Total Sol.
30 gal. or 237 lbs. 40% cream.	94.80	12.64	107.44
30 gal. or 270 lbs. 8% condensed	21.60	48.60	70.20
10 gal. or 86 lbs. 3.5% milk.	3.01	7.39	10.40
12.5 lbs. water	.....	.....	.....
3 lbs. gelatine	.....	.....	2.95
100 lbs. sugar	.....	.....	95.00
2 lbs. vanilla	.....	.....	.30
710.5 lbs.	119.41	68.63	286.29
Per cent	16.8	9.66	39.7

Per cent sugar, 14.08.

You will notice that your first mix tested 11.2% fat, about 32% total solids, a percent of sugar of about 12.5%. Your formula number two you will notice figures out almost 17% fat showing 14% sugar, and nearly 40% total solids. I notice that your formula number two contains 700 lb.mix. I am indicating in Table No. 3 a formula for 100 lb. of mix which I believe is balanced just about right for 14% butterfat and 14% sugar. In order to make up 700 lbs. similar to your mix in Table No. 2, all you will have to do is to multiply the ingredients by seven, or, if you wanted your total 800 lbs., as in Table No. 1, multiply by eight.

Table No. 3.

Ingredients	Fat	Serum Sol.	Total Sol.
14.0 lbs. sugar	.....	.....	13.30
.5 lbs. gelatine	.....	.....	.475
25.0 lbs. 8% condensed	2.00	4.50	6.50
27.2 lbs. 40% cream	10.88	1.45	12.33
33.3 lbs. 3.5% milk	1.16	2.90	4.06
100.0 lbs.	14.04	8.85	36.665

To make up 700 pounds, as per your Table No. 2, multiply all ingredients by 7—or for your Table No. 1, to get 800 pounds, multply by 8.

I trust that with this assistance you will have no trouble in keeping your mix exactly 14% fat, as you expect to have it. You understand, of course, that you will not have 40% cream every day nor will your milk test 3.5% continually. This will mean that you will have to vary the amount of cream and milk in order to give you 12 lbs. of butterfat which, added to the 2 lbs. which you have in your 25 lbs. of condensed, will make the 14 pounrs of fat.

If you continue to figure your mix on the 100 lb. basis you will notice that it tests 14% if you have 14 lbs. pounds of fat.

⚜

PORT ANGELES CREAMERY TO MOVE INTO NEW BUILDING.

About a year ago the Angeles Co-operative Creamery purchased from G. H. Ustler the business which he conducted under the name of the Port Angeles Dairy, and since that time has been operating the two plants separately. In their building, which is expected to be ready for occupation about June first, the two plants will be combined under one roof. This building is a 50 by 140 foot frame structure, with a concrete floor.

The capital invested, not including the building, is about $20,000. Directors are Albert Eacrett, president; John Winters, secretary-treasurer; R. H. Kidd, Frank Fisher and W. T. McFall. G. H. Ustler is manager.

The company will deal in milk, cream, butter and ice cream.

⚜

You'll make better ice cream if you get the "Ice Cream Review."

B-K
Bacili-Kl
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Universal Purifier
For the Dairy Industry

B-K has been accepted by the Dairy Industry as the Standard Sterilizing Agent. From farm to factory it is used to prevent bacteria from causing inferior dairy products. Farmers, manufactures, inspectors, physicians, health boards, and dairy schools agree that B-K fills an important need in the problem of maintaining greater purity of dairy products.

Such universal acknowledgment of the value of B-K can only be the result of exceptional merit backed by intelligent cooperation from our Laboratories.

It is our business and our pleasure to help you to better products and more profits.

Ask for Bulletin No. 320, telling How B-K is used to improve quality.

All Supply Houses carry B-K.

GENERAL LABORATORIES
MADISON, WISCONSIN
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Meeting a Standard

Sanitary standards in the ice cream plant—the severest test of quality and worth that can be applied to a cleaner—are being successfully met in thousands of plants on a basis of minimum cost of time, money, and effort, by the use of

Wyandotte
Sanitary
Cleaner and Cleanser

This cleaning service extends to every part of the equipment and processes, and is made possible by the high standard of quality required in every pound of "Wyandotte" Sanitary Cleaner and Cleanser before it leaves the factory.

Indian in Circle



in Every Package.

This cleaner never fails in its work. It is harmless and easy to use. It is pure and purifying and every grain is an active working particle to the last ounce in the barrel.

Your supply house will fill your order.

It cleans clean.

THE J. B. FORD COMPANY *Sole Manufacturers* Wyandotte, Mich.

KEYSTONE BRAND

Pineapple Specialties

In addition to the famous Orange Pineapple (the original), Keystone is now offering the following in No. 10 cans as well as in bulk:

Grape Pineapple ***Maraschino Pineapple (red)*** ***Lemon Pineapple***
Raspberry Pineapple ***Menthe Pineapple (green)*** ***Crushed Pineapple***

Tutti Frutti
In No. 10 Cans or Bulk

Buy this delicious preparation in No. 10 cans (or bulk) and you'll have the finest Tutti Frutti on the market. Priced reasonably.

Keystone Cold Packed Fruits
In Bulk

Peaches—Strawberries—
Red or Black Raspberries

Pure and rich. Our process enables you to use less per batch than with most others. Therefore most economical. A trial order tells the story.

Dept. IC-2

KEYSTONE FRUIT PRODUCTS CO.

CINCINNATI, OHIO

California and Southwestern States Ice Cream Mfrs' Ass'n

Proceedings of Seventh Annual Convention, Held in Stockton, California

THE California and Southwestern States Ice Cream Manufacturers' Association held its seventh annual convention in conjunction with the Pacific Slope Dairy Products Show in Stockton, on Dec. 5 and 6, 1921. The attendance was the largest ever known and the meeting was interesting from every standpoint.

Ice Cream Exhibit.

There were 24 samples of ice cream on exhibition and the gold medal was won by William Dreyer, Visalia, with a score of 95½, the silver medal went to Robert J. Dryden, Oakland, with a score of 95, and the bronze medal was captured by E. W. Chism, Reno, Nevada, with a score of 94 points, based on the following:

Ice Cream Score Card.

(Approved by Dairy Division, University of California)

Items—	Possible Score Pct.	Amount Allowed (1)	(2)	(3)
Flavor and palatability	50	46½	45½	45
Texture and body	25	24	24½	24
Appearance (color)	10	10	10	10
"A" Butterfat	5	5	5	5
"B" total solids	10	10	10	10
Total	100	95½	95	94
ANALYSIS.				
Butterfat, per cent		11.3	11.14	11.37
Total solids, per cent		36.0	36.3	40.03

"A"—A perfect score shall be allowed ice cream containing 10 to 12 per cent butterfat, inclusive. Deduct 1 point for each one-half per cent above 12 per cent. Less than 10 per cent score is zero.

"B"—A perfect score shall be allowed ice cream containing 36 per cent total solids or above. For each per cent less than 36 per cent deduct 2 points.

When the directors held an executive meeting at the close of the last regular session the following officers were elected:

President—L. W. Wilson, Fresno, manager Benham's Ice Cream Co.

Vice-President—C. J. Alfred, Los Angeles, manager Alfred Ice Cream Co.

Secretary-Treasurer—R. J. Dryden, Oakland, manager Kream of Kream Ice Cream Co.

* * *

CRITIC'S REPORT OF SCORING.

Last year there was some doubt in the minds of some of the ice cream manufacturers as to the value of a competition ice cream scoring contest, and as a result only fourteen manufacturers had entries. This year there exists a much different feeling, and twenty-four manufacturers made entries of their stock cream. Three gallons of stock vanilla constituted an exhibit. The ice cream was scored by C. J. Alfred, of Los Angeles, and S. L. Denning, of Oakland, and G. D. Turnbow, University of California, Davis, the same judges that scored the cream last year, and it is the general opinion of these judges that there was a very marked increase in the quality of the ice cream and there was also a very good indication that practically every sample of cream was stock cream.

The value of such a contest does not rest with simply the placing of the ice cream in this contest as it is conducted, in that as soon as the official scoring has been done, a score card with the criticisms is placed above each entry, and the manufacturers go over the ice cream in detail, and here they have a chance to compare their ice cream (if they are able to recognize it) with that of other manufacturers. This I consider to be the most valuable part of the contest. In one case that I know of, one manufacturer that had been cut a half a point on high color went over the ice cream and remarked that this ice cream should have been cut more because of its high color. He did not know at that time that he was criticising his own ice cream. This simply goes to show that we are not always absolutely sure of the product that we are making, and it is questionable whether your own product is always so outstanding as we sometimes think. I feel that the ice cream manufacturers have confidence in the value of such a contest and there is no doubt in my mind that if properly conducted in future it will be one of the interesting and important features at the ice cream convention, as well as accomplishing one

RESULT OF SCORING CONTEST.

	Perfect Score	A	B	C	D	E	F	G	H	I	J	K	L
Flavor & Palatability	50%	45	43	46½	46	44	44	42	46½	43	41½	45½	39
Texture and Body	25%	22	24	24	24½	24½	23	24	24½	23½	24	24½	22
Appearance (color)	10%	9½	10	10	10	9½	9½	10	10	10	10	10	10
"A" Butterfat	5%	0	0	5	0	5	1	5	5	5	5	0	5
"B" Total Solids	10%	10	10	10	7	10	10	9	7	10	10	10	10
Total	100%	86½	87	95½	87½	93	87½	90	93	91½	90½	90	86
Analysis:													
Butterfat		17.89	18.09	11.43	16.83	10.71	13.83	10.53	10.16	11.17	10.92	14.42	11.93
Total Solids		37.97	37.64	36.99	34.43	36.80	38.51	35.45	34.54	36.80	37.09	38.39	37.64

	Perfect Score	M	N	O	P	Q	R	S	T	U	V	W	X
Flavor & Palatability	50%	45	44½	43½	43	45½	43½	43½	45	41	43	44	44
Texture and Body	25%	24	24	24	24	24½	23½	24	24½	23½	22½	24½	24
Appearance (color)	10%	10	10	10	10	10	9½	10	9½	10	10	10	9½
"A" Butterfat	5%	5	3	5	5	5	5	5	4	5	5	5	5
"B" Total Solids	10%	10	10	7	10	10	10	6	10	10	10	10	10
Total	100%	94	91½	89½	92	95	91½	88½	93	89½	90½	93½	92½
Analysis:													
Butterfat		11.57	12.79	10.04	10.70	11.14	10.98	10.38	12.43	11.42	11.23	11.07	11.85
Total Solids		40.03	39.14	34.54	37.52	36.30	37.41	34.07	39.20	36.75	36.78	36.65	38.74

ESKIMO PIE



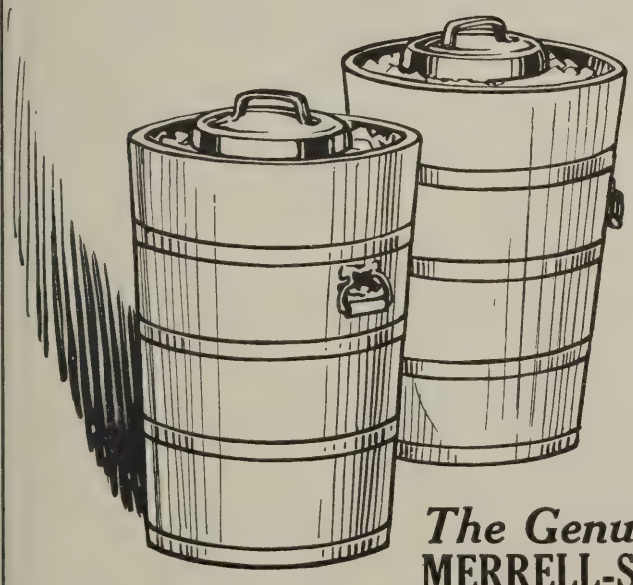
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of the most important things that the industry is striving to accomplish, that of improving the quality of cream so that the consuming public will receive a product superior to anything that they have received in the past.

The success of this contest in the past two years has been largely due to the untiring efforts of the officers of the California and Southwestern States Ice Cream Manufacturers.

* * *

FIRST SESSION.

President S. A. W. Carver, Presiding, Called to Order at 2:30 P. M.

The President: Ladies and Gentlemen, the seventh annual convention of the California and Southwestern States Ice Cream Manufacturers' Association is now in session. From appearances I believe we are the beginning of the biggest, best and most beneficial convention of ice cream people that has been held in the southwest. Before we go on with the formal program of the afternoon, we have with us Mr. Green, the head of the state dairy council, and it is of very great interest to us, as well as of importance, that he make a few statements and announcements regarding what is before us for the entire week in the grouping of all the different branches of the dairy industry in the several conventions that succeed each other in connection with the state dairy show, and the exhibits, all of which is largely under the direction of the state dairy bureau. I will now call on Mr. Green for a few statements.



Mr. Sam H. Green: Mr. President and members of the California and Southwestern States Ice Cream Manufacturers' Association,—you notice I have to stop and take a breath—I advise your committee to shorten up that title one of these days.

As a temporaneous resident of Stockton I have been directed by the mayor to represent him and extend the hand of greeting of the city of Stockton to the members of this organization. The people here, I call tell you from a personal standpoint, are glad to have you here, and they have done a lot of things to make your convention a pleasant one and you yourselves will, of course, make it profitable.

On behalf of the California Dairy Council, and the First Annual Pacific Slope Dairy Products Show, which the Dairy Council has sponsored, I also bid you welcome, and in doing that I want to extend the thanks of the board of directors of the California Dairy Council to this organization for this splendid evidence of your generous co-operation by deciding to hold your seventh annual convention here, in conjunction with the Dairy Products Show. If you had not done that the show would have been lop-sided. I am only sorry that you are not holding your convention out there in Convention hall, which adjoins the exhibit hall, instead of holding it here, for I want you all to feel that you are a part of that show, and perhaps the word "show" is not exactly proper to use for it is more than "show," it is an attempt to visualize to ourselves and for others the comprehensiveness of the various branches of the dairy industry.

Now that is a small affair out there from the standpoint of size, but I believe you will agree with me when you see it that it is pretty fairly complete—pretty fairly complete and quite a creditable show to have for the first effort. You will find out there a splendid exhibit of the dairy division of the United States department of agriculture, a portion of the great one which they had at the national dairy show in Minneapolis in October, and which was brought from there to Portland. You will find exhibits of the state department of agriculture, of the University of California, of the California Dairy Council and of the several counties that are adjacent to this city, as well as the exhibits of all manufacturers of dairy products.

You all know of the scoring contests that were set up for milk, cream, butter, cheese and ice cream, and you will find the winning entries all on exhibit there.

Your convention occupies today and tomorrow. On Wednesday, in the Convention hall there will be held the first annual convention of the State Milk Distributors' Association. On Thursday will be the second annual convention of the California Dairy Council and on Friday will be the twenty-third annual convention of California Creamery Operators' Association, which runs over into Saturday. In conjunction with the second annual convention of California butter, cheese and ice cream makers will be held so you see there will be conventions every day this week, and like yourselves, each one of these other organizations has a very interesting educational program; some of the foremost men in the industry on the Pacific coast are here or will be here.

Now, the show opens to the public at noon tomorrow and will be officially opened at 8 o'clock tomorrow evening with an address by Dr. David P. Barrows, president of the University of California. There will be good music there every evening and many special numbers so that you will find it entertaining to be there at any time.

I have looked over your program and I see that it is a very full one. It is going to occupy a great deal of your time, and yet I want to urge upon you to find time to get out there and become acquainted with all the other men that you will meet there who are in the various branches of the industry. I do not want you to think that this little show out here was just a thought of the moment, because it is not a small one. You might easily make that mistake, but this little affair is based

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upon constructive thought and a good deal of consultation. Looking far ahead. There are men who see the time when the Pacific slope will be the great dairying section of this nation, and that now is the time to begin to prepare for that and head it up, and looking forward to that time we know that we must have an annual gathering of all the branches of the industry, and the only way we get that annual gathering is to have a dairy show, and so, one of these days, if everything goes well, you will find that word "products" eliminated from the title, and then you will have the name, "Pacific Slope Dairy Show," and I want to make this request of you, Mr. President, that when the time comes for you to take up the special business of your organization, that you appoint a committee of—three I think—who shall serve with similar committees from the other organizations, and that a committee of the exhibitors there, to handle another show next year. It is not the work of the Dairy Council to give dairy shows. We have given this one as a demonstration, just as we have done a number of different things to demonstrate the work of the Dairy Council to promote the very best interest of the industry, and in so doing we consider this show one of the best acts we have performed, but we must not be expected to continue to operate these. Our work is in another field and until a regular show association shall be formed, the only practicable way that comes to my mind for the handling of this business is to have it handled by committees of the organizations that are interested, and of the exhibitors who make the show a success, so I repeat what I said in the beginning, that you are welcomed here at the hands of the officials of the city of Stockton; you are welcomed here at the hands of the Dairy Council and of the Pacific Slope Dairy Show, and I hope you will have a successful convention and a royal good time. Thank you.

The President: On behalf of the ladies' reception committee, at the suggestion of Mrs. Miller, I wish to announce that she wishes the announcement made that visiting ladies will be entertained at noon luncheon tomorrow at the Hotel Stockton as the guests of the ladies' reception committee. All visiting ladies please remember this, and I am sure it will be a very pleasant occasion and one that the local reception committee are extending to you and would enjoy with you very much.

The secretary has some announcements to make also:

The Secretary: We have a letter here from Mr. Robb, president of the Pacific Ice Cream Manufacturers' Association, which I will read: (Reading)

PACIFIC ICE CREAM MANUFACTURERS' ASSOCIATION,
OFFICE OF THE PRESIDENT.

Seattle, Wash., Nov. 30, 1921.

Mr. S. A. W. Carver, President,
California & Southwestern States Ice Cream
Manufacturers' Association,
Stockton, California.
Dear Sir:

I regret that I am unable to extend personally to you and the members of your association our greetings on the occasion of your annual convention. We are sending to you, however, two of our officers, Mr. J. E. Dunne, past president, and Mr. Bert Walker, our genial secretary. In these men you will find typified the aggressive and constructive spirit of the Pacific Ice Cream Manufacturers' Association, since it has been through the untiring efforts of men such as these that our association has achieved its present standing.

If I were asked to name the feature of our recent convention that made the deepest impression upon me, I would unhesitatingly say that it was the attendance of the strong California delegation, and I wish to take this occasion to extend our thanks to these men, who helped so greatly to make our meeting a success.

I cannot too strongly urge the importance of the closest relationship between our associations, and wish to assure you that we shall always undertake to further it. We are

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looking forward to the time in the not far distant future when it may be propitious to hold a joint convention with the California association.

With all good wishes for the success of your convention, and for a happy and prosperous New Year for your association and its members, I am

Sincerely yours,
W. V. S. ROBB, President.

The Secretary: We also have a telegram here from Mr. Dunne, of Portland.

Portland, Ore., Dec. 5, 1921.

Mr. Dryden, Secretary,
California and Southwestern Ice Cream
Manufacturers' Association,
Hotel Stockton, Stockton, Calif.

Sorry cannot be with you today. Circumstances beyond my control has compelled me to cancel my reservations on Saturday and again Sunday, rendering my presence there even late impossible. Stop, you haven't the slightest idea how badly I feel about my enforced absence. I had planned on having the best time of my life and to have it all knocked in the head, well, to say the least, is mighty disgusting. They won't accept my profanity by wire and language fails me as I write.

JOE DUNNE

The President: The next on the order of business will be the report of the secretary-treasurer.

Secretary-Treasurer: Why, the report of the secretary-treasurer is confined to the balance statement of our assets and liabilities, and we are rather pleased to report that we have one hundred and fifty-seven members, an increase of about eighty-five or ninety members. We have in our treasury $2,268.41. We purchased some equipment amounting to $162.00. We have unpaid memberships of $250.00, or a total asset of $2,680.76. Our liabilities are accounts unpaid, $392.00. It is hard to close our books because some bills were created for our convention here. Memberships received during

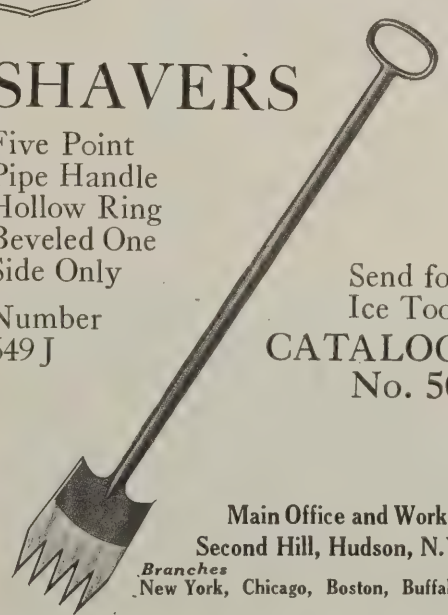
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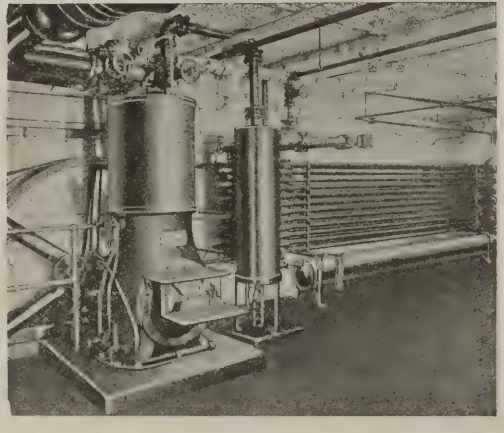
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the year were $2,140.00, balance carried over from last year, $1,748.00. In my report I have an itemized list of the expenses for the year, which I would refer to the auditing committee. That constitutes my report

Mr. Christopher: I move that the report of the secretary-treasurer be accepted. Motion seconded from the house and carried.

The President: Has the convention any instructions in regard to the usual custom of an auditing committee in connection with accepting the report. If not the motion is that the report be received and placed on file and I think I shall take the liberty, pursuant to the usual precedent of naming the auditing committee to run over it and report later in the convention so that the record will show that it is O. K. in every respect. All in favor, say "AYE." (Passed). I will announce that committee a little later.

The President: A proper matter of form would be that the minutes of the last annual convention should be read. It is a little too long a record to stop in the midst of a convention to read those, so that the usual practice is either a motion that the reading of the minutes be dispensed with, and that they be placed on file, or that they be referred to a committee to examine and report briefly of them. I think it is too long a record to read. What is your pleasure?

Mr. K. L. Carver: I make a motion that the reading of the minutes of the last annual meeting be dispensed with. Seconded from the floor.

The President: It is moved and seconded that the reading of the minutes of the last annual meeting be dispensed with. All in favor make the usual sign. (Passed). The motion prevails.

The President: Ladies and Gentlemen, the next item on the program is a few remarks by the President. I am not in very good physical condition. I really ought not to be here, so I may be disturbed and interrupted a little during the course of the reading of the few remarks that I have to make. I have a pretty bad cold, a persistent cough, but I will do the best I can.

The few remarks I wish to make are along the line of a subject that is attracting a good deal of attention in the last few years in business circles — both official and in business channels, namely, trade associations, and then many aspects of the functions of trade associations which I will briefly touch upon.

Trade Associations.

Trade associations and conventions are becoming almost the universal order of the day in every line of business.

It may safely be taken as a sure index of progressive prosperity, or the opposite, to observe whether or not any man or any firm is actively interested in some live trade organization representing his or its particular line of business. In spite of public suspicion, criticism and legislation that was rampant a few years ago, there is manifest everywhere to-day a rapidly increasing recognition of the fact that these associations are not only a necessity, but that they are a positive public benefit.

Secretary Hoover, in a recent address, said: "All are agreed that the purposes and actions of the vast majority of trade associations are a constructive contribution to public welfare. Their activity in promotion of better business practices, advancement of technical processes, simplification of production, standardization of uality, extension of trade, commercial arbitration, etc., all make for more efficient industry and business. Many of them collect information as to production, stocks of raw and other material, percentage of industry in active operation, total orders in hand,—all of which, when available to the public, contribute both to stability and



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COCOA
BUTTERSCOTCH SUNDAE
CARAMEL SUNDAE
GELATINE
CITRIC ACID
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ICE CREAM POWDER
SOLUBLE SKIM MILK POWDER SPRAY
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the increasing efficiency of industry, and to the protection both of the smaller manufacturer and the consumer."

This statement by Mr. Hoover is so concise, comprehensive and yet pertinent, that it affords me a good text for discussing and enlarging upon several of the association functions which he mentions. Trade associations are coming rapidly to see and appreciate the importance of these channels of activity and are developing some real constructive policies and showing some real beneficial results.

Standards and Quality.

The ice cream industry is insisting upon the recognition and classification of ice cream as a dairy food, and as a dairy product of equal importance and food value with milk, cream, butter and cheese; but in the past we have not always been open-minded and frank with the public or honest with ourselves when it came to the test of quality or the manufacture of the goods, or to the framing of definitions and standards.

The spirit of commercialism and greed is still too prevalent in the industry, and the ice cream makers in too many cases insists on making his goods in his own way according to his own formula, which he may have learned twenty years ago. There are hundreds of these formulas, all more or less different. Too much attention is given to making the goods as cheaply as possible and so that they will stand as much abuse and neglect as possible while being marketed. This is a poor substitute for the service we owe the public in the way of better quality and better care of the goods while in distribution. As a result we have not gained the confidence and endorsement of the public and the health officials as fully



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as we should. In all such matters I believe we should take the lead. In a spirit of service and education, to help perfect and improve and stabilize our standards and quality, and to more worthily inspire the confidence of the public in our product and in its dependible and superlative value as a food. If we expect adequately to increase the consumption of ice cream, we must not be actuated by the spirit of cheap commercialism in matters of quality and standards. Too often we show an unwillingness to face the limelight of public scrutiny, when we should be inviting it. A few examples of what I refer to will illustrate my meaning.

In one definition of ice cream, or of the standard of ingredients for same, it is prohibited to use "any ingredient which is known to be unwholesome." Can you imagine anything more ridiculous? How could it be proven that the manufacturer know the ingredient was unwholesome? The use of any ingredients that is unsanitary, impure, or unwholesome should be prohibited, whether the manufacturer knew it or not. It is his business to know it before he uses it. Another definition and standard that is very objectionable, because too long, too involved, uncertain and indefinite, and because it dwells too much on the possibilities of filth and infection in the goods, reads, in part, as follows:

"Ice cream is a frozen product, varied as to kind and proportion of ingredients, within the limits established by custom and usage. It consists chiefly of a sweetened and flavored mixture of cream, or cream and milk, or milk with or without added milk fat in the form of sound, sweet butter; or as contained in condensed, evaporated or concentrated milk, or in milk powder, and with or without added milk solids not fat in the form of skim milk powder or as contained in milk powder or in condensed, evaporated or concentrated skim milk; or of a sweetened and flavored homogenized or emulsified mixture of a sound sweet butter, milk powder or skim milk powder and water, with the addition of gelatine, vegetable gum or other wholesome stabilizer. It will be considered adulterated if it contains any added poisonous or other added deleterious ingredients which may render such ice cream injurious to health; or if it consists in whole or in part of any filthy or decomposed substance which may render such ice cream injurious to health, or is otherwise so contaminated that such ice cream is injurious to health."

You would be surprised, ladies and gentlemen, if I told you the sources from which I have taken these two illustration, and I have copied them from standard high up in the industry, but for the good of the industry I will not mention the sources from which I have taken them. Why can't our definitions of standard be plain, simple, definite and brief, yet clear and comprehensive, the same as in other food products. By doing so I am sure we would incur less criticism and would enjoy the larger confidence, co-operation and support of the health officials.

More foresight and statesmanship regarding these matters has been shown by the milk dealers of the country than by the ice cream dealers: and as a result the milk dealers are enjoying better confidence and co-operation from the health authorities of the country. A very gratifying indication of the present policy of the national associations, representing both the milk dealers and the ice cream manufacturers, is the move on their part jointly to establish and maintain a national dairy research laboratory, devoted entirely to the service of these two branches of the dairy industry, with the biggest and best man the country affords at its head.

More and more each year are the several ice cream associations, both state and national, devoting large attention to the problem of improving and standardizing the quality of ice cream. One of the best means of awakening the interest of all dealers in the subject of quality is the scoring contest. Add to this the equipment exhibit and the grouping of conventions of the different branches of the dairy industry, as we are now doing, and the opportunities for benefit to every tradesman attending our conventions are so numerous as to insure success and benefit beyond question.

Operating Costs.

During the last few years it has been quite noticeable at our national conventions, and also to some extent in our state conventions, that more attention is being given to possible improvements in the technical processes of manufacture, and also to the problems of better business organization, better operating and marketing methods, better efficiency, and lower operating costs. The interest that any firm takes in all these problems is directly and definitely reflected in its system of cost accounting. Any firm that is not maintaining a complete up-to-date system of segregated unit cost accounting, covering every step in its operations, is not adequately interested in those problems, and is not abreast of the times, and is not accomplishing what it should or growing as it might. Many ice cream men do not really know their actual costs per gallon, especially their costs per gallon of selling, delivery, overhead, and depreciation. You will always find that the firm which maintains the most complete system of unit cost accounting is also the one which tenaciously maintains the most uniform and stable prices. There is more price cutting due to ignorance of real costs than to anything else. Our annual

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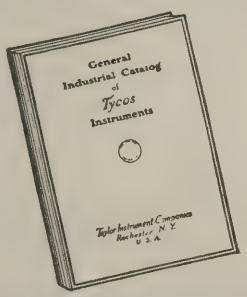


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conventions can and should do much to stimulate interest in these matters.

Business Ethics.

Another commendable undertaking of our National Association was its determination, at each of the last two conventions, to prepare and adopt a definite code of Business Ethics. This can only be interpreted to mean that there was manifest need of it in our industry, the same as in other industries; for most other trade associations have already adopted similar codes.

The ice cream and dairy supply men have adopted a very comprehensive and definite code of business ethics and fair practices. In general outline, the following are the chief points, which have been covered so far by the code of business ethics adopted by our National Ice Cream Association. These principles are regarded everywhere as sound and indispensable to the proper conduct of any line of business.

Fundamentals.

a. Tell the truth under all circumstances.

b. Do nothing secretely or under cover that you would not do openly and with the knowledge of your competitor.

c. Speak no ill of your competitor. Talk your own goods, not his.

d. Maintain uniform quality of goods and uniform prices.

Upon these fundamentals rest all the ethics of business.

By way of application of these fundamentals, the following acts are defined as unfair:

1. Any untrue statement made in any advertisement, or on any label or sign, or in any written or printed matter, or in any form of oral trade soliciting, concerning any of the materials or ingredients used by you in the manufacture of ice cream, or concerning its quality or its method or place of manufacture, or concerning the ingredients or the quality of a competitor's ice cream, or concerning a competitor's character, habits, place of business, financial standing, methods, or service.

2. Using any ingredients in the manufacture of ice cream which is not known to be wholesome.

3. Selling food, or a food product, which for any reason violates a local, state or federal ordinance, or law.

4. Secret promises, understandings, gifts, prices, discounts, commissions, rebates, bonuses, or other benefits of any kind offered to any customer of a competitor, or to any prospective new customer, or to any employe of a competitor.

5. Commercial inducements or benefits of any kind to a customer by secret, confidential, or personal rebates, by long term credits, by excessive entertaining, or otherwise, which gives one or more customers preferences that are not given to every customer under like conditions, or selling or offering to sell at less than a fair profit, or at a less price than is quoted or is given to all other customers under like conditions, or giving away of goods or supplies, or samples, in such quantities as to have the effect of rebates.

6. Trade boycotts, or combinations of ice cream manufacturers to prevent buyers from obtaining goods through customary channels, or to divide territory or allot customers.

7. Distribution of samples of a better grade than the product they are supposed to represent.

8. Inducing or attempting to induce a competitor's employe to quit his employ.

9. Procuring visitors to represent to a customer that a demand exists for a certain make of goods.

10. Threatening to sue a competitor or to put him out of business, or making threats of any kind against a competitor, or threats to withdraw advertising unless competitor's advertising is excluded, or unless certain discriminatory favors are granted, or threatening to withdraw patronage from a firm supplying material if the same materials are sold to competitors.

Competition,

One of the greatest accomplishments of trade associations during the last few years has been their stabilizing effect on trade practices and on prices. The ambition for trade expansion and sales increase is commendible, but modern business is more and more coming to realize that price cutting is more often a hindrance than a help in trade building. Any lout can cut prices, but he will find it difficult to increase or build up his business by that means. It requires quality, service and salesmanship to increase business at a sustained and uniform price. One of the best business articles I have seen of late is by Dr. Frank Crane, on "How to Handle Your Competitor." It reads as follows:

"It is a mistake to suppose that you have to fight your competitors. Nothing was ever permanently gained by fighting. For fighting of any kind is pure destruction.

"Your competitor does not have to be your enemy He can be your friend.

"Competition does not kill trade; it builds trade, stimulates trade, and makes new trade.

"This is based on the natural law that no one person can suit everybody. No man can get all the possi-



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ble business in any community. His personality attracts some and repels others. Wherever there is a lot of business for one man there is business for somebody else.

"This is proved by the fact that in any big city business houses in the same line group together. We find most of the piano houses in one part of the town. Most of the automobile concerns are strung along a certain section. The silk merchants, the hat manufacturers, and so on, each have their district. This proves that in the practical working out of business it pays a man to locate in the neighborhood of his competitors.

"It is not true that there is just so much business to be had, and that a rival cuts your trade in half. As a rule the more tradesmen, the more trade. A good lively competitor will increase your custom.

"Two groceries in the same block will do more business than if there were only one, and if the other grocery is good, it is a more valuable competitor to you than a poor one.

" 'Where the carrion is there the eagles are gathered together.'

"So run the proverb. And where no eagles hover there is slim picking.

"Don't hate your competitor. Hate is always expensive. Get acquainted with him. You may learn something.

"Don't knock your competitor. It sounds bad, and it is bad. Be a good sport. Play the game. Keep good natured.

"Beat your competitor if you can, but remember that the surest way to beat him is to sell better goods and give prompter service and have more courteous work people. Don't fight by cutting prices. Keep your margin of profit fair.

"If your competitor lies about you, or uses underhand methods to harm you, don't worry. He is cutting off his nose to spite his face. He cannot fool all the people all the time. Straight business and good nature win out always in the long run.

"Your competitor will do you a great deal of good if you keep your eyes open. He will keep you from slumping. He will make you energetic, careful, more attentive to business, and altogether will be a good tonic for you, if you know how to use him.

"There is business enough for both of you. Go after it."

You are all more or less familiar with the propaganda that has been rampant throughout California during the last several years seeking to secure the adoption of a weight standard for ice cream; and you are also no doubt familiar with the way in which the issue has been met and handled. On several different occasions we have believed the question was settled in California satisfactorily to all concerned, but like the seven headed dragon by Mythology, when subdued in one place it has unexpectedly raised its head in new form in some other unexpected place.

Resolution of California Municipal League.

During the last week in September, there met in annual convention at Los Angeles, an organization of city commissions and officials known as the California Municipal League, one of the divisions of which was made up of health officers and milk inspectors. Many papers were read and much discussion had on various subjects relating to milk products. During the last hours of the convention, without any intimation that such a move was contemplated and with no representative of the ice cream industry present, a resolution was offered and unanimously adopted that the organization as a whole should request the next California Legislature to adopt a law requiring all ice cream to be sold by weight.

This incident is mentioned to show that the subject is in the air everywhere and is being frequently discussed by the retailers and by women's clubs and civic organizations in every part of the country. Our Ice Cream Trade Associations should recognize it as one of the most momentous issues now confronting the industry, and should at once formulate their plans and organize their methods of handling the issue in every state where the question may arise or become an acute issue.

Like the irrepressible conflict of old, I do not believe it will ever be settled until it is settled right. But the question—what is right—is the crux of the whole issue. The right solution is certainly not to be found in the extreme view of either side, but somewhere in between those two extremes. We have been working for years to make ice cream our national dish, and it is gratifying to observe that we are succeeding to a considerable degree. But until the industry itself can eliminate some of the evils I have pointed out, and stabilize our standards of quality and our trade practices uniformly over the whole country, I do not hope for the final solution or settlement of the weight question. We cannot deny that the public has some rights in the matter, and that it is aware of some of the abuses which we ourselves should correct.

Before closing I wish to say that I have been asked to make a statement regarding the growth of the business of the Crescent Creamery Co., and how we did it. But I think I have said enough. The only answer I can make is that we have tried in our humble way to live up to the principles here discussed as far as we could, and



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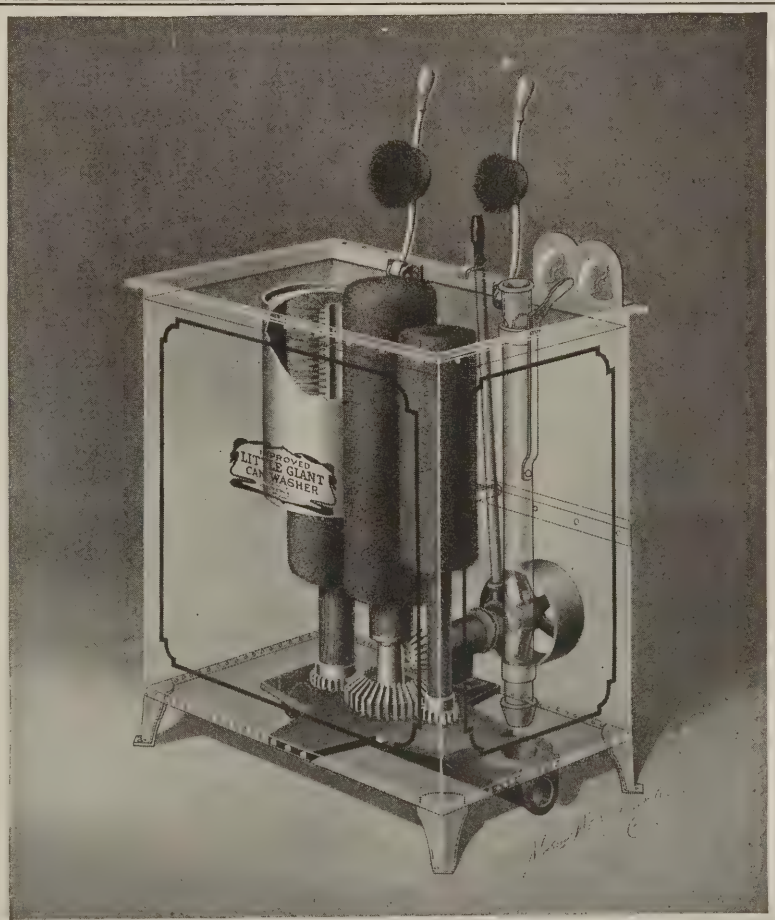
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to be everlastingly on the job. You can judge as well as we how far we have succeeded in doing so. I thank you. (Loud applause.)

* * *

The President: We will now listen to Mr. Hosking on the subject, "Dry Storage Cabinet Trucks." Mr. Hosking, of the Peerless Ice Cream Co., Sacramento.

DRY STORAGE CABINET TRUCKS.

Address by Mr. W. A. Hosking, Peerless Ice Cream Co., Sacramento.

This is unexpected—the secretary called me up one night and said I will have to tell about Dry Storage. I don't think I should tell you about it. The Union Construction Company should tell you all about it.

Anyway, I am going to tell you what we did with regards to our two trucks—dry storage—we bought from the Anheuser Bush Company, put them to work about the first of May. Those cabinets have so far turned out very good. We carried 380 gallons of cream, five 125 pound sacks of salt and sixteen 300 pound blocks of ice. We have demonstrated to ourselves it kept our cream in fine condition. We kept one time for six days a five gallon can of strawberry cream. At the end of that time it proved to be very good, but we cannot recommend it for brick. Our costs on those wagons are very normal. We ice them every twenty-four hours, 200 pounds of ice, and about 45 or 50 pounds of salt. The ice costs about sixty cents and the salt about thirty-five.

I don't know what more to tell you about it. I think the Union Construction Company ought to do that. He can tell you more than I can. As far as the Peerless Ice Cream Company is concerned, we are very well satisfied with the dry storage system on trucks.

The President: Gentlemen, this is a very practical question, one that I know you are interested in because I have heard it mentioned frequently and I want to see some real discussion on this subject now, and there are two or three gentlemen here I think who would welcome the opportunity to have some questions asked about them.

Mr. Dreyer: I would like to ask what style of cabinet he has. From the two styles, one is the one with the brine running through the coils and the other is just an ice box on the truck?

Mr. Hosking: In this cabinet of ours, it has a brine tank above and there are two compartments, one is where the brine circulates around the coils and the coils back into the other compartment and flushes over on the brine side again.

Mr. Dreyer: I think Mr. Baird has a different style—maybe an altogether different style. It has no coils in it at all. The ice box is sufficient to hold the ice cream hard and it is a question which one of the two would be the best to use. Both are efficient. I would like to hear from Mr. Baird.

Mr. Baird: I cannot just answer that question. We have only the one truck in use at the present time and it is the system as explained by Mr. Dreyer. Knowing nothing about the system used by Mr. Hosking, I could not tell which was the best. He should try both of them out and see for himself.

Mr. Hosking: Our cabinet wagons are very good. We put the ice on top. Our brine never runs away until we let it out in the drain. Our pipes are right above our dry box above our cream.

Mr. Dreyer: What is the temperature?

Mr. Hosking: Demonstrating in May, after opening the door sixty-three times, we had temperatures when we got back to the plant between twelve and thirteen above zero. I have seen it down as low as two above.

Mr. Dreyer: You had it in about eight hours?

Mr. Hosking: We leave the plant at six o'clock, are back at lunch about 11:30 and get out again at 1:30 and get back at 3:30. In freezing these cabinet wagons, we take the cream out and defrost by turning the water in and then ice up and go around the block—two or three blocks probably. We come back and find our temperature from 42 down as low as 28. We take our cream out of the hardening room and make our bricks, and we have seen it at 9 o'clock at night 2 above zero. I am willing to answer any questions about the two wagons we have, but I believe Mr. Lindley, of the Union Construction Company, is here, and I think he will be more than pleased to tell everybody here regarding the construction of these wagons. We have two wagons of ours. At the present time we are icing every other day, 200 pounds of ice. In the summer time we ice every day, every twenty-four hours, but we go forty-eight hours now on 100 to 125 pounds of ice.

Mr. Goehler: I have the same kind as Mr. Hosking, but the brick I have to take out every night. We are saving between six and nine hundred pounds of ice a day.

Mr. Hosking: I will say about brick ice cream—they are unsatisfactory for brick cream. They are all right in the morning for a few hours. Bulk cream holds together in very good condition. Six days we had a five

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FLYNN DAIRY CO. - - - - - - Des Moines, Iowa
WATERLOO CREAMERY CO. - - - Omaha, Nebr.

INSEPARABLE COMPANIONS—THE KID AND THE ICE CREAM CONE.

gallon can of strawberry in our box and it was in very good condition at the end of that time.

Stores have also remarked about the cleanliness of the store after the ice cream man leaves.

Mr. Dreyer: I have been told by Mr. Lindley of the Union Construction Company that they have perfected a wagon to carry brick as well as bulk.

The President: I understand Mr. Wilson has had some experience—

Mr. Hosking: Mr. Wilson has two or three and Mr. Christopher has a cracker-jack.

The President: Mr. Wilson is called first. We will hear from him.

Mr. Wilson: The trucks that we have have worked out very successfully, in fact, Mr. Hosking copied all his ideas from our truck (laughter). He made a trip down there, looked ours over and built some just like it. We have both types, one, the first truck we purchased was the "A B C" type, and later we built in our own shop three of the Meyer's type of truck. That is, following out the Meyer plan as nearly as possible from looking at their catalogues and illustrations. That type simply consists of building a box with two compartments, one for ice and the other for ice cream. It is a body on a gasoline truck. We have also one on an electric truck. We use about four inches of cork with an inch of redwood on each side of the cork. We simply build a tank in the top of the ice cream compartment about eleven inches in depth connecting a quarter-inch pipe coil over that tank, bringing the brine down through those coils, down on one side and take it across and up on the other side and out. We found considerable complaint this summer from the new commissioner of public works in Fresno that we were allowing brine to drop on the pavements, so we put a valve on the end of the drip pipe, and gave our driver instructions to draw out some brine every hour or two whenever it was convenient. We found it worked perfectly and never had any trouble at all. Our trucks come in about three in the afternoon. The driver loads his ice cream for the next day and never touches—after recharging the ice compartment—he never touches that again until he gets in the next day at 3 o'clock in the afternoon.

The President: How does your ice consumption compare with the figures given by Mr. Hosking?

Mr. Wilson: We use practically about that amount of ice that he mentioned. From six to nine hundred pounds of ice a day. That is the minimum. Under the old method of re-icing and packing the cream in ice and salt—

The President: Did I understand you to say your bodies use from six to nine hundred pounds of ice?

Mr. Wilson: No, our bodies used 125 pounds of ice a day and 30 pounds of salt. We are running our Meyer body with 125 to 150 pounds of ice a day and 30 to 40 pounds of salt.

The President: Are those Meyer features patented?

Mr. Wilson: No, no patents except simply a brine tank on the top with a coil and drip running out of the bottom.

The President: Is the A B C patented?

Mr. Wilson: The A B C is patented and if you use it you will have to pay a royalty. We have found one feature about our trucks that is very vital and that is the partition in the center of the ice cream compartment with a door on each side of the truck so that in opening the door we do not let in all of the warm air. We save half of it. We do not admit heat into the entire compartment but just one side of it at the time and we think that is a benefit. I might also add that we are now rebuilding all of our old style bodies and we are going to try and experiment. We are going to try and get along without coils, just the tank in the top and see if that gives enough refrigeration.

Mr. Hosking: We have two doors on each side which makes four doors and we get along very nicely.

Mr. K. L. Carver: Mr. Chapman is here and he can explain it.

The President: Glad to hear from Mr. Chapman.

Mr. Chapman: Mr. President, Gentlemen, we have at the present time one A B C refrigerator body. It takes about 200 pounds of ice, as Mr. Hosking has said, about the same amount of salt, but when our truck turns in at night we do not re-ice. We load in the morning and charge it with ice in the morning. In the evening we drain the brine off and put it in the garage and then re-charge in the morning as we load the cream so we have had no trouble with our brick up to this time. The brick is kept in very good shape and certainly our tests have run up about six above zero. That is what it averaged all last summer.

Mr. C. O. Swanberg: Are the cans just put right in as usual?

Mr. Chapman: The cans are put in as usual but with no ice. The ice is above.

Mr. Swanberg: And then you take these cans and carry them in to the customers?

Mr. Chapman: In to the customers, perfectly dry and clean.

Mr. Swanberg: Then you put them down on ice in the customer's cabinet?

Mr. Chapman: Yes.

Mr. Swanberg: Thank you.

The President: Mr. Alfred's name was mentioned. Mr. Alfred, have you had some experience?

Mr. Alfred: Some. We only had a very small body.

FOR A

Smoother, Firmer Ice Cream
Fruit Frost or Water Ice

USE

Rippey's Powdered Foamoline

No Heat Required

Simply mix Rippey's Powdered Foamoline with the dry sugar add your cream or milk and it is ready for the freezer.

Send for a trial package and book of formulas.

For a limited time we will send postpaid a full half pound package on receipt of 25c, together with our formulas for making ice creams, sherbets, etc.

Rippey's Powdered Foamoline is packed in one pound boxes with registered trade-mark and signature of William Rippey on every box. Never sold in bulk.

WM. RIPPEY

101 East Second Street CINCINNATI, OHIO

Eskimo Pie Boxes

A TWO-PIECE folding box especially made to hold this new frozen product. Shipped flat, weight ninety pounds to the thousand.

We are also glad to quote on wire handled or tape handled ice cream pails and one and two-piece brick boxes.

Our service department will be glad to send samples and quote prices

The Peerless Paper Box Mfg. Co.
1137 West 6th Street : Cleveland, Ohio

Any kind of folding box for every kind of business

PEERLESS BRAND CLEVELAND

ESKIMO PIE BOXES

Pure Vanillas

Atlas Pure Vanilla Extracts are guaranteed to be of Highest Quality and Purity and to give absolute satisfaction in each and every case.

Before placing your next order, let us send you a trial quantity

Manufactured by

H. KOHNSTAMM & CO.

NEW YORK 83-93 Park Place — *Established 1851* — CHICAGO 11-13 E. Illinois St.

I think it was too small. It did not give good satisfaction. However, I have paid for the bodies and ordered more, the A B C. I cannot say anything more now until next season.

Mr. Hosking: Mr. Chambers might give you a little idea about his.

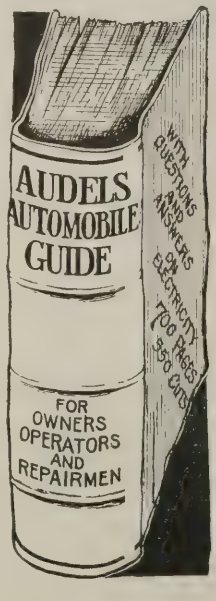
Mr. Chambers: Mr. Crane, who has been there some time, can give you a better one.

Mr. Crane: It is a little unexpected to say a word about this. I will say this much that the question of refrigeration has not been very satisfactory because it was built under circumstances that were not good. Our manager took an idea after looking at the A. B. C. and everything else like that and it did not quite come up to expectations. Well, we found, I think, that things are going to come better for us—at least we hope to have them that way—we are going to change that system because with our system it keeps dripping on the street all the time, dripping out of the cabinet wagons, and we do not hold the temperature enough. I think if we can keep that circulation going all the time—there is one thing I have noticed in my observation, it has been that if we could get a little pump pumping the brine some way to keep forcing it through, your refrigeration would be a lot better. I think that is more important than anything else when it comes right down to refrigeration, if yau can get that circulation keeping going all the time. Of course, as I say, it is unexpected on my part and I cannot tell you much more than that, but I thank you just the same.

Mr. Hughes: Mr. Wilson, in rebuilding the tubs do you put cork on the outside?

Mr. Wilson: The old trucks have two inches of cork and they are covered with sheet iron.

Be Your Own Trouble Fixer



Keep a copy handy of

Audel's Automobile Guide

and you will be able to promptly locate the source of trouble. The answers also tell you how to fix it. A single home repair may be worth many times the price of this book.

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210 Sycamore St. Milwaukee, Wis.

The President: Any further discussion of this subject before we leave it? None.

The next order on the program of the afternoon is the appointment of standing committees. It is usually done early in the convention to give opportunity of doing committee work that might be wanted during the convention.

The first committee I will name will be the committee along the line of what Mr. Green had to say, a committee of the ice cream industry to co-operate with other like committees of other branches of the dairy industry to handle the next year's dairy show, and in matters that need attention or handling in connection with this dairy show the remaining days of the week. On a committee of three I will name:

D. M. Dorman, Los Angeles; A. S. Goode, Bakersfield; L. W. Wilson, Fresno.

The committee on legislation: Robert J. Dryden, Chairman; F. E. Miller, L. W. Wilson, Harry Peacock, Larry Hughes.

The committee on quality and standards: Prof. G. D. Turnbow, Chairman; T. E. Chapman, C. J. Alfred, Geo. H. Ball, R. J. Dryden.

The committee on sales promotion. It seems that there should be a good deal of educational work along lines of that character: K. L. Carver, Chairman; J. H. Seba, W. T. Valberg, Geo. H. Platt, W. B. Hage.

The committee on business ethics: C. J. Alfred, Chairman; Harry Peacock, Mr. Sperry, C. F. Heil, D. M. Dorman.

The auditing committee: Mr. Chapman, Mr. Wilson, Mr. Hightower.

* * *

The President: I would like to extend to Mrs. Miller an opportunity to say a few words. We have a little spare time this afternoon.

"SHALL THE 'SILENT PARTNER' KEEP SILENCE?"

Address by Mrs. F. E. Miller, Oakland.

Mrs. Miller: Mr. President, Gentlemen and Ladies, I have been looking that program over pretty carefully and I have not seen my name on that and I cannot understand why I should be called, but this year I have been making with my daughter a few talks on milk and ice cream in Oakland, and Mr. Dunne, the president of the Pacific Northwest Association was in San Francisco when some one handed him a paper with my name on it. He met my husband at the Palace hotel and he told him—he says, "I would like for you to tell your wife that she is going to be asked to speak at the convention in Seattle." He did not ask me, he just asked my husband. My husband came home and undressed, got ready for bed, and just as he went to turn the light out he told me I was to be on the program. I did not sleep any for several nights because I am not accustomed to address conventions, but probably I can say something this afternoon of the same talk I gave up there.

(Mrs. Miller's address was published in connection with Pacific Ice Cream Manufacturers Association Proceedings, Page 114, April, 1922, issue.)

* * *

Mr. Swanberg: Ladies and gentlemen, having such a partner, or call it silent partner, as Mr. Miller has, I think that he is invincible. I thank you for listening. That is my opinion.

The President: Mr. Dreyer, who is on the program for tomorrow, is with us this afternoon, and as the program for tomorrow is pretty full, and we have several

A Contract for Foil Wrappers is Protection

WITH the coming of warm weather the demand for chocolate coated ice cream pie grows daily. You may not know at this moment whether you will need 50,000 wrappers or 500,000—but the way to be perfectly safe is to protect your supply by placing contract with us for Master Metal foil wrappers.

When hundreds of purchasing agents start scouring for foil wrappers, as they may have to do, some will not get the quick service they are sure of today. Contract customers of the U. S. Foil Co. will have first consideration and will not be embarrassed by delays.

We can design, print and ship to you quickly the most attractive foil wrappers on the market. Samples sent on request.

UNITED STATES FOIL COMPANY
INCORPORATED
LOUISVILLE KENTUCKY



Manufacturers of Pure Food Gelatines

BUILT on all the LATEST, UP-TO-DATE, LABOR SAVING LINES to produce ALWAYS a uniform ARTICLE.

Our RAW STOCK supplied by our OWNERS assures THIS.

Our Grades are of the HIGHEST QUALITY OBTAINABLE, clear to the point of TRANSPARENCY, SWEET, FREE OF ODOR, and GUARANTEED to comply with all STATE and NATIONAL PURE FOOD LAW REQUIREMENTS.

ITS USE INSURES GOOD TEXTURE AND A SMOOTH CREAM.

A TRIAL ORDER will convince you that these are the best grades of GELATINE in proportion to price that can be secured.

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268 Market Street

A TUB HANDLE PROVIDING A GOOD GRIP IS APPRECIATED BY TUB HANDLERS.

vacancies—minus numbers—on today's program, we will call on Mr. Dreyer to present his paper this afternoon instead of tomorrow.

"HARDENING ICE CREAM."
Address by William Dreyer, Visalia.

Mr. Dreyer: Ladies and gentlemen, it is rather short notice that I get to give my talk, but I have it all down on paper. My wife tells me that the important thing is to make my paper short. A talk to be made at a convention should be like a lady's dress, "long enough to cover the subject, and short enough to be interesting!"

I heard a man speak before a convention once who was pretty good. He said, "I don't know what to talk about, ladies and gentlemen," so one man says, "Speak about a minute, pretty soon we will have them all going." He spoke a minute and sent me a-going out of the door, so I have tried to make my paper short, and hope you will appreciate it in the spirit in which it is given.

Sometime ago I received a letter from our worthy secretary, Mr. R. J. Dryden, stating that he had chosen for me the subject of "Hardening Ice Cream."

In order to speak upon this subject I must necessarily go into the art of refrigeration; because refrigeration has a direct relation to the hardening of ice cream.

An ice or refrigerating machine is simply an ingenious contrivance for the transference of heat from one object to another. In our ice cream business, for instance, the heat of the ice cream to be frozen, is transferred to the water of the condensing coils.

Anhydrous ammonia is the medium by which this transference is affected. Ammonia boils at a temperature of 28 6-10 degrees below zero, at atmospheric pressure. By reason of its low boiling point, it is used as the absorbent of heat, and the heat thus taken from the ice cream and storage room is transferred to the ammonia (the latter having become vaporized by the heat absorbed from the ice cream), is compressed and conducted to the condensing coils. Here, its excess heat is transferred to the cooling water of the coils, and the ammonia, having been robbed of its heat is thereby liquified, going to the receiver; and then, is again sent on its journey to take up more heat from the ice cream and again have this transferred to the water of the condensor. In this manner the desired temperature in the hardening room is obtained, which, I think, should be 5 degrees below zero, for ice cream.

Having produced such low temperature, it behooves us to imprison it, and therefore construct ice boxes with sufficient cork insulation to stop any heat from stealing in, or from cooling the ground on which the storage room is built.

Insulation is an investment for which the returns should be based on the savings affected by the lower operating cost. Heat will always rise to the top. The lowest temperature is on the floor of the hardening room, and for this reason the large size cans should be on the lower section, also the bricks, unless there is a special space (with coils just far enough apart to allow a brick pan to slide in between) prepared for them.

There are various systems of hardening rooms, namely:

The still air.

Air circulation, or blast system.

Bunker system.

I presume we all know them, but I would like to tell you about a system installed in an ice cream factory in Portland. They have the bunker type of hardening room, over each set of coils they have a spray coil; when defrosting they just turn on the calcium brine, allow it to run over the coils, catch the brine in a large pan and while defrosting, cool the room at the same time.

It is very necessary to maintain a uniform temperature in the hardening room.

Ice cream which has to withstand an uneven temperature cannot be good. It loses its body and texture rapidly. The quicker it is frozen the better body and texture, for slow hardening allows ice crystals to form. Invert sugar corn syrup and thorough pasteurization are found effective in preventing crystalization and sandiness, and should be beneficial, especially where you have to work with higher temperatures.

Five-gallon can should be frozen hard in 12 hours.

Three-gallon can in 10 hours.

Two-gallon can in 8 hours.

The matter of coloring ice cream is a serious one, as during the hardening it darkens considerably. Deep colors are objectionable. Loganberry, raspberry, and grape juice ice cream should be kept in small quantities only, as they will turn to a bluish purple as they grow old, presumably by the action of the fruit acid against the tin.

Ice cream loses its first flavor after a week's stand.

I would recommend to date each freeze. I, for instance, date the can tops with colored chalk, indicating the flavor at the same time.

White chalk date indicates vanilla, red, strawberry, brown for chocolate, orange for orange, and tan chalk indicates maple nut.

All specials are dated with white chalk, the flavor indicated by a printed paper slip lying clamped between lid and parchment circle. The cans are then set on the shelves according to date, one following the other.

Just a word on sliced bricks. I find that wrapping a two-gallon pan of sliced bricks at one operation is not

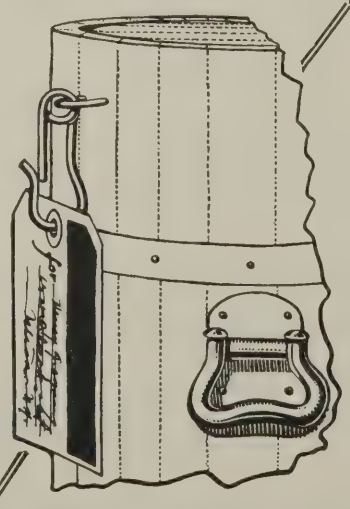
TAG HOOKS
Save Dollars

Why use expensive, untidy, time-losing strings or wires while tagging your tubs or pails of ice cream?

SNAP 'EM ON
and use our rust-proof tag hooks.

SAVE TIME—Figure the cost of strings or wires. Then think of the value of a man's time while tying the tags on your tubs.

CAN'T RUST
Our new type of hooks are made of SPECIAL SPRING BRASS. They sell at $1.95 per hundred, including staples. Besides a 10 per cent discount in lots of a thousand or more. Samples on request.



DALY BROS.
SCHENECTADY N. Y.

Custards *Flavors*

Maraschino Cherry Custard
Mothers Egg Custard

"Acme" Custards	An exact reproduction of the EGG or CHERRY.
Egg or Cherry	Contains all of Nature's delicate FLAVORS and BLENDED COLORS. A delicious Ice Cream of quality distinction. Working sample for 40-qt. freeze, 36 cents.
Bisque Ice Cream	An imitation of the real Walnut or Shelbark with a nutty flavor. Served to social and banquets as a special. Working sample for 40-qt. freeze, 60 cents.
Perfecto *(Trade-Mark)*	A tested smoother of special value in the making of smoothe and tough Ice Cream. Never fails to give satisfaction.
Concretes	Orange and Lemon Concretes are made from the finest fruits that grow in Northern Sicily.
Extracts *(Non-Alcoholic)*	36 different kinds of fruit extracts. Special blends of Vanilla.
Colors	Certified colors of all shades, highly concentrated.

ACME EXTRACT & CHEMICAL WORKS

Extracts HANOVER, PENNA. *Colors*

MERIDALE POWDERED MILK



Meridale Powdered Skimmed Milk is made with a view of retaining the normal flavor of high grade milk.

Meridale Powdered Whole Milk is a protection to ice cream makers especially when the supply of cream is short. In such cases, use Meridale.

39 South Water St. PHILADELPHIA **AYER & McKINNEY** 541-543 W. 22nd St. NEW YORK

Manufacturers of Whole and Skimmed Milk Powder of Quality

DISTRIBUTORS:—Jos. Middleby, Jr., 327-347 Summer St., Boston, Mass. Lee & Saddler Company, Atlanta, Ga. Haines-Carpenter Dairy Products Co. 716 N. 18th Street. St. Louis, Mo. SOUTHERN REPRESENTATIVE:—C. Gibson Ford, 1012 Union Trust Building, Baltimore, Md

PACKAGING MACHINES HAVE REVOLUTIONIZED THE PACKAGE ICE CREAM BUSINESS.

efficient as the slices soften easily and are often pressed out of shape when put in the boxes. I slice and wrap them—put the slices on boards and return them to the storage room to harden. Later, upon packing them in the boxes, I have a better looking brick with nice sharp edges. Bricks taken out of a storage room at a temperature of 5 degrees below zero should keep hard one hour.

In conclusion, I wish to say that I have been delighted to have the honor of speaking before such a distinguished gathering and sincerely hope that my little address be accepted in the spirit it is given, namely: To help make ice cream better. I thank you.

* * *

The President: We have time for some discussion of this paper while the speaker remains in front to answer questions. This is a very important practical subject in connection with the industry. If any one has any questions to ask or any discussion, let us have it.

Mr. Swanberg: Have you practiced at the Acme what you have preached here?

Mr. Dreyer: Quite a little.

Mr. Swanberg: Thank you very much. I thought possibly you might not have done so.

Mr. Dreyer: I always practice what I preach.

The President: I would like also to mention, or request, rather, any member who would like to hear any discussion or like to see consideration given to any question, or any phase of the business, if it is not on the program, don't forget, just make a little note of it and pass it into the secretary between now and tomorrow noon, or early afternoon previous to the time indicated on the program for the round table, beginning at 2:30 tomorrow afternoon. We usually get as much good out of the round table hour, or two hours, as we get out of the whole convention besides, because it is purely informal. We just sit down together in a sort of family circle with no formality of the convention, to take up matters of practical interest and concern, and where we can have an informal family talk. This round table is limited to active members only and we usually enjoy a quiet couple of hours and can talk some of the inside things of our business in a way that our members generally feel with more freedom than if it was a long public meeting. At any rate we have often experienced that we get more real good out of the one or two hours of the round table portion of the exercise than we get out of the whole convention. If any of you think of any subject you would like to hear discussed, and would like to get the views of anyone else just make a note of it on a slip of paper and pass it into the secretary between now and 2 o'clock tomorrow afternoon.

We have finished the regular program of the afternoon but before we adjourn, I want to give an opportunity if there is anything special that anyone wishes to bring up, we have still a little time and there is no order of exercises that will stand in the way of taking up any subject if anyone has anything to propose.

Are there any announcements that the supply men would like to make regarding their functions and activities and so forth. I do not know what "and so forth" means, but if so, maybe they had better make that announcement.

Is Charlie Lee in the room?

Mr. Lee: I haven't anything to say. I think everything is all set for a good time. Those who haven't their tickets should get them. I believe everybody has been taken care of.

Dinner will be served at 7 o'clock and the show starts at 8:00, and as far as I learn so far there is going to be no closing time. Everything is to be held here in the hotel downstairs. That is all I have to say.

Mr. Dryden: The supply men are giving this. It is all free at 7 o'clock in the main banquet room. There is going to be a dance and that is about as far as they will talk.

Mr. Swanberg: When will the dance commence.

Mr. Dryden: When they eat, 7 o'clock, it is a complimentary entertainment on the part of the supply men to the manufacturers. They have planned a mighty fine program from what I can hear.

The President: Don't confuse the banquet this evening with the banquet that the association is to give tomorrow evening. They will both be banquets but they will be different; and the association is being entertained this evening. The association will be giving the banquet tomorrow to all its members, associate, active and all.

Mr. Dryden: The difference will be three dollars.

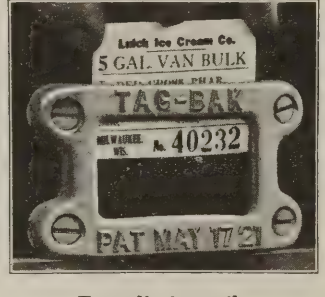
The President: If there are no further announcements we will stand adjourned until tomorrow morning at 9 o'clock.

Adjourned at 4:30 P. M.

* * *

Monday Evening.

On Monday evening the supply men acted as hosts and entertained the visitors and members in attendance. Mr. A. C. Baldemann, Maugus Fruit Products Co., San Francisco, acted as toastmaster during the banquet, which was held in the main dining hall of Hotel Stockton. The cabaret supper and dance proved to be a jolly good time. A three-act vaudeville was very interesting and several songs were indulged in, some of them being composed for the occasion. The gathering



Tags slip in easily

TAG-BAKS
WILL
bring your tubs back

Furthermore, Tag-Baks tell you just who have the tubs that do not come back as quickly as they should.

Our circular tells in detail what Tag-Baks are and what they can do for you. GET ONE.

TAG-BAK

183 Ogden Ave **Milwaukee, Wis.**

Will Not Freeze Out *No Alcohol*

Vanilla Exquinta

TRADE-MARK

LIQUEFIED

FINER, STRONGER AND BETTER THAN VANILLA EXTRACT

Economical *Pure*

Write today for prices and particulars

CROWN FRUIT & EXTRACT CO., Inc.

418-420 WEST BROADWAY

New York City, N. Y.



Ice Cream Manufacturers!

HIGH CLASS INEXPENSIVE ADVERTISING

The menus are popular among ice cream manufacturers, who give them to druggists and confectioners with the manufacturer's trade-mark or advertising slogan printed on them. This is a sure and inexpensive means of advertising the ice cream manufacturer as the menus come to the attention of the customers of the retailer.

MENUS for the SODA FOUNTAIN

Samples Free on Request

THESE menus are **especially** for the Soda Fountain. They are not hotel menus or restaurant menus but are printed and embossed in colors on the highest grade stock and reproduced from original drawings for the use of Soda Fountains exclusively.

15 Styles

The three shown in cut are typical designs but there are various styles and sizes to choose from.

The Allis Press *Formerly* K. C. Bill of Fare Press Kansas City, Mo.

STANDARDIZE YOUR MIX ACCURATELY BY THE USE OF A GOOD TESTER.

broke up at midnight when a happy crowd went to seek repose for the next day's convention.

* * *

CABARET SUPPER AND DANCE.

To Members, Visitors and Ladies of the California Southwestern States Ice Cream Manufacturers' Association. By the Supply Men, Hotel Stockton, Monday, Dec. 5, 1921.

MENU.

Stockton Cocktail
California Products Manufacturers' Mix
Ocean Food
Wagner's Special—Some Bird
Children of the Garden
Italian Scramble
Sweet and Cold Delight Bakers' Fancies
Quencher and Smoke Screen

What They Sang.

Tune of "Jada."

Father, father, take a brick home every day
You'd better, you'd better, or there sure'll be hell to pay;
Sister will be waiting, mother, too,
Baby will be crying, and they'll blame it all on you;
So father, father, take a brick home every day.

Tune of "Liza Jane."

I gotta girl an' you got none—
I bought ice cream;
I gotta a girl an' you got none—
She eats ice cream.
Oh, get wiser ! Buy her ice cream!
Oh, get wiser ! Buy her ice cream!
Some like a dish, some like a cone—
So it's ice cream.
When you get home, step to the phone,
Whisper, ice cream.
Oh, get wiser! Buy her ice cream!
Oh, get wiser! Buy her ice cream!

Tune of "Over There."

Here or there ! Here or there!
They will scream for ice cream, here or there!
Oh, the girls all eat it; the boys all beat it
To soda fountains everywhere.
Grease your hubs; fill your tubs;
Don't make room for the gloom or the dubs.
While chicks are roosting, just keep on a-boosting,
And we'll sell ice cream when it's snowing
Here or there

Tune of "Let the Rest of the World Go By."

They've prohibition, too,
In Stockton by the slough;
We'd like to leave it all behind
And go and find
A place that's new
For us alone,
Just a place to brew our own,
We'll boil up the hops
Far away from the cops;
W. C. T. U., good-bye;
We'll build a little still
Up yonder in the hill
And let the rest of the world go dry.

Pacific Coast Yell.

Are we right? Are we right?
Ice cream men are always right.
Are we right? Well I should smile,
We've been right for a hell of a while.

Tune of "Smiles."

There's ice cream that makes us happy,
There's ice cream that makes us blue,
There's ice cream that's made for "cut price" buyers
Just to "shave the cost" a cent or two,
There's ice cream that's peddled by the gallon,
There's ice cream that's sold in war taxed cones;
But the cream they make in California
Is the cream that goes to our homes.

Tune of "Tramp, Tramp, the Boys Are Marching."

Pack, pack, pack your tubs with ice cream,
Enough to last a season through,
And let prohibition be dammed,
While your pocketbooks are jammed,
In the summer time of 1922.

Tune of "On Trail of a Lonesome Pine."

Oh, the gang's come to Central California,
On the banks of the Stockton slough,
Where the cows are seen, in grass that's green,
Giving lots of cream for me and you;
Oh, soon, in the month of June,
Our tubs we'll fill by the light of the moon;
If we all join hands in Stockton's balmy clime,
We'll give them hell in the summertime.

Tune of "In the Shade of an Old Apple Tree."

In the shade of an old battle tree,
It's a freezer of "Gloria" for me;
With Wilson and Ames
And two or three games,
Ain't we got fun? Oh, gee!
There'll be Christopher and Miller and the bunch
To join us in eating the lunch;
And to end up just right,
We won't quarrel or fight
In the shade of the old battle tree.

Tune of "Where Do We Go From Here."

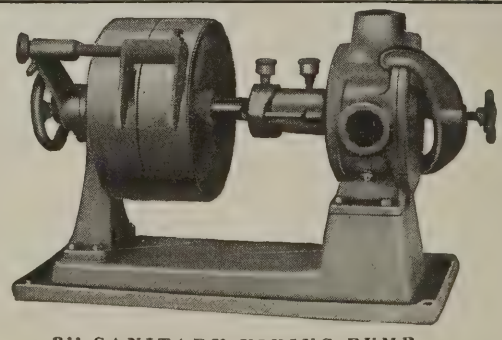
Ice cream, ice cream, where do you go from here?
Where e're you roam, in every home,
You'll find it, never fear.
Just boost like hell—'twill kill the smell
Of jackass booze and beer.
Ice cream, ice cream, we know where you'll go from here.

Tune of "My Sunny California."

There is cream that they dream of in Chicago,
There is cream that they dream of in Maine,
There are cones and brick galore
To be found from shore to shore;
Sure, they feed it to the matadors in Spain.
There are cones that they feed to the baby,
There are bricks that they feed to dad,
But the cream of all ice cream
That will make the whole world beam
Is made in Sunny California.

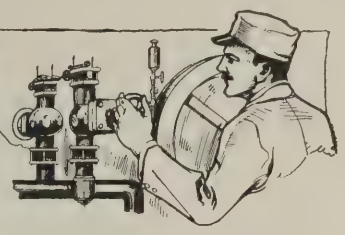
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PURE — HIGH GRADE
GELATINE
AND
Quick Action Ice Cream Powder
Special Double Strength Ice Cream Powder
Pure Powdered Gum
Ripener Powder
QUALITY — UNIFORMITY — SERVICE
St. Louis Gelatine Company
St. Louis Missouri

For CREAM

For BRINE
2" SANITARY VIKING PUMP
THE UNIVERSAL PUMP
For Milk, Brine, Water or Foods
VIKING PUMP COMPANY, Cedar Falls, Ia.

CP Mechanical Refrigeration

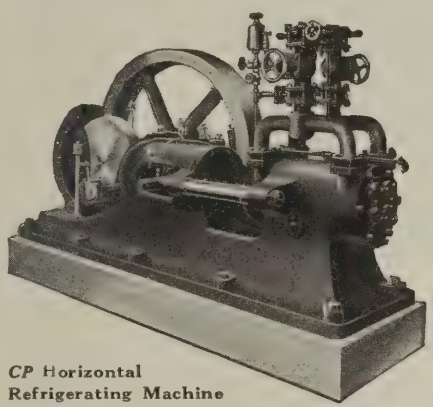
The Modern Method of Maintaining Uniform Temperature



For Ice Cream Freezing, Hardening and Storage

IN NO other field does ***CP*** Mechanical Refrigeration prove more valuable. It is more economical than natural ice for it requires less space and fewer men about the plant. Ice can be made on the premises with the ***CP*** System for icing tubs, cabinets, etc., at very low cost.

The ***CP*** Mechanical Refrigeration plant is strictly sanitary as dirt is confined to the boiler room and slop to the wash room away from the rooms where cream is frozen, hardened and stored.



CP Horizontal Refrigerating Machine

CP Refrigerating Systems can be supplied in all sizes ranging from ¾-ton up with either horizontal or vertical compressors and driven by belt, direct motor drive or direct Corliss engine drive as desired. Send for free ***CP*** Refrigerating Machine catalogue.

The Creamery Package Mfg. Company

SALES BRANCHES—(Write to Nearest One)

Chicago, Ill., 61-67 W. Kinzie St.
Boston, 138-140 Washington St. N.
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Portland, Ore., 6-8 N. Front St.
San Francisco, Cal., 699 Battery St.
Toledo, Ohio, 119 St. Clair St.
Waterloo, Ia., 406-8 Sycamore St.
Omaha, Neb., 113-15-17 So. 10th St.

USE

MEXOCINE

High Grade Concentrate

A Compound Bean Vanilla, Vanillin, Coumarin and Tonka Flavor

FOR ICE CREAM AND CONFECTIONS

Impossible to freeze out its true flavor
Forever dependable

Use ¼ oz. (or dessertspoonful) to flavor 10-gallon batch ice Cream.

Use ¼ oz. (or dessertspoonful) to flavor 100 pound batch candy.

Sample cheerfully sent on request

PRICES
Per Pint

1 pint	$7.00
5 pints	6.75
10 pints	6.50
25 pints	6.25
50 pints	6.00

TERMS: 2% 10 days, 30 days net.

REX EXTRACT COMPANY

257 Pacific Street Brooklyn, N. Y.

Order direct or through any of the following well-known firms:

J. G. CHERRY CO.....Cedar Rapids, Ia.
ENTERPRISE DAIRY & CRY. SUP. CO..Cincinnati, O.
CENTRAL OHIO SUPPLY CO.....Columbus, O.
DAIRYMEN'S MFG. & SUP. CO.....St. Louis, Mo.
E. B. GALLAGHER & CO.....Detroit, Mich.
W. L. KNORR CO.....Pittsburgh, Pa.
CHERRY-BASSETT-WINNER CO.....Baltimore, Md.
CHERRY-BASSETT-WINNER CO...Philadelphia, Pa.
N. A. KENNEDY SUPPLY CO.....Kansas City, Mo.
CHERRY-BASSETT-WINNER CO.....Pittsburgh, Pa.

Tune of "My Old Kentucky Home."

The sun shines bright in the middle of the street,
'Tis summer, the family is gay,
For dad is in the cellar, the drys he's going to cheat
With the hops that he's gathered all the day.
The neighbors roll on the little parlor floor,
All merry, all happy and bright;
By'n bye comes a cop—a knocking at the door;
Then my little old home brew—good-night!

CHORUS.

Weep no more, my baby, oh, weap no more alone;
We will see you through, tho' you've lost your old home brew,
Dad will bring you home an ice cream cone.

The Hosts.

California Central Creameries.
California Metal Enameling Company.
Champion Manufacturing Company.
Corrizo Extract Company.
Creamery Package Manufacturing Company.
Crystal Gelatine Company.
Davis-Watkins Dairymen's Manufacturing Company.
L. DeMartini Supply Company.
Essex Gelatine Company.
Faget Engineering Company.
Garrett & Co.
M. Getz & Co.
D. Ghirardelli & Co.
S. Gumpert & Co.
Wm. P. Horn Company.
Johannes Brothers' Company.
Lee-Greefkens Company, Inc.
Magnus Fruit Products Company.
Menasha Printing & Carton Company.
National Cone Company.
Patton Woodenware Company.
Pacific Coast Cone Co.
Pacific Dairy Machinery Company.
The Pfaudler Company.
Premier Machinery Company.
Geo. W. Prising Company.
Poppy Milk Products Company.
Sharples Separator Company.
Harold A. Sinclair.
Solar-Sturges Manufacturing Company.
Stollwerck Chocolate Company.
United Chemical & Organic Products Company.
Warner-Jenkinson Company.
O. J. Weber Company.
Weber Showcase & Fixture Company.
York California Construction Company.

(To be continued in June issue)

NUTS TO THE NUTTY.

The old lady wished to buy some pecans, the clerks were all busy and paid absolutely no attention. Finally she could stand it no longer:

"Well, I must say this is a fine kind of a store. Isn't there anyone around here to wait on the nuts?"

—Inklings.

FREDERICK C. MATHEWS ORGANIZATION EXPANDING.

Frederick C. Mathews Company, Detroit, announce as an addition to their organization, J. W. T. Knox, well known sales and advertising authority, who has resigned and concluded his interests with the firm of Nelson, Baker & Company to join the Mathews organization.



J. W. T. KNOX.

Mr. Knox, an early president of the Adcraft Club, has for the past ten years acted as Sales Promotion Manager for Nelson-Baker in their marketing of the Penslar line, and guided Penslar advertising as well.

His wide knowledge of the retail trade is to be utilized in the interests of Frederick C. Mathews' clients in rounding out their organization group, which now includes Dr. H. A. Harding, C. W. Esmond, A. R. Fernald, C. H. Arnold, H. H. McIntyre, J. T. Alton and other authorities well known in the field, all of whom are devoting their entire time and energies to Mathews' plans.

$100,000 CREAMERY MERGER.

The Wells-Chief Creamery Company, a $100,000 corporation, has been formed as a result of the consolidation of the C. O. Wells Creamery Company of Crestline, Ohio, and the Wells Dairy Company of Upper Sandusky. This consolidated company will be operated without a change in management or personnel of stockholders. The consolidation will result in a more efficient organization, with the advantages that come as a result of conducting the business as one company.

The purchasing and selling departments will be located at the home office, which will be at Upper Sandusky.

Send news items and personal notices to the "Review" and see how well they look in print.

ANNOUNCEMENT

You can buy your

ICE CREAM MIX

from us

READY TO FREEZE

Write for prices

PERRY PACKING CO. Perry, Iowa

At present low prices for retinning Ice Cream Cans you can make a very decided savings over the purchase of new cans.

Take advantage of this service, have your rusty cans retinned instead of junking them and buying new cans.

Our price for retinning a five gallon Ice Cream Can is seventy-five cents and ten cents for Covers—about one third the cost of a new can.

Use your old crates in shipping us your rusty cans. Just mark your tags—

MANITOWOC PLATING WORKS

MANITOWOC, WIS.

We will do a most satisfactory job and get your cans back to you promptly.

FLAVOR YOUR ICE CREAM WITH

Cremilla

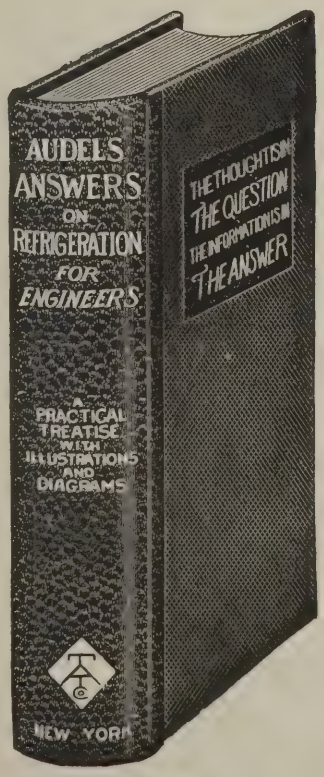
"CREMILLA" is better, smoother, creamier and of richer flavor than the finest grade of pure vanilla; and it's more economical.

"CREMILLA" is so concentrated as to make it the best flavor to use with homogenized cream; one-third to one-half oz. flavors perfectly 10 gallons of cream (one to one and a half pints for 500 gallons.)

Trial gallon by express on request. After fair trial, if you don't like it, send back what's left and pay us nothing.

National Fruit Flavor Co.

NEW ORLEANS, U. S. A.



When Something Goes Wrong with Your Refrigerating Equipment What do You do?

If you Operate Refrigerating Equipment You Need a Copy of this Book

Get a copy of "Audels Answers on Refrigeration,"—have it handy—and when you run into trouble you will find the information as given in this book a handy "First Aid" trouble finder and fixer.

Price $2.00 *Sent postpaid on receipt of remittance.*

The Olsen Publishing Co. 210 Sycamore St. Milwaukee, Wis.

SELECT QUALITY FOR SERVICEABILITY IN TUB COVERS.

PACIFIC ASSOCIATION OF ICE CREAM MANUFACTURERS.

(Continued from page 46)

Now, if compound or imitation of pure vanilla flavor are so good, why is it in all the years that vanilla extract has been manufactured, there is not a national sole brand of imitation or compound vanillas in the United States? You can find pure vanillas from Rockland, Maine, to San Diego, California. You can find pure vanillas from Bellingham, Washington, to Key West, Florida. In other words, pure extracts are nationally sold.

All manufacturers of flavors today are manufacturing imitation and compound extract. Why do they do it? To take care of an insistent demand, but there is no imitation that was ever manufactured that will bring repeat business that pure vanilla will as a silent salesman in ice cream.

People will tell you that pure vanilla will freeze up. If you have enough pure vanilla in your batch it won't freeze out. You don't send a five-year-old boy to bring a ten-gallon freezer of ice cream—you send a man after it. You don't ask a one-ton truck to carry five tons. Therefore, when you are making pure vanilla ice cream, put enough pure vanilla in it. Bakers will tell you pure vanilla will bake out; yet we have manufacturers of crackers and biscuits who make exclusively dry doughs, who are using pure vanilla. If they can't bake it out, how are you going to freeze at out? Some people will tell you the vanillin in a pure vanilla will crystallize. If vanillin from pure vanilla will crystallize, get some one to explain to you, and I want to hear it, what keeps chemical vanillin from crystallizing.

Taking into consideration a formula for making ice cream, I have found that invariably no matter whether a concern is using 20 per cent cream, whether they are using an excessive amount of gelatine, an increased amount of condensed or dry milk, you will find formulas reading about the same when it comes to that silent salesman flavor. Honest, they never give him a chance. I was going over a number of formulas the other day for making ice cream, and although they changed every formula, increased the total amount of solids to be flavored, still that poor silent flavor stayed at 4 oz. for every batch.

(To be continucd in June issue)

BRANCH PLANT AT HARLAN, KENTUCKY.

The Middlesboro Creamery Company of Middlesboro, Ky., recently begun operations in their branch plant at Harlan, Ky. This is a new modern plant and was constructed and epuipped at a cost of about $30,000 It has a capacity of 500 gallons of ice cream per day. The buiding is a frame structure which is to be brick veneered. The floors are all of six- inch concrete. The plant is using electric power, but has a steam engine installed and can change to steam very quickly in case of emergency. The hardening room has a capacity of 1000 gallons of ice cream and is kept at a temperature of about 20 degrees below zero.. Two wagons and an automobile truck are used for delivering.

The ice cream mix is made at Middlesboro and shipped to the Harlan plant; it is, however, pasteurized at the Harlan plant before being frozen and later it is expected that the mix will be made in the plant. The plant manufacturers "Quality" ice cream and "Sweet Bite" chocolate coated bars. They will also sell ice which likewise comes from the Middlesboro plant.

M. H. Thompson, a very successful man in the ice cream business, is general manager of both plants; W. C. Bowers is manager of the new Harlan plant, and A. L. Parish, of Decatur, Ala., who has had eleven years as an ice cream maker, is maker in both plants.



Above is a picture of the Sapulpa Ice Cream Company, Sapulpa, Okla., one of the most convenient and up-to-the-minute plants in the southwest. Mr. L. K. Jones, a hustler, a firm believer in advertising, and a man who sells all the Eskimo Pies he can produce, is manager of this plant.

M. & G. ICE CREAM COMPANY ERECTS SERVICE STATION.

The M. & G. Ice Cream Company of Allentown, Pa., are erecting a service station at Wilkes-Barre. Several freezers have been installed, and a hardening room has been erected which will hold 20,000 gallons of ice cream. The mix will be shipped from the new Allentown plant, and frozen at Wilkes-Barre, to be distributed in that city and Scranton.

This is the third service station this company has erected this year, in addition to building the half million dollar plant at Allentown.

The directors of this company are John G. Mealy, H. H. Farr, Carl D. Bauer, Fred J. Weaver, Joseph F. Gorman, John I. Goade, George LeRoy Walker, Oscar G. Tallman, Jacob Maurer and John A. Nallin. Mr. Mealy is in charge of the development of the business.

PROFESSOR LOCKWOOD IS PERMANENT SECRETARY.

Prof. W. P. B. Lockwood, of the New England Dairy & Food Council, has been named permanent Secretary for the New England Association of Ice Cream Manufacturers. Headquarters have been established in Room 401, 51-Cornhill, Boston, Mass.

Professor Lockwood is going to give a great deal of his time to this work and assures the New England Association and their members that they are going to get full value out of their membership in the New England Association.

PERSONAL.

Mr. R. G. Martin, representing the Elite Chocolate Coated Baseball Company, El Paso, Texas, called at the Review Office a short time ago. Mr. Martin explained a system by which they are going to give away some baseballs bearing the signature, Babe Ruth. See their advertisement in the next issue for details.

DEPRECIATION.

By Benjamin Levitas, Public Accountant, New York City.

In common with other manufacturers, ice cream concerns are giving closer attention to costs. As it has been pointed out in these columns, the wear and tear depreciation on machinery, delivery equipment and buildings forms an important part of the total cost of a gallon of ice cream.

In a recent issue, it was suggested by one who has completely studied the matter, that the proper depreciation rate for buildings used in this business is 7%. As a public accountant connected with the ice cream business, I gave this some thought, after it was brought to my attention.

In supporting a 7% rate, it was stated that an ice cream building because of its construction, would have to be disposed of at a sacrifice, should it become necessary to sell. If, however, the selling price of assets is to be considered, it would be necessary to charge off about 33% on all machinery the first year.

The fact that it is difficult to sell buildings and equipment used in ice cream manufacturing, makes it a risky business. Therefore, the profits should be larger than in a more staple business, where the possibilities of loss are smaller. Possible large losses because of the specialized nature of the business, should be compensated by a larger percentage of profit, after actual depreciation has been taken. Depreciation is however, and must be treated as, a real cost item, and not as a reserve for contingencies. Some allowance for obsolescence should be included with depreciation, to provide for the replacement of assets in good running condition, whose continued operation is no longer desirable, because of more rapid and labor saving improvements that have come on the market.

Depreciation is figured as a going concern, on the basis of how long the asset will last, and not on how much it will bring, if sold because of some necessity. A building and lot may sometimes bring more than their cost after long use, but this does not affect depreciation. The changes due to market conditions have nothing to do with depreciation, which is based entirely on the original cost.

Certain very unfavorable and destructive conditions make depreciation on ice cream buildings high. Since these do not affect a separate structure as a garage or stable, the rate on these will ordinarily be lower than 7%. The rate varies with the construction.

Each concern must decide for itself, after considering the experience of others, what the proper depreciation rates are in its individual case.

CRESCENT CREAMERY OPENS ICE CREAM DEPARTMENT.

An ice cream department with a capacity of 1,200 gallons a day has been opened in their new plant by the Crescent Ice Cream Company, of Sioux Falls, South Dakota. This new plant is modern in every respect, and equipped with the latest types of machinery.

This company is co-operating with the dealers by putting on a campaign to help them sell more ice cream. In addition to other publicity, dealers are supplied with tempting display material such as illustrated posters and hangers to attract people to the store.

Chocolate coated ice cream bars are also manufactured by this company.



That's the One!

Ask any ice cream plant employee who has ever worn and worked in an Akron Heavy-Service Rubber Apron and note how quickly he will reply, "that's the one you will like the best and be most satisfied with."

Every wearer is a booster for the

Akron Heavy-Service Apron

PURE WHITE RUBBER.

Water, Steam, Acid Proof. Pliable, easy and comfortable to wear. Durable, guaranteed not to harden, tear or crack. Its greater length of service makes it the most economical.

ASK THESE JOBBERS.

Davis-Watkins Dairymen's Mfg. Co., Chicago, Ill.
A. H. Barber Creamery Supply Co., Chicago, Ill.
Illinois Creamery Supply Co., - Chicago, Ill.
Arthur T. Barlass, - - Chicago, Ill.
Chester Dairy Supply Co., - Chester, Pa.
Enterprise Dairy and Supply Co., - - - - - Columbus and Cincinnati, O.
John W. Ladd Company, - Detroit-Cleveland.

To the Jobbing Trade.

This is a high-grade, genuine rubber apron you will be glad to recommend and sell. It's properly priced. Write us for full details.

Akron Apron & Rubber Sales Co.
20 E. Miller Avenue Akron, Ohio

ASHTABULA, OHIO, HAS NEW ICE CREAM MANUFACTURER.

The completion of the new plant of the Ashtabula Pure Milk Company, at Ashtabula, Ohio, gives that city one of the most complete and finest creamery plants in that section of the state. The plant is fully outfitted with the very latest type of equipment, built especially with a view to creating absolutely sanitary conditions, with resultant purity of the product.

Construction of the new building was started last fall. The flooring throughout all the departments is of special construction. A red finish has been laid over the concrete flooring, which will make it impossible for greases and fats to accumulate in the crevices on the floor. Every precaution has been taken in the construction of the new plant to insure cleanliness.

One of the best and most modern additions which have been made to the plant is the ice cream manufacturing department. This department is thoroughly equipped with the most modern machinery known to the trade. Arthur Shaw, who has had several years' experience in the manufacture of ice cream, is in charge of the department. The ice cream made at the plant will be known as "Reynold's Ice Cream."

The plant is equipped with an ice machine which has a daily capacity of 22 tons of ice. The refrigeration room is kept at a constant temperature of 35 degrees, and the chocolate coated ice cream bar department is located in this room. The hardening room, which has a capacity of 1,200 gallons of ice cream, is kept at a temperature ranging as low as 14 degrees below zero. All of the rooms which are constantly kept at low temperatures, and also the ice freezing tank, are insulated with cork.

Charles J. Reynolds, who is the sole proprietor of the business, bought out Frank Eastman, June 1, 1921. Previous to coming to Ashtabula, Mr. Reynolds had seven years of valuable experience as owner of the largest independent milk distributing business in Erie, Pa.



SPARTAN CREAMERY EQUIPS MODERN PLANT.

The Spartan Creamery, located at Spartanburg, S. C., has recently installed a modern plant for the purpose of handling market milk, butter and ice cream. The plant has a 10-ton refrigeration capacity, is equipped to handle an unlimited supply of market milk, and can make 750 gallons of ice cream a day.

Experts have agreed that this plant is one of the most up-to-date plants in the South. Mr. W. J. Nickles is the president and general manager, and has the hearty co-operation of the local Chamber of Commerce in building up a dairy business to "beat the boll weevil."

STUDENTS' DAIRY PRODUCTS JUDGING CONTEST.

At the National Dairy Show this fall there will be held a contest for the judging of Dairy products for students enrolled in Agricultural colleges.

A gold medal awarded by the International Milk Dealers' Association will be given to the student doing the best work in the judging of Milk. A gold medal by the American Creamery Butter Manufacture Association will be given to the man doing the best work in butter. A gold medal by the J. L. Kraft Brothers Company will be given for the man doing the best work in cheese. The National Dairy Show will give a silver medal for the second highest man in each class and a bronze medal for the third highest man in each class. The National Dairy Show will also give a gold medal for the man having the highest average in all classes.

The team doing the best work in milk will receive a cup to be held for one year donated by the J. B. Ford Company. The team doing the best work in butter will receive a cup donated by the J. G. Cherry Company to be held for one year and the team doing the best work in cheese will receive a cup to be held for one year donated by the Hoards Dairyman.

Rules governing this contest have been changed materially from those governing it in the past, and copies can be had by writing Professor J. H. Frandsen, Lincoln, Neb.



A COMBINATION BRICK-BAR CABINET.

Because of the possibility that an interchangeable cabinet may be required, the Brooks Cabinet Company, of Norfolk, Virginia, is making a "Counter Cabinet" which serves to hold either chocolate coated or brick ice cream.

This new design in ice cream cabinets can be placed on a soda counter or a stand or any convenient place, or can be taken to fairs or entertainments. It will hold either chocolate coated or brick cream, or both, at the same time. The cabinet is made in a white enamel finish and with a galvanized iron container that has a tapering top to allow complete icing and a false bottom to prevent moisture. It has a pure cork board insulation and all of the features which have gained for Brooks' Cabinets an enviable reputation for refrigerating qualities and durability.

The addition of the "Counter Cabinet" to the tub, metal lined, brick and combination cabinets makes the Brooks assortment complete.

IN BUYING YOUR MILK . . . AND CREAM TEST BOTTLES . . . DOES ACCURACY COUNT? . . . .

DOES STRENGTH COUNT . . . . AND THE ABILITY . . . . . TO WITHSTAND . . . . . THE STRESS AND STRAIN . . . . OF THE CENTRIFUGE TESTER? . .

DOES ESTABLISHED REPUTATION OF THE MANUFACTURER COUNT?

DOES THE FACT THAT . . . . . THE KIMBLE GLASS COMPANY . . IS ONE OF THE LARGEST . . . . MANUFACTURERS OF CHEMICAL . AND LABORATORY GLASSWARE . IN AMERICA INDICATE . . . . . ANYTHING TO YOU . . . . . REGARDING THEIR ABILITY . . . TO MAKE UPSTANDING . . . . . ACCURATE, DEPENDABLE . . . . CREAMERY GLASSWARE? . . . .

IF IT DOESN'T, SHOULDN'T IT?.

Order from your jobber or Write us direct

Kimble Glass Company

Vineland, N. J. Chicago, Ill. New York, N. Y.

Buy Forbes ALASKA COATING

A combination of High Grade Milk Chocolate, Chocolate Liquor, and Pure Cocoa Butter, prepared especially for Eskimo Pie.

Write for sample

THE FORBES CHOCOLATE COMPANY

CLEVELAND, OHIO

ESTABLISHED 1879

Gelatine is the most efficient of all stabilizers for Ice Cream

WHITTEN'S GELATINES Are Standard

Guaranteed to Comply with all National and State Pure Food Laws

STRENGTH, PURITY AND UNIFORMITY GUARANTEED

MANUFACTURED BY

J. O. WHITTEN COMPANY

Main Office and Works

Woolworth Bldg.
NEW YORK CITY

Winchester, Mass.

20 E. Jackson Boulevard
CHICAGO, ILL.

THE ASSOCIATION OF ICE CREAM SUPPLY MEN
MEMBER

VANILLA IN THE MIX

STANDARD VANILLA AND BLENDS

IN many ways flavor is perhaps the most important component of the mix. Without it the mix is flat and makes no appeal to the senses. Even the least discerning person will readily detect the want of it. Objectionable milk flavors may go unnoticed—but the lack of added flavor brings a flood of protest.

The average person is so readily attracted by an excellent flavor that the Vanilla used often establishes the popularity of the product. There is no golden rule to follow in the selection of the proper Vanilla Flavor. The taste requirement of your patronage, your personal choice on a basis of quality, economy and confidence in the manufacturer and his product point the way.

STANDARD VANILLA AND BLENDS

May we assist you in the selection of your flavor through our field representatives?

G. R. Ryan Manufacturing Company
INCORPORATED
Rochester, New York

ICE CREAM PLANT TO BE OPENED BY FORMER ASSISTANT DAIRY AND FOOD COMMISSIONER.

H. E. Forrester, who for eleven years has served as assistant Dairy and Food Commissioner of the State of Iowa, resigned his position May 1st, at which time he went into the butter and ice cream manufacturing business at Webster City, Iowa. The name of his plant is the Webster City Cream Company. The output will include both butter and ice cream.

Mr. Forrester's son Paul, who is at present with the Iowa City Produce Company at Iowa City, will be in charge of the ice cream department, while Mr. Forrester personally will look after the butter making end of the business.

A building, which has been leased for five years, is at present being remodeled to house this plant. It is 76 by 22 feet, and is two stories high, with a basement under the entire plant. Cement floors are being put in throughout. The equipment will include an 800 pound churn, 300 gallon ripener, a 200 gallon ice cream mixing vat, a direct drive 60 quart freezer, 10-ton ice machine, 12 horse power horizontal boiler, and all the smaller equipment that is necessary in a plant of this kind. The hardening room will have a capacity of 2,000 gallons of ice cream.

This plant will be ready for operation in a very short time.



WEST PALM BEACH TO HAVE NEW ICE CREAM PLANT.

The Palm Beach Creamery Company has bought a tract of land as a site for its ice cream plant and milk supply depot. The tract is adjacent to city terminals and the canal basin in the western part of the city. The building will be 41x53 feet with a height of two stories, in part. A fine garage will also be built.

The company is adequately financed, only 30 shares of the $100 shares of the $25,000 corporation being unsold. Dairymen at Lake Worth and Delray, originally associated with a project for a creamery in the south part of the county, have taken stock in the West Palm Beach creamery and their action is expected to lead to a consolidation of the two projects.

The West Palm Beach Creamery Company's plant will be in operation by June 1, Alf. R. Nielsen, president of the company, said recently. It can run economically on as small a quantity of milk as 300 gallons a day and an ice cream production of 100 gallons a day; it has a maximum capacity, however, of 2,000 gallons of milk and 300 gallons of ice cream. The plant will be constructed in units, so that capacity can be increased without changes in equipment. Stockholders of the company have a milk production of upward of 400 gallons of milk a day now.

Manufacture of butter will not be undertaken until the summer of 1923, the first use of the plant being as an ice cream factory and milk depot.



A UNIQUE PROCESSED FRUIT SERVICE.

An unusual feature of the processed fruit department of the Puyallup & Sumner Fruit Growers Canning Co., of Washington State, is the offer to responsible inquirers of a demonstration package of six 10-ounce samples of crushed fruits, confectioners' fruits, etc. Dr. W. S. Beekman, head of the department, says that the idea is to give prospective users samples worth while, large enough to allow them an opportunity of really testing the quality of the goods.

Dr. Beekman is one of the pioneers of the fountain fruit business and was the first to perfect American-made marachino cherries for the soda fountain trade. In his association with the Puyallup & Sumner organization he has a remarkable scope for his abilities, that organization having behind it 1800 organized growers whose ranches surround the plant in what is described as the finest bush fruit area in the world.

"There are no other berries like the berries from The Valley of the Mountain," Dr. Beekman writes. "The geographical situation and climatic conditions here are unique. The valley has the widest distribution for its products of all the fruit areas of the continent and can guarantee users a steady supply of the finest quality. It is quite within the mark to say that we have on hand right now the largest stock of processed fruit in the world, especially of maraschino cherries."



NEW ICE CREAM PLANT IN LONDON, ONT.

The Ontario Creameries, Limited, under the management of Charles Johnstone, has installed one of the most up-to-date ice cream plants in London, at a cost of approximately $50,000.

Last year the company manufactured three-quarters of a million pounds of "Marigold" butter, and this year expect to surpass that figure, as well as to manufacture ice cream, which will be sold under the same name as the butter.

The plant installed is of the latest type in the ice cream manufacturing trade. Five large refrigerators have been built.

The whole department is under expert supervision and special care has been taken to manufacture the company's product under the most sanitary conditions.

FORTUNE
"NORTH POLE"
Sweet Milk Chocolate Coating
Especially Prepared for
ESKIMO PIES
Ready for Use—Nothing to Add
FORTUNE PRODUCTS TRADE MARK
FORTUNE PRODUCTS CO., 416-422 So. Desplaines St. CHICAGO, ILL.

"Apply it as you would a paste---
It does away with DRIP and WASTE"
DOES NOT CONTAIN GRAPHITE
CHAINOLENE LUBRICANT
Will add life to your Roller and Link Belt Chains and Gears.
IT'S SOMETHING DIFFERENT
Sold on Trial
CHAINOLENE MFG. COMPANY
1018 S. Wabash Ave. Chicago, Ill.



100 to 120 Dozen Chocolate Coated Ice Cream Bars Dipped per hour with one operator

Write for particulars and prices

HOOSIER MACHINE WORKS

816 Jackson Street Columbus, Indiana



A Handy Book for the Manufacturing Department

RECIPES for making Ice Creams, Ices, Drinks, Flavors, Puddings, Imitation Ice Cream, Condensed Cream, Whipped Cream, Working up Soured Cream, Shop Floor Cement, etc. List of Articles needed in Workshop, Advice about Belting, Brine, Card Moulding, Can Packers, Checking Tubs, Transferring Ice Cream, Testing Cream, Wholesale Continuous Freezing, Window Display, Stock Cream Storing Cans *and Ninety-Nine Pointers.*

Sent Postpaid on Receipt of $1.25

The Olsen Publishing Co.

MILWAUKEE, WISCONSIN

GOOD TIN FOIL MAKES THE COATED ICE CREAM BAR DISTINCTIVE AND ATTRACTIVE.

What Causes a Hollow Space in Cans of Ice Cream?

Question Asked by a Subscriber and Suggestions for Prevention

THE baker can sell holes in doughnuts and not ruin his business, but when the ice cream manufacturer sells a packer of ice cream it must not contain a hole in the center if he is to get the repeat orders which are the delight of every business man.

Some time ago we received a letter from a reader in which he told of complaints from dealers to the effect that a hollow space appeared in the middle of the ice cream can after a few customers had been served. We forwarded a copy of his letter to several ice cream manufacturers and asked them to suggest a remedy. The question and a number of the replies follow:

Question:—We have had a number of complaints recently from several of our customers in regard to our cans not being full. They say the cans appear to be filled to capacity upon arrival, but after serving a few customers they find a hollow space in the middle of the can which varies from one-half to two gallon shortage in a five gallon can.

Our mix is 9.00 fat, 34.50 total solids, and we get 100 per cent overrun and great pains are taken in drawing the cream from the freezer to see that it is not drawn too fast which might cause air pockets in cans. Are there any causes other than too low solids, too much overrun or carelessness in drawing cream from freezer that would tend to make hollow cream. Please give us all the information possible.

* * *

Raise Total Solids.

Reply:—I believe he is apparently not getting a cool enough temperature on the cream when drawing it from the freezers. The cream should be 25 degrees above zero or less when drawn from the freezer. Also, I would suggest that he check his overrun very carefully inasmuch as it is barely possible that his total net results on a vat of mix when frozen would net 100 per cent. However, if he operates several freezers it is possible that he may only be securing 80 per cent overrun on one freezer whereas he will get 120% overrun on the other and unless he measures very carefully the raw mix he puts in each individual freezer and also checks the amount of ice cream that comes out of the freezers individually, he cannot be sure of his overrun. I would also suggest very strongly that if his mix contains only 9 per cent butterfat and 34.50 total solids that he raise his total solids to be something like 37 or 38 per cent. This will improve his quality very much. Try an overrun or 90 or lower. One hundred per cent is too high.

* * *

Too Much Overrun.

Reply:—We have come through this difficulty and found it apparently was caused by two much overrun.

This man can not entirely depend upon his overrun tester but should balance the amount of gallons of his mix with the total gallons frozen. He should also use an overrun tester and he should not take an overrun to exceed 90 per cent. If he will not allow his overrun to get over 90 or 92 or 93, he will not have any troubles of this kind. He can take an overrun of 100 but is always in danger.

* * *

Don't Pull While the Batch is Swelling.

Reply:—We had a similar experience to the one outlined during the early summer of 1921, and I am thankful to say that we were able to successfully overcome it after many trials and tribulations.

I do not believe that I can give you all the information necessary for getting rid of this trouble without additional facts, as it is my guess that despite the 9 per cent fat and 34.50 total solids, there is something in his mix that is not properly balanced. If you will get this mix and send me the formula, I shall be glad to give information to the best of my ability.

My suspicion is that the person operating the freezer is not thoroughly familiar with just what takes place, and is probably in a hurry to get through with his work. In this case, he no doubt watches his batch closely, testing when he thinks he has 100 per cent, and draws as soon as he has it. Drawing the ice cream slowly at this stage of the game is dangerous, as the batch is still swelling, and the last of the batch will be so light that it will test about 150 per cent. We found this in actual practice.

With this light ice cream on top of the can, it is placed in the hardening room, where the outside hardens. The inside settles leaving the hollow space.

Fred L. Mitchell & Son
WALNUT MEATS
160 lb. Barrels
For Ice Cream Makers, Bakers and Confectioners
50 lb. Boxes
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FANCY ICE CREAM FORMS
(Imported and Domestic)
Featuring
HOLIDAYS
Leaves, W/Stem, Lace Papers
Imported Fruits and Pulps
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You Should Have
THE BOOK OF ICE CREAM
By Walter W. Fisk
This book containing 300 pages—illustrated.
PRICE $3.25
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THE OLSEN PUBLISHING CO.
210 SYCAMORE STREET MILWAUKEE, WIS.

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How to overcome it? Let the operator try this: Turn on the brine immediately upon filling the freezer, letting the batch freeze as it will. You will note in the sketch (See Fig. 1) that under normal conditions, the overrun will exceed 100 per cent at some stage of the freezing process. It is our policy to freeze past the peak, running down to where the overrun shows about 60 to 70 per cent; then shut off the brine, whipping until 100 per cent is obtained by tester, then drawing as rapidly as possible. We assume that the operator has full control over brine temperature. It is hard to hold down the overrun with high brine.

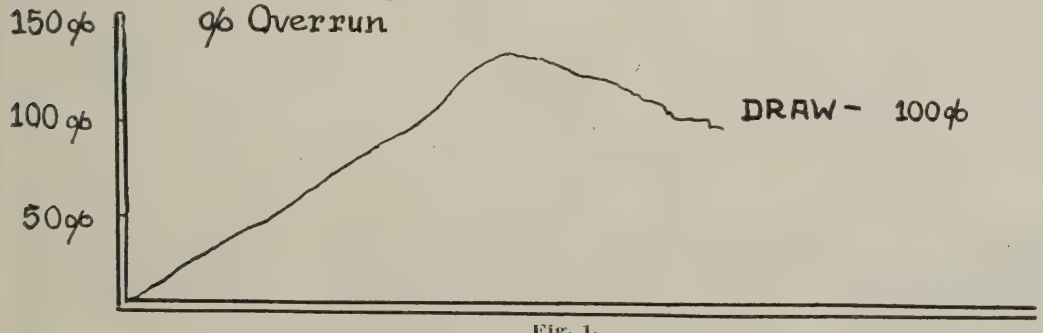


Fig. 1.

I wish you would advise me how the people come out on this, and if you will send me this formula I shall be glad to give you such further advice as I can.

* * *

Harden Quickly and Long.

Reply:—We have never had the experience that your subscriber describes.

We have always believed that 100% overrun was too much, as it is a detriment to the ice cream and if allowed to become soft, the air will escape and the mix will settle.

We believe his trouble is due to not hardening quick enough or long enough, as it settles in the middle and not all over. He should get a very nice ice cream with 9% fat and 34.50 solids.

You probably know of the old trick of drivers taking one gallon out of each can and then standing can on head and hardening, which would show a full can on opening and would gradually settle down and not be noticed. There is a nigger in the woodpile somewhere.

* * *

Overrun too High; Solids too Low.

Reply:—In looking over his letter, I notice that he is running 9% fat and 34½% total solids and from this mix is getting 100% overrun. I think this statement explains the whole difficulty, as I do not think it possible to get 100% overrun with such a low percentage of fat and solids, as we are running 12% fat and between 38 and 39% total solids and find that we cannot make satisfactory ice cream unless we pull a little less than 100%, so with the mix he is putting out, I don't see how it is possible to get so much overrun and still expect the cream to stand up. Possibly by using a great deal of gelatine to the detriment of his ice cream he might be able to make it stand up better than

(Continued on page 157)

NEWS ABOUT SUGAR

Items of Interest for the Ice Cream Manufacturer

WAREHOUSEMEN'S FUNCTION GROWING IN IMPORTANCE.

Distribution of sugars through warehouse consignments, says "Facts About Sugar," a practice which had been virtually suspended during the time when the Sugar Equalization Board was in control and subsequently while prices were at high levels, has now come into extensive use again and it is estimated by men familiar with distribution that refiners are now using fully one hundred warehouses scattered at different points throughout the country.

Methods Brought Up to Date.

While this system of distribution in the past presented many difficulties, owing to the inadequate protection furnished by the old style warehouses and the lax business methods of some of the proprietors, the modern warehouseman, according to traffic authorities in the sugar section, has applied thoroughly modern and up-to-date methods to his business and has increased its efficiency in a remarkable manner.

Accurate check is kept of shipments received and their condition, the interests of the refiner as against the transportation companies being fully safeguarded. Similarly the buyer of sugar is protected by the accuracy of the shipments made from warehouses, no goods being allowed to leave that are in any way damaged, and orders being accurately filled, conditions which are the reverse of the old-time wooden shed warehouse period.

In some markets the use of warehouses enables refiners to obtain through rates to destinations from the original shipping points, thereby effecting a considerable saving.

Some of the refinery trade have not yet adopted this means of distribution, preferring to keep their sugars on hand at the refining points. In the recent past, however, the refiner who has had stocks available in various parts of the country to take immediate advantage of the erratic buying movements which have developed from time to time has had considerable advantage over his competitors in the matter of distribution and has succeeded in moving an appreciably larger volume of sugar.

Advantages of Warehouse System.

Some of the advantages of the modern warehouse system are brought out in the following summary of the situation, prepared by a sugar man whose experience in this line has been unusually extensive:

It has been customary for many years for refiners to carry stocks of sugar in the larger cities of the country, such as Baltimore, Cincinnati, Pittsburgh, Cleveland, Chicago, Milwaukee and St. Louis, the reason being that because of competition it was impossible to sell over direct movement; hence, the only way to hold the trade was to have a stock on hand. This practice increased until at one time sugar was carried in a very large number of markets, and it was carried so far that finally the matter reached a state of negotiation and the number of consignment markets was very largely reduced.

The delivery of sugar in this manner necessitated shipping through public warehouses and naturally this required a kind of service that could be performed only by men understanding the business and meeting the requirements both of the refiner and the dealer, as, without care and diligence, it would be very easy for mistakes to occur, and to a certain extent the refinery leans upon the warehouseman to protect his interest in case of loss or damage and to see that proper record is made at time of arrival of the car. Many warehousemen have reached such a degree of efficiency that they have acquired a recognized reputation for careful handling so as to avoid friction in any way with either dealer or refiner. In addition to this, local service warehouses have become useful in reconsignment.

Important Service Rendered.

In many of these markets sugars are reconsigned in the area, say, of one hundred miles, on the basis of the through rate. This service requires on the part of the warehouseman a knowledge of the reconsignment tariff of the railroad handling the details, so that the through rate may be protected. He must also see that packages go out in perfect condition, that cars are properly loaded and properly billed. Unless these details are handled properly such movement does not become attractive either to the buyer or to the refiner. In some sections of the country this reconsignment feature is very pronounced, the trade for the surrounding country buying in carload lots, depending largely on delivery from reconsignment points. Hence it is of the utmost importance that this service should be performed carefully, with due regard to the interests concerned.



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Manufacturers of

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Write Us Regarding Our Supreme Pure Food Gelatine
No Better Stabilizer

Superior in Purity *Odorless and Tasteless*
Economical in Price *Uniformity Always*

WE GUARANTEE TO SHOW YOU A SAVING

There have sprung up in the past few years many warehouses in the different parts of the country that make a specialty of carrying sugars — warehouses of large capacity, of fire-proof construction and with every facility to permit of unloading, storing and rehandling in a first class manner. In some parts of the country this method of delivery is more valuable than in others. The movement from New Orleans today is to a large extent by water and the sugar is carried to various central points, such as Memphis, Cairo and St. Louis, then put in a warehouse built for this special purpose, handled by those who understand the requirements, and ordered out on a reconsignment basis within a reasonable area. On account of the delay in movement by water, it is natural that the buyers would prefer delivery from these points. So far as Southern trade is concerned, therefore, this feature is likely to be a permanent one, and a necessary one, in order to hold business.

* * *

FUTURES MARKET SHOWS RAPID GROWTH IN TRADING.

From being a neglected and unimportant sideshow to the commodity market the sugar futures market of the New York Coffee and Sugar Exchange has advanced in the past few months to a position where its transactions are of large volume and where it appears to be fulfilling its anticipated function as a real barometer of trade conditions and prospects according to "Facts About Sugar." This change has come about so rapidly that its significance is not yet fully appreciated by many members of the sugar trade, although it is recognized that the futures market has recently attracted many more traders than ever before participated in it.

Operations Forecast Price Trends.

While opinions differ sharply as to the extent of its influence, a study of exchange transactions and quotations indicates that thus far this year they have been a more accurate index of the price trend and of approaching trade conditions than have the purchases of refiners in the commodity market.

From the first of January to the 26th of April, something over 1,200,000 tons of sugar have been sold on the floor of the Exchange, a quantity equal to roughly one-third of the entire Cuban crop. Sales by months in round figures have been as follows: January, 200,000 tons; February, 262,000 tons; March, 386,000 tons; April (to April 26), 325,000 tons. It is possible that the total for April may reach a higher figure than March, which broke all previous records for volume of trading on the exchange.

In the opinion of some of the best informed sugar men the growth of exchange business means that a radical change in marketing methods, so far as raw sugar is concerned, is gradually developing. They do not hesitate to predict that if the refiners are to retain their position in the making of the market they will be forced in the near future to become active exchange operators, or as an alternative will have to accept the values established by the exchange.

Opinion Not Unanimous.

This opinion, it is worth while pointing out, is by no means unanimous. There is a considerable body of opinion, particularly in refining circles, which holds that circumstances of a temporary nature particularly favorable to exchange trading have been responsible for the recent widening of the exchange's influence. They admit that producers are becoming more encouraged to dispose of



Transformation

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ICE CREAM & MILK CANS

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OLD, WORN OUT CANS LIKE NEW

Tinning of All Kinds Including Cast Iron

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Variation in Flavor Sells More Bars

Do not wear out customers' liking for ice cream bars by giving them the same flavor day after day.

The public demands variation, and the manufacturer who gives his trade novelty in the way of flavor experiences the best demand for his bars.

Mapleine

Mapleine Bars appeal to the trade because Mapleine Ice Cream is keenly liked and because its smooth, rich, maply flavor blends so deliciously with the chocolate coating.

Mapleine also makes an attractive combining flavor in the Neapolitan Bars manufacturers are finding popular.



Give Mapleine Bars a try-out.

Order Mapleine of your supply man or send us $3.00 for a quart tri al bottle.

CRESCENT MANUFACTURING CO.

Seattle, Washington

their sugars, in part at least, through the exchange, but this, they contend, will eventually result in depressing prices unless the increase in refiners' purchasing through this agency keeps pace with the increase in sellers.

In line with this argument is the contention that the sugars which have been bought by operators must be considered as a potential depressing factor in the market until they have passed into the hands of refiners.

Past experience does not seem to bear this out. During the declining market of last year the exchange apparently sensed the weakness in the situation and registered it in its quotations sooner than did the refiners.

On the rising market of this year the exchange again apparently showed its collective judgment to be more accurate than that of the individual refiners. Almost without exception the exchange prices this year have been appreciably higher than those governing the actual market. Operators who bought actual sugars as a hedge against their exchange transactions found no difficulty in reselling to refiners when the sugars arrived, the actual market having risen to the levels earlier indicated by exchange transactions.

Still another objection to exchange trading appears to have gone by the board. Refiners formerly contended, and some still do, that the exchange did not furnish a broad enough market in which to operate, and that an attempt to buy 10,000 tons of sugar, for instance, would be followed by severe price fluctuations.

If the figures for the volume of tradeing were not sufficient to offset this argument, other recent occurrences can be pointed out as doing so. In one day recently no less than 40,000 tons of sugar were traded in on the exchange with only two points variation in prices. Still more recently, within the past ten days, on one occasion 140 lots, representing about 17,000 tons of sugar, were traded in for October, which is considered in exchange circles as comparatively a "dead" month, without any fluctuation in price whatever being recorded.

* * *

NEW RULING ON SUGAR IMPORTS.

Collectors of customs at ports of the United States have been advised by the Treasury Department that certificates of origin will no longer be required in connection with imports of sugar, as information received by the department indicates that no foreign country is at present paying an export bounty on this commodity.

The Treasury Department has, at the same time, advised the State Department that consular officers, in certifying invoices, should note for the collector of customs in this country any information he may have regarding the payment of bounty on sugar covered by the invoices, either in the raw or the refined state. Whenever such payment is reported or indicated the facts are to be reported by the collector to the Treasury Department for investigation and instructions.

* * *

THE SUPPLY.

There is and there will be at the end of the year a considerable surplus of sugar available for use in this country, declares Federal Sugar Refining Company in a close statistical survey of the world sugar situation, and any rumors to the contrary are for the speculative purpose of raising prices. Any extended increase in raw sugar prices is unjustifiable in view of the adequate supplies and every time attempts have been made to raise them the hollowness of the boom has been quickly demonstrated by collapse. If manufacturers and consumers using sugar will bear in mind the facts, buying will be sensible and prices will be kept down at reasonable levels, insists President Claus A. Spreckels of the Federal Sugar Refining Company.

There will be 1,246,947 tons of sugar in excess of our needs in this country and Cuba on October 1, and on Jan. 1, 1923, there will be 1,396,947 tons surplus sugar here and in Cuba, according to itemized estimates of stocks, consumption and production prepared by the Federal statisticians. A total of 4,171,947 tons of refined sugar will be available before the new domestic crops come to market. This includes 300,000 tons balance of 1921-22 beet crop and 3,871,947 tons refined sugar produced from 4,163,384 tons raw sugar. The raw sugar aggregate includes 916,770 tons stocks at Cuban shipping ports March 25, 2,005,358 tons balance of Cuban crop, 75,000 tons Cuban sugar afloat to U. S., 269,255 tons refiners' and importers' stocks and 314,000 tons, 378,000 tons, 160,000 tons, 5,000 tons and 40,000 tons as balance of receipts from Porto Rico, Hawaii, Philippines, Virgin Islands and outside sources respectively. Allowing 625,000 tons for exports from Cuba or the U. S. during the rest of the year, the balance available for domestic requirements is 3,546,947 tons. With the consumption up to October 1 amounting to 2,300,000 tons, the indicated surplus is 1,246,947 tons on that date. At this time the domestic beet and cane sugar crop, which should equal last year's amount of 1,100,000 tons, will be pressing on the market. Placing consumption for the last quarter of the year at 950,000 tons, the carry-over on Jan. 1, 1923, should be, conservatively 1,396,947 tons.

Cuba's crop this year will amount to 3,580,571 tons, according to the first detailed estimates to reach this country, those from the Federal representative on the island. Every year at this season there are rumors of poor crops but the indications are this year that the final result will be above rather than below the estimate. A number of centrals may register a shortage, some holding part of the cane for next year. On the whole, the eastern half of the island will more than make up for any shortage in the other half, the eastern part, for the first time in Cuban history, producing more than the "six ports". While the cane fires this year have been numerous and serious, the final effect on the crop will not be considerable and has been allowed for in the estimate. On the other hand, the yield of sugar is in many cases unusually high, some centrals reporting as high as 14 per cent in some of their runs.

Over a million tons more sugar have been shipped from Cuba since the beginning of the year than in the corresponding period of last year. Record shipments have been leaving the islands in recent weeks. It is obvious, however, that this rate will not be maintained.

Relations between the United States and Cuba on sugar are by no means settled. Cuba has strenuously resisted all efforts to limit production or to limit exports to the United States. The probable approval of the permanent tariff of 1.60 cents per pound on Cuban sugar may lead to the island passing retaliatory measures against goods from this country.

Europe's sugar industry is regaining its pre-war production. Preparations are now being made for the next crop and it is expected that France will have more than its last crop of 300,000 tons, and Germany will exceed its last output of 1,320,000 tons. English refiners are making vigorous efforts to reach their maximium capacity and this competition is likely to affect American refined sugar. There is a good possibility that there will be strong competition for European business with Cuba by sugar from other sources. It is believed that never before has Java sold so little of its new crop as this year.

A. E. DIXON.

You just can't keep a good man down. Mr. A. E. Dixon, Fayetteville, North Carolina, and known to Review readers best as the hustling secretary of the North Carolina Ice Cream Manufacturers' Association, has had new honors thrust upon him. He is now president of the North Carolina Ice Exchange, which recently held a very successful convention at Winston-Salem and Dixon was the unanimous choice for the highest office in the organization. Those ice men know a good thing when they see it. Mr. Dixon's work in the ice cream organization field is attracting much favorable attention and shows what a real live wire can do.



A. E. DIXON.

NEW DAIRY PLANT AT FULTON, MISSOURI.

The White Eagle Dairy Company of Columbia, Missouri, engaged in the wholesale and retail milk, butter, cheese and ice cream business, and capitalized at $75,000.00, recently established a branch plant at Fulton, Missouri.

The Fulton plant will handle the cream of the farmers in the surrounding territory, buying direct from the farmers. The firm does not operate cream buying stations.

The new plant is equipped with a horizontal freezer, a pasteurizer, mixer, 500 pound churn, one ton truck, and miscellaneous small equipment. It expects to supply the ice cream and butter for dealers in Fulton and vicinity.

The White Eagle Dairy Company had a total output last year of $160,000, and, at the Missouri State Fair last year, won first prize on pasteurized milk, pasteurized cream, and cottage cheese, third prize on creamery butter, and sweepstakes on single daisy cream cheese. There were twenty entries in this exhibit representing eight states.

HAWN ICE CREAM COMPANY RE-ORGANIZES.

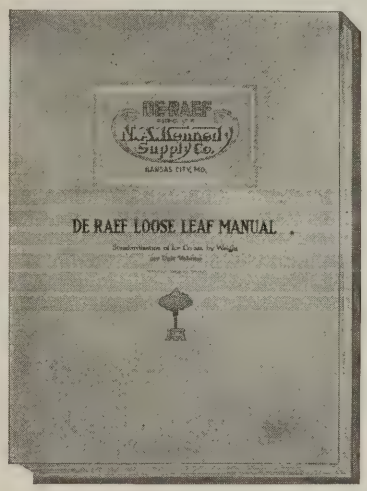
The Hawn Ice Cream Company of Monroe, North Carolina, has recently re-organized, and changed its name to the Monroe Creamery Company. The capital stock has been increased $5,500.00 and a $5,000.00 refrigeration plant has been added, which contains a hardening room for ice cream. This plant, with its new facilities, has a daily capacity of 2,000 pounds of butter, 1,000 gallons of ice cream, and 500 gallons of milk. The plant is among the most up-to-date in the south.

Mr. W. E. Funderburk is President and General Manager, and Miss M. J. Beam is Secretary and Treasurer of the new organization.

You'll make better ice cream if you get the "Ice Cream Review."

DE-RAEF LOOSE LEAF MANUAL
FOR THE PRACTICAL
ICE CREAM MANUFACTURER
The only manual of its kind published to date devoted exclusively for the Ice Cream Factory

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Written in Plain, Intelligent Language for the Practical Ice Cream Factory Manager and Ice Cream Maker from Several Years of Practical Experience Visiting Plants Throughout the States in the Middle West.

De Raef Loose Leaf Manual, circular sent on application to the Ice Cream Department.

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THE STRONGEST GUARANTEE POSSIBLE HAS BEEN PLACED ON

GERMIFECTANT
REGISTERED
for over a year

A shipment of a case of six gallons of this most powerful and economical deodorant-disinfectant is being sent any well rated concern on the following basis:

If you are not entirely satisfied with Germifectant notify us within 15 days after shipment is made and invoice will be cancelled without any obligation of return of material.

Order a Case Today

Sani-Dairy Products Corporation
EVANS & 45th ST. CHICAGO, ILL.

FRED EWARD INVENTS DIPPING MACHINE.

Fred O. Eward, Secretary-Treasurer of the Marion Ice and Cold Storage Company, Marion, Indiana, is the inventor of a novel and extremely efficient chocolate dipping machine for the manufacture of all chocolate coated ice cream centered confections.



FRED O. EWARD.

Mr. Eward at first devised this machine for his own use in the production of the nationally known "Eskimo Pie," but the fame of this unusual dipping process soon spread and the Marion Ice and Cold Storage Company was deluged with letters of inquiry together with some offers of purchase. Pressed by the demands made upon him, Mr. Eward applied for a patent, formed a company known as the Chocolate Dipping Machine Company, and started to fill the orders that came in.

Because of the machine's labor, time and money saving qualities and its high production of ice cream bar confections—dozens of manufacturers soon put in a clamor for the devices. Two girls can easily dip and hand to the wrappers 300 dozen chocolate coated ice cream bar confections in 6 hours.

Now Mr. Eward has built up a substantial business due largely to personal advertising. With the machine which he conceived to assist his own manufacturing he has automatically assisted dozens of other manufacturers.

Mr. Eward is a director of the National Association of Ice Industries, and has a large number of friends in the ice and refrigerating industry, who will learn with interest of his latest success.

A BOOKLET ON PACKAGE ICE CREAM.

A treatise, in booklet form, on improved packaging and marketing methods for ice cream is being published by the Purity Paper Vessels Company. The booklet treats of the advisability of packaging ice cream in pint and quart containers in the manufacturers' plant in preference to having the dealer dip it up in "carry-home" containers.

Ice cream is daily becoming a more staple product and is being considered a real food and delightful dessert instead of a mere confection. The modern tendency is to buy foods in packages for convenience and cleanliness. This fact, combined with the fact that the ice cream supply manufacturers are making machines which will neatly fill one package with ice cream of two or three flavors at the same time, is increasing the sales of many manufacturers, according to their own statement.

One valuable feature of this booklet is a thorough review of the exact details of an advertising campaign for packaged ice cream which was conducted by a large Missouri manufacturer. This particular manufacturer very greatly increased his total sales of ice cream. On request, this booklet may be obtained from the Purity Paper Vessels Company, 5 West Conway St., Baltimore, Md., without cost.

OKLAHOMA ICE CREAM FACTORY INSTALLS NEW EQUIPMENT.

The Washita Valley Ice Cream Company, Anadarko, Oklahoma, has recently completed the installation of new refrigerating machinery, and now has the plant in fine running order. This plant is situated in the most fertile section of the state, and in a well developed dairy district. All of the milk and cream used is obtained in the vicinity, and the ice cream is made entirely of natural milk and cream.

The factory, though small, is equipped with the most modern and best machinery obtainable. The owners are the operators, and all have had years of experience in making ice cream.

This company is capitalized at $10,000. T. L. Whittaker is president of the organization.

NEW ICE CREAM FIRM IN SANDUSKY.

The Kelly Ice Cream Company has just been organized at Sandusky, Ohio. The incorporators of the new company are Carl A. Busch, Susan Busch, E. R. Kelly, M. Estelle Kelly and Nicholas P. Brown. The concern is capitalized at $25,000. E. R. Kelly will be president of the organization and Carl A. Busch secretary and treasurer. Mr. Kelly has been with Reymer & Bros., Pittsburgh, manufacturers of chocolates, for the last fifteen years, and Mr. Busch has been with the Sweet Valley Products Company and its predecessor, the Sweet Valley Wine Company, for ten years.

The building which has been secured for manufacturing purposes has a floor space 62 by 33 feet. Production of ice cream will be started just as soon as the necessary machinery and equipment can be installed.

KOKOREKA

The ORIGINAL
and BEST

VEGETABLE
BUTTER

FOR

THINNING
CHOCOLATE
COATINGS

Write for Free Sample

India Refining Company

McKean & Swanson Sts.
PHILADELPHIA

CHICAGO
222 N. Wabash Ave.

SAN FRANCISCO
203 California Street

WHAT CAUSES THE HOLLOW IN CANS OF ICE CREAM.

(Continued from page 151)

now, but the practice of using large quantities of gelatine certainly is not conductive to good ice cream.

I don't believe the manner in which the freezers are pulled has anything to do with the difficulty. The trouble lies entirely with the mix.

* * *

Reply:—Your subscriber's trouble, in our estimation, is very likely too much air. In other words, when a manufacturer tries to sell air instead of ice cream he is very likely to get in just such trouble as mentioned. We do not allow but eighty per cent overrun by weight which gives us ice cream in the finished product weighing five pounds net per gallon; this should be the standard weight throughout the country. Eighty per cent overrun is an honest legitimate ice cream and we would advise your subscriber to manufacture a cream weighing five pounds net to the gallon in the finished product and no doubt his trouble will vanish and he will have a clearer conscience.

⚜

NEW EMAUS ICE CREAM PLANT IN OPERATION.

Stortz and Eisenhard, Emaus, Pa., proprietors of the A La Mode Restaurant, recently began the manufacture of ice cream. They have a new 60x80 ft. building for a factory which is modernly equipped and has a capacity of about 100 gallons per day at present. They started the plant with the intention of supplying only their own needs, but have already obtained some wholesale business and expect to continue to grow. Mr. Frank Stortz is manager of the plant.

⚜

A NEW PENNSYLVANIA ICE CREAM PLANT.

Windber, Pennsylvania, is to have a new ice cream factory, the building and refrigerating equipment to cost $40,000. Mr. Frank Tarr, a hotel man, will engage in the ice cream business as a new venture this year. A large part of the new building will be used for manufacturing ice cream. The McCormick Company, Inc., of Pittsburgh, are the architects and engineers in charge of the work.

⚜

"FISCHL'S-O-FISCHL."

A total of 1,065 persons entered the name contest conducted by the Fischl Dairy Company, Manitowoc, Wis., to find a suitable name for the ice cream which the company is to manufacture on completion of its new and modern ice cream plant which is now under construction.

The name of the cream is to be "Fischl's-O-Fischl."

⚜

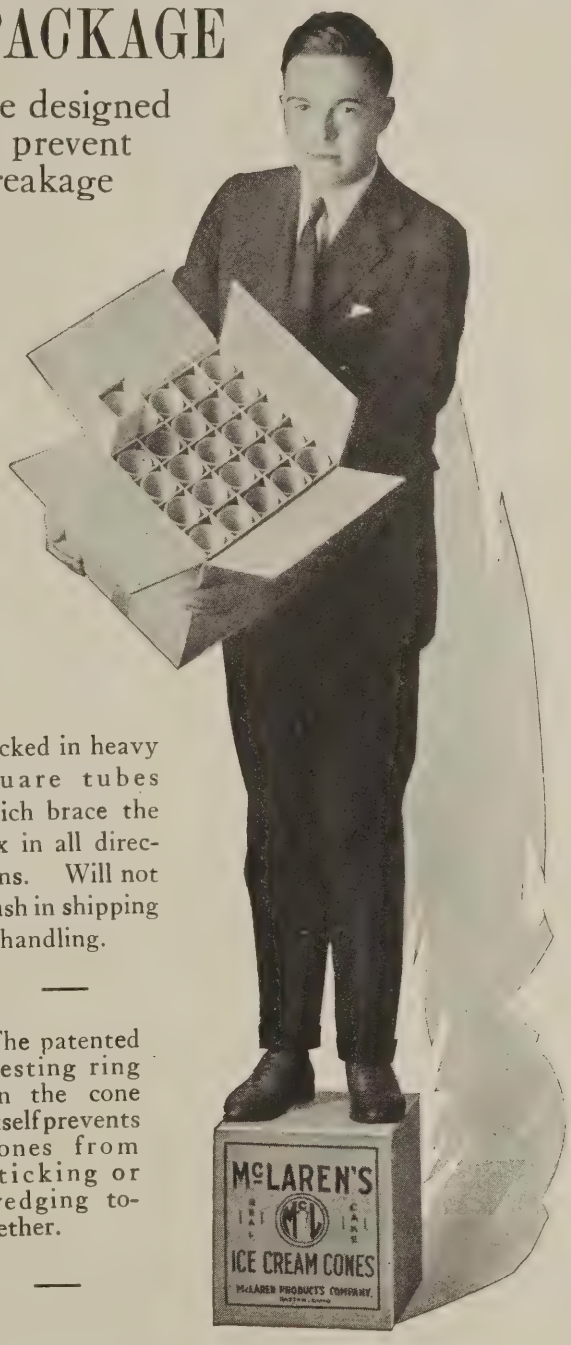
I can ask for no better reward than to have carved on the marble that stands over me. "He did the best he could for his fellow men."—Hoard.

* * *

You can't make a cent fighting the laws of nature. Get into the channel of her manifest teachings and she will further your purposes.—Hoard.

BOTH PRODUCT AND PACKAGE

are designed to prevent breakage



Packed in heavy square tubes which brace the box in all directions. Will not crush in shipping or handling.

The patented nesting ring on the cone itself prevents cones from sticking or wedging together.

It's a pleasure to sell

McLAREN'S

"Real Cake" (Double Ring) Cones

McLAREN PRODUCTS COMPANY

Dayton Ohio — Kansas City Missouri

ICE CREAM SANDWICH MACHINES ARE POPULAR ATTRACTIONS AT PARTIES, BAZAARS, ETC.

GIRARD CREAMERY TO BE REBUILT AFTER FIRE.

One of the most interesting, if not regrettable incidents that has been brought to our attention recently was contained in a letter giving us information regarding a fire at the plant of the Roselle Creamery at Girard, Kansas,—interesting because it is a wonderful example of typical American pluck and grit. Not the least interesting thing about it is the way these qualities were recognized by the people under whose observation they came. Such a chronicle does much to reinforce one's faith in the innate goodness and whole heartedness of people in general.

In 1901, at Excelsior Springs, Mo., Mr. H. A. Roselle and his father started in the ice cream business, with a few old five gallon ice cream tubs, and with no capital other than the profits from the business. Just at the time when the hard work was beginning to bring a reward, Mr. Roselle's father died.

In 1910 he took over his father's interest in the business, and, in spite of severe competition, built up a good business and erected a fine building. In 1919 he sold out this business. For the benefit of his only brother, who had served overseas, a partnership was formed, and the creamery at Girard taken over. This creamery had been allowed to run down, and was not a paying proposition, but Mr. Roselle could see a good future for the man who would get out and hustle. Accordingly preparations were made, the plant was overhauled, and it was their intention to open up in spring. In January, 1920, the brother died suddenly, leaving him the entire burden of starting the new business. By hard work and a desire to succeed, however, the business was put on a successful basis. The first year did not bring much financial profit, but Mr. Roselle got acquainted, advertised, and put out quality goods. In 1921 the business kept climbing, and its end brought to a close the most successful year that he had ever experienced, outgrowing his equipment. Plans were made for an additional plant and extensive new equipment. In addition to the ice cream business he had built up a good butter business, and was also supplying pasteurized milk to the city trade.

Mr. Roselle worked hard all winter building new additions and installing new equipment, and in a short time would have had everything completed.

Monday, March 27th, Mr. Roselle and some of the workmen worked late, making final connection to some of the new equipment. He and his son were the last to leave the plant, which was carefully inspected to see that everything was all right, as it was only partly covered by insurance. The fire seems to have started upstairs, and was a roaring furnace when discovered. There was no chance of checking it.

When Mr. Roselle arrived the roof was falling in. His sensation at seeing the results of his years of struggle and effort, and his immediate hopes for the future go up in smoke, can possibly be imagined, but not described.

He may be pardoned if for a moment he felt like giving up. But the citizens of Girard, realizing the situation, gave such hearty promises of support that he was placed in a position where he felt that he would not be doing his duty if he did not make an effort to come back. Before the fire was out, a plan was on foot to put up a building for him, but because of the high cost of equipment, it was not possible to raise enough money by donations to carry the first plan through. It was then decided to organize a stock company, and incorporate for $12,000, and with what little assets Mr. Roselle had left, and his good will, they gave him 51 per cent of the stock. He called a meeting of the citizens, placed his case before them, and said that, while it was a hard job, he would endeavor to justify their confidence by making a creditable come-back. The Davis-Watkins Dairymen's Manufacturing Company had a lot of confidence in him, and offered to equip the plant on very liberal terms, which was a great help.

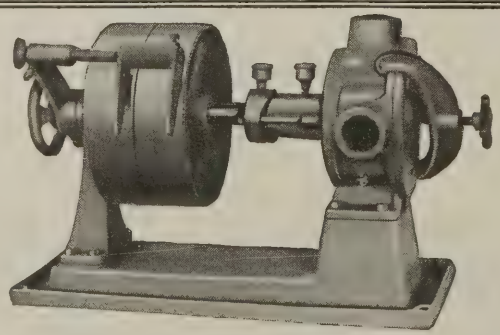
The American Legion of Girard, in memory of his brother, have offered to clean out the ruins whenever Mr. Roselle is ready to allow them to do so.

Through the kindness of the manager of the Crawford County Creamery of Pittsburg, Kansas, he is being supplied with ice cream and butter to accommodate his trade, and Mr. Decker, of Girard, is furnishing the soda water. "How can a fellow lay down on the job," he says, "when even his competitors come to his rescue?"

The building that will be constructed will be a 40 by 70 ft. brick structure, half of which will be two stories in height, and the other half one. It will be constructed and equipped with the idea of making additions as the business justifies. The Davis-Watkins people assured Mr. Roselle that if he had a building ready in thirty days, they would have the plant equipped and in running order by June 15th.

It must be people of the calibre of Mr. Roselle that Edmund Vance Cooke had in mind in his well known poem, "How Did You Die?" when he says, "The harder you fall, the higher you'll bounce." It appears to us that this piece of misfortune came merely by way of backing up for a new start to a bigger, brighter future.

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(ESTABLISHED 1897)
NEWARK NEW JERSEY

Does Carbon Dioxid in Carbonated Milk and Milk Products Destroy Bacteria?

By M. J. PRUCHA, J. M. BRANNON and A. S. AMBROSE in Circular No. 256 of University of Illinois Agricultural College and Experiment Station

CARBON dioxid or carbonic acid gas, is a transparent gas under ordinary atmospheric pressure and temperature. It is readily soluble in water and the solubility is increased under pressure. Water charged with this gas is known as soda water, or as carbonated water. Such water has a plasant, acid, pungent taste, and on account of this many of the soft drinks are charged with it.

The use of carbonated dioxid in dariy products is not a new idea. The ice cream soda, which consits largely of ice cream suspended in carbonated water, has been known for years. Some of the fermented drinks, such as kumis and kefir, become charged with carbon dioxid as a result of fermentation, and these drinks have been known for generations. In 1906 Van Slyke and Bosworth[1] conducted some experiments on carbonated milk. They concluded that it makes a pleasant beverage and may find practical use as a healthful drink.

From the sanitary standpoint, the use of carbon dioxid in foods and in drinks is of special interest. It is a well known fact that in general carbon dioxid atmosphere is injurious to animals and to plants. It has also been known that under certain conditions this gas is harmful to certain bacteria. On these accounts, various claims have been made as to the sanitary quality of carbonated drinks and carbonated foods.

This circular is a preliminary report of experiments to determine the influence of carbon dioxid on the germ life in carbonated diary products. It includes a brief summary of four experiments: (1) effect of carbon dioxid on germ life in carbonated ice cream; (2) effect of carbon dioxid on typhoid bacteria in carbonated ice cream; (3) behavior of bacteria in carbon dioxid atmosphere; (4) effect of carbon dioxid on bacteria in milk under pressure.

The plate mehod was used in counting the bacteria. In sampling the hardened ice cream, a long cylindrical plug of ice cream was taken by means of a cheese trier and put into a glass bottle. After it had melted, the desired dilutions were made from it and it was then plated. The medium used for the plating was lactose agar having the standard composition. The plates were incubated four days at room temperature and one day at 86 degrees Fahrenheit. The counts as given are averages of two or more plates in each case.

The plates from the material with typhoid bacteria were incubated only one day at 100 degrees Fahrenheit.

Experiment No. 1.

Effect of Carbon Dioxid on Germ Life in Carbonated Ice Cream.

In this experiment seven 12-gallon lots of ice cream were prepared. Each lot was divided into two portions; the first was frozen in the usual way, and the second was frozen in carbon dioxid atmosphere. A 50-quart Perfection Dreadnaught Brine Freezer was used. The following procedeure was used in freezing the ice cream in carbon dioxid: A rubber tube was fastened to the nozzle of a carbon dioxid tank, and the loose end of the tube was inserted into the freezer thru the fruit hopper. The gas was then blown into the freezer for about 30 seconds. The ice cream mix was then poured into the freezer. After the freezr was run for a few minutes, the carbon dioxid was again blown in for about 30 seconds, the loose end of the rubber tube being inserted under the surface of the mix and the gas allowed to bubble thru it. As soon as the ice cream was frozen, it was put into two-gallon storage cans which were placed in the hardening room and kept there during the experiment. The temperature of the hardening room averaged about two degrees below zero Fahrenheit, varying between ten below and eight above.

Samples for the bacteriological examination were taken, first, from the mix prior to the freezing, and then from the ice cream, both the plain and the carbonated, immediately after it was frozen. Subsequent samples were taken at frequent intervals during the experiment. The results of the bacteriological examinations are given in Table 1.

In comparing the bacterial counts in the plain and in the carbonated ice cream in table 1, we are forced to the conclusion that the carbon dioxid gas did not cause any appreciable reduction in the number of bacteria in the carbonated ice cream. If it did destroy any bacteria, the number was so small that our method did not detect it. One of the lots of ice cream which is not included in this table was kept in the hardening room for six months. Even after this long period of time the carbonated ice cream had just any many bacteria as the plain ice cream.

Table 1.—Effect of Carbon Dioxid on the Bacteria in Carbonaated Ice Cream Bacteria Per CC. of Ice Cream.

Lot. 1.

Samples	Plain	Carbonated
Mix	620,000	
Freshly frozen	703,000	765,500
1 day old	356,000	928,000
2 days old	789,000	832,000
4 days old	640,000	644,000
6 days old	963,000	1,070,000
8 days old	581,000	780,000
11 days old	474,000	616,000
14 days old	686,000	725,000
18 days old	1,249,000	518,000
22 days old	578,500	502,000
26 days old	647,000	578,000
30 days old	534,000	585,000
34 days old	607,000	409,000
40 days old	472,000	432,000
49 days old	536,000	710,000
58 days old	530,000	742,000

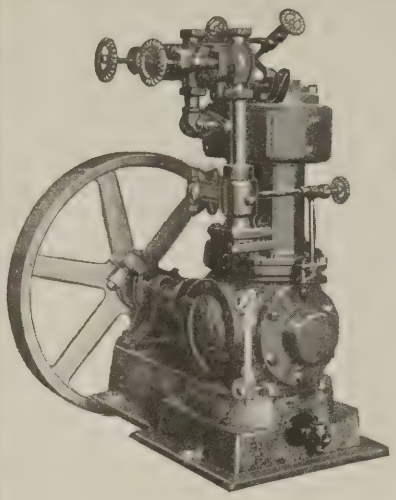
Lot 2.

Samples	Plain	Carbonated
Mix	341,000	
Freshly frozen	534,000	408,000
1 day old	629,000	506,000
2 days old	620,000	683,000
3 days old	622,000	571,000
4 days old	480,000	598,000
7 days old	666,000	510,500
9 days old	867,000	559,000
11 days old	420,000	435,000
14 days old	341,000	526,000
17 days old	436,000	555,000
20 days old	442,000	429,000
24 days old	565,000	450,000
27 days old	388,000	340,500
32 days old	794,000	552,000
34 days old	258,000	303,000
42 days old	492,000	445,000
51 days old	415,000	419,000

Continued on next page

[1] L. L. Van Slyke and Alfred W. Bosworth. Effect of Treating Milk with Carbon Dioxid Gas Under Pressure. N. Y. (Geneva) Agr. Exp. Sta. Bul. 292. 1907.

A GOOD POINT TO CONSIDER IS THE SERVICE OUR ADVERTISERS GIVE.



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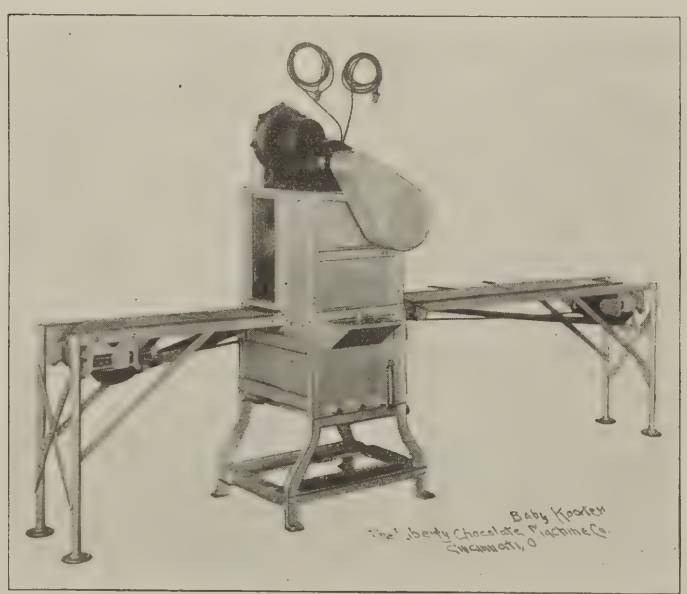
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Reliance Ice Machine Co., Inc.

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The Baby Liberty Koater



will coat your Eskimo Pies automatically with a larger production at a lower cost. Will use a better coating with less butter fats at less expense. Not a hook or dipping device. — *Write for our new catalogue.*

The Liberty Chocolate Machine Co.

Cincinnati, Ohio.

Lot 3.

Samples	Plain	Carbonated
Mix	715,000	
Freshly frozen	1,255,000	910,000
1 day old	1,004,000	777,000
2 days old	699,000	1,017,000
3 days old	750,000	708,000
4 days old	694,000	670,000
6 days old	607,000	891,000
9 days old	836,000	787,000
12 days old	207,000	212,000
14 days old	730,000	731,000
17 days old	677,000	558,000
20 days old	523,000	536,000
24 days old	388,000	455,000
28 days old	537,000	505,000
31 days old	477,000	330,000
39 days old	629,000	715,000

Lot 4.

Samples	Plain	Carbonated
Mix	26,325,000	
Freshly frozen	36,725,000	28,600,000
1 day old	22,430,000	21,450,000
2 days old	6,370,000	23,800,000
3 days old	17,880,000	13,980,000
5 days old	23,700,000	19,930,000
7 days old	29,250,000	37,700,000
10 days old	16,250,000	16,250,000
13 days old	16,420,000	15,600,000
16 days old	14,625,000	14,300,000
19 days old	8,410,000	9,610,000
21 days old	13,000,000	10,820,000
24 days old	17,550,000	16,250,000
51 days old	2,060,000	3,130,000

Lot 5.

Samples	Plain	Carbonated
Mix	13,800,000	
Freshly frozen	15,930,000	14,950,000
1 day old	10,550,000	15,600,000
2 days old	18,200,000	15,280,000
3 days old	8,800,000	11,380,000
5 days old	18,530,000	17,930,000
7 days old	15,330,000	18,200,000
9 days old	8,450,000	8,450,000
11 days old	11,050,000	14,300,000
13 days old	18,200,000	16,250,000
17 days old	10,070,000	6,500,000
28 days old	8,440,000	10,988,000
32 days old	14,300,000	11,400,000
40 days old	10,500,000	16,250,000
53 days old	3,340,000	3,480,000

Lot 6.

Samples	Plain	Carbonated
Mix	98,000	
Freshly frozen	56,500	121,000
2 days old	51,000	65,000
3 days old	52,000	52,000
4 days old	58,000	50,000
5 days old	40,000	46,000
6 days old	55,000	54,000
7 days old	52,000	84,500
8 days old	56,000	45,500
10 days old	7,000	6,150
11 days old	55,000	51,500
12 days old	43,000	35,000
13 days old	35,000	53,500
14 days old	34,000	54,000
15 days old	33,500	52,500
16 days old	5,000	32,000
17 days old	43,500	34,000
18 days old	45,000	53,500
22 days old	35,000	43,000
24 days old	44,500	76,000
33 days old	18,000	22,500
46 days old	39,000	50,000

Experiment 2.

Effect of Carbon Dioxid on Typhoid Bacteria in Carbonated Ice Cream.

It was seen in Experiment 1 that the bacteria in the carbonated ice cream were not appreciably harmed. However, these bacteria were not pathogenic. Now it is a well known fact that the pathogenic bacteria, as a rule, are more sensitive to environmental conditions than the non-pathogenic. It was therefore necessary

to determine how the pathogenic bacteria would behave in carbonated ice cream. Typhoid bacteria were selected for this purpose.

About four quarts of ice cream mix were sterilized and then heavily inoculated with the typhoid bacteria. Half of the mix was frozen plain and half was frozen in carbon dioxid. A one-gallon White Mountain freezer was used for this purpose.

Samples were taken from the mix prior to freezing and then from both the plain and the carbonated ice cream immediately after freezing. The ice cream was then stored in the hardening room and samples were again taken five and twelve days later. The results of the examination of these samples are shown in Table 2.

Table 2.—Effect of Carbon Dioxid on Typhoid Bacteria in Carbonated Ice Cream.

Samples	Bacteria per cc. of ice cream. Plain	Carbonated
Mix	24,700,000	
Freshly frozen	50,050,000	50,700,000
5 days old	8,180,000	9,380,000
12 days old	10,465,000	6,896,000

The samples from the freshly frozen ice cream gave much larger counts than the sample from the mix, altho the interval of time between them was only about one hour. This apparent increase was probably due to the breaking up of the bacterial clumps during the process of freezing. The samples taken after the ice cream was kept in the hardening room for five days showed a sharp reduction in the number of typhoid bacteria. Similar reduction, however, took place in both the plain and the carbonated ice cream and could not be attributed to the carbon dioxid. The samples taken after the ice cream was in storage for twelve days showed but a slight change in the counts. There were fewer bacteria in the carbonated ice cream than in the plain at this time. Whether or not this was due to the effect of the carbon dioxid is not known but will be determined when this experimental study is completed. This is certain, there were still plenty of living typhoid bacteria in the ice cream after twelve days of storage.

From the above two experiments, it seems very evident that the incorporation of the carbon dioxid gas into the ice cream during the process of freezing does not guarantee the ice cream to be a safe product.

Experiment 3.

Behavior of Bacteria in Carbon Dioxid Atmosphere.

In the process of making the carbonated ice cream, the carbon dioxid gas is blown into the freezer in order to replace the air by the gas. Carbon dioxid and air mix readily in all proportion and it is to be expected that what is incorporated into the ice cream is not pure carbon dioxid but a mixture of this gas and air. The effect that such a mixture would have on the bacteria may be quite different from that produced by the pure gas.

This experiment deals with the effect of pure carbon dioxid gas on bacteria. Twenty different cultures of bacteria from milk and ice cream, and also two pathogenic bacteria were inoculated into milk and on the surface of agar jelly. They were placed in an air-tight vessel and the air was replaced by carbon dioxid gas. They were kept in this condition at room temperature for five days. The examination of these cultures at the end of five days showed that on the agar jelly only two of the twenty different bacteria could grow in carbon dioxid atmosphere. The remaining eighteen showed no visible signs of growth. These agar cultures were then taken out and were left in the open air for a few days to determine whether or not the bacteria were killed by the carbon dioxid gas. All of them except three resumed their growth, indicating that the gas did not kill them. The three cultures that were killed were the two pathogenic bacteria and one of the non-pathogenic.

Entirely different results were obtained when these bacteria were subjectd to th carbon dioxid gas in milk. Not on of them was killed by the gas. Not only that, but in all cases they increased in number. It would seem that in milk the bacteria found certain protection against the action of the gas.

Experiment 4.

Effect of Carbon Dioxid on Bacteria in Milk Under Pressure.

Since the bacteria could survive and even grow in the milk when they were kept in pure carbon dioxid gas, it was decided to go a step further and note the effect on bacteria when the milk was charged with the gas under pressure. For this purpose one-quart soda-water bottles were used. The carbon dioxid was first blown, thru the bottles to replace the air by the gas. The bottles were then filled with the milk and the gas was admitted under pressure while the bottles were being shaken vigorously. The pressure of ten, twenty, forty, and sixty pounds were tested. The bottles were kept at room temperature. Each day samples were taken from the bottles for bacteriological examination; the pressure was tested and any decrease in pressure was adjusted. In no case, however, did the pressure decrease more than one pound.

Table 3.—Effect of Carbon Dioxid on Bacteria in Milk Under Pressure. *

Age of Milk	Untreated	Under 10 lbs. pressure	Under 20 lbs. pressure	Under 40 lbs. pressure	Under 60 lbs. pressure
Fresh	35	35	35	35	35
1 day old	1,606,000	93,000	34,000	3,740	1,270
2 days old	.....	630,000	1,044,000	292,000	175,200
4 days old	.....	.....	.....	428,000	359,000
Soured in	30 hours	48 hours	3 days	5 days	9 days

(* **Note.**—Figures represent thousands, 000 omitted.)

The treatment of milk with carbon dioxid under pressure delayed the souring of the milk. The untreated milk soured in thirty hours. Under 10 pounds pressure it soured in forty-eight hours, under 20 pounds pressure in three days, under 40 pounds pressure in five days, and under 60 pounds pressure in nine days.

In Table 3 are given the bacteriological results from one of the series in this experiment. It is seen that the bacteria grew under all the pressures tested. Under 60 pounds pressure they increased in four days from 35,000 to 359,000 per cc. of milk.

In another series of this experiment, the milk was first sterilized and then inoculated with typhoid bacteria. The milk was then subjected to 10 and to 20 pounds pressure. The typhoid bacteria were not killed under these conditions. In four days under 20 pounds pressure they increased from 47,000,000 to 153,000,000 per cc. of milk.

In these preliminary experiments, the authors were concerned only with the sanitary aspects of carbonated milk and carbonated milk products. The process may have many commercial advantages and it may be of decided benefit to the dairy industry; however, the results of these experiments point to the conclusion that the process cannot be relied upon as a means of insuring the sanitary quality of dairy products.

Note.—The terms carbonated ice cream, carbonated milk, etc., as used in this article, refer to laboratory products made by laboratory methods, and not to products made by commercial processes patented or otherwise.

TEXAS LONGHORNS

President—J. R. KRAMER, Creamery Package Mfg. Co., Dallas, Texas.

Secretary—J. B. HUFF, Prall-Huff Co., Fort Worth, Texas.



THEY BROUGHT HOME THE "MEAT."

This is the bait the nimrods take, the nimrods take, the nimrods take when they start out the ducks to wake, so early in the morning. They take a nip before they go—a good one, ah! and long and slow, for fear the chills will lay them low, lay them low, so early in the morning. Another when they're on the street, which they repeat each time they meet for "luck" — for that's the way to greet a hunter in the morning. And when they are on the water's brink again they drink without a wink — to fight malaria they think it proper in the morning. They tip a flask with true delight when there's a flight; one at the mart and one to part; but none when in the house they dart expecting there'll be mourning. This is the bait the hunters try, when ducks they buy at prices high, and tell each one a bigger lie, of hunting in the morning.

This is a picture of a duck hunting party at Katy, Tex. In the party are W. H. Irvin, of the Irvin Sanitary Ice Cream Company, Houston, Texas; Jim L. Nelson, of the C. Nelson Manufacturing Company, member of the Texas Longhorns and all the rest of 'em, St. Louis, Mo.; "Babe" Eule of Katy, Texas, and Gabe S. Wegener, of the Hudson Manufacturing Company, member of the Texas Longhorns, and the Badger Flyers, Chicago, Ill. Looks like they got their share, doesn't it? Judging from their mode of conveyance in reaching the scene of the duck hunting, they may have been slow getting there but they made up for it after they arrived—all we've got to say is that we'd be afraid to repeat our duck-hunting experiences to fellows who have taken an ox along to carry home the spoils—and say, folks, we don't want you to get these pictures mixed—the one below is the duck hunting party.



W. H. Irvin, Jim Nelson, "Babe" Eule, Gabe Wegener.

A GOOD METHOD FOR KEEPING CHOCOLATE COATED ICE CREAM BARS HARD.

A California ice cream manufacturer suggests a good way to keep chocolate coated ice cream during hot weather:—

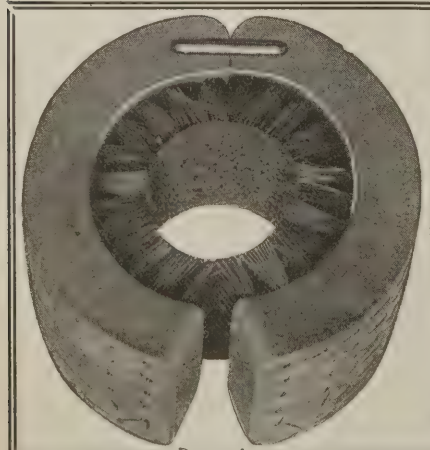
We quote from his letter as follows:

"We have been packing our Eskimo Pies on end in round ice cream cans—two gallon, three gallon and five gallon cans containing five, nine and fifteen dozen respectively.

"These cans are then stored in our ice box and sent out on the routes exactly the same as bulk ice cream.

"We have found this method of handling them to be convenient and economical and we have had practically no trouble with the pies becoming soft except in the case of shipping customers, who do not appreciate the importance of keeping the pies firmly frozen the same as bulk ice cream.

"The sale of pies has dropped off considerably since the first few weeks. As yet we have had no real warm weather so we cannot tell exactly what the sales will be during the summer months, but we still feel that Eskimo Pies will continue as a prominent sideline."



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2 inch $3.50 2½ inch $3.75

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Taber Creamery Pumps



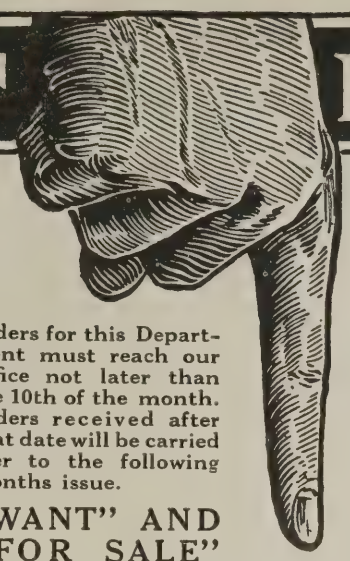
are the most sanitary because they are entirely dissectable. Demand a Taber Pump from your jobber. If he cannot supply you we will sell you direct. Address:

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WANT DEPARTMENT



Orders for this Department must reach our Office not later than the 10th of the month. Orders received after that date will be carried over to the following months issue.

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Notices will be published at the rate of 2 cents per word, cash with order. For blind address 15 cents extra.

NOTE: Names and addresses of advertisers using blind addresses cannot be furnished direct from this office. The advertiser can be reached only by using the key number and addressing your reply care of "The Ice Cream Review."

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The Ice Cream Review disclaims any responsibility for the reliability of parties advertising in the Want and For Sale Department, nor for the truthfulness of statements made in such advertisements. In answering such ads, ask for references if parties are unknown personally, before sending money. Our subscribers are requested to assist us in keeping unreliable parties from advertising by reporting any suspicious dealings.

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THE TREMENDOUS SUCCESS of the recently invented confection, "ESKIMO PIE," has demonstrated the wonderful possibilities of protective patents and trade-marks for novel confections. Patents procured, trade-marks registered; 22 years' experience. Instructions and terms on request. Robb, Robb & Hill. 920 McLachlen Bldg., Washington, D. C., and 1385 Hanna Bldg., Cleveland, Ohio. 2-22tf

EMPLOYERS!—Men, men, men—the crying need of the day! If you need any men in your business today, read the following ads and see if you can use any of these. The fact that these men are advertising here stamps them as unusually progressive. Write them and give them a chance to sell their services to you. "Ice Cream Review," Milwaukee, Wis. tf

WANTED—Butter and ice cream maker. Must be able to handle refrigerating and pasteurizing machinery and know the game thoroughly. Married, sober and clean. References, experience, salary expected wanted with application. Sylvester-Nichols Co., Little Falls, Minn. 5-22

POSITION WANTED

HIGH GRADE ICE CREAM MAKER, capable all around dairyman, open for engagement. Thirty years' practical experience, expert on testing, standardizing, pasteurizing milk, cream. Thoroughly experienced in all departments inside, and outside work, steam, refrigeration; good mechanic; reliable; best of references. Will guarantee to save and make you money in your plant. Desire position with reliable firm. Address: R-48, Ice Cream Review. 7-21tf

POSITION WANTED—As assistant to manager of progressive ice cream or dairy products plant. Have technical education and practical experience. Will consider only first class proposition. Address: R-258, Ice Cream Review. 5-22

POSITION WANTED—By a first class butter and ice cream maker with 20 years experience. Best references. Address R-279, Ice Cream Review. 5-22

POSITION WANTED—By experienced ice cream and milk plant manager. Am capable of handling sales and offices as well as plant department. Prefer a good size medium town and can let part of earnings apply upon interest in plant. Age 30. Married. References. Evans, 410 Corby-Forsee Bldg., St. Joseph, Missouri. 5-22

POSITION WANTED—Experienced ice cream factory manager employed as such wants change where he will be paid for results. Would consider working interest as part salary. Would buy interest if priced right. I can get the business, try me. Address Box 518, De Ridder, La. 5-22

POSITION WANTED—As manager of rapidly growing pasteurized milk, butter, and ice cream plant. Put this plant on its feet and now making money. Best board of directors in the world but don't like this location. Well trained and experienced. Satisfying references. Address R-267, Ice Cream Review. 5-3

POSITION WANTED—By ice cream maker who knows the ice cream business in all of its branches. Now manager of a branch plant for a large mfg. branch producing 200 gals. per day. Best reasons for changing. North Central states prefered. Address R-268, Ice Cream Review. 5-22

POSITION WANTED—By thoroughly experienced ice cream maker with 16 years experience by June 1st. Fred W. Petersen, 1213 So. 2nd St., Norfolk, Nebr. 5-22

POSITION WANTED—By ice cream maker in modern plant. Understand standardizing, pasteurizing and freezing. Single, age 23. State salary and describe plant in first letter. South preferred. Address R-274, Ice Cream Review. 5-22

POSITION WANTED—As first class ice cream maker. Three years experience. Two dairy school courses, fully acquainted with all details of manufacture. Married, age 28. State salary and describe plant in first letter. Address R-274, Ice Cream Review. 5-22

POSITION WANTED—Thoroughly seasoned creameryman with milk, butter, ice cream, soft cheese, culture buttermilk, etc., manufacturing experience immediately available for tough proposition—the kind demanding demonstration exceeding ordinary ability to make good. Salary secondary consideration if future assured. Will equip new plant. Go South. Highly recommended. Particulars first letter. Address: Dairy Products, 736 Marbridge Bldg., New York City. 5-22

POSITION WANTED—As manager of ice cream plant. Thoroughly experienced. Good executive and accountant able to put in cost and checking system that will get results. Nothing but A-1 proposition considered. Give full particulars in first letter. Address R-273, Ice Cream Review. 5-22

WANTED POSITION—With good reliable company. Can take complete charge of production. I have had charge of mixing and freezing departments. Also sundae specials and fancy ices. With large Wisconsin company. Can come on short notice. Address R-277, Ice Cream Review. 5-22

POSITION WANTED — First class ice cream maker, 5 years experience with ice cream, two more with city milk and butter. Graduate of agricultural college, also short course at Iowa. Experienced with Babcock and Mojonnier methods of standardizing mixes, and with all modern machinery, including refrigeration. Have done everything in ice cream plants, including keeping books, making tests, and reports. Familiar with cost accounting. Last year I established a new brand of ice cream in more than 20 flavors, also ices, sherbets, etc. Am married, age 34, can come at once. Please state salary, etc., in first letter. Address R-275, Ice Cream Review. 5-22

POSITION WANTED—By university graduate and practical ice cream maker and general dairying as superintendent of ice cream plant or market milk plant or combination plant. Understand all latest methods. Married, age 30. Can go on short notice. State salary and full particulars in first letter. Best of references. Address R-278, Ice Cream Review. 5-22

POSITION WANTED—By reliable man thoroughly experienced in the ice cream production. Will consider nothing but year round proposition. Had charge seven years in last position. State salary and descriptin of plant in first letter. Address R-271, Ice Cream Review. 5-22

POSITION WANTED—As manager or superintendent by a Danish creamery expert. Thoroughly scientific and practical trained in various Danish creameries and agricultural schools and graduated from the Heriot Watt college in Edinburgh, Scotland. The very highest grade of butter, Ronguefort cheese and ice cream guaranteed. Understand all the latest methods in mixing, freezing, homogenizing and testing. Capable of taking the entire charge of any size creamery. At present superintendent in one of the largest creameries in the South. Address R-270, Ice Cream Reiew. 5-22

FOR SALE BARGAINS

FOR SALE—Wholesale ice cream plant in city of 20,000 population, 4 railroads, large territory, located in heart of city, largest ice cream business in territory. Up-to-date plant. Also butter business locally and sub creamery within forty miles in dairy belt. Will sell both plants. Address: R-238, Ice Cream Review. 3-22tf

FOR SALE—One-half interest in a well established ice cream factory and bottling works, in one of the best cities in Minnesota. Good paying business but have other business interests and can not give it my personal attention. Address: R-262, Ice Cream Review. 5-22

FOR SALE — By Wisconsin creamery, sweet pasteurized cream butter for ice cream making, also 91-92 score print butter. Address: R-210, Ice Cream Review. 5-22

MACHINERY AND SUPPLIES AND

BOILERS, NEW AND SECOND HAND—Electric Motors, Engines, Pumps, Pipes and fittings, Valves, Belting, Shafting, Bearings and Pulleys. Money Saving prices. Harris Machinery Co., Minneapolis, Minn. 12-20tf

FOR SALE—Three new Cherry model "I" 60-quart freezers; motor driven. Rich Ice Cream Co., Buffalo, N. Y. 3-21tf

FOR SALE—Cottage cheese in one, two or five tub lots, shipped date of make. Rock Lake Creamery, Lake Mills, Wis. 1-21tf

FOR SALE—12 Babcock tester, 8-10-12 bottle size; 1 Jensen bronze sanitary pump, 1¼ in. connections; 1 Trahern iron pump, 1 in. connection; 1 continuous double disc ice cream freezer, 100 gallon capacity, with counter shaft and pulleys; 1 Ventura 18 in. wall suction fan (new); 1 12 bottle Troemner cream scale. The Bennett Creamery Company, Ottawa, Kans. 8-22

FOR SALE—One Holding Tank (7,000 lbs. capacity); two Model D Simplex Milk Pumps; two Sanitary Rotary Milk Pumps (Taber Pump Co.); one Cream Production Co. Ruff Condensor No. 7; one Taylor Vapor Tension Index Thermometer; two Bristol Recording Thermometers with 15 feet of tubing. For particulars write or phone Pabst Corporation, 917 Chestnut Street, Milwaukee, Wis. 3-22tf

FOR SALE—Three new, and two rebuilt Tyson 40 qt. belt driven ice cream freezers. These freezers are known as the Tyson Advance Special, and were taken over from the Tyson Co. on a debt, and must be sold. These freezers are of late model and were built last summer. No fair offer will be refused, as these freezers must be moved in the next 60 days. Address: J. B. Parker, 608 Cherry Ave. N. E., Canton, Ohio. 5-22

FOR SALE—One No. 6 Ruff condenser, 1921 model, 12 cylinder machine, tank capacity 500 gallons, recently overhauled and repainted. In good condition. Special proposition for cash. Now stored in central Pennsylvania point. Address: R-255, Ice Cream Review. 5-22

FOR SALE—40 quart Miller brine freezer and motor. One Creasey ice crusher. All in good condition. Cheap for cash. Supreme Ice Cream Co., Coshocton, O. 5-22

FOR SALE—One Meyer icing truck body. Further information furnished on request. Elmira Ice Cream Co., Elmira, N. Y. 6-22

FOR SALE—1 vertical open top, blue enamel tank, 47 in. O. D. x 50 in. high, 375 gal. $300.00 each. 1 horizontal blue enamel 6 ft. 9 in. O. D. x 6 ft. long, 2-30 inch rings, 1,342 gal., $350.00. 4 vertical closed top 6 ft. 0 in. O. D. x 7 ft. 6 in. high, 2-36 inch rings, 1,575 gallons capacity, $400.00 each. Chas. S. Jacobwitz, Buffalo, N. Y. 5-22tf.

FOR SALE—Ice machines, several small sizes taken in on larger ones, A-1 order about one-half price, will erect and guarantee. H. A. Born Company, Chicago, Illinois. 7-22

FOR SALE — One De Laval Emulsor, three 40 quart Continental direct expansion amonia freezers, motor driven. One 40 quart Miller, one 40 quart Progress brine freezers, belt driven. One 10 ton, one 25 ton refrigeration Continental Amonia compressors, one 10 ton Sterling compressor — also lot of milk, brine and water pumps, 15 motors, 2 to 50 h. p. 2 phase, 60 cycle, 220 volts. Attractive prices—write us. M-B Ise Kream Co., Dallas, Texas. 6-22

FOR SALE—One combination ice cream freezer and ice crusher—good condition—also have a few 1's, 2's, 3's and 5's gallon ice cream tubs and cans. Same in good condition. For further particulars write to Leo Pold Ille, Lexington, Olka. 5-22

FOR SALE—First grade unsalted butter. Get our prices. Golden Belt Cry. & Ice Co., Hays, Kansas. 9-22

FOR SALE—1 200-gal. Homogenizer in good condition. Address R-269 Ice Cream Review. 5-22

A BARGAIN

14 Ton Vilter Ammonia Refrigerating Machine

Excellent condition. Must sell to make room for larger capacity machine. Investigate. Write

Geo. Ziegler Co. MILWAUKEE WIS.

FOR SALE—Two forty-quart Miller ice cream brime freezers, Pyamid base; motor driven either direct or alternating current; machines in good working order, just replaced by larger machines; subject to prior sale, each $350. Steel-De Soto Ice Cream Co., Minneapolis, Minn. 5-22tf.

FOR SALE—We have about 400 used Western style 20 quart ice cream tubs in good serviceable condition. In order to make a quick sale and clean them up we are making a price of $1.00 each f. o. b. Cedar Rapids, Iowa. Speak quick before they are all gone. The Hutchinson Company, Cedar Rapids, Iowa. 5-22

FOR SALE—Miller 80-qt. motor drive, Ft. Atkinson and other makes of belt and motor drive freezers. Creasy No. 50 hopper type and smaller ice breakers, Manning can washers, 2-3 and 500 gal. vats, cans, tubs and cabinets. Phila. Retinnig Co., North Phila. Pa. 5-22

FOR SALE—Five 40-qt. belt drive Miller-Tyson freezers, re-built, close them out at $100.00 each. Miller twin mixer, 300 gal. $250. Phila. Retinning Co., North Phila. Pa. 5-22

FOR SALE—Miller-Tyson twin and single belt and motor drive freezers, cheap, also vats and ice breakers. Shanahan-Elliot Ice Cream Co., Philadelphia, Pa. 5-22

FOR SALE—One creamery package Wizard mix vat copper lined, copper top, metal sides, complete with cover. Price $225.00 net F. O. B. Milwaukee. One Creasy No. 50-Y ice crusher, capacity claimed 25 tons per hour. Belt driven; price $125.00 F. O. B. Milwaukee. This crusher is in good condition and has seen two years actual service. The Geo. C. Mansfield Co., Milwaukee, Wis. 5-22

FOR SALE—The best equipped small creamery and ice cream plant in the best location in the South. Address R-276, Ice Cream Review. 5-22

WANTED TO BUY

WANTED—100 gal. starter can or Pfaudler glass lined pasteurizer. 6 or 8 H. P. boiler. VanRyn Ice Cream Co. 348 5th Ave., Kewanee, Ill. 5-22

WANTED—30 or 50 gallon Batch mixer. Also cabinets. Berry Bros., Tucumcari, N. M. 5-22

WANTED TO BUY—1 40-qt. batch Ice cream freezer: 1 Ice breaker; 1 No. 1 Viking brine pump; 1 400 pound double beam scale; 1 3 H. P. motor, 1120 R. P. M.; 220V; 60C; 3P; 8 feet 1 inch line shaft; 2 12 inch hanger and colois; 1 22 6 inch face pulley. Address: J. L. Frank, Box 456, Spencer, Iowa. 5-22

NEWS FROM FAR AND NEAR.

(Concluded from page 110)

Sweetwater, Tex.—The Sweetwater Ice Cream Company was recently organized and began operations about April first.

Appalachia, Va.—The Norton Ice and Cold Storage Company is preparing to build a new ice and ice cream plant in the near future.

Richmond, Va.—The Horn Ice Cream Company is building an ice cream plant here that is to be modern in every respect.

Fairmont, W. Va.—The new plant of the Diamond Ice Cream Co., a new Fairmont concern, is now in operation and is supplying to twenty-eight dealers in this vicinity a total of 700 gallons of ice cream daily. The officers of the firm are: J. W. Preston, president; W. Nelson Beale, secretary; E. Carl Frame, vice-pres.; and M. M. Foster is treasurer of the company and general manager of the plant. The firm is incorporated for $50,000, and the equipment cost in the neighborhood of $20,000.

Grafton, W. Va.—The Acme Ice Cream Company which has been operating in Grafton for two years has sold its entire holdings to Mr. Thomas E. Lee of Clarksburg. The deal involved something like $80,000 and Mr. Lee states that $25,000 more will be spent for additional machinery. The plant is being remodeled from top to bottom and put in first class shape. Mr. Kenneth Haught will have charge of the plant.

Parkersburg, W. Va.—The Imperial Ice Cream Co. recently increased its capital from $625,000 to $1,000,000.

Yakima, Wash.—A straight carload of dipping chocolate arrived in Yakima recently from Connecticut to supply the Yakima creameries with coating for ice cream bars. It is worth $11,000 and the first full carload of this commodity consigned to Yakima.

Beaver Dam, Wis.—The local plant of the Storck's Product Company recently started operations on a small scale.

New up-to-date equipment has been installed and Mr. J. M. Albrecht of Schlesingerville stated that the capacity of the plant with this equipment would be about one thousand gallons of ice cream daily. They also have a cooling and storage room with a capacity of ten thousand gallons of ice cream.

The Storck's Products Company is a $100,000 corporation and has a large plant at Schlesingerville where ice cream and cereal beverages are manufactured. The Beaver Dam plant will be in charge of Mr. August Storck, of Schlesingerville.

Burlington, Wis.—The Kellogg Ice Cream Company are now occupying the new addition to their ice cream factory and will now be in good shape to handle their large and increasing business.

ANOTHER QUESTION ANSWERED BY PROFESSOR BAER.

Dear Sir:—I would appreciate it very much if you would give me the correct per cent of: Fat, serum solids and total solids, also sugar per cent of the following:

913 lbs. 36% cream, 1162 lbs., 3.5% milk, 900 lbs. condensed skim, 500 lbs. sugar, 16 lbs, gelatine, 2 lbs. improver, 51 lbs. water.

What per cent gelatine does this contain? Is this a good mix? If not kindly let me know how to change. We are getting an average of 840 gallons of ice cream from this mix. F. I. CO.

Reply: I have noticed that you did not give any name or address. It will, therefore, be necessary to wait for a reply until it is published in The Ice Cream Review. If you had signed your letter and given your address, you would have received a personal reply.

I have analyzed your mix and you will find it given below in table 1. You will notice that you have about 10.5% butterfat and 12% serum solids. There is absolutely no reason why you should not be able to make a very excellent quality of ice cream from this mix, and if I have any objections at all, I would say that you are using a little more milk serum solids than is necessary, especially when you use 900 pounds of condensed skim milk in the formula.

Table 1.

Ingredients	Fat	Serum Sol.	Total Sol.
913.0 lbs. 36% cream	328.68	51.98	380.66
1162.0 lbs. 3.5% milk	40.67	99.77	140.44
900.0 lbs. condensed skim, 30%	.....	270.00	270.00
500.0 lbs. sugar	.....	.....	475.00
16.0 lbs. gelatine	.....	.....	15.20
2.0 lbs. improver	.....	.....	1.90
51.0 lbs. water	.....	.....	.....
3544.0 lbs.	369.35	421.75	1283.20
Per cent	10.42	11.9	36.2

Send news items and personal notices to the "Review" and see how well they look in print.

The ICE CREAM REVIEW

University of Illinois
Librarian URBANA, ILL
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Volume Five—Number Ten MILWAUKEE, WISCONSIN—JU[illegible]22 Two Dollars a Year



Cherry Ice Cream Batch Mixers

Are a Fine Investment for Every Up-to-Date Plant

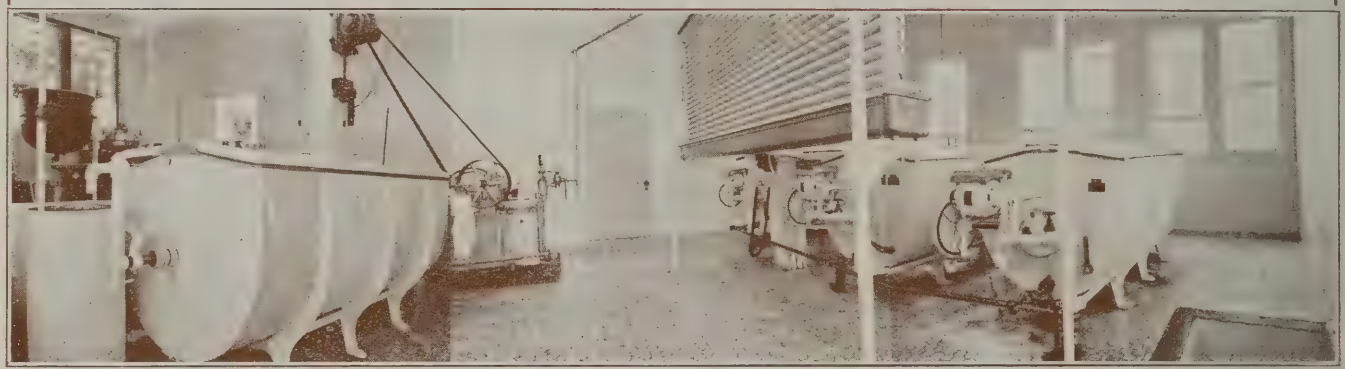


Illustration shows the Model 1—Class "A" Cherry Batch Mixers used in the plant of the Allen Ice Cream Co., Rockford, Ill.



The Cherry Batch Mixer shown above is the Model "C" machine. It is an upright mixer of the water jacketed type.

Scientific curing of the batch in a modern batch mixer under accurate control of temperature has much to do with the quality and the **quantity** of the cream delivered by your freezers.

And pre-cooling the cream before it goes to the freezers speeds up the freezing operation, adds to the fluffiness of the ice cream, and in the end, saves refrigeration.

We build Batch Mixers in the following styles:

Model 1. Cherry Horizontal Mixer, Cooler, Storage Vat and Pasteurizer—all in one, adapted to large plants. Capacities 100 gallons to 1,000 gallons.

Model 2A. Vertical Batch Mixer, 50 gallon and 100 gallon sizes only. Has double dasher.

Model 2B. Same machine, with single dasher. 30 gallons to 100 gallons capacities.

Model "C". Especially adapted for preparing mix for emulsifiers. Capacities 30, 50, 75 and 100 gallons.

Send for illustrated literature on these machines

Put it thru in '22

J. G. CHERRY COMPANY

CEDAR RAPIDS IOWA

St. Paul, Minn. Tama, Iowa. Peoria, Ill.

Put it thru in '22

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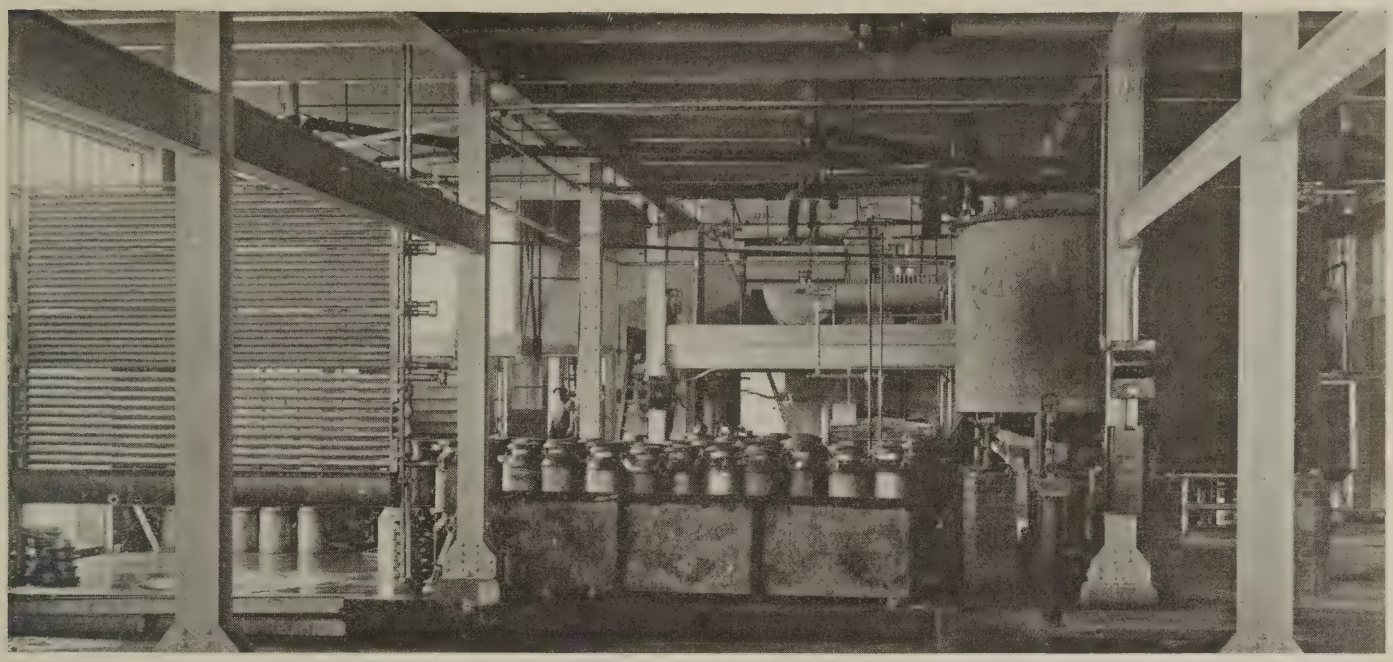
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Interior of the new Telling Belle-Vernon plant at Wellington, Ohio, built by The Austin Company.

Modernize Your Plant for Low Cost Production

To modernize your plant is to materially reduce your operating costs and eliminate waste in many directions.

Many ice cream manufacturers are now investigating their present facilities with a view to cutting down their production and handling costs. They are studying plant layout, new kinds of equipment and the modern types of buildings. They recognize the competitive advantages that come from modern facilities.

It is in such a study of your present plant facilities that Austin engineers can offer constructive suggestions for improvement. They can apply 50 years of building experience to your problem and give you the advantage of the latest methods in engineering, building and equipment.

You can build now to advantage while building costs are low and your investment can be fully protected. Austin can help you whether you need an ice cream plant of reinforced concrete type, a new power house and its equipment or a steel-span garage. Consultation with Austin engineers involves no obligation. Phone, wire or use the coupon.

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AUSTIN

Another Telling Belle-Vernon plant for the manufacture of dairy products was recently designed in conjunction with the owner's engineers and constructed by The Austin Company at Mason, Michigan—two successful dairy operations completed in eight months.



Interior view of Austin No. 9 Standard Reinforced Concrete Type.

THE AUSTIN METHOD

Gentlemen: We would be pleased to have further information and literature regarding your building service. It is understood that this inquiry does not place us under obligation.

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Individual .....
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THE AUSTIN COMPANY, Cleveland

I.C.R.—June

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North Carolina Ice Cream Manufacturers' Association
South Dakota Ice Cream Manufacturers' Association
North Dakota Ice Cream Manufacturers' Association
Oklahoma Association of Ice Cream Manufacturers
Louisiana Association of Ice Cream Manufacturers
Wisconsin Association of Ice Cream Manufacturers
Mississippi Ice Cream Manufacturers' Association
Nebraska Association of Ice Cream Manufacturers
Michigan Association of Ice Cream Manufacturers
Southern Association of Ice Cream Manufacturers
Kansas Association of Ice Cream Manufacturers
Association of Ice Cream Manufacturers of Iowa
Arkansas Ice Cream Manufacturers' Association
Texas Ice Cream Manufacturers' Association
Poodle Dog Association of Iowa
National Order of White Caps
The Nebraska Cornhuskers
Michigan Dairy Boosters
Oklahoma Wolfhounds
Kansas Jack Rabbits
Hoosier Wild Cats
Texas Longhorns
Missouri Mules
Badger Flyers
Dixie Flyers

JUNE 1922

BULLETIN OF EVENTS

National Dairy Show, Minnesota State Fair Grounds, Minneapolis--St. Paul, Minn., October 7-14, 1922. W. E. Skinner, Secretary, Suite 222, 910 So. Michigan Ave., Chicago, Ill.

National Exhibition, Association of Ice Cream Supply Men, Cleveland, Ohio, October 16-21, 1922, headquarters Hotel Winton. Robert Everett, 1328 Broadway, New York, Secretary.

National Association of Ice Cream Manufacturers. 22nd annual convention, Cleveland, Ohio, Hollenden Hotel, October 16th, 17th and 18th. N. Loewenstein, 155 N. Clark Street, Chicago Secretary.

Southern Association of Ice Cream Manufacturers, annual convention, New Orleans, December 5, 6 and 7. J. W. Clopton, Secretary, Decatur, Ala.

IN THIS issue we present a Special Section devoted to the mixing, freezing and hardening of ice cream. The information contained in this Special Section of The Ice Cream Review has been gleaned from reports sent in by successful ice cream manufacturers the country over. What they have to say about mixing, freezing and hardening of ice cream should be of interest to every man in the business.

It is perhaps impractical to select one step among the many steps concerned with the production of ice cream and call it the most important. We believe it is generally agreed, however, that the mix determines the quality of the finished product if each mechanical operation gets proper attention. The story goes that a young bridegroom upon returning home found his wife in tears. She had tried to make mince pie and had miserably failed. She said, "I am afraid I have left something out." Upon tasting it the bridegroom remarked, "No, my dear, nothing you have left out would make mince pie taste like this." We have sampled ice cream with the resulting conviction that nothing left out of it would give it such a flavor.

It is probably true, however, that poor quality ice cream is generally caused by what is left out of it. Some of the ingredients that go into good ice cream are expensive and there is always a temptation to use them sparingly in the mix. A sufficient quantity of good materials, properly combined, will produce good ice cream if the maker has the right equipment and knowledge.

We have not attempted to discuss ice cream mixes in this issue, but rather to cover the mechanical operations in handling the mix. This very properly includes freezing and hardening of the ice cream. We believe that the experiences of practical men are of real value to others. If the information which we publish in this Special Section will help some of our readers in solving their factory troubles we shall feel well repaid for the effort we have expended in collecting this information. To the many ice cream manufacturers who have so splendidly co-operated with us in making this Special Section possible we extend our sincere appreciation.

COMPILATION of statistics furnished by over 100 ice cream manufacturers in all parts of the country, as published in the last issue of The Ice Cream Review, revealed some very interesting facts. For instance, the percentage of cans to be replaced annually ran all the way from one-half of one per cent to 40 per cent, the average being 20 per cent. Shall we say that the man reporting the 40 per cent is careless? That possibly would be doing him an injustice. It is probably due to the lack of a proper checking system. It goes without saying that his dealers are careless, but they can hardly be blamed if they are not checked up. They are human beings and if the man who owns the property is apparently little concerned about it why should they worry?

It is a mistake to think that the dealer appreciates a liberal attitude on the part of the ice cream manufacturers in relation to the return of empty cans and packers. Some manufacturers are afraid to install a good checking system because they think it will mean loss of business. It is a mistake. Business relations between manufacturer and dealer that are based on businesslike methods are more enduring than when based on slip-shod methods. When the dealer subscribes to a definite plan of conducting the business he has more respect for the other party involved and will have more confidence in him. He would rather do business in a businesslike way. The experiences of our most successful ice cream manufacturers bear out the truth of this statement. They have built up a big tonnage on quality and service, and their dealers know that SERVICE includes co-operation between both parties in conducting the business in a businesslike way.

A KANSAS ice cream manufacturer in writing us recently used these words, "We believe that it pays us to have the other fellow make good ice cream, as it is our idea that the industry must rise or fall together. If the other fellow makes poor ice cream he is helping to make some consumer dislike 'The National Dish' that we all make our living out of."

Our friend states a big truth, but it takes a big man to understand this. Probably most ice cream manufacturers like to see others make good ice cream, but they want them to live far enough away so that they don't really come in competition with them. It is a real big man who can honestly desire to have another ice cream manufacturer in the same town make good ice cream.

Our correspondent is right when he says that the way to develop the ice cream industry is to make more good ice cream. Take any town or city in the country where only good ice cream is put upon the market, and you will find a larger per capita consumption of ice cream than in towns and cities where part or all the ice cream is of inferior quality. This is true, providing the product has been properly advertised.

There are many ice cream manufacturers who are big enough to even help the competitor across the street to make better ice cream if they are able. This spirit of helpfulness and real understanding of the principles of promoting the industry is growing and men who have the best interests of the business at heart are doing all they can to promote it.

⚜

NO BUSINESS man can truthfully say that his particular business is different from other lines and therefore not affected by general economic conditions. The ice cream manufacturer depends upon a lot of favorable influences in order to secure the highest possible tonnage, but after all what is most important is the ability of folks, who want to eat ice cream, to buy it. Just to prove that our optimism is based upon more than "springtime influences" we quote from a bulletin recently issued by The Mechanics & Metals National Bank, of New York City:

"Quite apart from the unduly bright reports heard in business and financial circles, trade reviews are distinctly hopeful. Progressive gains in the volume of industrial output, combined with a continued accumulation of capital and credit, have found their reflection in a number of directions; in a greater employment of labor, for instance; in a strengthening of prices; in a better state of things on the railways; in a pronounced rise of security values and a broadened public interest in security trading; in a further easing of the situation with respect to the long-standing 'frozen loans.'

"Present indications point to sustained activity, even if they do not altogether encourage expectations of further large expansion. Nothing in the situation is perhaps so encouraging as the general belief that a bottom price level has been established, and that henceforward adjustments which are made will, on the whole, be in the nature of stabilization, with odds in favor of advances rather than declines."

WE ARE advised by General Manager Skinner that the word "Show" has fulfilled its usefulness in describing the big annual event staged by the National Dairy Association. Hereafter it will be bad form to speak of the National Dairy Show. You must say "National Dairy Exposition." It may be hard for some of the old timers to take up with this change all at once, but they will learn in time. We believe this is a good change. This big annual event in the dairy world is more than a show. It is a real exposition of the greatness and importance of the dairy industry and is rightfully entitled to be known as the National Dairy Exposition.

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THE man who makes a success of advertising advertises when business is poor in order to make it better. When business is good he advertises to make it still better. On the other hand some advertisers stop advertising when business is poor because they think there is no chance of making it better. These are the same fellows who stop advertising when business is good because they have all the business they can take care of. Such folks are just kidding themselves. They are not successful advertisers. Instead of profiting by the experience of successful advertisers they just let their peculiar notions dictate their policies. They don't know the first principles of successful advertising.

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OUR readers will be interested in the several communications in this issue from the boys on the road who give their views regarding prospects for the season's business. These men are in close touch with the men who make ice cream and we know of no better authority. The note of optimism which permeates these reports makes them pleasing to read and should do much to dispel the feeling of uncertainty which has prevailed for so many months among business men. We are indebted to these men for sending us these reports, and we hope that others will be prompted to write us.

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THE men in charge of publicity for the big doings in Cleveland next October are putting in some good licks and if there is an ice cream manufacturer who will not have learned all about the Cleveland exposition and meeting long before Oct. 16-21 it will be because he does not understand the English language. The boys on the road are backing up the work of the officials in splendid shape through their organization, the Salesmen's Club.

⚜

ARE you making use of the service offered through the National Dairy Council in your advertising plans? They have some valuable literature devoted exclusively to ice cream. Write the National Dairy Council, 910 S. Michigan Ave., Chicago, Ill., and tell them your problems.

What Causes a Hollow Space in Cans of Ice Cream

Question Asked by a Subscriber and Suggestions for Prevention

ANSWERS to this question, which was taken up in The Ice Cream Review for May, continue to arrive, and we are publishnng a few of these late ones that seem to cover the various angles of the subject:

Question:—We have had a number of complaints recently from several of our customers in regard to our cans not being full. They say the cans appear to be filled to capacity upon arrival, but after serving a few customers they find a hollow space in the middle of the can which varies from one-half to two gallon shortage in a five gallon can.

Our mix is 9.00 fat, 34.50 total solids, and we get 100 per cent overrun and great pains are taken in drawing the cream from the freezer to see that it is not drawn too fast which might cause air pockets in cans. Are there any causes other than too low solids, too much overrun or carelessness in drawing cream from freezer that would tend to make hollow cream. Please give us all the information possible.

* * *

Excessive Overrun; Frozen Too Stiff.

Reply: We have never experienced any trouble of this kind, especially where a hollow space developes in the center of the can. But I can see that if an excessive overrun was taken, and if the cream was frozen too stiff that it would be possible to develop air holes in filling the cans. It sometimes happens that the ice cream will shrink in the can, going down sometimes three inches in the top and I believe this condition can be traced to the improper use of gelatine or using an insufficient amount. This condition also, of course, will happen where an excessive overrun is taken.

* * *

Freezes Too Hard.

Reply: I believe one cause for the difficulty mentioned is that the ice cream is drawn from the freezer too hard. We would suggest that the party mentioned should insert a thermometer in the port hole of the freezer and draw this ice cream at a temperature of approximately 26 degrees, or, in other words, let the freeze brine on until a temperature of 26 degrees is noted and then turn off the brine and take the overrun.

It might also be that if this party would use a higher grade of gelatine that he would find a great deal of this trouble eliminated. Sometime ago I had occasion to have a consumer's complaint brought to my attention, but his trouble was that the ice cream can appeared to be full, but that after it had been delivered and had been in the store for some time, that it dropped 3 or 4 inches from the top. This party, after switching on high grade gelatine and somewhat raising the total solids of his mix, had no further trouble.

I note that you say there is sometimes a shortage of two gallons to a 5 gallon can. Upon the face of it I would say that this is absolutely impossible because if only 100% overrun is taken and ordinary care is exercised in the freezing, a condition of this kind could not exist.

* * *

Wrong Packing a Possibility.

Reply: The writer of this question asks if there are any other causes besides too low solids, too much overrun or carelessness in drawing the cream from the freezers that would cause this. The following seems to me to be a possible explanation, especially if the overrun is about the maximum which the mix will stand. It would seem that in packing the ice cream they might not be putting enough salt in the lower part of the tub which would allow the temperature to rise, thereby causing the ice cream to melt and shrink. The upper portion would not shrink because sufficient salt had been added to keep the temperature low near the surface. I have not had any experience with this, but this seems to be a possibility.

* * *

Homogenizing Pressure High.

Reply: I wish to state that it is rather difficult to answer the question which this manufacturer asks, without being able to see the condition, but it sounds as though it was a case of too high homogenizing pressure. A number of years ago it was thought that a high pressure of 3,000 pounds was necessary to properly homogenize an ice cream mix, but we know now that a perfectly smooth ice cream can be made with considerably lower pressures, say around 1,500 pounds. In fact, 3,000 pounds is detrimental under some conditions, since it breaks the structure of the casein in the mix, thus weakening the body. I have known of occasions of this kind where it was necessary to reduce the pressure to as low as 1,000 pounds. Of course, I don't know whether this manufacturer is even homogenizing, but offer this as one of the possibilities which might cause his trouble.

* * *

Lacks Viscocity.

Reply: We have never met with this difficulty. Quite often ice cream will sink in the can, but we have never heard of it sinking to the degree of two gallons to a five gallon mix. I am inclined to think that the trouble is due to the kind of mix they are using, for I am somewhat familiar with the ingredients used in southern ice cream. They are probably using a considerable quantity of milk powder, homogenizing in the fat, and aging for but a very short time. It is this that induces viscosity or stickyness in the mix. Unless a mix has viscosity, it will not retain the swell. For comparison, we might say that 100% swell can be put in ice cream made out of skimmilk but the air whipped in cannot be retained on account of the lact of viscosity. To overcome this difficulty, in case this should be the cause, they would freeze the ice cream fairly hard before drawing. It should also be well to use some ice cream smoothener, or gum in connection with the gelatine. Aging of mix also improves the viscosity. The can should be set in the cooler as soon as drawn. * * *

The shrinkage of the ice cream after hardening is usually due to one or more of the following causes:

1. Improper composition of mix, particularly the use of too much sugar.
2. Too high temperature in the hardening room, which allows the air to escape from the plastic ice cream before the same is hardened.
3. Drawing the ice cream from the freezer while at too soft or too high temperature. In this condition the cell walls are not sufficiently rigid to hold the enclosed air.
4. Too high overrun.
5. The use of insufficient gelatine or an improper quality of gelatine.

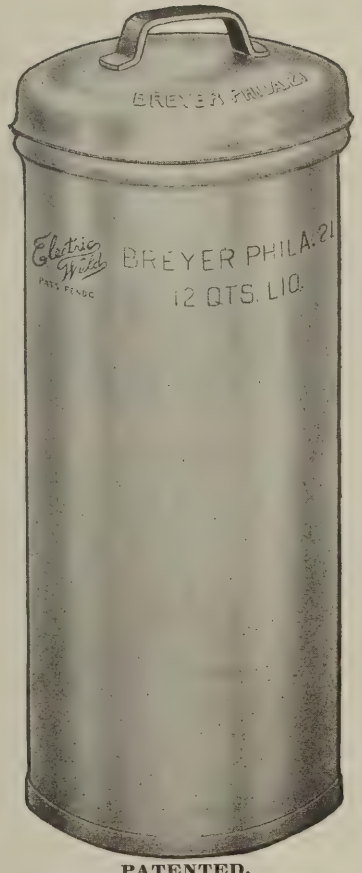
(Continued on page 8)

We Are Producing More Ice Cream Cans A Day Than Any Can Factory In The United States

DO YOU NEED Electric Weld ICE CREAM CANS?

TRADE MARK REG.

IF SO, WIRE YOUR ORDER AT ONCE



PATENTED.
The Electric Weld Ice Cream Can.

No Solder No Rivets = NO LEAKS

WE GUARANTEE to replace any Electric Weld can which in ordinary service—

1. Breaks at the welded joints.
2. Leaks during the life of the can, not only when new, but as long as the can is in use whether it has been retinned or not.
3. Opens at the bottom joint.
4. Shows defective workmanship or material.

WE ALSO GUARANTEE that Electric Weld Cans

1. Are hand dipped in pure Straits tin with an average coating of an ounce and a quarter per square foot of surface.
2. That we do not use solder, lead or rivets.
3. That they can be retinned successfully without using solder or in any way changing the construction.
4. That we use special hard finish steel sheets which are best for tinning and offer unusual resistance to blows, wear and tear.
5. That the capacities are correct on each size within the tolerance permitted by each State.
6. That our covers are interchangeable with standard makes of cans.
7. That no annealing of the can takes place which would soften the metal; our cans permit using the steel in its original hardness without changing, softening or destroying its original structure.
8. That we use full standard gauge material and do not add to the weight with unnecessary re-inforcements.
9. That Electric Weld cans are "water tight" before tinning and remain so always.

THE ASSOCIATION OF ICE CREAM SUPPLY MEN
MEMBER

Electric welded cans can be retinned at a saving of 20% over soldered cans!

CAN SERVICE AT LOWEST COST

JOHN WOOD MFG. CO. Conshohocken, Pa.

CHICAGO OFFICE (320 E. North Water St.) CLEVELAND OFFICE (2041 Warren Rd., Lakewood, O.) BOSTON (60 Pemberton Sq.)
BROOKLYN (No. 5 Bush Terminal Bld.) OAKLAND, CAL. (335 Cypress St.)

Reply: This condition is caused by too high an overrun and too low a solid content. It may also be caused by a poor filler when too much overrun is obtained.

* * *

Reply: I have been making ice cream for ten years and this has never happened to me, but I think they use too much gelatine and powder. Possibly they freeze too quickly and hard before they draw, or they get more overrun than they think. One great trouble with a great many ice cream men is that they look for and try to get too much overrun.

* * *

Reply: Our men do not have any of the difficulties that this manufacturer mentions. With his solids at 34.50 and fat at 9, it seems that he must be getting more than his share of overrun.

* * *

Reply: It is our opinion that this manufacturer is getting more than a 100% overrun, and such a condition is causing his trouble. The mixture of 9% fat, 34.50 total solids, seems to correspond correctly with an overrun of 100%.

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DESERT PILGRIMS GIVEN ICE CREAM BASEBALLS.

During the Mystic Shrine, International Rotary and National Real Estate conventions in Los Angeles and San Francisco recently, 5,000 delegates to these conventions who stopped over in El Paso to see Old Mexico, were given Chocolate Coated Baseballs complimentary of the Elite Chocolate Coated Baseball Co.

At the banquets and luncheons in El Paso given these delegates who crossed the continent on 15 special trains, Baseballs were served as a novel dessert and moving pictures made of the pilgrims eating this frozen confection. Post cards were also furnished the visiting delegates to be mailed back home, which were redeemable in Baseballs at their home-town confectionery.

As a feature stunt the chairman of each of these special train delegates was given a regulation league baseball, with the compliments of Babe Ruth himself, who wrote his name on the horse-hide of each ball. These league baseballs are to be kept by the various organizations as souvenirs of their visit to El Paso, the home-plate of chocolate coated Baseballs.

KRYL & EICHELMAN ESTABLISH AS STEEL FABRICATORS.

A new interesting partnership has been established in the Chicago market between J. M. Kryl, present president of the Kryl Bridge and Crane Works, Chicago, and W. H. Eichelman, until recently chief engineer of the Hamler Boiler & Tank Co., of Chicago.

Both men are graduate engineers of considerable experience in fabricating steel plate and structural iron with present facilities for handling water tanks, oil tanks, stacks, process kettles of all kinds for chemical equipment, ornamental iron and structural steel.

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GERMAN FIRM TO ENCOURAGE ICE CREAM MAKING..

A letter from Ringe & Kuhlman, Hamburg, Germany, announces that they are making a determined effort to popularize ice cream and ice cream making in that country. They will specialize in the installation of ice cream manufacturing equipment.

BABE RUTH KNOCKS HOME RUN WITH CHOCOLATE COATED BASEBALLS.

"Babe" Ruth, King of the Land of Swat, has knocked out another hit. The batting Bambino of the New York Americans is now lending his name, face and fame to the Elite Chocolate Coated Baseball Co., in the interest of this chocolate coated ice cream confection which is sweeping the country.

Recently "Babe" Ruth and his teammates of the Americans posed for the movie camera men, all eating chocolate coated baseballs, and registering delight with every bite. The Bambino is now vice-president of the Elite Baseball Company, which is distributing these two-flavor frozen confections nationally. In addition Ruth is redeeming the wrappers of Baseballs with a regulation league baseball with his signature on the horse hide. These are proving immensely popular with the sand lot kids who are saving their wrappers after wrapping themselves around a chocolate Baseball.

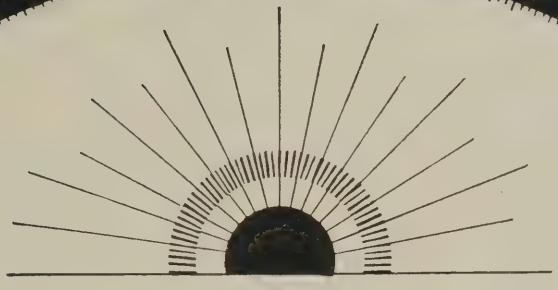
The history of this ice cream novelty is one of the most interesting in the ice cream trade. Out in El Paso, Texas, on the Mexican border, Milton H. Barrough, General Manager of the Elite Confectionery Company, the leading confectionery in that city, had been conducting a series of experiments and running tests on a frozen dainty the shape of a regulation league baseball. The ice cream was chocolate and vanilla and the coating bitter-sweet chocolate. Wishing to get the reaction of the patrons of his ice cream parlor to this new confection, he made it a leader on his list of fountain specials one hot day.

From Fort Bliss, near El Paso, came a squad of desert-weary U. S. cavalrymen on "shore leave." Wishing to get the alkali desert dust out of their throats, and something cooling in their stomachs, each ordered a chocolate coated Baseball. And each called for an encore. That summer baseballs were the most popular dish for the soldiers on Mexican border duty. When these soldiers returned to the east and north, they carried the fame of baseballs with them and several had shipments made to them at their homes.

Then a big league baseball team passed through El Paso on a barn storming trip from California. After the game, which was played on a hot afternoon, they went to the Elite for refreshments. The word "Baseball" attracted their attention. They ordered a round of these novel ice cream balls. They made a hit with the ball players, and when a banquet was given in New York for the winning team in the pennant contest, the manager wired Mr. Barrough to ship enough Baseballs for the dessert at that banquet.

The demand for these chocolate coated Baseballs having grown so rapidly, a separate company was organized to distribute them nationally. Royce G. Martin, capitalist, was made president; J. E. Benton, M. H. Barrough and Paul Thomas were the other organizers. Contracts were made for having the aluminum moulds made in wholesale quantities, foil wrappers were designed and ordered in large quantities from the manufacturers ready to deliver to manufacturers as needed, and a national advertising campaign to spend $200,000 planned and is now being carried out.

While in New York on business connected with these details, President Martin obtained the exclusive use of "Babe" Ruth's picture and signature for use in advertising the Chocolate Coated Baseball. The result has been that Babe Ruth Home Run Baseballs are now known wherever the famous Home Run King is known, and "Say Baseball" is fast becoming the national buy-word.



ESKIMO PIE

TRADE MARK REGISTERED

Won! The first flagrant infringer of the Eskimo Pie patents has been enjoined by a Federal Court—the honest right of the inventor has been upheld. And the way is clear for still greater successes with this phenomenal ice cream product. Russell Stover Company, 5 North Wabash Ave., Chicago.

10c

IT IS EASIER TO GIVE ADVICE THAN TO LEND A HAND.

Another Method of Standardization of the Ice Cream Mix*

By RUSSELL T. DES JARDINS, A. B., Chemist, RALPH A. FORTIN, Mix Superintendent,
Crane Ice Cream Company, Philadelphia, Pa.

THE following material is offered as the basis of another method of Standardization of the Ice Cream Mix. This method is based upon the principle of a "Key Mix" composed of the most desirable of highly concentrated dairy products. The key mix uses two ingredients as the source of the milk fat and the serum solids required in the mix. The source of milk fat is 40 per cent cream, containing a large proportion of milk fat and a small proportion of serum solids. After the quantity of heavy cream required to furnish the milk fat is determined; the quantity of serum solids in that amount of cream is computed. This quantity of serum solids is then deducted from the quantity of serum solids required in the whole mix, and condensed skimmilk composed entirely of serum solids and water, is used as the source of the balance of the serum solids.

The necessary quantities of sugar and gelatine are added, and the balance of the mix is made up of water.

This furnishes the basis of the key mix. The next step is to substitute in this key mix, definite quantities of other dairy products in place of fixed proportions of the cream, condensed and water used in the key mix.

Composition of Materials Used.

40% Cream. 40% Fat. 5.35% Serum Solids.

Plain condensed skimmilk, 28% serum solids, whole milk, 4% fat, 8.64% serum solids, butter 84% fat, sweetened condensed skimmilk, 28% serum solids, 40% sugar, sugar, 100% total solids, gelatine, 100% total solids.

Formula No. 1. Basic.

Ingredients	Pounds	% Fat	%S. S.	% Suger	%T. S.
Fat	12.00	12.00	.....	.....	12.00
Serum Solids	10.00	.....	10.00	.....	10.00
Sugar	12.00	.....	.....	12.00	12.00
Gelatine	.50	.....	.....	.....	.50
Mix	100.00	12.00	10.00	12.00	34.50

The basic formula is identical with that used by Prof. Olsen in his article in the May issue.

Formula No. 2.

In which 40% cream furnishes the butterfat and a portion of the serum solids.

Ingredients	Pounds	% Fat	%S. S.	% Suger	%T. S.
Cream	30.00	12.00	1.60	.....	13.60
Serum Solids	8.40	.....	8.40	.....	8.40
Sugar	12.00	.....	.....	12.00	12.00
Gelatine	.50	.....	.....	.....	.50
Water	49.10	.....	.....	.....	.....
Mix	100.00	12.00	10.00	12.00	34.50

40 per cent cream is calculated as 40 per cent fat and 5.35 per cent serum solids.

The amount necessary to supply 12 pounds of fat, is then:

$$\frac{12}{40} \times 100, \text{ or } 30 \text{ lbs. of } 40\% \text{ cream.}$$

This quantity of cream contains: 5.35% of 30 pounds, or 1.60 pounds of serum solids. Leaving a balance of 10.00—1.60, or 8.40 pounds of serum solids to be made up from some other source.

Enough water is added to bring the total mix to 100 lbs.

Formula No. 3. Key Mix.

In which condensed skimmilk with 28% serum solids furnishes the balance of the serum solids of the mix.

Ingredients	Pounds	% Fat	%S. S.	% Suger	%T. S.
40% cream	30.00	12.00	1.60	.....	13.60
Condensed	30.00	.....	8.40	.....	8.40
Sugar	12.00	.....	.....	12.00	12.00
Gelatine	.50	.....	.....	.....	.50
Water	27.50	.....	.....	.....	.....
Mix	100.00	12.00	10.00	12.00	34.50

Condensed skimmilk is calculated as 28% serum solids. The quantity necessary to supply 8.4 lbs. of serum solids is:

$$\frac{84}{28} \times 100, \text{ or } 30 \text{ lbs. of condensed skimmilk.}$$

This formula carries the name Key Mix, since from this formula all substitutions are made.

Formula No. 4.

In which butter is substituted for all of the cream.

Ingredients	Pounds	% Fat	%S. S.	% Suger	%T. S.
Butter	14.29	12.00	.....	.....	12.00
Condensed	35.73	.....	10.00	.....	10.00
Sugar	12.00	.....	.....	12.00	12.00
Gelatine	.50	.....	.....	.....	.50
Water	37.48	.....	.....	.....	.....
Mix	100.00	12.00	10.00	12.00	34.50

The basis of the substitution in this case, is the fact that:

47.62 pounds of 84% butter.
19.10 pounds of condensed skimmilk.
33.28 pounds of water

is equivalent to 100 pounds of 40% cream. This information is gained in this way: 100 pounds of 40% cream contains: 40 pounds of butterfat, 5.35 pounds of serum solids. Then we will need as much butter as:

$$\frac{40}{84} \times 100, \text{ or } 47.62 \text{ lbs. of butter.}$$

We will also need 5.35 pounds of serum solids, since butter is deficient in this constituent. We will use condensed skimmilk for these serum solids. We will need:

$\frac{5.35}{28} \times 100$, or 19.10 lbs. of condensed skimmilk. The balance of the 100 pounds will be water. Therefore: 100 pounds of 40% cream is equal to

47.62 pounds of butter,
19.10 pounds of condensed skimmilk, and
33.28 pounds of water.

Formula No. 5.

In which whole milk testing 4% fat and 8.64% serum solids is substituted for water and a portion of the milk fat and serum solids. Reference is to the Key Mix.

(NOTE—Actually 4% milk contains only 8.55% serum solids. We have, in this case used Prof. Olsen's figure of 8.64% serum solids.)

Ingredients	Pounds	% Fat	%S. S.	% Suger	%T. S.
40% cream	25.50	10.20	1.36	.....	10.54
Condensed	16.97	.....	4.75	.....	4.75
Milk	45.03	1.80	3.89	.....	5.69
Sugar	12.00	.....	.....	12.00	12.00
Gelatine	.50	.....	.....	.....	.50
Mix	100.00	12.00	10.00	12.00	34.50

One hundred pounds of 4% milk contains:

4.00 pounds of milk fat.
8.64 pounds of serum solids.

Four pounds of milk fat is equivalent to the milk fat contained in:

$$\frac{4}{40} \times 100, \text{ or } 10 \text{ lbs. of } 40\% \text{ cream.}$$

The balance of the 100 pounds of milk or: 100 — 10 pounds, or 90 pounds is skimmilk testing 8.91% serum solids.

8.91% of 90 pounds is 8.019 pounds of serum solids present. We have, however, used Prof. Olsen's figure based on 8.64% serum solids in 4% milk. This gives a somewhat higher figure for the serum solids, of 8.10 pounds.

8.10 pounds of serum solids is equivalent to the serum solids contained in

$$\frac{8.1}{28} \times 100, \text{ or } 28.93 \text{ lbs. of condensed skimmilk.}$$

The balance of the one hundred pounds, or 61.07 pounds is water.

In other words: Every 100 pounds of whole milk used in a mix, will replace in that mix:

10.00 pounds of 40% cream.
28.93 pounds of condensed skimmilk.
61.07 pounds of water.

*Copyrighted 1922 by Russell T. Des Jardins and Ralph A. Fortin.

ICE CREAM MANUFACTURERS homogenize

with this



and this



Send for Special Bulletin, "Remade Milk and Cream With Pure Milk Fat And An Improved Method of Emulsifying," by A. O. Dahlberg, our Manufacturing Specialist. Every Ice-Cream Man should have this Bulletin—No Charge.

GOLDEN STATE Powdered Skim Milk & high score sweet butter—or better still, GOLDEN STATE Pure Milk Fat is the combination for an ideal Ice Cream mix.

CALIFORNIA CENTRAL CREAMERIES INC.

175 FRANKLIN STREET - NEW YORK CITY

SAN FRANCISCO CHICAGO LOS ANGELES

We wish to replace 27.50 pounds or 0.275 hundred-weight of water (Cf. Key Mix). Therefore we must use:

$$\frac{0.275}{61.07} \times 100 \text{ or } 45.03 \text{ lbs. of milk.}$$

When this quantity of milk is added to the mix, we must omit from that mix:

0.4503 × 10.00 lbs. or 4.5 lbs. cream
0.4503 × 28.93 lbs or 13.03 lbs. condensed.
0.4503 × 61.07 lbs. or 27.50 lbs. water.

If the correct factor, of 8.55% serum solids is used. We must add to the mix:

$$\frac{0.275}{61.36} \times 100 \text{ or } 44.82 \text{ lbs. of milk.}$$

and must omit:

0.4482 × 10 lbs. or 4.48 lbs. cream.
0.4482 × 28.64 lbs. or 12.84 lbs. condensed.
0.4482 × 61.36 lbs. or 27.50 lbs. water.

Formula No. 6.

In which sweetened condensed skimmilk replaces the condensed skimmilk. Sweetened condensed skimmilk tests 40% sugar and 28% serum solids.

Ingredients	Pounds	% Fat	%S. S.	% Suger	%T. S.
Cream 40%	30.00	12.00	1.60	.....	13.60
Sweetened Cond. Skimmilk	30.00	.....	8.40	12.00	20.40
Gelatine	.50	.....	.....	.....	.50
Water	39.50	.....	.....	.....	.....
Mix	100.00	12.00	10.00	12.00	34.50

100 pounds of sweetened condensed skimmilk contains:
28 pounds of serum solids.
40 pounds of sugar.

This is equivalent to:

and $\frac{28}{28} \times 100$ or 100 lbs. of condensed skimmilk.

and $\frac{40}{100} \times 100$ or 40 pounds of sugar.

In other words, for every 100 pounds of sweetened condensed skimmilk used in the mix, we must omit an equal quantity of condensed skimmilk and 40 pounds of sugar. and must add to the mix an additional 40 lbs. of water.

In this case we wished to replace all of the condensed skimmilk. Therefore we added to the mix

0.3 hundred-weight × 100 or 30 lbs sweetened condensed skimmilk, and

0.3 hundred-weight × 40 or 12 lbs. of water and left out of the mix:

0.3 × 100 or 30 lbs. of skimmilk condensed and
0.3 × 40 or 12 lbs. of sugar.

It happens in this case, that the total quantity of sweetened condensed needed is just sufficient to provide all of the sugar needed in the mix. If only one-third of the condensed skimmilk were to be replaced, the procedure would be the same. Adding to the mix

10 lbs. of sweetened condensed skimmilk.
4 lbs. of water.

and omitting:

10 ibs. of condensed skimmilk and
4 lbs. of sugar.

This method may be amplified in such a manner as to simplify the use of any known dairy product in the production of ice cream mix. It has been in use in this plant for a period of years and during that time, no case has developed, in which this method would not give the desired results quickly and easily.

Moreover the method requires only a knowledge of dairy products and the simplest of arithmetic for successful operation.

⚜

Tell us what you want, or what you have that you don't want, and we'll fix up a little Ad for you and insert it in the next issue of The Ice Cream Review.

NEBRASKA ASSOCIATION OF ICE CREAM MANUFACTURERS.

Secretary's Office—Rooms 720-721 Terminal Building Lincoln, Nebraska.

To Members: We are now compiling New Credit list for 1922. Will you please go over your accounts and send me list as per the classification below and will include in my new list.

R. W. McGINNIS, Sec.-Treas.



Class I. Ice cream buyers who are slow to pay and only when pressed.

Class II. Customers who make unwarranted claims for credits and are inclined to be fault-finding and technical.

Class III. Dealers who get behind with manufacturers, start buying of others and cause extra expense to make collections.

Class IV. Parties who are in business only during the summer season, buy of one manufacturer as long as possible on credit, then change to another and by the end of the season have purchased all over and paid no one, should be put on the C. O. D. or cash basis.

Class V. Dealers who refuse C. O. D. shipments, permit the cream to be returned, express charges both ways, should be classed as hazardous risks, and be supplied only when cash accompanies their orders.

* * *

Report of your customers coming under any of the above classes should be sent in promptly on the **first** of each month to R. W. McGinnie, secretary, Rooms 720-721 Terminal Building, Lincoln, Nebraska. In order to make the system a success and of the most benefit to all concerned, the information should be given with care, and by getting these reports to the secretary on time, it will enable him to get the information into the hands of the manufacturers promptly and thereby place them in a position to protect themselves.

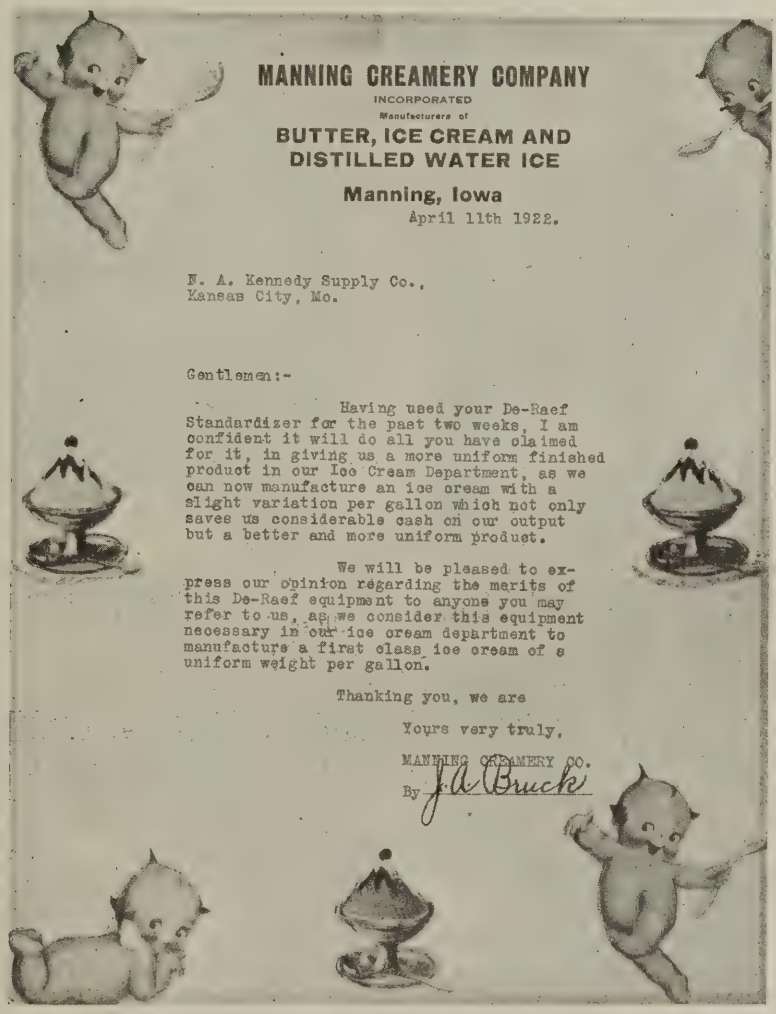
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PERSONALS.

James W. Stanley, whom we immediately remembered when he told us that we ate a good share of his ice cream at the National Dairy Show in 1921, was a welcome visitor at The Ice Cream Review office on June 5th. Mr. Stanley was, at that time, making carbonated ice cream for the Heathmade Carbonated Products Company, of Chicago. He is now connected with the Sethness Company, Chicago, who specialize in food colors, preserved fruits and flavoring extracts. Mr. Stanley travels extensively, acting in the capacity of ice cream specialist.

De Raef Weight Standardizer

Registered U. S. Patent Office



MANNING CREAMERY COMPANY
INCORPORATED
Manufacturers of
BUTTER, ICE CREAM AND
DISTILLED WATER ICE
Manning, Iowa

April 11th 1922.

N. A. Kennedy Supply Co.,
Kansas City, Mo.

Gentlemen:-

Having used your De-Raef Standardizer for the past two weeks, I am confident it will do all you have claimed for it, in giving us a more uniform finished product in our Ice Cream Department, as we can now manufacture an ice cream with a slight variation per gallon which not only savee us considerable cash on our output but a better and more uniform product.

We will be pleased to express our opinion regarding the merits of this De-Raef equipment to anyone you may refer to us, as we consider this equipment necessary in our ice cream department to manufacture a first class ice cream of a uniform weight per gallon.

Thanking you, we are

Yours very truly,

MANNING CREAMERY CO.
By J. A. Bruck

National Distributor

N. A. KENNEDY SUPPLY CO.

KANSAS CITY - MISSOURI

GET THE CORRECT WEIGHT RECORD FROM AN ACCURATE CONTROL.

NATIONAL ASSOCIATION OF ICE CREAM MANUFACTURERS
INCORPORATED

CHARLES G. MORRIS, President
New Haven Dairy Co. New Haven, Conn.

Bulletin No. 54, by the Secretary.

N. LOEWENSTEIN, Secretary
155 North Clark Street Chicago, Illinois

Tariff on Salt.

The pending tariff bill now before the Senate levies an import duty on salt as follows:

If in bags or barrels, 20c per hundred pounds, which is equal to $4 a ton; if in bulk, 16 cents per hundred pounds, which is equal to $3.20 a ton.



A HAND-OUT FROM NAT. 1921 REPORTS ARE OUT.

If the tariff bill passes carrying this duty on salt, it will undoubtedly mean a considerable advance in the price of that commodity to ice cream manufacturers, particularly to those located near the seaboard, where inland freight would not be a great factor.

At the present time there is no duty on salt imported into this country.

Members are requested to communicate immediately with their Senators and Congressmen at Washington, calling their attention to the fact that the salt industry in this country does not require protection and that the only effect of such protection may be to increase the price of salt. Impress upon them that you stand for either a substantial reduction in the duty or that salt be permitted to remain, as at present, on the free list.

1922 Membership List.

Copy of our 1922 membership list is herewith enclosed. It is requested that, by reference to this list, you ascertain the names of members of the Association in your locality and then endeavor to interest manufacturers who are not members. Impress upon them the many advantages such membership holds for them, some of which are set forth in the enclosed pamphlet. Application blanks will be forwarded promptly to any names that you may send to this office.

Uniform Cost Accounting System.

An additional supply of Cost Accounting forms has been printed and we respectfully request all members who are not now using this uniform system to adopt it at the earliest possible date. You will, of course, appreciate the fact that the more firms that use the system the greater will be its value to the industry.

The Cost Accounting Committee has made some slight changes in the forms, so that the new edition will be even more complete than that used heretofore.

Eighty-four sheets—or one set of forms, sufficient for a year's business—are furnished at cost, $3.50. Orders sent to the Secretary's office will be taken care of promptly.

Depreciation Questionnaire.

Some time ago a questionnaire asking for your figures on depreciation was mailed to all members. Some of the members have not filled out these questionnaires and returned them as yet. To be of real benefit, it is necessary that a sufficient number of questionnaires be sent in to be representative of the industry.

If you have not filled out your questionnaire will you please do so at once and send it to Mr. S. T. Nivling, Chairman of the Cost Accounting Committee, Rochester Ice Cream Co., Rochester, N. Y.

* * *

Advantages of Membership.

Every live, progressive ice cream manufacturer will identify himself with the National Association of Ice Cream Manufacturers after he has given careful consideration to the following more important reasons why he should do so:

Because it unifies and represents in a national way the constantly expanding ice cream industry.

Because it bands together for mutual protection and advantage more than 75% of the manufacturers of ice cream in this country.

Because it keeps in constant touch with all important legislation—State and National—and takes prompt action in connection therewith where such action is required.

Because in the matter of express rates and service, the National Association is constantly on the alert to correct conditions inimical to the industry. In the recent express contest before the Inter-state Commerce Commission, through the efforts of this Association a saving was effected of 4c each on returned empties, or approximately $400,000 annually. The express situation is being carefully watched and in due time further action will be taken in this connection to protect the interests of the industry.

Because it furnishes to its members authentic information on all matters of importance to them. When the 1921 revenue bill is passed, members of the National Association will be advised promptly with respect to portions of it of interest to them, with particular reference to the tax on ice cream imposed under Section 630 and new income tax rulings.

Because it does for its members many of the things they would have to do for themselves, at their own expense, if they would continue to exist, and it does them at a far less cost and more effectively than could be done by any individual concern. An outstanding example of this is the recognition afforded the industry during the war, when, as a result of the work of members of this Association, ice cream was classified as an essential industry in the distribution of sugar.

Because all branches of the government are willing to co-operate cheerfully with trade associations, particularly if they represent, as in the case of the National Association, a large per cent of the industry. At the instance of this Association, the Department of Agriculture has been for some time past and is now conducting research work on ice cream and is making important strides in discovering the cause of sandy crystals.

The Association has also about a dozen standing committees working on problems of greatest interest, of



Nelson (Patented) Ice Cream Cabinets

"Confessed The Best When Put to Test"

are constructed along scientific and practical lines to conserve ice and salt supplies and keep the ice cream in perfect condition until sold. The manufacturers have devoted thirty years of study and experiment toward the building of the best possible ice cream cabinets for the manufacturing trade. Each particular make of cabinet of the Nelson line is sold with a guarantee and on a plan of "You Must Be Satisfied"



Three Compartment Cabinet



42 Qt. Brick with Ice Rail
Patented Nov. 11, 1919 1321120



Brick Cabinet
Also for Eskimo Pies

This Proposition Will Interest You

Any responsible ice cream manufacturer—particularly wholesale ice cream manufacturers and dealers—may order from 1 to 100 Nelson patented Ice Cream Cabinets, place them in practical use, and after 30 days, if not entirely satisfactory, return at our expense for freight, both ways.

Can any manufacturer offer a more liberal or fair proposition? You owe it to yourself to thoroughly investigate the price, merits and construction of the Nelson Patented Ice Cream Cabinets before making any further purchase.

Plan on your season's requirements now, and have your supply on hand when needed.

C. Nelson Manufacturing Co.

2308 Division St.
St. Louis, Mo.

STOCK OF CABINETS CARRIED BY THE FOLLOWING REPUTABLE JOBBERS.

James M. Decker Co., Inc..... ...Baltimore, Md.
Jos. Middleby, Jr., Inc..... ....Boston, Mass.
N. A. Kennedy Supply Co. .....Kansas City, Mo.
Oklahoma City, Okla.
Kennedy & Parsons Co..... ....Omaha, Nebr.
Sioux City, Iowa
Huey & Philp Hardware Co..... .....Dallas, Texas

which you will need to know the solution. Members are kept informed on all these matters.

Because the fact that it does serve its members efficiently is demonstrated by the years which the National Association has been in existence—no trade organization will long survive unless it contributes materially to the welfare of its members. The growth of the National Association of Ice Cream Manufacturers is increasing every day.

Applications for membership cheerfully received at the office of the Secretary.

Below is given the scale of dues for membership in this Association, dating from October 1st of each year, and based on gallonage sale for the preceding twelve months. Members joining after October 1st of any year pay the proportionate sum of their dues on a monthly basis, thereby bringing their membership to date from October 1st:

U—up to	100,000	$ 25.00
T— 100,001—	200,000	50.00
S— 200,001—	300,000	75.00
R— 300,001—	400,000	100.00
Q— 400,001—	500,000	125.00
P— 500,001—	600,000	150.00
O— 600,001—	700,000	175.00
N— 700,001—	800,000	200.00
M— 800,001—	900,000	225.00
L— 900,001—	1,000,000	250.00
K—1,000,001—	1,100,000	275.00
J—1,100,001—	1,200,000	300.00
H—1,200,001—	1,300,000	325.00
G—1,300,001—	1,400,000	350.00
F—1,400,001—	1,500,000	375.00
E—1,500,001—	1,600,000	400.00
D—1,600,001—	1,700,000	425.00
C—1,700,001—	1,800,000	450.00
B—1,800,001—	1,900,000	475.00
A—1,900,001—and up		500.00

GREAT ICE CREAM BOOM IS PREDICTED IN ENGLAND.

The greatest boom in ice cream ever experienced in England is due to begin as soon as warm weather comes, reports "The Daily Mail" of London.

Offices will have ice cream soda fountains on every landing, and men will go out for their iced drink or their banana split with even greater frequency than nowadays they seek their cups of tea or their glass of beer. England is, in fact, to become the rival of America on the question of anything and everything to do with ice cream.

Several firms of American origin are at present represented in this country, and they are making their plans at top speed for launching this avalanche of ice cream on the British public. Their object is to make the food as regular a feature of diet as milk or bread. The "hokey-pokey" man will call with his wares just as the milkman or the baker calls at every home at the present time.

"The invasion has been threatened for two years," said A. Pompa, the secretary of the Ice Cream and Refreshment Traders' Federation, to a "Daily Express" representative. "It is really coming this year. I know of three firms who are pushing the scheme all they can.

"America consumes about two hundred and fifty million gallons of ice cream a year, and it is thought that the food—for it is a food—will prove equally popular over here when it is put on the market on a great scale."

VALUE OF DAIRY PRODUCTS IN THE UNITED STATES.

Department of Agriculture.

Total dairy products 1921 worth $2,410,000,000. The 1920 census reports 31,886,378 head of dairy cattle. Estimating their worth at $50 per head we have a dairy stock valuation in the United States of $1,569,318,900. Total of dairy products and cattle, $3,979,318,900. We can say that dairy products and cattle are worth about $4,000,000,000.

There were reported in the 1920 census pure-bred dairy cattle as follows:

Ayrshires	30,494
Brown Swiss	8,130
Guernseys	79,445
Jerseys	231,834
Holsteins	528,621
Other breeds	38,078
Total	916,602

This represents only about 3% of the total listed dairy cattle. What an opportunity for the pure-bred breeders. Of these 31,000,000 dairy animals at least 23,000,000 are producing cows.

Milk production and its use. Total milk produced in the United States, 89,658,000,000 pounds, used as follows:

Used as milk	43.5%
Used as butter	36.0%
Used as condensed	4.4%
Used as cheese	4.0%
Used as ice cream	4.0%
Fed to calves	3.8%
Waste and other uses	3.2%

IOWA ASSOCIATION OF ICE CREAM MANUFACTURERS.

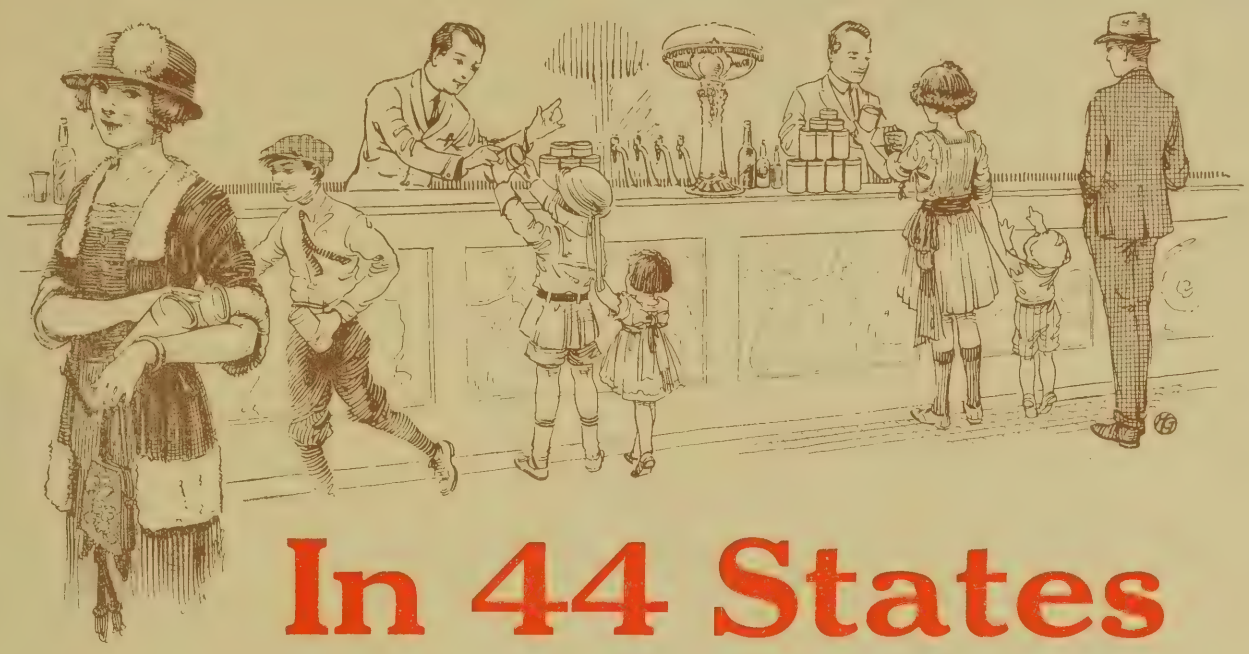
Report by Secretary P. W. Crowley.

In view of the work that has been done along educational lines for the purpose of stimulating the consumption of ice cream, manufacturers are somewhat disappointed with the output of cream for the month of April. However, there is really no justification for this feeling, as April was a very cold month, comparatively speaking. The report of the make of ice cream for April, as compared with April a year ago, increased only 4%, but as compared with the month of March, April increased 49.4%.

At the present time the association is working with its members along the line of securing a closer co-operation toward the elimination of the practice of furnishing country dealers with ice cream cabinets. During the last year or so this practice has been gaining some headway, but we hope to work out a plan whereby it may be gradually eliminated.

The matter of extension of credit to country customers is also receiving a fair share of attention, and it is to be hoped that we can eventually have classified the customers in the country who have taken advantage of ice cream manufacturers in securing unwarranted credit.

You can find the person who will be glad to buy what you wish to sell, by letting your desires be known through an advertisement in The Ice Cream Review.



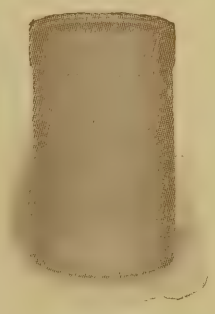
In 44 States



Folks are "carrying-home" more good, old-fashioned bulk ice cream from retailers than they have ever done before. Two outstanding factors are: (1) People have always preferred and still do prefer bulk ice cream. (2) Bulk Ice Cream is now obtainable in a perfect, satisfactory Package-Form, and the cream keeps in perfect condition all the way home.

In 44 states—the "Sealright-Way" has been adopted, to-wit: Sealright Filling Machines, Sealright Liquid-Tight Paper Containers, and a Merchandising and Advertising Plan—complete, comprehensive, practical.

Bulk Ice Cream—not Brick



Give the public what it most desires—bulk ice cream, and package it in an attractive, efficient, sanitary, economical and satisfactory manner, and there'll be more "carry-home" sales. That's what the "Sealright-Way" does. Naturally, its adoption is already national.

It Will Be to Your Interest to Get Full Details on the "Sealright Way"

Sealright Co., Inc., Fulton, N.Y.

Largest Manufacturers in the World of Cylindrical Liquid-Tight Paper Containers

SEALRIGHT

Points the Way to More "Carry-Home" Sales of Bulk Ice Cream

Announcing

THE

—a high-quality, **LOW-PRICED**, glass lined batch mixer, pasteurizer (starter can, ripener, etc.) for small Ice Cream Plants, Dairies and Creameries.

This booklet is profusely illustrated with halftone reproductions and line drawings. It contains general data and details of construction on the Pfaudlerette. . . Send for a copy!



- ¶ Easy to set up and operate (complete directions with each unit).
- ¶ Original cost and up-keep low.
- ¶ Improves quality of pasteurized products (no off-flavors or metallic contamination).
- ¶ Most durable on the market (open-hearth steel, lined with glass).
- ¶ Just like larger units now being used by America's leading ice cream plants, dairies, and creameries.

Mail the coupon today for booklet giving details and prices.

Pfaudler

PFAUDLERETTE

In answer to numerous requests from the trade for a small-unit, glass lined batch mixer and pasteurizer to meet the requirements of the smaller ice cream plants, we offer for your approval — the Pfaudlerette Batch Mixer. Hitherto, the price has made the use of glass lined equipment prohibitive to many concerns. THIS NEW TYPE WILL BE WELCOME TO SUCH BECAUSE OF ITS LOW COST. It will have the same design, construction and quality of workmanship, as our larger units, with a working capacity of 125 to 300 gallons.

The use of glass lined equipment for mixing and pasteurizing ice cream mix is now standard practice in this country. If you are handling 125 to 300 gallons of mix per day, the Pfaudlerette should be of interest. It will—

1. Lower your mixing costs.
2. Lower your refrigerating costs.
3. Lower your cleaning costs.
4. Improve the quality of your cream.

Note:—The Pfaudlerette can also be used for a Milk Pasteurizer, or for creamery practice.

The PFAUDLER CO.

The World's Largest Makers of Glass Lined Steel Equipment

ROCHESTER, N. Y.

NEW YORK CHICAGO SAN FRANCISCO
LONDON SYDNEY

The Pfaudler Co.,
Rochester, N. Y.

MAIL THIS!

Gentlemen:

Send us your booklet "Pfaudlerette." We are interested in the Pfaudlerette for use as:

- ☐ Ice Cream Batch Mixer and Pasteurizer
- ☐ Milk Pasteurizer
- ☐ Starter Can
- ☐ Cream Ripener and Pasteurizer
- ☐ Neutralizer
- ☐ Buttermilk Tank

Capacity is ..... gallons daily.

.....

.....

No obligation.
I. C. R.-6-22

Make His Popularity Work For You

HERE'S just what the Ice Cream Manufacturer has been waiting for! —A frozen confection in the shape of a baseball—two flavors—coated with bitter sweet chocolate. It's taking the country by storm. Wonderful seller at baseball games, picnics and races! Tremendous demand in ice cream parlors and for home banquet or party desserts!

Mr. Manufacturer, you are interested in big sales at a maximum profit. Here's your opportunity to get in the Big Game. We furnish moulds, wrappers, advertising matter, and send expert to teach you to manufacture. No bonus to pay. Equipment is simple and inexpensive.

Here's our premium plan by which you can cash in on "Babe" Ruth's nation-wide popularity. Think what it will mean to offer free a "Babe" Ruth baseball with the Bambino King's autograph on the horsehide!

All you have to do is urge the kids to
Save The Wrappers
They will do the rest.



The Home Run King
FAVORITE OF THE FANS THE WORLD OVER.
IDOL OF BOYS WHEREVER BASEBALL IS PLAYED.

Put "Babe" Ruth To Work For You!

Chocolate Coated Baseballs are the only frozen confection which has the exclusive use of "Babe" Ruth's name and fame.

Babe Ruth Home Run Baseballs are fast becoming as famous as the Home Run King himself. Cash in on the fame of these two favorites of the baseball and confection world.

Remember — two flavors — chocolate coated ice cream. Inexpensive equipment.

We furnish everything. No bonus to pay.

"Babe" Ruth's big premium baseball offer in exchange for wrappers, is a business getter.

Be the First in Your Trade Territory

Introduce Babe Ruth Home Run Baseballs!
WRITE RIGHT NOW!

BASE BALL

The National *Buy Word*



Two Flavors

"CHOCOLATE COATED ICE CREAM BASE BALL"
TRADE MARK REGISTERED

ELITE CHOCOLATE COATED BASEBALL CO., El Paso, Texas

WAGNER, OF CHARLEROI, PA., CONSOLIDATES WITH RIECK-MC JUNKIN.

The Wagner Ice Cream Company, an institution long and favorably known throughout the Monongahela Valley, has consolidated with the Rieck-McJunkin Dairy Company, of Pittsburg. Announcement is also made that the plant of the Charleroi Brewing Company, a part of the Independent Brewing Company, has also been acquired by the Rieck-McJunkin Dairy Company and will be remodeled and equipped for the manufacture of ice cream.

This consolidation and expansion of the Rieck Company will mean that the thriving Valley towns will very shortly enjoy the excellent product and prompt service in the same complete measure that has made the name Rieck famous all over Pennsylvania.

When the brewing company plant remodeling is completed it will rank as one of the foremost ice cream plants in the country. Great progress has been made in recent years in the manufacture of ice cream. The Rieck Company has always been one of the foremost leaders in the country, instantly on the alert to adopt any new and better method or device. All the experience gained in a number of successfully operated plants will be used in the new plant. And, a thing of considerable importance both to the public and the dealers who serve Rieck's ice cream, is the fact that the new plans will enable a much more complete and convenient system of delivery to all the towns in the Valley.

Wagner ice cream has enjoyed popularity in this vicinity for more than thirty years and the company, until the consolidation was owned by L. G. Wagner and James S. Wagner.

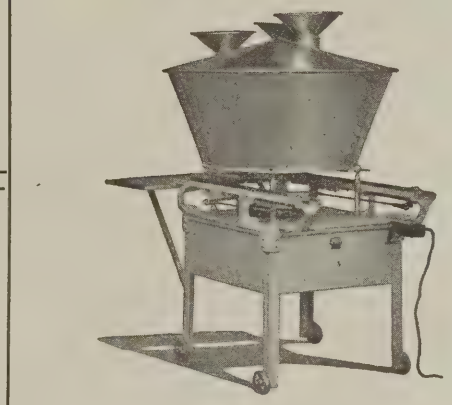
In the spring of 1890 George Wagner, father of the present owners, started an ice cream factory in connection with a bakery at 315 McKean Avenue. This was the first plant in the vicinity. Ice Cream was made by hand and packing and delivering was unheard of. The turning of the crank meant a plate of cream and thirty gallons a day was the capacity.

As the town grew business enlarged and with increased sales came the motor driven freezer and a shipping business to the surrounding towns was started. There was no street cars there and very few trains so most shipping was done by boat. When street cars came and surrounding towns came into existence more modern machinery was added, the first being a brine freezer. In 1904 the business had so grown that George Wagner purchased a lot at 415 McKean Avenue and built a new building using part of it for a factory. Each year more business was added and more modern machinery was installed and finally came refrigeration machinery. Incidentally this was the first factory in the valley to install it. In 1919 the sons who had grown up with the business purchased it and commenced on a larger scale, acquiring more territory and adding new equipment, trucks, etc. A year later they purchased the business and new plant of U. S. Orange, at 420 Fallowfield Ave., Charleroi, Pa. This plant was remodeled and more new equipment added. Business grew to such a volume that in 1921, in order to satisfy demands of the public the company sought larger quarters, additional facilities and the outcome, in order to give the public better service, consolidated with Rieck-McJunkin Dairy Company. A public opening and inspection of the new plant will be announced when remodeling is complete.

Trade Quickly Recognizes This Great Value

Rogers AUTOMATIC ICE CREAM BRICK MAKER

$1,500.00 F. O. B. DETROIT



1 Rogers Automatic Ice Cream Brick Maker completely overcomes all drawbacks common to the old way of making ice cream brick. No brick slabs to fuss with—no wrapping with parchment—no three or four trips back and forth from hardening room.

2 Rogers Automatic Ice Cream Brick Maker has been perfected to meet the exacting requirements of perfect ice cream bricks — No ice shell — Exact measure—Perfect division of colors in Neapolitan bricks — Not touched by hands—Perfect bricks free from muss.

GREAT ECONOMY — LOW UPKEEP — ENDURING SERVICE — MINIMUM REPAIRS — EASILY ADJUSTED.

"A Rogers Automatic Ice Cream Brick Maker Increases Prestige"

JOHN W. LADD COMPANY

"National Approved Distributors Specialties"

DETROIT CLEVELAND

A Visit to a Chicago Ice Cream Plant

WHENEVER we can find time to visit a good ice cream factory our "nose for news" leads us in the direction of one. It was recently the pleasure of a representative of The Ice Cream Review to visit the Lawrence Ice Cream Company in Chicago and to see something new in preparing the ice cream mix.

The mix is made from fresh skim milk, sweet cream or sweet butter. This plant is located near a railroad, which makes it very handy for them to receive the raw products from the country. Milk and cream is taken in at the receiving door, dumped into a shallow tank and



One of the great fleet of delivery trucks operated by Lawrence Ice Cream Co.

pumped into storage tanks which are placed in the cooling room formerly used for storing cans. The empty cans are washed and returned immediately to the hauler. The result is, no handling or pulling of milk cans through the plant and a great saving in cash outlay for cans.

The mix is prepared in the hot wells, which are shown in the foreground of the picture above. The milk and cream is pumped from the tanks in the cooler and mixed with the other ingredients in these hot wells. The amount of each required is determined by accurate chemical analysis of the milk products upon the Mojonnier Tester. Everything in the mix is prepared at this point except adding the vanilla extract. The reason for this will be mentioned later. The temperature in the hot well never exceeds 145 degrees while the mix is being prepared. The mix is then drawn into the Mojonnier Vacuum Pan, which is the big feature of the Lawrence plant. A Green Gauge indicates when the exact weight of the required amount has been added. This vacuum pan does four things, — it pasteurizes, condenses, standardizes and volatilizes.

This is one of the large plants which has recently installed a Vacuum Condensing Unit for handling the ice cream mix. There is a big saving in the employment of the vacuum unit as will be seen from Mr. Olin's statement. Mr. Louis Olin, president of the company, states



Ice Cream Packaging Machines in operation. Conveyor in foreground conveys cans into hardening room through doors which open and close automatically. Other end of conveyor is seen in hardening room view.

that he makes a better mix at a lower cost, and that throughout the winter he saved about $50.00 per day, and through the summer, $150.00 a day. At the same time he claims it to be a great laber saving device.

The heating of the mix under vacuum thoroughly agitates it and throughout this entire operation, the temperature never exceeds 145 degrees Fahrenheit. For this reason the possibility of cooked flavor is entirely eliminated, and the mix thoroughly pasteurized. Mr. R. G. Thoke, superintendent of the plant, states that going through this operation "it is unnecessary to use any condensed milk in making ice cream mix since while pasteurizing under vacuum just the right amount of water is taken out to produce a standardized mix. The standardization of the mix is a very important feature



WRITE FOR PRICES NOW

Buy from the Originator

We are the originators and patentees of this quality ice cream tub cover. No royalties to pay—no infringements to guard against. All good reasons why

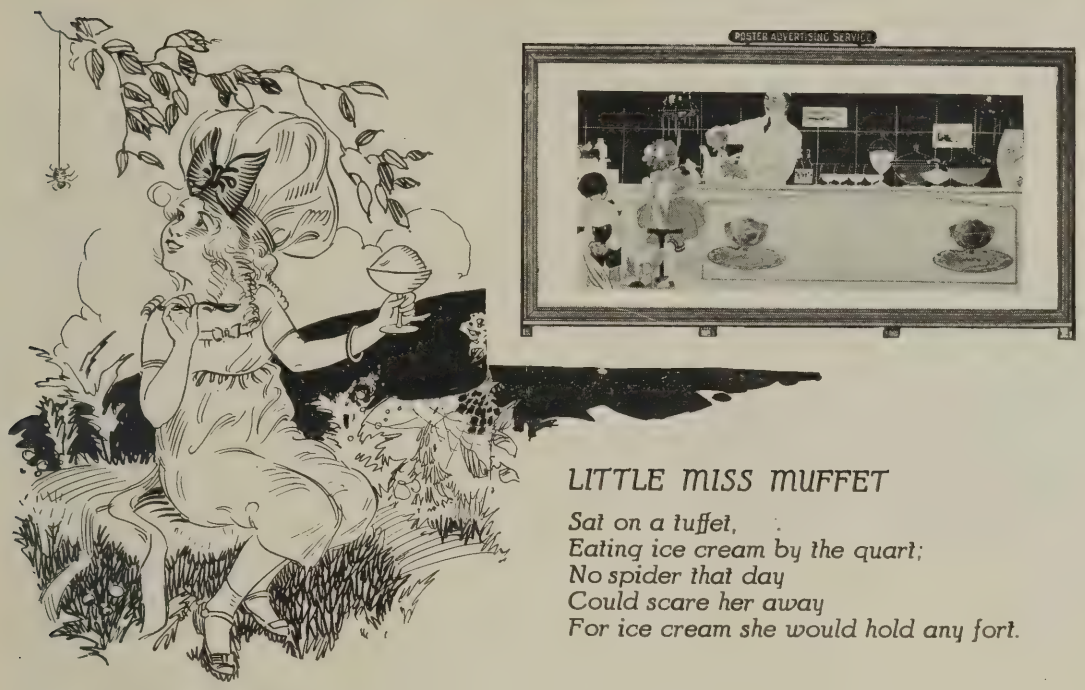
Schott Brothers Quality Tub Covers Are Lower in Price

The fact that after six years as users, original buyers of **Quality Tub Covers** send in repeat orders each season for new tub covers, should be proof enough for you to investigate the quality, price and serviceability of Quality Tub Covers.

The Quality Tub Cover comes to you complete with staples, tie strings and your advertisement.

THE SCHOTT BROS. COMPANY

WEST SALEM "If Made from Canvas We Make It" OHIO



LITTLE MISS MUFFET

Sat on a tuffet,
Eating ice cream by the quart;
No spider that day
Could scare her away
For ice cream she would hold any fort.

VERILY the thought of the treat in store for her gave courage to even the timid Miss Muffet.

She knew that this particular brand of ice cream [to protect which she was braving even spiders] was worth fighting for. She knew this even before she tasted it—because, on the Poster Boards, she'd seen so many tempting pictures of other people enjoying it.

These beautifully colored big poster advertisements were just as true to life—and as convincing—to Miss Muffet as they are to millions of other people.

[The poster Miss Muffet saw was designed by Nordhem]

NORDHEM SYNDICATE SERVICE

Advertising and Selling Service

for Ice Cream Manufacturers

8 West 40th Street—New York City

of this vacuum pan. It condenses the mix to almost the proper point to which it must be standardized, preferably a little below this point, it can be regulated by adding the necessary amount of water before it is homogenized."

This vacuum pan also volatilizes, that is, gives off and eliminates all off flavors. The vigorous ebullition under vacuum in the pan removes all off flavors so that the ice cream produced has a clean sweet flavor. The vanilla extract is not added when preparing the mix, be-



Hardening Room, Lawrence Ice Cream Co.

cause it would also be taken off in the pan. However, chocolate, strawberry and other flavors can be placed in the mix before it goes to the vacuum pan. Superintendent Thoke says that it intensifies flavors. "It brings out the best flavors, and saves a lot in extracts, because not so much extract is needed."

Prof. R. W. Peterson of the University of Illinois has made a study of this process. He says that this process will eliminate many bad flavors, such as onion flavor and weed flavors which are often found in cream.

After the mix has passed through this process it is drawn through the homogenizer, over a tubular cooler, to the storage tanks in the chillroom where it is aged for about 72 hours. After aging, the mix is drawn down to a fine battery of 80 quart Miller freezers. The finished product is conveyed into the hardening room and is soon ready for delivery.

About a block away from the Lawrence plant is their large garage which is about 100x150 feet, where the great fleet of 40 ice cream trucks is kept. Accompanying the illustration shown, the Lawrence type of truck, which gives them an exceptionally fine opportunity to display their brand" Goldenrod," as it is uninterrupted and occupies the whole side of the truck. These trucks were designed for Mr. Olin after specifications and built according to them and have been admired by manufacturers from all parts of the country, not only for the convenience of handling packaged and bulk goods, but also on account of the splendid advantage for advertising. Each of thes trucks will handle about 800 gallons of ice cream and the brick of ice cream is as easily mastered as a letter in a vertical file in an office, as the bricks are placed in receptacles or drawers, which may be pulled in and out.

This picture shows two of the Mojonnier ice cream packing machines which are in the Lawrence plant. The packages are filled and tied and then placed on the conveyor and taken into the hardening room.

We also show a view in thelarge hardening room where he keeps constantly in storage, thousands of gallons of both bulk and packaged ice cream, as Mr. Olin prides himself on working six days in the week, just the same as other business enterprises. You will note on the right hand side of the ilustration, the large number of cartons of ice cream, which were packed automatically by machine, without whatsoever by human hands. The conveyor from the freezer room to the hardening room, which fills up about two-thirds of the length of the hardening room, is a wonderful time saving device at the Lawrence plant, as the cans of ice cream and the trays containing the packaged brick ice cream are automatically conveyed from the freezer room into the hardening room thrugh doors which open and close automatically.



JAMES H. LAHER BUILDING NEW ICE CREAM FACTORY.

Bedford, Pennsylvania, is to have a new ice cream plant. James H. Laher is erecting a new building near the site of his present plant and will dismantle the old one as soon as the new structure is erected. The cost, together with refrigerating equipment will be about $25,000. The McCormick Company, Inc., of Pittsburgh, are the architects and engineers in charge of the work.



PAVED ROADS AND DAIRYING.

Paved roads and dairying go hand in hand. As more improved roads are constructed, milk routes are extended and the farmer farther from the city is provided with a market for his milk. Over unimproved routes requiring wagon delivery, the longest route possible is only



Does your business pay? If not, why keep it? Advertise it For Sale in The Ice Cream Review Want Department. Some one may be glad to buy it if they only knew it was for sale.

Face Up!

OUR cards are on the table—face up—Mr. Ice Cream Manufacturer! You be the judge and try our case. We list only a few big sellers to the ice cream trade. Check (1/) the items that interest you and mail the ad to us. Liberal samples will reach you in record time—also prices astonishingly low considering the quality.

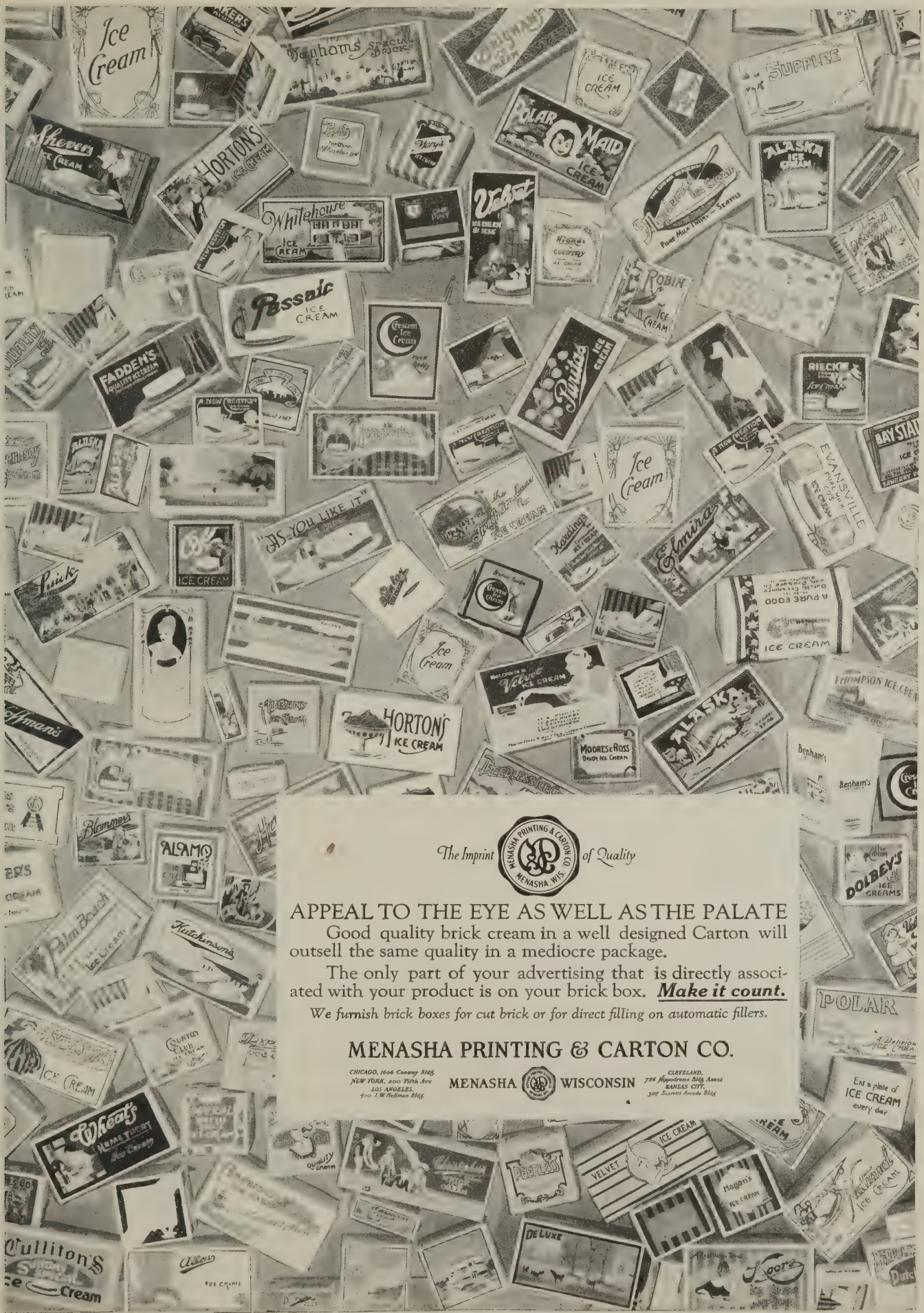
Prompt Deliveries Always

Mail This Today Please!

- ☐ 1922 Crop Cold Process Strawberries.
- ☐ Tutti Frutti Mixture.
- ☐ Cold Process Crushed Peach.
- ☐ Cold Process Red Raspberries.
- ☐ Whole and Broken Maraschino Cherries.
- ☐ Crushed Maraschino Cherries.
- ☐ Whole and Broken Green Cherries.
- ☐ Orange Pineapple Crushed.
- ☐ Raspberry Pineapple Crushed.
- ☐ Crushed Pineapple Solid Pack, Sweetened.
- ☐ Cocoanut Fruit Salad, Pure Honey Flavor.
- ☐ Crushed Peach and Shredded Cocoanut.
- ☐ Chopped Walnut in Maple Syrup.
- ☐ Crushed Apricot.

Samples and Prices on Unlisted Items Sent on Request.

422-424 W. Fourth St. THE CINCINNATI EXTRACT WORKS Cincinnati Ohio



The Imprint of Quality

MENASHA PRINTING & CARTON CO. MENASHA WIS.

APPEAL TO THE EYE AS WELL AS THE PALATE

Good quality brick cream in a well designed Carton will outsell the same quality in a mediocre package.

The only part of your advertising that is directly associated with your product is on your brick box. ***Make it count.***

We furnish brick boxes for cut brick or for direct filling on automatic fillers.

MENASHA PRINTING & CARTON CO.

CHICAGO, 1606 Conway Bldg. NEW YORK, 200 Fifth Ave. LOS ANGELES, 400 I. W. Hellman Bldg.

MENASHA WISCONSIN

CLEVELAND, 758 Hippodrome Bldg. Annex KANSAS CITY, 307 Scarritt Arcade Bldg.

Off the Mainland

ICE cream is being daily regarded more and more as healthful food product instead of a Sunday dessert or to be served when "company" comes. Its health-producing powers are fast becoming known not only to the larger countries but to a great many of the smaller corners of the world, and it is now being more generally used as a food for daily consumption.

Not long ago, a shipment of one thousand gallons of brick ice cream were sent from Honolulu, Hawaii, to the island of Guam. These islands are about two thousand miles apart. The shipment was made by the Honolulu Dairymen's Association, Ltd., who manufacture and distribute milk, cream, buttermilk and ice cream.

The island of Guam, Uncle Sam's far-flung outpost in the Pacific, is at the present time little developed but the possibilities are great. The Guamese are an amiable people, being intelligent and eager to learn, and since American occupation at the close of the Spanish-American war, schools have been established. These natives are of mixed blood with complexions from whites to dark browns. In olden days, Scotch, French, English and Spanish ships stopped in the harbor of San Luis d' Apra and when the ships departed, some of the men remained behind and eventually married the native Chamorro women. Therefore, one cannot judge from the family name whether he is among Spaniards, French or English people. The men wear trousers and shirts, but unlike the American custom, (with the exception of perhaps the days before prohibition on the morning after an American "stag) they wear their shirts on the outside entirely. The women (unlike the American women) like ample skirts and waists with sleeves—but they save their shoes for special events. We might say the opposite in this about American women's customs—with the days of aesthetic dancing as the predominating rage—may we suggest that our native women discard their shoes for special events? One is amazed at the great devotion apparent between parents and children of the Guamese. When their children are about to be married, the parents plan and sacrifice for them, that they may have a proper start. Then in return, the children take care of the parents when they are too old to work. The spectacle of old women forgotten and uncared for by their children, as they are in Samoa and Indian tribes, is unknown in Guam.



Beach "CONERS" Picnicing on the Island of Guam.

Many of the better houses are constructed of wood, stone or stucco, with roofs of colored tile. Some of the older residents are stoical enough to stick to the customs of their forefathers, and prefer dwellings thatched all over with palm tree leaves. In Agana, the seat of the government, the pace is set. The houses are more modern and the streets more spacious. In the public square here, you will see the principal church of Agana and of Guam. It was founded in 1669 and shattered by an earthquake in 1902. It has never been restored, but the natives give it the same degree of adoration. A great bell tolls every morning at 4 o'clock calling the people to matins and to their daily tasks.

Unlike America, the natives grow just enough foodstuffs for their needs, they have no market for the surplus, the island being so isolated. Their wants are extremely simple, and the need of a surplus would come only with a catastrophe. This they refuse to anticipate.

The roads are very poor, many not being more than mere trails. The water buffalo are used to draw the carts. The need of better transportation retards the development of the island, as fine lumber is obtainable and could be a valuable export.

Cotton trees grow wild in three varieties and they flourish at a height of 60 feet. The long leaves of the pandanu are braided into mats and hats by the women of Guam; and from the hau tree, the men manufacture a strong rope which water cannot penetrate. The pine-apples are juicy and the breadfruit is delicious. Copra, the dried meat of the cocoanut, is the only item exported. Rice is grown; sweet potatoes; corn; tobacco; coffee bushes, stooping from the weight of berries; and last, but not least, the palm trees contain large quantities of that pitiful rival of the dairy cow—the cocoanut, which are the best in all the tropics, in Guam.

The temperature is hot; on mean days it is 80 degrees. This ought to be good for many repeat orders on ice cream for the Honolulu Dairymen's Association,

(Concluded on page 30)

Nafis Test Bottle Enamel



For Renewing the Coloring in the Graduations of used

Babcock Test Bottles

and other glass graduated apparatus

Fills a long felt want
SIMPLE TO APPLY

Makes old test bottles as easy to read as new ones. Same as that used on NAFIS graduated glassware. Supplied in ¼ pint and ⅛ pint cans. Keeps indefinitely if tightly covered.

For Sale by All Dealers in Nafis Glassware

LOUIS F. NAFIS, Inc.

Manufacturers of Scientific Glass Apparatus for Testing Milk and Its Products

544 Washington Blvd. CHICAGO, ILL.

Ask the man who uses it



TYPE B
Foot-Power Filler

Sealright—a Practical Filling Machine for the Round Container



The Sealright Filler, with the Sealright Containers, forms the finest combination on the market for speedy and thoroughly satisfactory work. The machine is compact and fits in anywhere. It automatically packs bulk ice cream in one or or more flavors without the necessity of the cream being touched by hands. Bulk cream in packages is what the people want. Be a leader in your community and win popular favor by supplying bulk cream in the Sealright Package.

Sealright Containers

appeal to the ice cream buyer, for their carrying and keeping qualities, and because they do away with the mussy, unsatisfactory method of unwrapping and slicing the usual brick. And more important still, they protect the dealer against loss by measuring the cream accurately—four quarts from every gallon, instead of the shortage that always results where bulging paper pails are used.

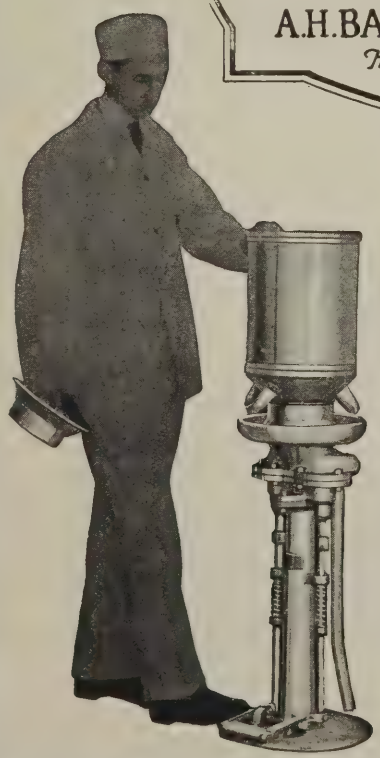
BARBER

IF you want to keep closely in touch with the latest developments in equipment and supplies for your business, you have only to keep your name on the Barber mailing list. As large distributors, we keep fully informed on new machinery and improvements brought out by the various manufacturers, and the things which are practical and worth-while are quickly passed along to our customers. This, with our Chicago and St. Paul locations, and our excellent shipping facilities, is a great convenience and valuable to the dairy industry throughout the Middle West.

A.H. BARBER CREAMERY SUPPLY CO.

Home office: **300 W. Austin Ave., *Chicago***

TWIN CITY OFFICE: 2490 UNIVERSITY AVE., ST. PAUL



Danforth Jet Rinser and Sterilizer

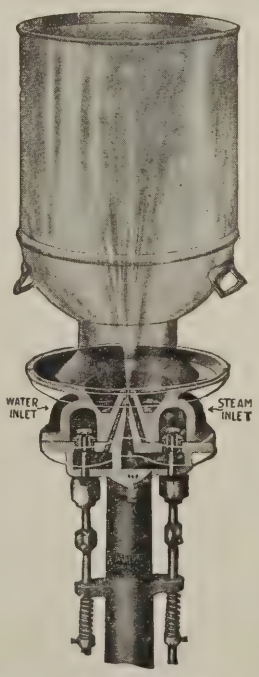
A can steamer, to be satisfactory, must be fast—thorough—and convenient in operation.

The Danforth steam jet is located directly beneath the orifice. The action of the jet breaks the water into a fine spray and greatly accelerates its speed. The water is heated by the steam as it passes through the ejector.

Note the convenient operation of the valves directing the water and steam. A flexible foot tread, simply by moving the ball of the foot one inch to the right, shifts from water spray to live steam. The rinsing is instantly followed by sterilizing. Nothing could be speedier or more convenient. The hands of the operator are left free to hold the can.

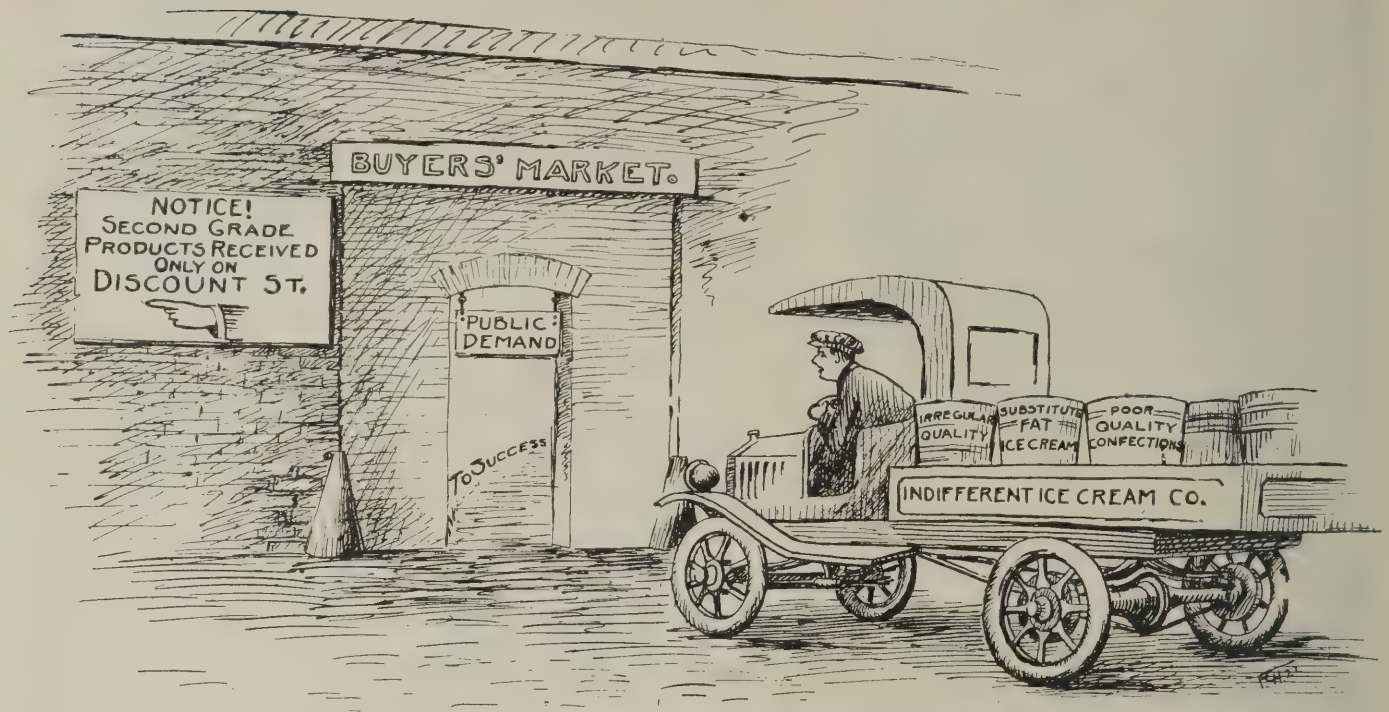
It is low enough in price to make it practical for the smallest plant—large enough in capacity to meet the needs of the plant handling 300 cans per day. A thoroughly practical and dependable piece of equipment at a moderate cost.

Price, painted gray, $45; galvanized, $50



Indiana Manufacturers of Dairy Products

OFFICE OF THE GENERAL SECRETARY
306 CHAMBER OF COMMERCE
Telephone, Main 3265
INDIANAPOLIS, IND.



Once upon a time this driver used to drive up to this same gate and, strange to say, found no difficulty in passing through for the gate was wider then and there was another name over it. If the driver's eyes have been shut for several years they seem to be wide open now. It may be that another driver may run bang into this gate before he opens his eyes, and this gate has the appearance of being stronger than any ice cream truck.

Yours truly,

A. P. HOLLY,
Secretary.

WE ARE ON THE OTHER SIDE OF THE FENCE

There are two sides to a fence, just the same as there are two sides to an argument. Put a calf on one side of the fence and he immediately gets the idea that you mean to punish him for one reason or other and he wants to get on the other side. Not so with the ice cream manufacturers today. He has been on both sides of the fence, but it isn't his fault. The American public have acquired a taste for good ice cream and the ice cream market, which is the fence that we have been talking about, has moved.

It is not so very long ago since the ice cream manufacturer could fix up a little ice cream, sugar, flavor and extract, put it in a freezer, churn it around for a while and sell it as ice cream and make some money out of it. Those were the days when we had what Mr. Holly of the Indiana Manufacturers of Dairy Products would term a "Sellers' Market." Today we are on the other side of the fence, we ice cream manufacturers. We are on the side where we have to face a "Buyers' Market," where the buyer has an opportuntiy to get the quali y of ice cream he wants and if we do not make it, he is either going to do without or he is going to go to the other fellow who will make it.

Secretary Holly has illustrated this point very graphically in a circular I enclose (shown on this page). This was sent out to ice cream manufacturers belonging to the Indiana Manufacturers of Dairy Products.

The manufacturer of today must either get on the inside of the fence or get on the outside and stay out.

Yours truly,

J. D.

INDIANA MANUFACTURERS OF DAIRY PRODUCTS.

Secretary Holly Offers Assistance in Campaign for Cleaner Cans. Good Words From Good Men of Our Good Association.

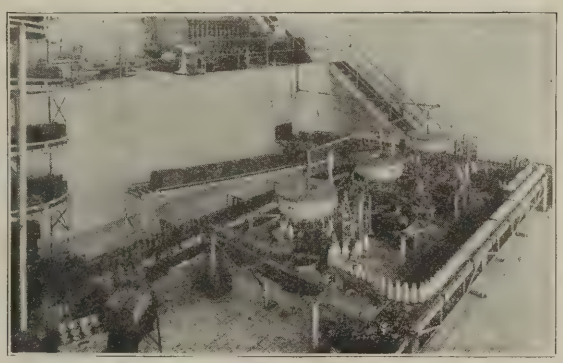
If ice cream manufacturers will send us a list of your dealers—or a list of those dealers who are careless about cleaning cans, we will send to them a letter on stationery of the Food & Drug Department and signed by them calling the dealer's attention to the fact that it is illegal to send back ice cream cans that are not thoroughly clean.

It would be advisable that **ALL** ice cream manufacturers would do this.

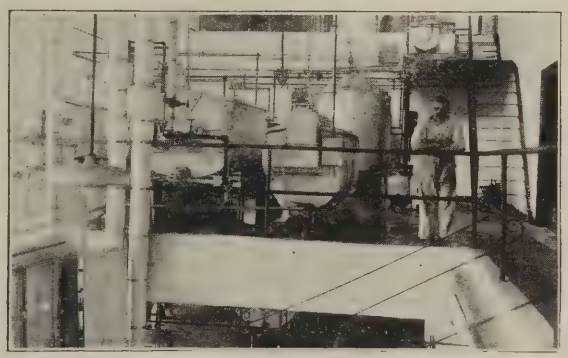
* * *

John Risch: "It is only when I stop to think of the condition of the industry at that time and to compare it with the advancement that has been made up to date, that I realize the wonderful work that the Association has done.

You Should Know What It Will Cost



Bottling Room, Akron Pure Milk Co., Akron, Ohio.



Pasteurizing Dept., York Sanitary Milk Co., York, Pa.



Leichtman Ice Cream Co., Hazleton, Pa.

No factor connected with the erection of a new plant or a remodeling job has caused owners as much grief and worry as final costs. Many have made investment appropriations and arranged the financing details only to find, after they were well under way, that the cost was underestimated. Unexpected developments continually cropped up as the work progressed which necessitated additional outlays or expensive operating delays. And all because they did not have a definite knowledge beforehand.

McCORMICK

Architectural and Engineering

SERVICE

first of all, counts your costs and tells you in advance of the letting of a single contract. Furthermore, it gives you a definite knowledge of operative capacities, as well as visualizing the appearance of the completed plant, equipment placements, etc. *Every element of guesswork or speculation is eliminated* and you proceed with a *full knowledge* of just what your plant will produce and *what the total cost will be.*

Can you afford to take any chances on the success of your plant when such definite information is available?

An inquiry will not obligate you in any way.

THE McCORMICK COMPANY, Inc.

Architects and Engineers for the Dairy Industry

PITTSBURG
Century Building

NEW YORK
41 Park Row

Construction Executed by Your Own Local Contractors Under the Direction of Our Own Superintendents

"It has been a pleasure to me, gentlemen, to recall the early days of the Association, and I am glad that I had an opportunity to play a part in its development."

"In conclusion, I would like to have you stop and think for a few moments and picture the industry as it would exist without the Association. It seems to me that it is a good deal like the home life of a man who has been very happily situated, but never realized just how fortunate he has been until he loses his helpmate and then, when the home is broken up, he can look back and think of the many things that were done for his good and comfort, that he was almost unconscious of at the time they happened, and I think our Association is a good deal the same way. We don't really, any of us, appreciate its value, and only realize its real loss to us if it was taken away from us."

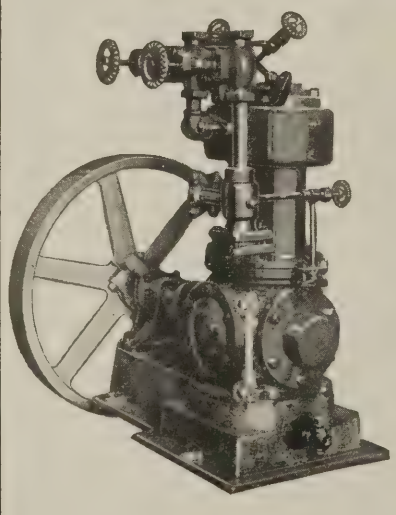
* * *

E. A. Marple: "We learned during the war the advantages of sitting down at the table once a month and meeting our competitors on a social as well as a business basis. I believe that the Creator made us so that the better acquainted we become, the easier it is for us to see the good qualities and to lose sight to some extent of the poorer qualities in our natures. So that the better acquainted we have become through Association work, the less suspicion we have of our competitors and are willing to take a broader view of his point. I want to bring this out if I can so that you will understand that there is a psychological effect in an Association of this kind that is valuable to you and me."

* * *

A Great Event: Is scheduled for July—the biggest and best in our history. "Watch the show window."

A. P. HOLLY, General Secretary.



DID You ever stop to think of the saving on reliable refrigeration with small and medium ice cream plants. They pay for themselves in less than a year.

Consulting us will prove these facts

We build complete ice cream equipments and hardening rooms. Also experts on Soda Fountain for mechanical refrigeration.

Our installations are simple in operation and money savers.

Write us your requirement for Ice Cream and Dairy plants.

Reliance Ice Machine Co., Inc.

MANUFACTURERS AND ENGINEERS

1221 Belmont Ave. CHICAGO, U. S. A.

OFF THE MAINLAND.

(Concluded from page 26)

and we have a vivid picture of these natives after having once tasted the delicacy of ice cream, crowding around the San Luis d' Apra harbor when one of the ships containing this precious cargo, sails in.

The island of Guam is shaped like the boot. The population is bunched on this boot, in several towns, San Luis d' Apra, Agana, Pago, Tarofofo and others, to the extent of about 15,000 inhabitants in all. Hurricanes are frequent and disaster often overtakes the little island, until a ship comes in to feed the hungry, after the storm has destroyed the fields and gardens and has wiped out everything.

Guam is only a diamond in the rough, with a length of 30 miles and a width of six or seven miles—a total area of approximately 200 square miles—yet they know of and like ICE CREAM. Thus, have we proven to you, friends, that even in the little corners of this interesting old world, this great product, ice cream, is being consumed and valued as a food.

The Canadian-Australian liners also stock up on ice cream at Honolulu, manufactured by the Honolulu Dairymen's Association, and this popular, frozen dainty travels many thousands of miles, being served at meal time to the passengers, who relish their favorite dish which can be served even though they are thousands of miles from home.

⚜

COMING ! ! !

Members and friends of the Southern Association of Ice Cream Manufacturers, there will be two big events taking place in December that you'll be interested in. One of them is Christmas — the other is — oh boy, ain't this grand—the Tenth Annual Convention of the Southern Association of Ice Cream Manufacturers. And Santa Claus isn't making any bigger and better plans for the success of Christmas than J. W. Clopton, the Secretary, and others in charge are making for the success of this convention. You know Clopton—when he gets behind a thing and pushes, something's bound to happen. Mark the dates on your calendar now—time, December 5th, 6th, and 7th; place, New Orleans. Watch The Ice Cream Review for further news.



⚜

MANAGER OF IMPERIAL CO. RECOVERING.

W. M. B. Sine, who was injured in an automobile accident in May, is reported to be improving rapidly, and according to his secretary, is expected to be as good as new in a few weeks.

His injuries were the result of the automobile in which he was riding going over an embankment, and turning over three times. Mr. Sine was seated with the driver, and the first time the automobile turned over the back of the front seat hit him in the back. The second time it struck his face, broke several facial bones, and threw him out of the car.

The top of the car kept the other occupants of the car from being thrown out, and they only suffered bruises and shock. It was a most remarkable escape from death for all of them.

FEDERAL

PNEUMATIC TRUCK TIRES



Scientifically built especially to meet fully the unusual and exacting service which they are expected to give and perform.

The staunch but highly-flexible CORD CARCASS, heavily studded RUGGED full-traction tread, and reinforced twisted steel MULTI-CABLE-BASE, represent the highest degree of scientific construction, "Extra Service" and Economy.

MADE IN SIZES:

32 x 4½	35 x 5
34 x 4½	36 x 6
33 x 5	38 x 7
34 x 5	40 x 8

FEDERAL

Truck Construction Tubes

All Federal Truck Tubes are of the heavy duty type, specially constructed on curved forms to insure maximum strength and service.
Enthusiastic users in practically all industries throughout the United States.

The Federal Rubber Co.
of Illinois
Cudahy, Wisconsin.

Pacific Association of Ice Cream Manufacturers

Proceedings of Annual Convention, Seattle, Wash.

CONCLUDING ADDRESS of W. R. W. NICHOLS, ON "THE SILENT SALESMAN OF ICE CREAM."

Continued from May issue.

You have, as ice cream manufacturers, spent time and money in the careful study of butterfats, total solids, pasteurization, homogenizing, also carbonization and all the other scientific methods used in the manufacturing of ice cream, but how many of you have gone into the proper blending of flavors for use in ice cream? The quantity necessary to use, the class of cream manufactured, you almost invariably leave this to a test of different vanillas submitted to you. We as manufacturers of flavors work in the dark. We are telling a manufacturer of ice cream in Newark, New Jersey, to use the same amount to a ten-gallon batch as we are the manufacturer here in Seattle. Some ice cream manufacturers have a particular formula which has taken them time and expense to work out. They do not care to hand this formula promiscuously to flavor supply men. But even at that, is it not possible for you ice cream manufacturers to give us say three or four different formulas among which is your own? Let us work this out scientifically in our laboratories and tell you the amount of flavor needed for each formula, thereby securing the exact flavor for your particular formula without the need of disclosing same.

There is another point that we come in contact with as flavor supply men, and that is the ice cream manufacturer who tells us he makes his own flavors, and it always reminds me of one time when I went visiting, and they had me turning an ice cream freezer. The folks told me that they were making better ice cream in that ice cream freezer than any ice cream manufacturer could produce. It was good they believed so because they could not prove it to me, and do you folks believe that the home folks can make a better ice cream than the ice cream manufacturers of the U. S. can whose investment in the manufacturing of ice cream today runs somewhere about one hundred million dollars? Manufacturers who spend time and money in scientific experiments as to the proper blending of ingredients for the manufacturing of ice cream. You will all say it can't be done. Well, then, stop and realize that the same amount of money that you have invested in the manufacturing of ice cream is also invested in the scientific manufacturing of flavor, and I believe you agree with me that the folks with the ice cream freezer in the home is just as efficient as the manufacturer who tries to make his own flavor.

You have 25 flavors as silent salesmen in ice cream, and they are as follows: The most predominent one vanilla; then, lemon, orange, apricot, banana, brandy, grape, pistachio, rum, creme de mint, roman punch, tutti frutti, walnut, maple, almond, coffee, cherry, pineapple, raspberry, strawberry, and last but not least a wine flavor called sher-i-vin. This is sherry wine jellied.

When you hire a silent salesman in ice cream, hire a good one. Look into the qualifications. Is he pure—has he strength of flavor; has he the ability of bringing you repeat business? In other words, is he a true representative of the ice cream industry?

I thank you. (Applause.)

Mr. Swanberg: Will you answer some questions?

Mr. Nichols: Yes, certainly.

A Member: I would like to ask the gentleman if a chemist could analyze vanilla and tell if it is a pure product?

Mr. Nichols: Yes, an analysis will show.

Mr. Dreyer: I took a sample of vanilla compound to Curtis & Tompkins in San Francisco and I purchased this vanilla to contain 27 per cent of pure vanilla mix and I took it down there and I got one report and it was not satisfactory, and I thought there might be a possibility of them making a mistake, so I took it to Smith, Emery Company, and I got the same report. The chemists told me that they could go no further with the analysis unless they would give it a color test which would be an additional $50, but he was afraid it would not prove very much even then and the analysis he gave me would be about sufficient. You might bring out a little more about the color test.

Now, I told the manufacturer about it and he told me if I wanted to run a color test, all I had to do was to put in a little burnt sugar and give it a color test.

Mr. Nichols: It is very easy to give vanilla the color test. You take a piece of cotton and put some of the compound on it and put it in a pan and as it heats up it will turn brown if there is burnt sugar in it. If there is not any, the color would not turn brown; the cotton would not turn brown. It is a very simple thing to do. There is a certain amount of color in vanilla beans; a certain percentage of it is water, and there is some resin.

I do not believe a chemist could tell the exact percentage of beans used from the resin found. The only way he could do it would be from the color test and that would be to run it to find out how much natural color



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There is no one to blame but yourself if you neglect to stop the "snitchin'." You can do it in short order. Simply use Derycote and adopt a **standard** color. Derycoted tubs and cans don't rot or rust, either. Derycoting saves money both ways.

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Handling or transportation will not cause it to chip or crack. Hot or cold water, salt, ice, brine, washing powders, etc., will not dim its lustre or impair its protective qualities. Made in 24 colors, as well as black and white or in your standard shade if our regular colors don't suit.

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THE ASSOCIATION OF ICE CREAM SUPPLY MEN MEMBER

The National Paint and Varnish Company
CLEVELAND, OHIO, U. S. A.



The C-T Bantam

NOW is the time to get at the truth about delivery costs. What are the factors that are causing extravagant expense in the delivery systems of so many businesses? Why are ice cream manufacturers so often ashamed to admit the cost per package or per mile of delivery?

The answer is first of all to be found in the selection of the wrong vehicle for the work to be done. Second, in the lack of complete cost records on the operation of delivery equipment.

That the right type of truck may be used for the work best suited to it, the field of transportation must be divided—electric trucks for city deliveries with many stops, gasoline trucks for interurban and long haul transportation.

Ice cream manufacturers who have applied this principle to their deliveries have benefited with larger earnings and less delivery troubles.

The Detroit Creamery's efficient fleet of C-T Electric Ice Cream Trucks. Low cost of upkeep, longer life, no disagreeable odors to permeate the cargo.



Let the truck user keep accurate, complete delivery cost records. They will awaken him to a realization of the needless high cost of delivery. They will enable him to buy his equipment with judicious care and to effect great savings.



In the electric truck field, no equipment will give better service at less expense over a longer period of years than C-T Electric Trucks. The transportation records of C-T users testify to the great savings effected because of C-T simplicity of design, sturdy construction and high standards of manufacture.

Commercial Truck Company *Philadelphia*

C-T ELECTRIC STREET TRUCKS

there was. A chemist can separate any added chemical color from the natural color found in the pure vanilla.

Mr. Dreyer: The result of this particular test was that the resin was nil, and I told the manufacturer of it and asked him what he had to say to that, and he said "By God, I have vanilla in it, and I have got 27 per cent vanilla and I will show it to you." And he showed me a sample of a compound he manufactured that had 27 per cent of pure vanilla in it, but the compound that I had was not worth anything and I paid $8.25 for it.

A Member: Maybe it was like the rabbit sausage. (Laughter.)

Mr. Nichols: I was thinking of that.

The first thing a chemist looks for in vanilla is the total solids, and the total solids is the thing that makes pure vanilla, resin, glycerine or sugar make up the total solids.

The National law under which we make pure vanilla says that we can use either glycerine or sugar and the solids are composed of resins, glycerine or sugar, and the next thing is to find or make the lead acetate test; and after the lead acetate test has been made, the next thing is to ascertain the alcohol content by volume. That does not tell anything, because a man is not wasting alcohol unless he is trying to sell booze. If he is using alcohol in accordance with the resin, he wishes to keep in solution, he is using an excessive amount of alcohol; he is just using enough to keep it in solution.

The next thing is the specific gravity; and the next thing is the ash. Any thing that will burn has a certain amount of ash in it. The next thing is the actual test and that is the commercial test.

We went out and got samples from different places where the product was on sale and then subjected it to the baking test. Nobody knew what the product was and fifteen housewives were invited in to try it and thirteen of them decided on one piece of goods. The consumer is the only buyer we have got and it is principally a matter of what the consumer is to think about it.

If you want to make a real test, get a bunch of consumers together and let them try it, and if it suits them, you have a good seller.

Mr. Swanberg: Have you a revolver?

Mr. Nichols: I do not carry such a thing, Mr. Swanberg.

Mr. Swanberg: Then I will say that if I was a chemist I think I would buy my own beans and make my own vanilla.

Mr. Nichols: I will say to you that in a way I would not blame you. It is rather funny that I should agree with you; but if you had the facilities to produce your vanilla properly, I should have to agree with you.

One thing in all of our business today is to get the cards on the table; in other words, if a gentleman says he wants to buy a certain priced piece of goods, I try to get what he wants. We have been in the flavor business only two years, although I have been in it many years, and I wish to say that if you will tell us what your formula is, we will send it to the laboratory and tell you what it will do.

Each of us should be frank with the other because you are sellers of our flavors and it is the same with the machinery, if you buy a particular piece of machinery and they tell you honestly what it will do and it does it, you are satisfied. We want people to feel when they get a product that it is exactly what they paid for.

We have spent worlds of money in experiments, and we think we are prepared to give you exactly what you want.

Mr. C. H. Michel: The gentleman who asked the question first, stated that he had bought a compound vanilla and took it to the chemist for analysis. The very name of that should have put him on his guard so he would have questioned the manufacturer of the product rather than to take it to the chemist.

Not ten per cent of the housewives in the country know the difference between a real vanilla and compound whereas one is a product of true vanilla.

The Food Laws of the country provide a way in which those two products can be designated, but we fail to understand what the law requires the manufacturer of these substitute articles to do. But that man cannot brand his article as vanilla; he must use the word "compound," and every up-to-date manufacturer is aware of these things, that the man using the compound extract today cannot be assured of how much quality is put into the compound.

Mr. Emery: I am not a manufacturer of vanilla, but I have used it a great many years. When I was a boy vanilla beans cost from twelve to fifteen dollars a pound, and today they are worth about four dollars and fifty cents a pound.

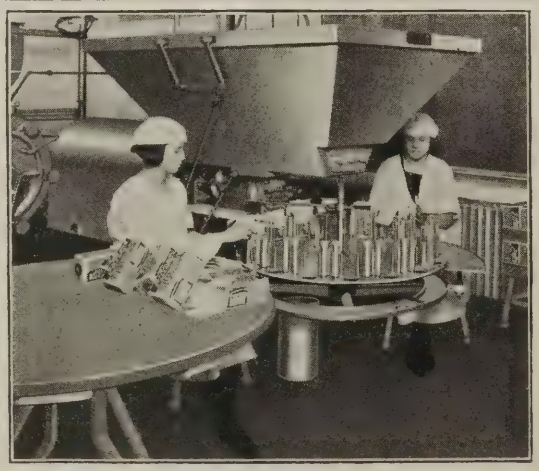
My family comes from Massachusetts, and we all know the fight made by Burnett. A friend of mine once came to my house for dinner, and he was given some food flavored with vanilla, and he complimented it very highly, when as a matter of fact he was eating a substitute, and he thought he knew all about vanilla.

People sometimes compliment Mrs. Emery on her cooking, and she uses the substitute.

* * *

Mr. Dunne: Are there any other questions? If not, let us stand and sing the "Maple Leaf Song." (Members rise and sing.)

(Continued on page 36)



Mojonnier Ice Cream Packaging machine in operation at the big plant of the Hydrox Co., Chicago

1—Fills the standard type of carton—quarts, pints or individuals—also carry home pails, or round cartons.
2—The finished brick is wrapped with parchment same as under old method.
3—Fills measured quantity of each flavor into carton, either ice or ice cream.
4—New trays insure perfectly molded bricks. Many now in use in all sections of the country.

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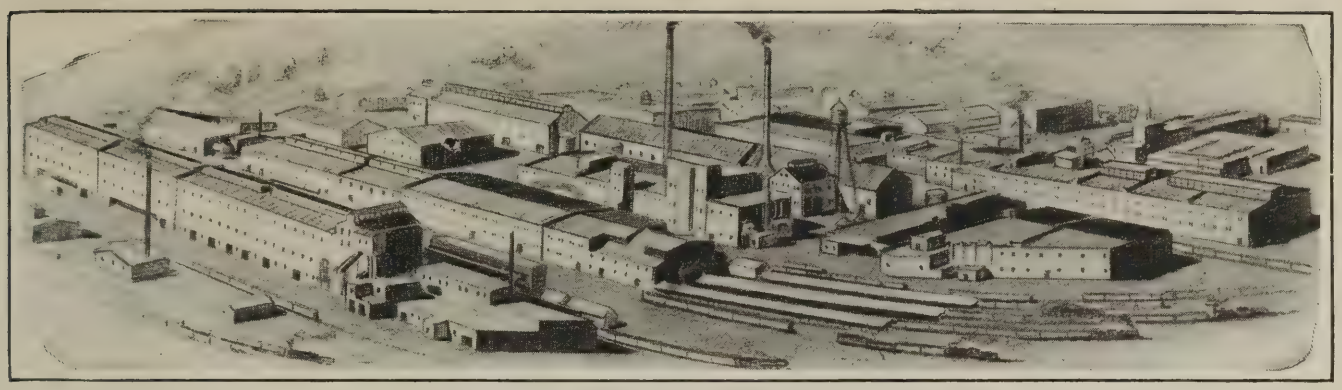
Mojonnier Bros. Co.

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There Are Reasons Why This Plant Has Been Operating to Capacity for the Past Four Months

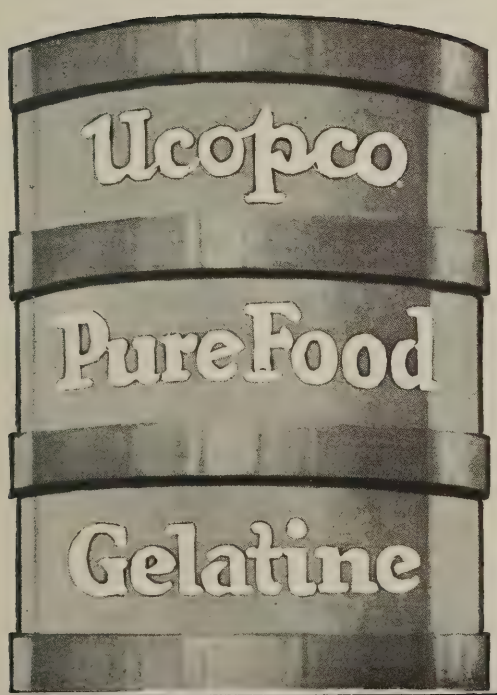
WHEN any plant finds it necessary to run to utmost capacity during a period of depression, it proves conclusively that its product must rank far above the average.

During the past four months our mammoth plant has been running night and day and immediately shipping its entire production.

Salesmanship must be given credit for its part in creating this unusual success. But salesmanship alone could not produce this phenomenal condition.

The product must be right.

Let us show you why UCOPCO Gelatine is so tremendously popular.



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Ucopco Pure Food Gelatine

SEVERAL GOOD DEVICES FOR MAKING COATED ICE CREAM BARS ARE NOW ON THE MARKET.

I take pleasure in introducing to you Mr. C. B. Terwilliger, a public accountant of Portland, Oregon, who has had a world of experience in Eastern factories and some in the West, and he is going to outline some results of his experience in that work.

* * *

ADDRESS BY. MR. C. B. TERWILLIGER.

Mr. Terwilliger: Mr. President, members of the Pacific Ice Cream Manufacturers' Association. ladies and gentlemen: I consider it a great honor to have the privilege of addressing you on accounting in connection with the Ice Cream Creamery and Associated Industries.

Being a stranger to many of you, perhaps a word as to my qualifications to address you on this subject would not be amiss.

I secured my initial experience 21 years ago in Southwestern Iowa with the Clarinda Poultry, Butter & Egg Company. There were 5 plants, 66 branches and 15 road men. Other concerns with whom I had connections, all of whom were under the general management of Sherman White, who now is head of the Produce Department of Morris & Company, Chicago, were the S. P. Pond Co., Keokuk, Iowa. There were 5 plants in this company: the Iowa Cold Storage Company, Clinton, Iowa; the largest cold storage plant in Iowa; the Wadley Company at Dubuque,, with plants at Waterloo and Iowa Falls; the Dairy City Creamery at Manchester; the Freeborn County Creamery at Albert Lea, Minnesota; the Gray-White Company at Tiffin, Ohio; the Sherman White Company at Fort Wayne, Indiana.

In 1910, Swift & Co. absorbed this aggregation of plants. The system I had in use was taken over by Swift & Co., and is the one they now have in use in their one hundred plants.

After staying with Swift some four or five years I went with the Iowa Packing Co. at Des Moines. W. F. Fuller, the former president of the National Packing Co., was the president. This was a ten million dollar concern. My duties were as auditor. Later I connected with the Sugar Creek Creamery Co. at Danville, Illinois. H. C. Horneman, their president, no doubt, is known to many of you. This concern was the largest manufacturer of butter in the state of Illinois. The Danville plant alone made over a million pounds a month during the summer season. We had six plants. I held the position of auditor.

From there I went with the Beatrice Cold Storage Co., Beatrice, Nebraska. I was secretary and auditor.

I later connected with John Morrel & Co. at Ottumwa, Iowa, as manager of the produce department.

Coming West about a year and a half ago I was with the Henningsen Produce Co. as auditor at their Portland office.

I trust that this brief outline will satisfy you as to my qualifications from a practical standpoint; in addition to this I have backed up my practical experience with intensive study, holding two college degrees.

Accounting, as I have outlined it in connection with dairy and produce lines, is divided into eight main divisions consisting of the purchase, buying expense, manufacturing expense, selling expense, power and refrigeration, delivery expense, indirect administration and selling—sales.

I will now take up these divisions in detail.

Now, to commence with the ice cream department.

Under the purchases in the ice cream department, we have milk and cream, condensed milk, butter, which, of course, is homogenized, ice cream powder and sometimes milk powder comes in, gelatine, sugar, strawberries, miscellaneous fruits and flavors. That makes up the purchase department in the ice cream industry. From this we deduct any cream sales that may have been made before the cream is frozen. Then we have the inventories for the first of the month and for the close of the last month of the period and the yield is computed. The yield is the vital factor in the ice cream industry.

We then have a manufacturing expense made up of factory supplies, factory labor, power, and refrigeration. The power and refrigeration is charged to the ice cream department, if you have more than one department in the business. Then come hauling, factory maintenance, factory miscellaneous, rent, depreciation and building maintenance. This makes up the manufacturing cost, and we then carry it forward to the cost of ice cream sales, at which point we take up the opening inventory of the manufacturing department at the first of the period and deduct the inventory at the close of the period.

We have the sales expense under which we have the freight expense, drayage and ice and salt for packers, office labor, office expense, delivery expense—and while we are talking about delivery expense, that portion is charged from the general delivery expense—salesmen's salaries, salesmen's expense, shipping labor, commissions, shipping expense, advertising, exchange, bad debts, discounts, packer maintenance and can maintenance.

This makes up the total of selling expense.

And we have the sales divided into city, country and wholesale, and possibly claims. By deducting the total of ice cream sold the cost gives the departmental loss and we then come to the indirect selling and administrative expense, under which we have officers' salaries,

(Continued on page 39)

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STOUT



Schroeder Perfection Cabinets

Tub Lined — insulated with fine regranulated cork — packed by our process which actually effects "complete" insulation.

Metal Lined — insulated with "baked" pure cork board—the "baked in air" in the cells conserving the "perfect" insulation values of the board.

Stout Cedar Tubs

Close grained, treated to resist water absorption and rough usage.
Lighter weight than others.

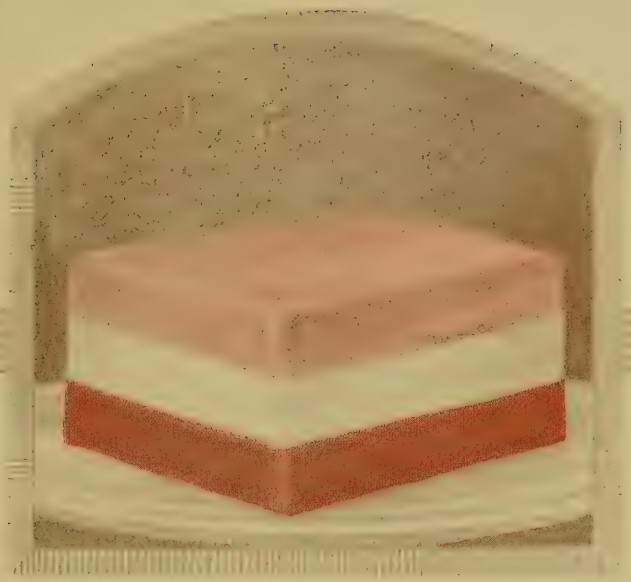
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B-F VANILLA and minor flavors are good flavors — specifically intended for ice cream manufacturers who appreciate the value of good flavors, who know that a quality flavor is always the safest, best and most economical buy.

B-F representatives, when calling on you, solicit your flavor business on a basis of a quality product, a fair, reasonable price, an assurance that your order will be promptly and correctly filled, and of the satisfaction they know B-F flavors are giving their regular customers.

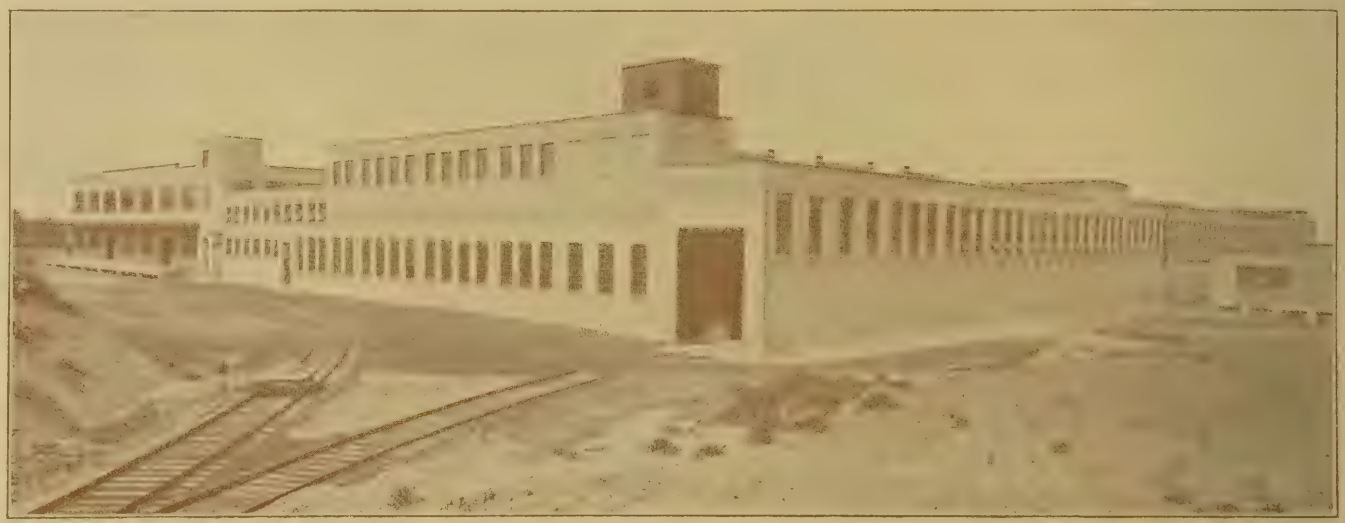
It's this user satisfaction that holds our present trade and explains why B-F representatives are glad to be identified with us.

The Boerner-Fry Company

Manufacturers of High Grade Extracts

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"U. S. GEL"



— WORLD'S LARGEST INDIVIDUAL GELATINE FACTORY —

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U.S. Gelatine is produced in the World's Largest Gelatine Factory, which means Uniformity, Purity, Strength at the Right Price. Stock used in the manufacture assures a bright, clean, odorless Gelatine. Its use means a smooth, high quality and superior texture Ice Cream.

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Eline's
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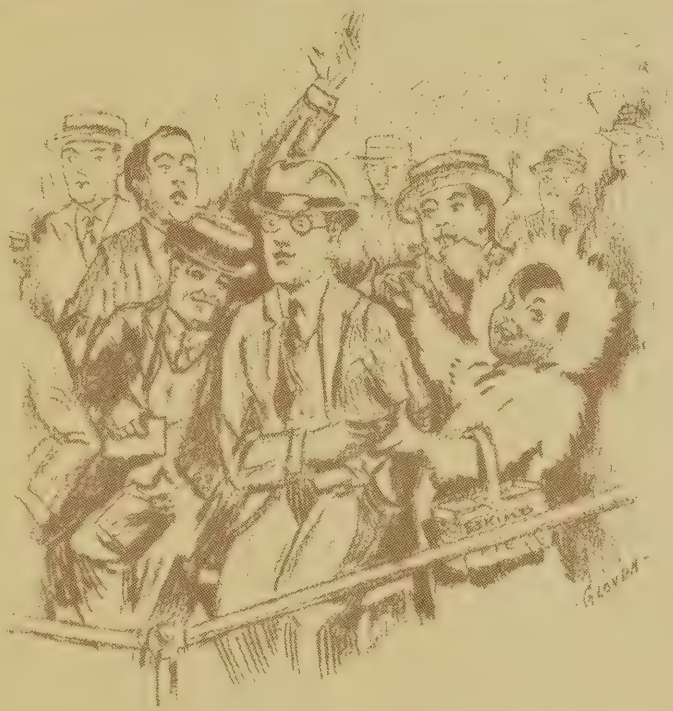
Coatings unexcelled in all seasons

All fears regarding the practicability of the chocolate coated ice cream in summer days have been dispelled.

Due to the high Melting Point of the finished coating, those using Eline's coatings are daily realizing their superiority. Considerable research work and exhaustive experimentation were necessary to attain this achievement.

We use no substitutes. Only pure cocoa butter, fresh milk, cane sugar and cocoa are used in the manufacture of our milk coatings.

Increase your demand and hold it by using Eline's Polar or Yukon brand milk coating!





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Is winning favor with manufacturers who desire *to improve* the *quality* of the Chocolate Ice Cream without increasing its cost of manufacture

Samples of Coating and Cocoa sent upon request

THE ASSOCIATION OF ICE CREAM SUPPLY MEN
MEMBER

Eline's
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Milwaukee, U.S.A.

THE ASSOCIATION OF ICE CREAM SUPPLY MEN
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A $6,000,000 Exposition Building . . . .

An Exposition managed by an organization of companies whose combined capitalization exceeds $100,000,000. . . .

This Exposition promoted for an industry that represents invested capital just short of $500,000,000 . . . .

Thus speaks ice cream in 1922 --- a great American industry. No man a part of it can count his year well spent who does not see the *National Exposition* in October. . . .

Held in conjunction with the twenty-second annual convention of the National Association of Ice Cream Manufacturers

ICE CREAM—A NATIONAL INDUSTRY

Come to Cleveland Oct. 16-21 Incl.

The Association of Ice Cream Supply Men

1328 Broadway :: :: New York City

PACIFIC ASSOCIATION OF ICE CREAM MANUFACTURERS.

(Continued from page 36)

officers' expense, manager's salary, manager's expense, interest, mortgage interest, rent, taxes, insurance, office supplies and office expense, general freight items, advertising and special advertising, stationery and printing, miscellaneous items, legal expense, auditing, telegraph and telephone, depreciation, discounts, convention expense and donations.

This makes up the total on indirect expense which must be applied as a whole to the costs.

We have the suspense items which are hang-overs from the previous month. Sometimes we have to transfer this suspense account, showing it up as a separate item, not to conflict with the current month's results.

These items then are added to or deducted from the indirect selling, taken from the departmental loss to make your net result.

We will now take up the creamery department. The same routine applies, only more comprehensively.

No doubt a great many of you gentlemen operate butter and other manufacturing plants in connection with your ice cream.

In the creamery division we have some four or five types of creameries. We have the community creamery, or co-operating creamery, operating on the direct shippers' plan, operating on the station basis, while again we have a creamery which is a combination of all of these. We have the contract cream, cream shipped from other creameries, starter and department transfers, in the case you are operating in the milk business there will be the transferring of sour milk from the milk department to be churned into butter, and we have our station loss, which in a company operating a number of stations is a vital proposition.

In one creamery with which I was connected we had one hundred and seventy-five creamery stations at that one point and they were an important matter in the summer time.

We have the buying cost, which is made up of field superintendents, labor and expense, station salaries and commissions and station expense. A great many items make up station expense, advertising, drayage, transportation, cream can maintenance, station maintenance, office labor and supplies, exchange, cream checks, and depreciation.

There is a distinction between maintenance and depreciation. Maintenance is generally the necessary upkeep, keeping machinery in order, and unless you add that to your sales cost, you are going to be out of luck when it comes to replacing your equipment.

We then take up the inventory sheet on hand at the first of the month and the close of the month, which includes unchurned butter or cream, or our churned overrun.

We have manufacturing expense consisting of plant supplies, labor, power and refrigeration and starter, plant maintenance, rent and building maintenance, and miscellaneous.

Up to this point, the cost is the same, and then we make a division between tubs and cubes. You have to allow for the shrinkage, putting it into the tub or the cube.

The supplies are somewhat different and the cost of labor, and we have the printing department, where the supplies are assembled. Those are the two main divisions in the creamery department, the tub and the cube butter, and the print butter, and this carries us to the inventory section, where the butter is already prepared for market.

We then take up the butter transferred out of stor-



NEW CROP
SPECIAL PROCESS
COLD PACK

STRAWBERRIES

Packed in No. 12 (Gallon) Cans

$25.00
PER DOZEN

By our Special Process these berries will keep perfectly for several months. The gallon cans enable you to use them as needed without waste.

Big, Ripe, Juicy Whole and Deliciously Flavored Berries—the kind you are served at Finest Hotels.

Imagine the delightful Strawberry Ice Cream you can make with them. Now only—

$25.00 per Dozen Gallon Cans.

Fruits and Berries in Season can be bought cheapest. But some good business men overlook that fact.

Order Now While
the Season Is On.

Blanke-Baer Extract & Preserving Co.
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Blanke-Baer Extract & Preserving Co.,
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Ship at once .....Doz. No. 12 (gallon) cans SPECIAL PROCESS COLD PACK STRAWBERRIES. Price, now, while season is on, $25.00.

Name .....

Address .....

age, and then we take up the inventory on the first of the month, and deduct the inventory at the close of the month which gives the butter to be sold. To this is added the selling expense which is practically the same as outlined before. This gives the total cost of the butter sold for the month, and then we have the sales in city, country, consignments, wholesale, department transfers in transferring sweet butter to the ice cream department. We deduct the returns and allowances.

All of these forms, by the way, carry comparisons of the current year against the previous year, giving the averages.

Mr. Dunne: Are they given in comparison or in dollars and cents?

Mr. Terwilliger: Both; they have the weight and average, the amounts of the two years side by side in every department.

Going to the delivery expense I spoke of a few minutes ago, some concerns like to figure their delivery expense as compared with what it would be if they had to hire it all outright.

Under that section we have any outside hauling that may have been required and any outside labor, horseshoeing, if they have any horses, gasoline, rent, building maintenance, and feed.

Under power and refrigeration we have supplies, labor, electricity purchase, fuel, building maintenance and water. The sales cost would be department revenue. Under the sales revenue department, the servics which would be rendered would include refrigeration for the ice cream department or cold storage if you are operating cold storage.

Some concerns furnish power as a commercial proposition and also cold storage, light and heat. Getting down to the—by the way, the same thing holds good of course in the artificial ice business, and that is a production proposition, manufacturing, and if you are in the business of the retailing or wholesaling of ice business, that would be true, and your sales would be city, country, wholesale and department transfers. The purchases of water, and so forth, enter into your selling cost.

One concern I was with in Nebraska had a retail ice business and it was quite an item of expense.

The cheese department is lined up somewhat along the line discussed for the creamery, the only difference being water, which is a large factor in the ice business. We have the creamery butter, the process butter, the egg department, the homogenizer, hides and milk and cream business and poultry business and cheese business. I doubt whether any of you gentlemen are in the poultry business very extensively; one of the concerns I was with in the Mississippi Valley made a specialty of feeding poultry. We would have from fifty to one hundred thousand head of poultry on feed, and it was essential to keep the weight of the poultry on feed and the cost of supplies and all of those things. The weight of the product packed and also the killing shrinkage.

Milk fatted poultry shows a dressed shrinkage higher than in other stock not fed on special feed.

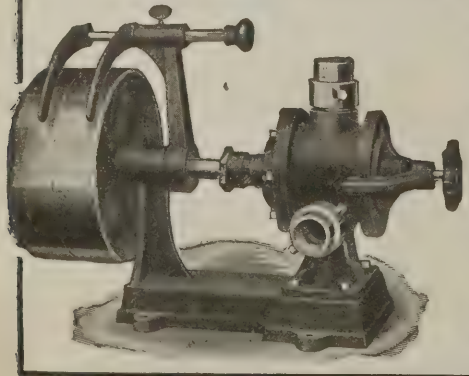
On the assets side we take up the cash on hand, cash in bank, and accounts receivable, divided into four branches, customers, agencies, branches, and miscellaneous, and the notes receivable and the inventory which covers all commodities in the various lines of the business and then we have the capital assets. Under this subject we carry the plant and equipment at the first of the year as one item and the additions made during the current year, and they are taken up as additions to each kind of equipment so we can tell any time how much money we have invested from a capital asset standpoint.

Under this we have additions to equipment, creamery plant, ice cream cans, cream cans, moulds and packers, milk, ice, that is milk equipment and ice equipment, automobiles, horses, wagons, poultry equipment, general factory equipment, cheese equipment and building, and we have the investments in bonds or investments in other companies, and we have the preferred charges consisting of insurance premiums, interest paid in advance, station rents, prepaid freight, dividends paid, and advertising. This makes up practically all of the preferred charges.

The advantage of having a yearly comparison is so we can tell how to compare this year with the last in the way of investments and assets and accounts receivable.

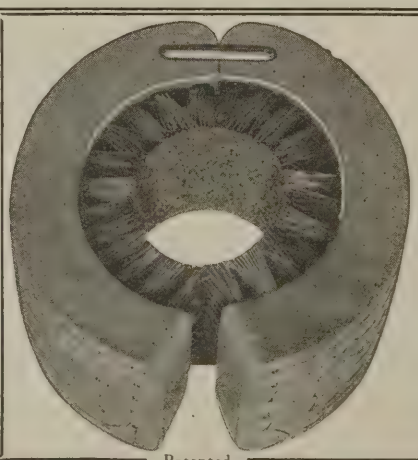
On the liabilities side we have the capital stock, mortgages and current liabilities. The current liabilities are outstanding checks, vouchers payable, accounts payable, notes payable, accrued pay roll and branch house accounts payable. This is handy in comparing current liabilities with last year's and also against the assets or liquid assets, and then we have the reserves, which depend on the nature of the business, of course, consisting of cream can maintenance, cream station maintenance, creamery equipment maintenance, ice cream equipment maintenance, cheese equipment maintnance, milk equipment maintenance, ice equipment maintenance, poultry equipment maintenance, power plant equipment maintenance, building equipment maintenance departments, ice cream packer and can maintenance, office furniture and fixture maintenance, depreciation, taxes accrued, doubtful accounts, interest accrued on notes, interest accrued on mortgages, interest received, discount received, junk sales, auto, horse and

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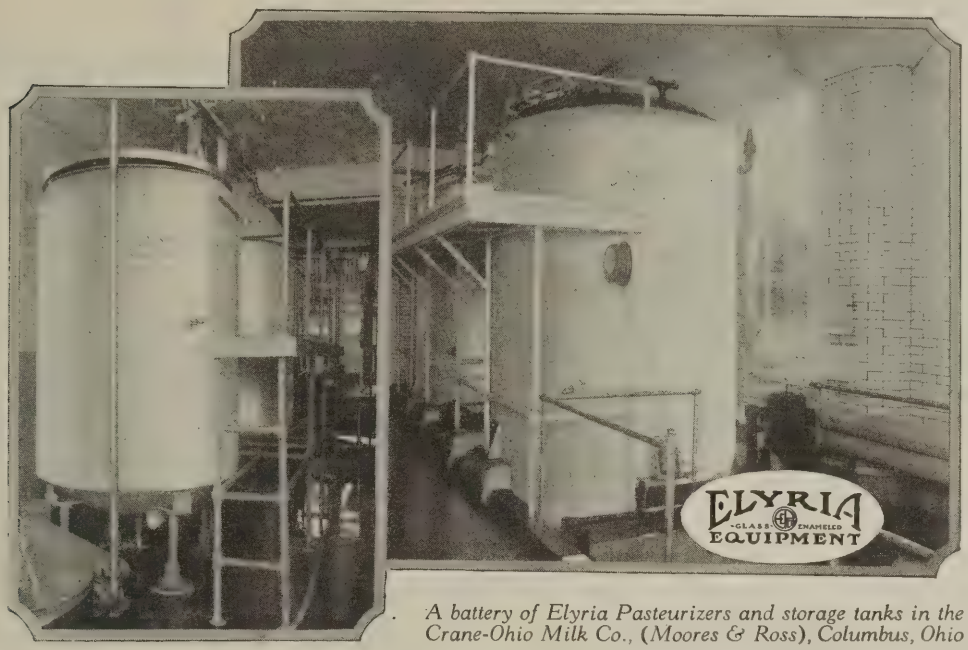
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wagon maintenance, and we have the surplus, undivided profits, and profit and loss. I might say the Mutual Creamery Company has a system somewhat similar to this. Their accountant was with some of the concerns I was with in the East, and he adopted some of their system and I have taken some of their ideas and worked up some of my own. I think I have a better system than they have. (Applause.)

Mr. Dunne: Are there any questions?

Mr. Swanberg: What you have been saying there about the bookkeeping, I am speaking about the ice cream business, and not for the others at all, but what you have been saying there is for large concerns. It would be the proper thing to have for a large concern, but how would it do for a small concern that was just starting? Will it not be too expensive for them to go into all these little details in the business? Would you suggest that a man for instance who sells ten thousand gallons a year could use a bookkeeping system as elaborate as that?

Mr. Terwilliger: With a small concern, several things are to be taken into consideration. You must have a foundation upon which to build. I believe the accounting of any business is one of the most vital things you have to consider.

I would say this, that if the concern is too small I would not go into so much detail although I would keep the essential factors. I believe in adopting a system to meet the needs of that business instead of trying to make the business come to the system.

Mr. Swanberg: That was my opinion, and I wanted you to verify it. Thank you very much indeed.

Mr. Dunne: Are there any other questions? Would anybody like to ask Mr. Terwilliger any other questions?

Mr. Terwilliger, on behalf of the Association, I wish to thank you for your very excellent address.

(Whereupon a recess was taken until the hour of two o'clock P. M.)

* * *

AFTERNOON SESSION.

(The convention was called to order by the President at 2:15 o'clock, and the following proceedings were had):

Mr. Dunne: To those of you who were here at two o'clock I want to express my thanks. To the rest of you I would like to say what I think about it. It is now a quarter past two.

We will first hear a representative of the Anti-Blue Law League who is here and who wants to say something to you, and I am going to ask Mr. Wilde, of the Anti-Blue Law League, to come forward and talk to you at this time. He wants to talk to you about the purposes and work of the Anti-Blue Law League. (Applause.)

* * *

ADDRESS BY MR. ALBERT L. WILDE.

Mr. Albert L. Wilde: I appreciate very much the opportunity of coming before you and telling you something about our league.

Most of you cannot have failed to observe the tendency to adopt restrictive laws throughout this country. It has not made itself felt so much in the Western States as it has in the East and South, where nearly everything in the line of amusements and a great many commercial enterprises have been closed upon Sundays.

The laws not only interfere with business enterprise but with private rights of American citizens. To check that and to overcome this tendency the Anti-Blue Law League is constituted. It was conceived and founded and large contributed to by a bunch of newspaper and publicity men, men who are pretty well up on what is going on in the country and who can see what is coming.

The organization has united with it many commercial and industrial enterprises, fraternal organizations and other organizations for the purpose of combating this restrictive legislation. All such commercial interests including the ice cream industry, candy makers, moving picture people, are all vitally interested in this matter. They may check that tendency for a little while, but there must be a determined resistance made or these people will prevail. Unless we are as well organized as they, their well-organized minority will win.

The only way to overcome it is through an organization of the voters. It must be apparent to you gentlemen that an organization such as this that takes in all branches of the enterprise, and other organizations will be able to deliver more of a punch in such legislation than can one organization going it alone. I think it would be to your interest as a commercial enterprise and a manufacturing association, to become members of the Anti-Blue Law League.

We propose to put on record all candidates for legislative and executive offices before they are elected. We are going to keep our membership informed on all points involved in the fight and tell them what we are doing and for what candidates they should vote.

The members of the Anti-Blue Law League are going to be represented before all law-making bodies, whether they be city councils, state legislatures or the United States Government.

There has been a good deal of legislation adopted

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throughout the various states affecting your business directly.

We started out with a bulletin under which we get the news daily as it happens throughout the United States.

I want to read one or two items that came through the Bulletin. Here is one under date of August 11, 1921, which reads:

"For delivering bread on Sunday, Henry Ludwig, 19, of Hoboken, New Jersey, was arrested Sunday by Jersey City Police. He will stand trial in the Sixth Precinct Court."

Here is another: "Gergen Point Amustment Park at Bayenne, New Jersey, has evidently been closed on Sundays, for good, and Manager E. Geise, of the park, is threatening to close the resort through all days of the week. He has sustained tremendous losses through Sunday closing, as he had added improvements to the park the past winter that were very costly. This is another bit of Rev. Craft's work."

"The blue laws of Virginia prohibit the sale of soft drinks and ice cream on Sunday. The city officials of Petersburg, Va., recently issued orders to the management of Wilcox Lake to stop the sale of these articles on Sundays. Undaunted, the beach management secured a license to sell ice tea, milk and sandwishes on Sunday which is permissable."

"Ice peddlers in Portsmouth, Va., were forced last Sunday to deliver their ice in absolute quiet. No hawking or noise of chipping ice was permitted. Police followed the wagons about the city. A canvass of all stores that remain open seven days in the week is being made at the direction of City Manager Jervey, for the purpose of enforcing the Sunday law in Portsmouth."

"Pomona, California, was the first city to vote local option on blue laws. Other cities have since been taking this procedure and it is found to be spreading to all sections of the Southern States. All of which reminds us that this is the same method that was followed in the case of prohibition."

Here is one under date of August 18, which reads as follows: "Despite the proclaimed tightening of Blue Laws in Natron, Penn., a suburb of Pittsburg, reformers who persuaded township Commissioners to clamp on the lid on Sunday, were shocked by seeing kiddies running through the streets carrying ice cream cones, and hearing tell of garage men who sold five gallons of gas.

"Absence of an ordinance governing sales halted an attempt to arrest the violators on sight. Not being able to take the oath on Sunday, the commissioners and those who had charge of Blue Laws rejuvenation had to sit back and let the confectioners make money. Nine other stores in the township opened up their shops after noon. Reformers claimed that they are due for a session in court."

"At a special meeting of the city aldermen of Goldsboro, North Carolina, on the night of July 28th, the Sunday 'Blue Law' Ordinance was ordered strictly enforced in the future. Newspapers will be sold on Sunday only between the hours of 8 and 10 A. M. The restaurants will remain open only two hours each for breakfast, dinner and supper. No gasoline will be sold on Sundays. The resurrection and enforcement by Reverends Ham and Ramsey."

Another one on ice cream: "For the first time in 15 years, a crusade has been started in Uniontown and Fayette County, Penn., to enfore the state-wide blue laws of 1794. A petition, containing 300 signatures was presented to the district attorney July 21, requesting the enforcement of the Sunday law, and particularly urging that the sale of newspapers, soda water, ice cream, tobacco, postage stamps and drug sundries, be stopped immediately."

In some places, I think in Ohio, the drug stores are forced to remain open for the convenience of the public, and at the same time they are prohibited from selling anything but prescriptions that might be submitted to be filled. They must keep open although the doing so will cause a loss. Two druggists in that particular town had to put in a restaurant in connection with their drug store so that they would be able to sell ice cream. That is the way the thing is going. They are not only prohibiting the sale of ice cream, soft drinks, and so forth, but they are closing all amusement parks where you gentlemen are affected in a business way. That is the thing that I wanted to call your attention to.

The Anti-Blue Law League has been endorsed by a great many different organizations, both commercial and fraternal, and I would like very much to see you gentlemen here become members of it and I do not think you can help but be benefitted by it.

You are going to have the support of the organizations only who are in the movement. If we get in and try we will be able to overcome the effects of this Blue Law legislation, and I think we are succeeding pretty well to start with.

There have been one or two things come up in the city of Seattle and in the State of Washington since we opened our office a few months ago, and we have succeeded in stopping anything radical being done.

I want to thank you for your attention, and I hope we may have you as members of the Anti-Blue Law League.

Mr. Swanberg: I have known this gentleman for some time and I am much impressed with what he says.

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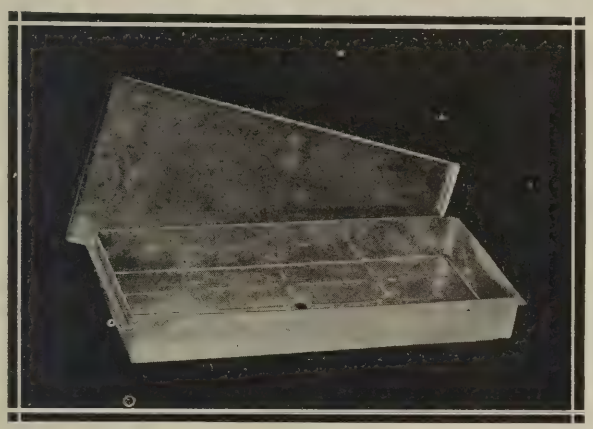
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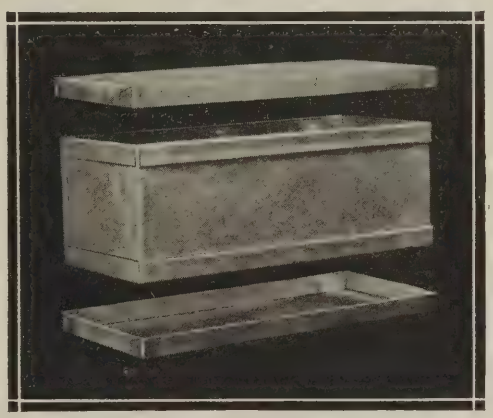
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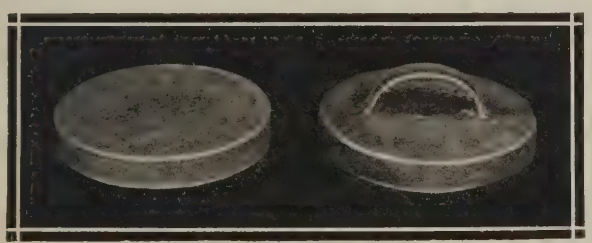
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I immediately joined this organization. In fact, if I had not known him, or if he had been a Chinaman and had presented this matter to me, I would have signed it just the same. (Laughter.) That is the way I feel. I suppose I will be arrested for saying this.

I have travelled in Europe and over a part of Asia and when I say this, somebody will say that I am not a loyal American, but I want to say that I am as loyal an American as any of you and I would fight for this country as quick as any man in this room, and here is where I have made my living and I have made my living easier and better than I could anywhere else in the world; but I do want to say that we have less personal liberty in this country than in any other country I was ever in. Of course, when it comes to a matter of political liberty, we have as much in this country as any country in the world. We have the right to vote, but we have very little personal liberty.

It is because we are not organized to defend our liberties. If we were, we could have as much liberty as they do anywhere in the world. We can have most anything we desire, if we vote for it.

I think we should join this organization and do what we can to combat these blue laws. Now, if anybody wants to report me and have me arrested, go ahead and do so. (Laughter and applause.)

Mr. Dunne: I would like to appoint a committee to consider this matter and make a report upon it and bring it in tomorrow, whether it would be advisable for us to join this association or not. I will appoint on that committee Mr. Dillabaugh, Mr. Peacock, Mr. Matson, Mr. Stokes and Mr. Booth. And I would like to have them arrange to meet this gentleman, Mr. Wilde. I will make Mr. Stokes the chairman of that committee.

Mr. Wilde: There is only one thing that is going to defeat the Blue Law program and that is the organization of the voters. The thing I am getting over to you is that I want to have your names and addresses on the membership rolls so I can let you know what is going on. You will be more than satisfied.

Mr. Dunne: We formed an anti-blue law league in 1912 in Portland and Mr. Mickle was in the legislature and he will remember we got in and defeated the Sunday closing law by a large majority.

The ice cream men have been very closely affiliated in this work with the moving picture men. They were going to close the theatres and the next thing they were going to do was to close up the ice cream parlors and we had a meeting with the moving picture men and for the first time we found out that they were human beings just like we were, and we swept the old law, passed in the State of Oregon in 1864, into oblivion by a majority of thirty-one thousand by popular vote. (Applause.)

Mr. J. D. Mickle, who was formerly the Food and Dairy Commissioner of the State of Oregon, and at present the Secretary of the Oregon Dairy Council, is here and he has been handling some very effective work, and I would ask Mr. Mickle if he would be good enough to come before us and tell us the benefit he has been able to secure, and many here will testify to the work that the Dairy and Food Commission is doing.

* * *

ADDRESS BY MR. J. D. MICKLE.

Mr. Mickle: Mr. Chairman and gentlemen of the convention: I have boiled my paper down for the reason that I have been listening to heavy articles yesterday and today and I do not wish to tax you further or weary you along that line.

I am going to speak to you this afternoon along the line suggested by Mr. Dunne as a man who has worn official harness, but has now laid it aside, and therefore I feel that I can speak upon some things that I could not othrwise touch. I am to speak to you upon "Observations."

I have purposely used this title for the reason that the little I know of the ice cream business has been gleaned from observation instead of from actual contact with the industry.

However, I have had eight years of official service during which time I have had opportunity to come in touch with many sides of your work, and it is with deep satisfaction that I can review those years and say that my official contact with the ice cream men of my state is one of my most pleasant remembrances.

When I was green in the work, they were patient with me; when I did not understand their point of view, they did not seek to dictate to me nor to influence me through outside pressure. I shall always believe that they had confidence in me that I wanted to do right, and, looking backward now, I can see the wisdom of their actions.

Nine years ago the sanitary conditions in many plants was not what it is today—Doctor McCollum severely criticised the the ice cream men for lack of sanitary conditions in their plants, and in reading it the thought came to me that the Doctor had not investigated ice cream plants in the West or he would not have been so severe in his criticisms. He is the highest authority on dietetics in the country, and I believe if he had made an inspection of our western plants he would have had a different viewpoint; I mean the ice cream plants of to-

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day in the West, because I believe that the sanitary conditions of any of the western plants today are ahead of any other sections of the country. I am not saying that because I am talking to you gentlemen, but that is my actual belief, and I do believe we can find plant after plant in the West where their product coming out of that plant is eligible to be set on the table of any man in the land and no one will receive any deleterious effects therefrom, because it has been diligently guarded throughout the manufacture and the distribution.

Therefore, you fellows in the East, if there are any of you here from Chicago, for instance, while I believe there is ground for Doctor McCollum's criticism of the product as I found it in the city of Chicago—you may have good cream, and I do not say you have not—but I unfortunately did not know where to go to get it. But I can take him through many of our plants in the West, and speaking honestly before the American people, he cannot make any such assertion against the ice cream industry in our part of the country.

But each succeeding year has brought its uplifting changes and improvements and may I pause to ask, who can foretell what the next nine years will bring? About the time the homogenizer was just coming into general use, and some officials opposed it seriously upon the grounds that it opened up the way for the use of inferior products. Luckily I was not among that number for I had confidence in the men who were using it in my state, and I felt that they regarded the business too highly to allow unsuitable products to enter into the composition of the ice cream being made and in that I was right.

I said I was green, and needed education and for that matter, so does every man who enters upon the activity of food law enforcement, before he can become a fair, efficient official. Too often through an excess of zeal the official does more harm to the industry or plant which he seeks to set right than he does good to the public, for "to err is human."

You know we have in this country a system of election and it is a sort of an unwritten law that a man should succeed himself for the second term and then should step aside.

That may be all right as a general rule applying to political elections, but, friends, that never should apply —I am speaking from experience—to the men who enforce the food law regulations.

I do not care who the man may be or how well qualified he may be when he goes into that work, if he be the right kind of a man and if he has the right conception of his duties, two years in the work will make him more efficient in protecting the public and giving justice and fair play to the manufacturer whom he should represent as well as the public. (Applause.)

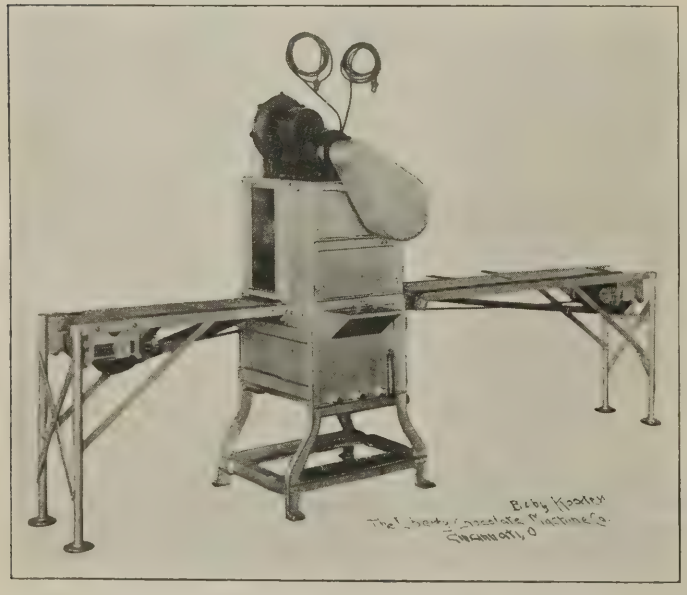
There is a saying that no man can serve two masters at the same time. The man who is going down the line right in the matter of food control work does not have two masters. He only serves one master, and that is to do the right thing, the right thing both as to the producer and the consumer, the right protects the people and also the producer, and if the manufacturer is in the right on any particular point, he is on his side. If he is not in the right, then that official has plenty of justice and plenty of public opinion on his side to go out and set him right. He must judge properly and accurately and fairly whether or not the manufacturer is in the right or in the wrong.

If there is anyone here present who has served in public office, you know I am speaking the truth when I say that the man who serves the public as a public official, is skating on thin ice most of the time, because one misstep on the part of him who serves will disgrace him forever, and there is no charity in the voice of public opinion. It will overlook and condone certain things but the conduct of a public official it will not overlook when he makes a misstep. He is man skating on thin ice; when he sounds out public opinion he is going down the line with that light before him, and in that I am reminded of the quotation of our great ex-President Theodore Roosevelt when he said that it is better to be faithful than famous, and if he had that before him, that man need not feel that he is on thin ice.

In regard to the fat content of ice cream, I needed to be and had to be educated to the fact that an eight per cent. standard was more preferable than a twelve per cent. standard. I wrote the first law in Oregon covering ice cream and used twelve per cent. content. Later an amendment was introduced reducing the legal content to eight per cent., in which I assisted in having enacted into law. I have no figures bearing upon the production of ice cream ten years back but only yesterday I had occasion to look up certain dairy statistics for 1919 and 1920, and I am wondering how many there are here who realize the extent to which the ice cream industry has grown, and how it compares with other branches of the dairy industry.

Quoting from the Butter, Cheese and Egg Journal of August 24, 1921, I find that there was produced in the United States in 1919, 230,000,000 gallons and in 1920 an increase of 13%, or 260,000,000 gallons. That the ice cream industry consumed almost as much milk as did the cheese industry and more than one-sixth as much milk as the creamery butter industry and that while the production of those staples decreased in 1920 as against

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New York, 516 5th Avenue
Cincinnati, Gwynne Bldg.

4433 Ogden Ave. Chicago, Illinois

Dallas, 601 Elm Street
Denver, 1526 Blake Street
Salt Lake City, 355 Pierpont Ave.

A GOOD ICE CREAM BRICK CUTTER WILL CUT IN UNIFORM SIZE.

1919, the production of ice cream increased as stated 13%, and that, during one of the most serious periods of re-adjustment that the world has ever known. Why this increase

I believe that you gentlemen know better than I, but if my observations are correct it means a better product, better salesmanship, better delivery, better advertising and better appreciation upon the part of the consuming public. What of the future? That does not come under the heading of "Observation," and to attempt to preconceive is dangerous for in these days we are moving forward so rapidly in business or trade improvement that one can hardly hazard a guess. However, in my judgment there is a great and almost untouched field that will one day be taken over by the ice cream manufacturer and when once he has reached it, consumption of ice cream will double and triple and quadruple. I refer to the great American ordinary family table, where today ice cream is only an occasional visitor or a dessert for special occasions, but one day e're long it will be just as frequently an article of diet as pie or cake, and with better results to the one who partakes thereof, be he youth or adult, male or female. Before this can be brought about, two things will have to be done. First, the invention of some sort of a more practical container, and secondly, cheaper cost of distribution than that of the present. I feel certain that the nearer years of the future will bring both. We have the Thermos bottle that keeps coffee hot from six to ten hours—Why not some similiar sort of container that will keep ice cream cold an equal length of time.

There remains yet another work that must be done before your industry will come fully into its own. Namely, the telling of your story to the mothers of the land, and that can best be done by an agency not directly connected with yourself. We have now an agency known as the National Dairy Council, also various organizations known as State Dairy Councils, created for the exact purpose of telling the value of dairy products in the human diet. In many cities the milk and butter men are using these organizations to reach the consumer, the housewife or the mother, and they are doing it with telling effect. Advertising that cannot be gotten to her by the private individual or the firm can be safely and effectively used by a dairy council to the advantage of all concerned. Already councils have been organized in many states.

Now, in California, they are doing great work in their council there. There was a survey of the situation among the school children in the city of Los Angeles covering 55,000 children and it was found that the milk drinking children among those are far ahead of the non-milk-using children. This work was done by the California Council. The Oregon Council has also done some very good work and they found that only one-third of the children in the State of Oregon were not drinking milk. The consumption is under one-half a pint a day. Every child should be taught to drink a quart of milk every day to say nothing of the ice cream that should be consumed. Instead of drinking milk and eating ice cream as they should, they are going to the stores and spending their money for other things other than our products.

Not long ago a woman came into a grocery store and was accompanied by her little child and she said to the little child, "You have not had a thing for breakfast and you must not go to school without eating something; here, take this and buy you an all-day sucker." (Laughter.)

Do you not think there is a field in this country for the telling of our story, and do you not think it can be done in a way to more directly appeal to the people to whom our message should be sent?

For the last ten days I have stood in a booth at the great stock show in Portland, telling the story of the value of milk and mother after mother have come up to the booth where I have been working and where we show by charts the constituent parts of milk, and they have said, "If we could get milk like that, we would use milk." And in many cases they think that a portion of the fat has been extracted, when as a matter of fact all the outstanding distributors in the city are distributing four per cent. milk while the law requires only three and two-thirds per cent. milk and in this state it may be a little higher, but there is a misconception on the part of the consumer.

We must get close to the consumer in order to show them that we are endeavoring to assist them in the upbringing of the coming generation and are as much interested in their future as any people in the world.

Doctor MacCalum points out that the California Japanese are far superior to the native-born Japanese simply because they have become accustomed to the American diet and some of the Japanese children born on this coast are consuming much the same diet as the American children and they are developing into a much better type of human being.

I say this will be done and that it will come about through these great organizations, and the National Dairy Council is training and sending out special workers to go up and down throughout the land and spread the truth among the people about milk products. We

PURE
STRONG
CONSUMERS GELATINE CO.
ST. LOUIS, MO.
PEERLESS
Gelatines
Pure White India Gum
PERFECTION Ice Cream Powder
ODORLESS
UNIFORM

At present low prices for retinning Ice Cream Cans you can make a very decided savings over the purchase of new cans.

Take advantage of this service, have your rusty cans retinned instead of junking them and buying new cans.

Our price for retinning a five gallon Ice Cream Can is seventy-five cents and ten cents for Covers—about one third the cost of a new can.

Use your old crates in shipping us your rusty cans. Just mark your tags—

MANITOWOC PLATING WORKS
MANITOWOC, WIS.

We will do a most satisfactory job and get your cans back to you promptly.

PLEASE MENTION THE ICE CREAM REVIEW WHEN WRITING TO ADVERTISERS



The Flavor Sells Your Ice-Cream

Here are 4 Types of Vanilla Flavoring that will sell your product

GIANT VANILLA COMPOUND
is all that the name implies.

MAMMOTH VANILLA COMPOUND
Different to Giant but equally strong.

VANILLA AND TONKA
Moderately priced. Hundreds of ice-cream makers swear by it.

STRAIGHT VANILLA BEAN EXTRACTS
Mexican, Bourbon, All Bean and Suva.
Contain 1 lb. of beans in a gallon of extract.

Inquire about our contract prices.

—o□o—

RED SEAL COLORS

Prices for 1922 are materially reduced. Our pure certified colors excel in strength and brilliancy.
Powder, Liquid or Paste.

—o□o—

RED SEAL RIPENER

Helps age the mix. Improves your ice-cream.

WARNER-JENKINSON CO.
ST. LOUIS

hope to see the day when Washington and Idaho will join us in this movement and in the end that we may thoroughly cement together dairymen, creamerymen, cheese men and ice cream men—in fact, any and all who may have anything to do with the production and manufacture of real dairy products.

I thank you. (Applause.)

* * *

Mr. Dunne: I knew that J. D. would give you a good talk. He was formerly dairy and food commissioner of the state of Oregon and is now the secretary of the Oregon Dairy Council. Is there anybody who would like to ask Mr. Mickle any questions about the organization and purposes of the dairy council? I have the honor of being the president of the Oregon Dairy council.

Mr. Swanberg: I would like to ask a question. Do you not think that prohibition has done a great deal toward the use of ice cream? The young men used to take the girls to the restaurants and have an oyster supper and so on with wine and now they are taking them to ice cream parlors. Do you think that is where the increase has come in?

Mr. Mickle: That is a hard question to answer here. If I would attempt to answer that question, it would be only my own personal opinion and I would have to generalize a little. I have been married twenty-five years but I do buy ice cream occasionally for my family and my boys and girls when I take them out, but I do believe that taking a serious view of your question, that you are right. I believe people are becoming more and more educated along the line that ice cream is not a luxury but a food.

We have to get away from the idea that milk is a beverage and learn that it is a food. When you look at these things and view them in the same light as you would an all-day sucker you are certainly making a mistake of course. We shoud let people know that when they are taking ice cream into the body they are taking a very excellent food into the body and change their ideas in regard to it, and I think that will increase the consumption of ice cream very materially.

I had hoped that there would be some questions along the line of organizing a dairy council in the state of Washington. You men of Washington and the other states need it very badly.

Mr. Thompson (of Newport): I had the same thought in mind, but I would not have any idea how to go about it to organize such a council.

Mr. Mickle: The first thing to be done is to call together those interested in an organization of that kind and proceed to an organization. You should call together the manufacturers.

Mr. Dunne: Tell them what kind of manufacturers you refer to.

Mr. Mickle: Those manufacturing milk products, milk, ice cream, butter and cheese manufacturers.

In Oregon they are all contributing. However, a number of milk dealers in the state are withholding from the dairymen. This is legitimate work because it is protecting his industry. The farmers are slow to take up with any such thing as we have been speaking of. There is one per cent. taken from the farmer, one per cent., and that goes to the support of the work. Ice cream men are supporters of the council.

First the work was launched during the war, and because of the slump that took place later, we are still feeling the effects of the getting rid of cows about a year ago and it will take some time and effort to fully rebuild our industries.

We went to everybody interested, even the bankers, and the cheese and creamery men, and asked them to contribute fifty dollars for a membership for a period of three years because there is no use to do flash work carrying on a big campaign for a certain length of time and then dropping it; it must be permanent. And we ran that subscription over a period of three years and many bankers contributed and we collected a fund of five thousand dollars to launch our work with and the subscription was to be paid either in cash or in one-third payments, one payment falling due each year. And we started our work that way.

Since that time it has been carried on by representative industries. You should not attempt to tax an industry outside your own line to build up your work. The dairymen should come in and the manufacturers and if you are interested in any of these industries you should certainly contribute and do your part. The farmer is the last man to be interested because he has not so close a touch with the business affairs as he should have.

The business men are more alive to the actual conditions. Call them together and start a nucleus and then go ahead.

As to the building of the industry, that remains for yourselves to work out.

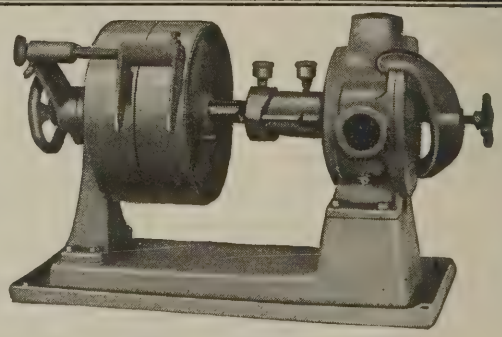
Mr. Fisher: I would like to know if you would be willing to assist us in the state of Washington?

Mr. Mickle: Oh, yes, certainly.

Mr. Swanberg: I heard you say that the farmer was not as much interested as the business man.

Mr. Mickle: I do not mean to be understood that he

PURE — HIGH GRADE
GELATINE
AND
Quick Action Ice Cream Powder
Special Double Strength Ice Cream Powder
Pure Powdered Gum
Ripener Powder
QUALITY — UNIFORMITY — SERVICE
St. Louis Gelatine Company
St. Louis Missouri

For CREAM

For BRINE
2" SANITARY VIKING PUMP
THE UNIVERSAL PUMP
For Milk, Brine, Water or Foods
VIKING PUMP COMPANY, Cedar Falls, Ia.

Eskimo Coating—



No additional Coco Butter or Liquor Required.

Ziegler's



CHOCOLATE MANUFACTURERS

GEO. ZIEGLER CO.

364-366-368-370-372-374-376-378-380-382-384
FLORIDA STREET

MILWAUKEE, WISCONSIN
SINCE 1861

FANCY FORMS MAKE "SPECIAL DAY" ICE CREAM SERVING POPULAR.

is as much interested, but that it is harder to make him see that he is interested.

Mr. Swanberg: I am very much of a farmer myself and a dairyman also and a producer of milk, and I think that I am more interested in it as a farmer than I would be in any other way.

Mr. Mickle: You should be. You are right, but you are interested as an individual, but not as a class. There is the trouble.

Mr. Swanberg: It is time the farmer woke up. The dairy interest is the most important industry we have. I have a dairy and I consider that such work is the most essential for the farmer, and I think it is necessary that the farmers have cows principally on account of the manure that is produced. The most essential thing on a farm is manure and the application of it.

A Member: I would like to know whether you have indulged in advertising?

Mr. Dunne: We have thirty thousand dollars' worth of advertising in one year.

Mr. Mickle: Yes, and today we are publishing a paper. At one time we sent out as high as twenty thousand, going once a month directly to the homes; not a newspaper but a little leaflet carrying concrete information to the housewife which she will read.

If you hold the thing down to a little four-page sheet and make it snappy and tell things of interest concerning your business, delivering it to the door-step of the housewife with the milk or something like that, you are getting in the center or the heart of the matter. If you can get the mother to read those things, of course that is the most effective advertising you can possibly do.

Another thing which our council did and which I think there is a wide field for, there was a time when differences arose between certain milk producers and distributors in Oregon, and that difference was settled up between them by our organization. Our organization represents no particular branch but it represents all of them and it is a big help in clearing up such matters. I want to say that I served the state for eight years as an official, but I would rather today have the honor of going out among the people of the state and telling them this story than to hold any public office.

I went to every parent-teachers' club and woman's club that I was able to attend and spread this program of education, and there is no job you could give me that would suit me any better than to be able to go out and tell those women our story. (Applause.)

Mr. Dunne: I have been president of the Oregon Dairy Council, and I can state that every word that Mr. Mickle has said is absolutely true.

We had a terrific fight that he speaks of and he was the better part of two weeks getting them together. We had men like George Weatherly who spent all of their time in clearing the matter up and I tell you it was a pippin of a fight; but we succeeded in straightening it out.

Mr. Dreyer: How much did you ask the ice cream men to contribute?

Mr. Dunne: One-half cent a gallon and we are asking the milk distributors and the farmers to contribute one cent a gallon and we are asking the butter men to pay one-eight cent, and I want to tell you the butter men are not worth a damn. We have not been able to get anything out of them, and we are fighting their battles all of the time. We went before the State Legislature and put laws across for them, but by-and-by they will wake up and they will be our biggest support.

A Member: There is no creamery organization here in the State of Washington, is there?

Mr. Dunne: They have an association that they have had for thirteen years and the present one has been in existence for thirteen years. I think they had one before that. I should say existed as that it has been doing up to this time.

I want to call your attention to one thing while I think of it. Mrs. Mitchell, a lady of the entertainment committee, said she would like to have all of the visitors let them know what can be done for them as they are willing to do anything in the world to make your visit a success. And in answer to that, one of the ladies said, "I would like to be able to get to that smoker tonight," and Mrs. Mitchell said, "I have been trying to do that ever since I have heard about it, and I have not been able to get in yet."

I will now call on Mr. Brown of Payette, Idaho, who will talk to you about conditions over there. While conditions will not warrant a very big paper, he will in a brief way tell how things are over there. Mr. Brown of Payette. (Applause.)

(Continued in July Issue)



RE-TINNING

ICE CREAM & MILK CANS

By Our Special Sanitary Process Makes

OLD, WORN OUT CANS LIKE NEW

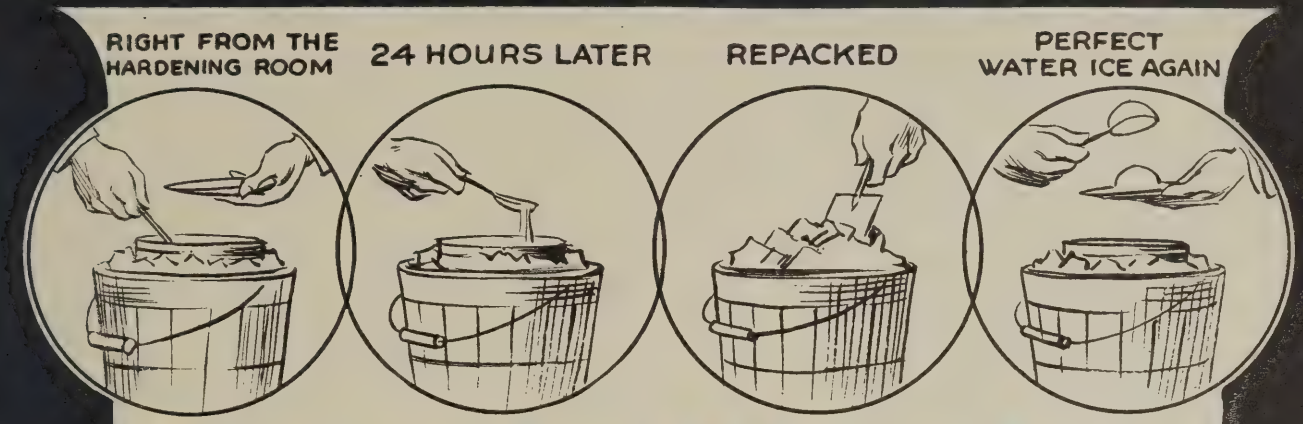
Tinning of All Kinds Including Cast Iron

SANITARY TINNING & MFG. CO.

3753-63 E. 93rd Street CLEVELAND, O.

DALLAS FIRM INCORPORATES.

The M. B. Ice Company was recently incorporated at Dallas, Texas, with capital stock of $250,000. The incorporation followed the consolidation, with took place a few months ago, of the Smith Ice Cream Company and the Crystal Ice Cream Company. The firm has added new machinery, including a vacuum pan, and are operating in the building formerly occupied by the Crystal Ice Cream Company. They will manufactuer both brick and bulk ice cream but will not handle other dairy products. A. Brauer is manager of the plant.



Textor for Water Ices

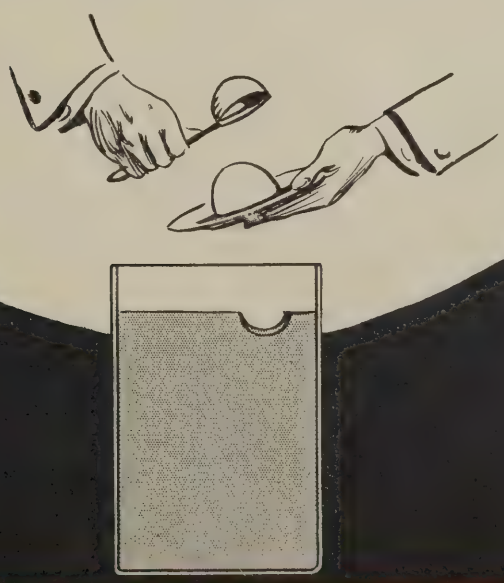
WITH TEXTOR you can make water-ices that will keep for weeks without a sign of icy crystals, or separation, or watering down—you can make water-ices that dealers can repack repeatedly until every last bit is sold. And these water-ices have a velvety-smooth, firm body and an even texture. They are absolutely without grain, they ***never*** contain icy crystals, their consistency remains perfect and they ***never*** separate.

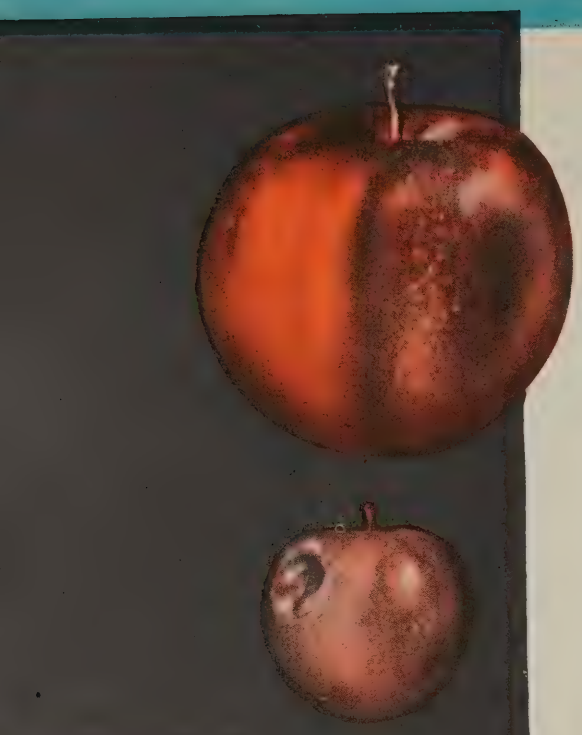
With TEXTOR your water-ices will easily pass any reasonable test you care to make. They will positively permit melting down and repacking a dozen times. They can be shipped to any distance with the assurance that they can be repacked on arrival, and when the can is opened, the water-ice will be perfect.

To make water-ices more tempting and to provide that variety of flavor that is so essential to the development of the sherbet and water-ice industry, we have prepared a TEXTOR book of receipts.

Write for your copy today!

S. GUMPERT & CO.
BUSH TERMINAL, BROOKLYN, N. Y.





Just as scientifically prepared soil gives the farmer finer, tastier apples,

Just so does Gumpert's Improver give the manufacturer smoother, richer, tastier Ice Cream.

WHAT counts in making ice cream rich and tasty is not only the ***percentage*** of butter-fats but also how thoroughly the butter-fats are distributed.

In milk and cream the fat-globules are "encased" in milk solids. The ice cream can't get the benefit of the fats until the "encasing solids" are broken down. Ripening breaks them down—but does it slowly.

Gumpert's does it, too,—but far ***faster*** and far more completely. Gumpert's frees a ***larger proportion*** of the butter-fats, permitting them to spread more fully and evenly through the ice cream. That's what gives a richer, creamier, more satisfying taste.



Under the magnifying glass ice cream in which Gumpert's has been used shows a smooth, regular texture.

Why ice cream made with Gumpert's tastes "smoother"

THE "feel" of ice cream in the mouth depends on how small, regular and numerous the air cells are. If the solids in the mix are not thoroughly ripened, they will be firm and hard. The air cells must necessarily be formed large and irregular.

Gumpert's softens the solids and makes them more porous and open. Consequently, when the air is whipped into the mix the cells formed are of just the right structure and arrangement to give a high degree of velvety smoothness. Over 2000 Ice Cream manufacturers regularly use



Much ice cream, while made of excellent ingredients, does not taste as rich, or as smooth as it could, because of insufficient aging.

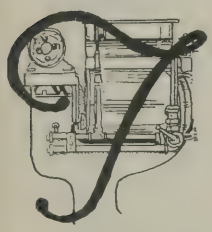
GUMPERT'S Ice Cream Improver

S. GUMPERT & CO.
BUSH TERMINAL, BROOKLYN, N. Y.

Manufacturers of TEXTOR

SPECIAL SECTION

Mixing---Freezing---Hardening



THIS Special Section of the Ice Cream Review, devoted to the Mixing, Freezing and Hardening of ice cream, contains information which is of real value to the ice cream manufacturer. We invite your special attention to it.

We have appealed to hundreds of ice cream manufacturers in all parts of the country to give us their experiences and we are passing the information on to our readers with the conviction that we are giving them something that could not be secured in any other way.

All will agree that the ice cream mix is a very important factor in making ice cream. Other conditions being equal the ice cream mix determines the quality of the finished product. For obvious reasons we have not included a discussion regarding the composition of the mix. We have touched only upon the mechanical elements entering into the mix problem. These are important because the handling of the mix is quite as important as the mix itself.

In touching upon the methods used by various manufacturers in mixing, freezing and hardening of ice cream we have touched upon the very heart of the ice cream business. Here are where the manufacturer's greatest problems lie. We believe he will appreciate knowing how others are handling these problems.

In order to cover these subjects in the most practical manner we submitted a list of questions and have made compilations from the answers which appear on the following pages. The reader can not fail to gain the impression that ice cream making is a real science and that ice cream manufacturers are fast improving their methods. Progressive men are making rapid advancement in establishing the business on a high standard and are consequently reaching out for every new idea that promises to further develop the business. The list of questions submitted is as follows:

* * *

Mixing

Do youpasteurize your mix?.....

Do you put all ingredients in and then pasteurize?.....

Do you test mix for acidity?.....

If so, what acidity do you find produces best results?.....

What method do you use in adding Gelatine?.....

When is flavor added?.....

Do you use an "improver" of any kind?.....

Do you use a homogenizer, viscolizer or emulsor?.....

If so, at what pressure do you homogenize mix?.....

At what temperature?.....

How long do you age mix?.....At what temperature?....

At what temperature does mix go to freezer?.....

What type of freezer do you use?.....

Do you put **exactly** the same amount of mix in freezer each time? .....

Freezing

What brine temperature do you find most satisfactory?.....

What time do you use in freezing?.....

At what temperature do you pull ice cream from freezer?..

Are brine lines to freezer covered?.....

Do you cool over a surface cooler?.....

If you are freezing with ice how much ice (by weight) do you use per gallon of ice cream?.....

How much salt?.....

How much ice do you use to pack 5 gallons of ice cream?..

Hardening

How long after ice cream is pulled from freezer does it take you to get it into hardening room?.....

What temperature do you try to maintain in the hardening room? .....

How long does it take to properly harden your ice cream?...

How is your hardening room insulated? (number of inches and material) .....

Do you use ice or refrigerating machine for hardening room?

Do you prefer Still Hardening Room with rack coils, or Ceiling Coils only?.....

* * *

Mixing.

Of over a hundred answers received to the question regarding pasteurization of the mix,only seven do not pasteurize. In some states there is a law requiring the pasteurization of all dairy products, but even in states where such a law does not exist, it is found to be more satisfactory to pasteurize. The manufacturers who do not pasteurize their mix for the most part make ice cream on a small scale only. From this it may be assumed that it is more satisfactory to pasteurize the mix regardless of whether there is a law requiring it or not. It not only retards the development of lactic bacteria, but arrests the growth and development of putrefactive bacteria. These bacteria, while their growth is retarded by the low temperature at which the ice cream is held, are not completely destroyed by it, and where it is necessary to hold the ice cream for any length of time after it is frozen, the effect on the flavor may be quite noticeable. Then too, the heat of pasteurization and the accompanying agitation serves to blend the ingredients of the mix better than where this process is not used.

In about 80 per cent of the instances, all the ingredients were added before pasteurization. The only ingredients which were added later were flavoring extract, sugar and gelatine, and ripener wherever it is used. In no instances were fruits added before pasteurization. Where a homogenizer, viscolizer or emulsor is used this would, of course, be impossible.

Of 109 manufacturers who answered the question regarding testing the mix for acidity, 38 make such a test and 71 do not. A few of those who do not make the test expressed the opinion that they began to feel the need of making such a test, and would start it soon.

Where the test is made the acidity which the different manufacturers found to produce best results varied all the way from 15 per cent to 60 per cent. The average which the majority found most satisfactory was 25 per cent.

The object seems to be to get as high an acidity as possible and yet keep it low enough so as not to have an unfavorable effect on the flavor. The percentage of acidity that gives best results is also affected by the method of freezing and aging the mix.

To insure uniformity in the finished product, and to reduce the element of chance as a factor in getting good ice cream, it would seem to be highly desirable to make an acidity test. There are instances, in the case of those who manufacture on a small scale where this would be an unnecessary expense, but practically all indications in these

reports point to the fact that it would be a good thing for those who manufacture on a large scale to make such a test.

In most cases where the gelatine is added to the mix before pasteurization it is dissolved in a portion of the mix or in milk or water and added in a dissolved state. In a few instances it is added dry, either sprinkled in the pasteurizing vat or mixed with the sugar or milk powder. One manufacturer states that in his estimation the addition of gelatine brings best results when it is added in a dry state, but that the present types of machinery make it preferable to dissolve it first. Methods of dissolving vary, and it seems to be an arbitrary matter whether the solution is added to the rest of the mix hot or cold. Various methods of heating the gelatine are used, which include steaming, the use of a jacketed kettle, double boiler or direct application of heat. Quite a few manufacturers find it desirable to add the gelatine solution when the balance of the mix has reached a high temperature, from 120 to 145 degrees. They seem to find that it gives the ice cream better body not to heat the gelatine any longer than is absolutely necessary.

A few manufacturers add the gelatine in a dissolved state, either hot or cold, just before freezing. Several add it just after pesteurizing and before homogenizing. One man stated that this method brought excellent results in his factory.

In one factory the solution of gelatine and milk is pumped from the milk storage room into the heating vat, the temperature of the milk being 40 degrees. This appears to be a very convenient method, and where it can be installed conveniently, might be a good innovation for other manufacturers to adopt.

Flavor in the majority of cases, with the exception of vanilla, is added at the freezer, either just before freezing or when the freezing process has reached some desired state. Vanilla is generally added to the whole mix, and other flavors added to each batch. In only a very few cases is the flavor, with the exception of vanilla, added before the pasteurizing and homogenizing process is completed. Most flavors lose their intensity if they are subjected to heat, and it is hevidently found that they blend with the rest of the mix satisfactorily if they are added at the freezer. Fruit and nuts are usually added when the mixture is about half frozen, which insures their being distributed evenly, and not sinking to the bottom or rising to the top.

In almost all cases it is found to be desirable to add the vanilla in the pasteurizing vat with the rest of the ingredients. The nature of this flavor is such that it is desirable to have it thoroughly blended with the rest of the mix, so that as nearly as possible every atom is permeated with an equal portion of it. Whenever homogenizer, viscolizer or emulsor is used, the vanilla is added before this process takes place.

Manufacturers are almost equally divided on the subject of using improvers, for of 108 who answered this question 55 use an improver and 55 do not. One manufacturer stated that he did not use an improver when he had time to age his mix properly, and another did not use it since he had installed a homogenizer.

Of 111 replies received to the question rearding the use of an homogenizer, viscolizer or emulsor, 96 use one or the other of the machines mentioned and 15 do not use any of these machines. Most of those which do not use them are smaller concerns.

Ice cream making as it is carried on today makes the use of some machine which accomplishes the equalization of the specific gravity of the different elements in the mix and blends them more perfectly and smoothly, almost a necessity. This is especially true where the butterfat content of ice cream is regulated by law, for unless the cream would be kept in a perfectly frozen state all the time until it reached the consumer, the fat globules would tend to rise toward the top of the mass, causing the cream in the lower part of the container to fall below the legal standard. Since homogenizers, etc., have come into more general use, the consumer has evidenced a liking for the smooth, velvety quality of ice cream which has been subjected to these processes, hence it is safe to say that their use will soon become standard.

The pressure at which the mix is homogenized or viscolized varies greatly. One of the controlling factors seems to be the acidity of the mix. The purpose here is to get the most desirable degree of viscosity with the greatest economy of power. It was not stated whether there was any way of determining what pressure to use in each case, but it would seem that by determining the acidity and taking into consideration other factors that have a bearing on the homogenizing process, a definite pressure table could be computed, which would be a measure of economy and efficiency. The pressure with the use of both the viscolizer and the homogenizer varied from 1000 to 4000 pounds per square inch.

In the use of the emulsor, the only pressure that could be given was the number of pounds of steam required to operate the machine, which varied from 50 to 100.

The temperatures at which the mix was homogenized, viscolized or emulsified varied greatly. In most cases it was put through one of these machines directly after being taken from the pasteurizing tank. The average temperature was 120 degrees. It was noted that where the mix was homogenized at a low temperature, 38 to 60 degrees, the pressure was high, in all cases above 2500 pounds per square inch. The temperature at which these processes takes place seems to be merely a matter of convenience.

Where an improver is used,the mix is generally aged from 2 to 12 hours, and where none is used from 18 to 48 hours. In some cases where an improver is used it is necessary to start using the mix just as soon as it is ready, and to continue using it for several days, hence the use of an improver has no effect on the keeping quality of the mix. Even with the use of an improver the mix is often held in the aging vat for 24 hours. Where none is used, only in a few cases is the mix held in the vat for less than 4 hours. It would appear that at least this much time is necessary to age the mix properly.

The temperature at which the mix is held while the aging process is in progress varies from 34 to 48 degrees, the average being 40. The length of time the mix is to be aged has no effect on the temperature of it. In a few instances the mix is aged for from 9 to 24 hours, with the use of an improver in most cases, and is then piped into a cooler where it is held at a temperature just above freezing until it is used. The particular advantages of such a system are not stated, but one manufacturer said the process was very satisfactory.

In almost every case the mix goes to the freezer at the temperature it leaves the aging vat. It may be assumed that in practically every plant the mix is conducted by a pipe line directly to the freezer. A few manufacturers cool the mix to as low a temperature as possible before freezing, but this does not seem to have any effect upon the length of time it took to complete the freezing process.

Vertical, horizontal, direct expansion and brine freezers were in use, with the brine freezers of both types in the majority. Most prominent among the makes represented were Creamery Package, J. G. Cherry, Emery Thompson, Miller, United States, Davis-Watkins and Continental.

Approximately sixty per cent of the manufacturers who answered the last question in this section put exactly the same amount of mix in the freezer each time, some gauging the amount by weight and some by volume.

Some manufacturers put a little extra mix in the first freezer full, to allow for what would be taken up by clinging to the sides of the freezer. Others gauged the amount of mix to put in each freezer by the acidity of the mix, testing the contents of the holding vat and using the same amount to the batch for each vat full. Where fruit was used, in most cases the quantity of mix was regulated to allow for this additional volume.

Freezing.

The brine temperatures which the different manufacturers find to be most satisfactory range from zero to 18 degrees, the majority preferring temperatures of 8 and 10 degrees above zero. It appears that the best overrun can be obtained at these temperatures. A brine temperature that is too low will be likely to cause crystallization, which will give the cream a grainy texture, and a temperature that is not low enough may cause churning. The kind of equipment used and the method and ingredients used in preparing the mix are factors which help determine what brine temperature will be most satisfactory.

The average length of time used in freezing is 15 minutes. At a brine temperature of zero, the greatest length of time used in freezing is ten minutes, and at a temperature of 10 degrees the average length of time is 12 to 18 minutes. Where fruits or fruit flavors are used it usually requires a few minutes longer to freeze properly. The temperature at which the mix is put into the freezer does not seem to have any noticeable effect upon the length of time required for freezing. The condition of the mix, mainly the acidity of it, will have an effect upon the length of time required to get the maximum overrun, and as the acidity is apt to vary, especially where no test is made, the time required for freezing will also vary.

Most manufacturers draw the ice cream from the freez-

ECONOMY CABINETS



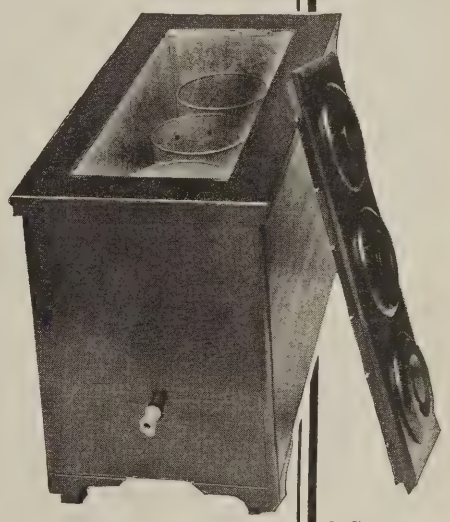
21-quart Brick Cabinet 32 Dozen Eskimo Pies

Economy Brick Cabinets

The best keeper of Brick Ice Cream or Eskimo Pie. Very heavily insulated and icing space on all four sides of brick container, thus giving perfect refrigeration to each pie or brick. Liner and brick container made of Armco Iron.

Economy Metal-lined Cabinets

Especially designed to keep bulk ice cream at its best quality with the least possible amount of ice. Strongly constructed, heavily insulated and lined with Armco Ingot Iron. Supplied with slip rings to keep can in place and convenient for re-icing. Finished in mahogany.



3 Comp. Metal-lined Cabinet

Economy Tub Cabinets

This separate compartment cabinet is especially designed for rural trade so that one compartment alone can be used without being compelled to ice the entire cabinet. The tubs in these cabinets are especially treated to prevent leakage. Finished in highly polished mahogany.

3 Comp. Tub Cabinet



Send for Catalog and prices

HOMER MFG. CO.

Homer City PENNA.

ers at a temperature of from 26 to 28 degrees. At this temperature it "stands up" properly, and is just hard enough to pour so that it "ribbons." This temperature also is subject to slight variation, depending upon the condition of the mix, the amount and quality of gelatine used, and the length of time the mix is aged. A mix containing very little gelatine or none at all can be taken from the freezer at a much lower temperature than where a considerable quantity is used.

About two-thirds of the manufacturers who replied to the question regarding the covering of brine lines to the freezer had these lines covered. This insulation is an economy which pays for itself in a short time in reducing the waste of refrigeration, and confining the cooling process to the places where it is actually needed. This is especially true where large portions of the pipes are exposed to the air. Where the brine box is close to the freezers the waste of refrigeration is not so great, and insulation is not so essential. The protection to the pipes that is afforded by such insulation is in itself an important consideration, however, and it might be recommended in practically every case.

A large majority of manufacturers cool the mix over a a surface cooler. This process takes place directly after homogenizing, viscolizing or emulsifying, and where none of these processes are used, after pasteurizing. In most cases the mix is piped directly from the cooler to the aging vat. The advantage of using a surface cooler lies in the speed with which the cooling process is conducted, with the consequent retarding of the development of bacteria, and also the saving in time.

Where the surface cooler is not used, brine or cold water is circulated through the coils in the aging vat to bring the mix to the proper aging temperature.

Very few of the manufacturers who replied to this questionnaire use ice in freezing the cream. Of those who did, the average amount of ice used per gallon was 15 pounds, with an average of 2 pounds of salt. One manufacturer stated that after the first run only a small amount of ice and salt was required for freezing each succeeding batch.

The amount of ice used to pack five gallons of ice cream varied considerably, depending on the size of the tub or packer used. The average amount required is 15 pounds to a gallon, making 75 pounds to a 5 gallon tub. One manufacturer stated that it depended upon the kind of cream, fruit creams requiring more ice to pack properly, and also upon where it was to be sent, cream for local delivery requiring less ice than cream that is to be shipped.

One point not mentioned in this questionnaire, but which is nevertheless of importance is the cooling of the cans before filling them. If the cream is put into the warm cans it will melt around the outside and bottom, and this melted cream will freeze into an icy layer when it is placed in the hardening room. Not only is the cream so melted a loss in volume, but it will hardly serve to raise your particular brand of ice cream in the estimation of the consumer to have him get a piece of ice in his sundae.

Hardening.

After the ice cream is taken from the freezer, the object is to get it into the hardening room as soon as possible, to prevent loss of refrigeration, also to prevent the ice cream from settling and losing its light, fluffy texture. The length of time required varied from 10 seconds to 5 minutes, with the majority at 1 minute. Where fewer freezers are in use it takes longer to fill a truck or whatever conveyance is used to get the cans into the hardening room, but in very few cases was the time required longer than two or three minutes.

Most manufacturers tried to keep their hardening rooms at zero or below, some as much as 10 to 15 degrees below. In only one case was the temperature allowed to go above 10 degrees above zero. This temperature is caused to vary by the amount of fresh cream that is placed in the room, but a variation of a few degrees where zero temperature is maintained will have very little effect on the cream.

The length of time required to properly harden the cream did not seem to be affected very much by the temperature maintained in the hardening room. The average length of time was 18 hours. In a few instances where the temperature was kept below zero only 8 to 10 hours was required, and likewise, where the temperature was kept at 5 to 10 degrees above zero, a few manufacturers found it advisable to hold the cream from 24 to 36 hours. These instances were exceptional, and regardless of temperature of the hardening room, the above named average held true.

The material in most common use for insulation is cork board. The majority of manufacturers who used this board found it advisable to have it at least eight inches thick. One manufacturer who was using this board in 6-inch thickness stated that he found this was not enough for proper or economical insulation, and that he would have it increased soon. In most cases the cork board was plastered inside and out with cement plaster.

Where ground cork or sawdust is used for insulation it is generally used in connection with cork board, cement or plaster. The average thickness of this layer of loose cork is two to four inches.

One manufacturer who believes in good insulation has a 13-inch wall around his hardening room, consisting of 11 inches of cork and 2 inches of wood, with a thin coating of cement plaster inside. Another man who has the same idea has enclosed his hardening room with a 14-inch wall of cork dust, and has a 19-inch floor consisting of 3 inches of concrete, 3 inches of cork, 1 inch of pitch, 3 inches of cork, 1 inch of pitch and 8 inches of cork. Since cold air goes downward, no doubt much refrigeration is lost through the floor, therefore the proper insulation of the floor is very important.

A few manufacturers use the dead air space in insulating. One manufacturer who uses this principle has a ceiling and walls consisting of 6 inches of cork board and 2 inches of cement with a 4-inch dead air space between. This was boarded and covered with roofing paper. He did not state how satisfactory this system was, but judging from the size and capacity of his plant, it would have to be very efficient.

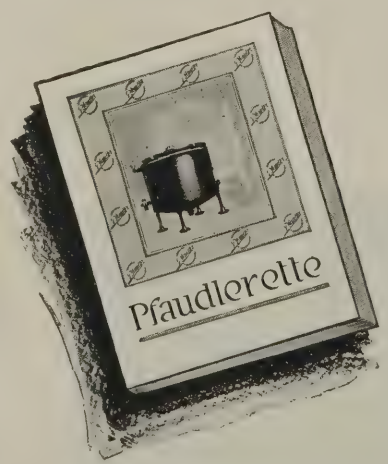
The use of ice machines for refrigerating the hardening room is almost universal. Of 105 manufacturers who replied to the question regarding this, only six used ice, and these all apeared to be doing business on a comparatively small scale. To harden the cream properly where it is made in large quantities, it is necessary to place it in a temperature lower than could be obtained in a uniform degree with the use of ice. The only way is to place the cans in a tub containing a mixture of ice and salt, known as a "slush tub." This is satisfactory for the smaller manufacturer, but inconvenient to be practiced on a large scale.

Only a few manufacturers use the ceiling coils only, most of them preferring the rack coils where only one type are used, and a large number using both. A few find it desirable to use a fan for circulating the air in summer, for with the hardening room filled to capacity they find it difficult to maintain an even temperature without forced circulation. Rack coils are generally preferred for brick.

The general consensus of opinion seems to be that for a small or medium size hardening room the still type with rack coils is to be preferred, and for larger rooms some forced circulation is desirable when the room is filled.

SOMETHING NEW IN GLASS LINED EQUIPMENT.

We have just reviewed with interest a little booklet called, "The Story of the Pfaudlerette," and have become acquainted with this newest member of the Pfaudler Company's family. The Pfaudlerette is a small glass lined pasteurizer which, furnished with some differences in fittings can be used either for pasteurization of milk, as a starter can, cream ripener, neutralizer, buttermilk tank, in creamery work, or finally as an ice cream batch mixer-pasteurizer or aging tank. The book is profusely illustrated with pictures of this pasteurizer and its parts and gives some interesting and valuable facts concerning the advantages of pasteurizing in glass. Manufacturers in all lines of the dairy industry will find something of interest in this booklet. It may be obtained free of charge by writing to the Pfaudler Company, Rochester, N. Y.



Would you be Satisfied-?

with an Ice Cream Cabinet if it kept your product in perfect condition from 24 to 36 hours with one packing and saved from 33½ to 50% on your ice bills?

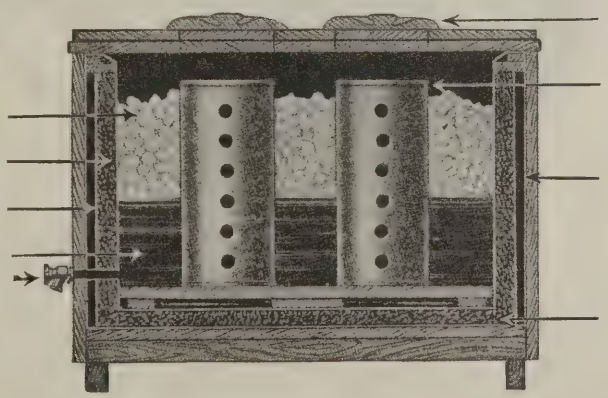
Well, that's exactly what the ice cream manufacturer can count upon when he tries "NoSwets" cabinets. Besides this feature, the NoSwet has made a brilliant name for strength, durability and long life. The materials and workmanship that go in their making are unsurpassed.

Sign up NOW for Cabinet Economy

Buyers today are scrupulously seeking out value, particularly among ice cream manufacturers. Those who have installed NoSwets are giving out-spoken praise and positive preference to our cabinets. Our liberal 30 day trial offer in which we agree to stand the expense of shipment both ways if not perfectly satisfactory, should prompt you to immediately put this cabinet to a test.

Write for Illustrated Circular and Prices

The wide space for Dead Air, approximating the vacuum of the Thermo Bottle prevents the passage of heat and sweating.

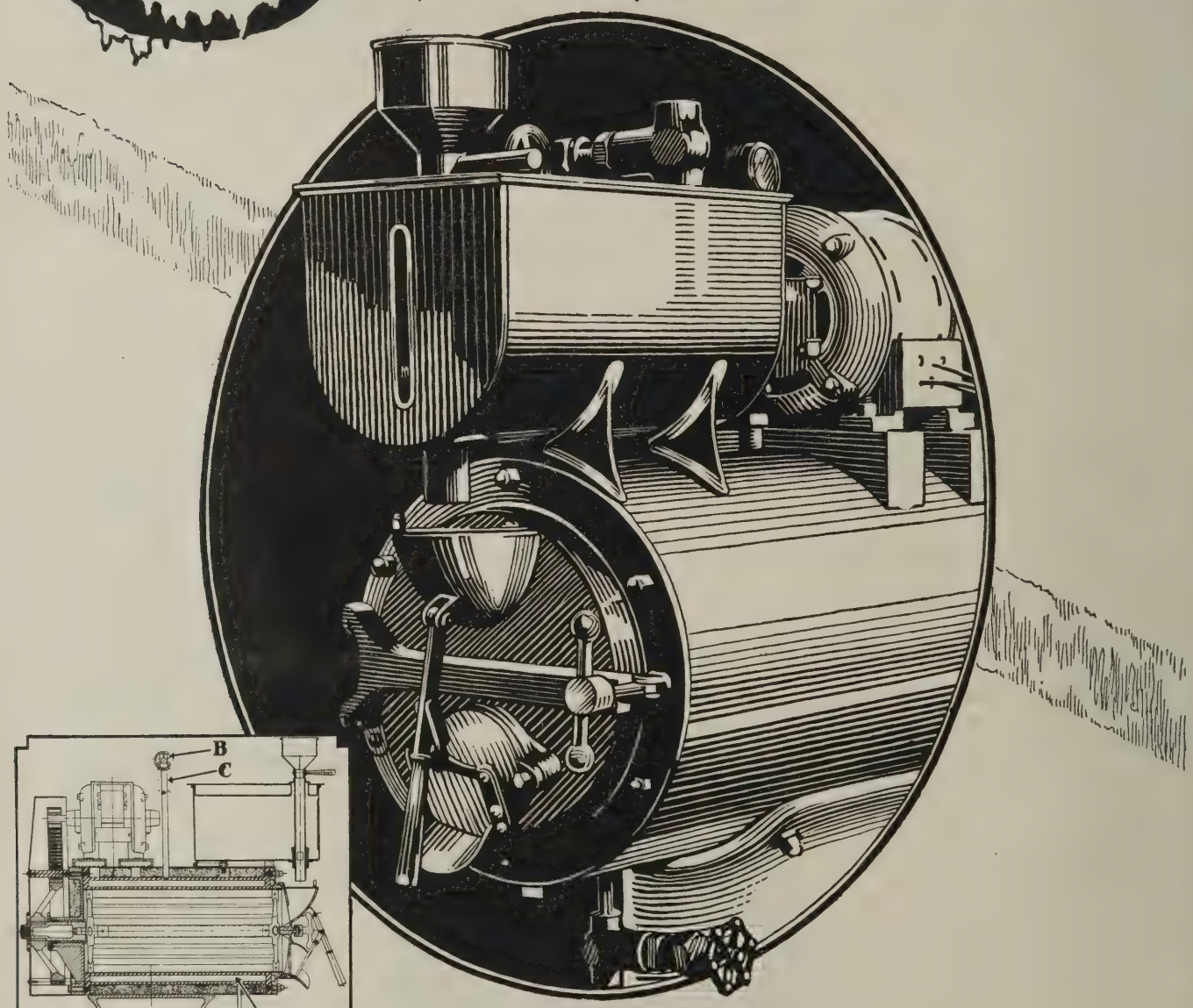


And the case itself is a splendid example of furniture making by the Craftsmen of The Grand Rapids Table Company.

The Grand Rapids Table Company

GRAND RAPIDS MICHIGAN

CONTI



CROSS SECTION OF CONTINENTAL DIRECT EXPANSION FREEZER

A—Ammonia expanded directly in freezer. (No wear, due to brine scour). You get instant freezing action by merely opening expansion valve A.

B—Absolute temperature control — opening or closing suction valve B regulates temperature at will of operator from zero to 10 degrees above zero.

C—Combination temperature and pressure gauge—instantly indicates temperature maintained in freezer cylinder, thus enabling operator to know exact temperature and to raise or lower it at will.

The other advantages are equally important and desirable

NENTAL

Revolutionizes

Ice Cream Freezing

Here is the peer of all ice cream freezers. Cuts operating cost 50%; increases capacity over 40%—makes a greater swell—more uniform consistency—better quality.

No brine to pump—no power wasted—no time lost. Automatic—ready to freeze your cream instantly, continuously or as conditions require.

You cannot get *all* of the profit possible out of your ice cream without this modern, matchless

Direct Expansion
ICE CREAM FREEZER

Positively the most distinct improvement ever achieved in the ice cream industry. The facts regarding it may be worth hundreds or perhaps thousands of dollars to your company.

Get the information now—send for Bulletin C-64—mailed on request, without obligation.

Reasons Why Continental Compressors Will Serve You Best

1—High Speed—A wide range of speeds and power with perfect safety—plus Continental ribbon valve and avoidance of oil contamination, guarantees greatest efficiency and lowest cost.

2—Accessibility—Easy to get at all moving parts.

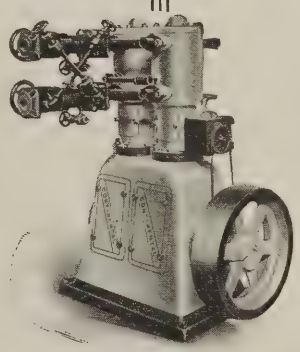
3—Noiseless, trouble-proof, longer life.

4—Compactness—Minimum space, maximum results.

5—Perfectly balanced—Free from destructive vibration.

6—Ammonia Controlled—No ammonia in crank case, or obnoxious fumes.

7—No Oil Contamination—There's never any oil in a Continental Condenser or cooling coils.



Continental Compressors are made in compact, self-contained units, 1 to 3 tons capacity, also in detached units of one, two and three cyliners with capacities of 1 to 60 tons of refrigeration.

It's just good business to get *all the facts.* Why not send now for Folder C-11—mailed free on request.

Continental Machinery Co

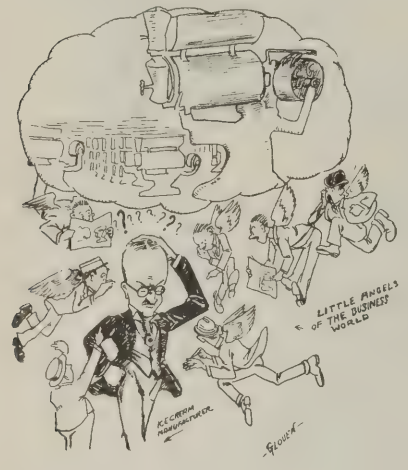
Makers of the Best in Refrigerating Equipment

1611 Harris Trust Bldg. Chicago, Illinois

Will You Have a Large or Small Freezer?

ONE of the ice cream supplymen got so enthusiastic over the large size freezer that he asked us to find the reason for the continued wide use of the smaller size freezers. His query is:

"Why does the wholesale manufacturer of ice cream stick to the old type 40-quart freezer when the large type does the work better and more satisfactorily for the following reasons saves one-half the floor space, one-third the motor power, one-fourth the first cost, one-half the labor, one-half the up-keep and at the same time produces a smoother, more velvety product and a better overrun than any of the smaller types of freezers?"



The men who can answer this supplyman's question are the ice cream manufacturers, and we hope the few replies we are publishing here will help the manufacturers in selecting their freezers and will save the supplymen the time they used ao waste while waiting for the customer to make a decision.

One manufacturer just answered one word, "Habit!" We don't know whether he is speaking from experience or not, but he does know how to say a lot in one word. A reason given in many of the replies to this question was that a large freezer, out of commission, stopped production, whereas a small one merely lessened production. One of the boys put up the argument that if he needed a pair of No. 10 shoes, he wouldn't buy a dozen pair of baby shoes, but would-however, that won't hold water — or even air — so we are giving you some of the replies first-hand. * * *

A Matter of Adaptability.

Reply:—First, I want to ask you if your questioner is sure that the wholesale manufacturer does stick to the forty quart freezer? I have visited a great many plants in the last six months, and in most cases where new machines were being installed they were of the sixty or eighty quart size. It would seem to me from my personal observation that where new freezers are being installed they are of the larger sizes, except perhaps in the very small plants.

For the sake of argument we will say that the forty quart freezer is more popular. I will admit that the larger freezer saves floor space, power and first cost, and perhaps upkeep, but in the average small plant using up to six forty quart machines I do not believe it saves one bit of labor. And as for a smoother, more velvety product, your questioner should tell it to "Sweeney or the Marines."

And overrun—if a man can't get it with a forty quart freezer a larger one isn't going to do him much good.

There are not such phenomenal profits in an ice cream business conducted legitimately that the average manufacturer can junk his forty quart machines simply for the purpose of putting in larger ones. A very definite saving must be shown and guaranteed. Our forty quart machines are giving satisfactory service, and "I'm from Missouri."

There is another thing that comes to my mind as I write that is brought out by experience. A manufacturer must always count on a margin or safety, and the fellow who is installing a freezer capacity of, say eighty quarts, would rather have two forty quart machines than one eighty quart, because if one breaks down, he still will have 50 per cent of his freezing capacity intact. I know of a manufacturer who operates three forty quart machines, and two years ago he had only two of these machines in operation all during the hot months, because one after the other the machines had to be sent to the factory for repairs to the jackets. He would have been in fine shape with one 120 quart instead of his three forty quart machines, wouldn't he?

After all is said and done, the question simmers down to one of adaptability. It would be foolish to argue that a Rolls-Royce—or a Ford, for that matter—is the best car for all conditions and purposes. There are cases where a smaller machine is more economical and more satisfactory than the larger one, and vice versa. So the argument goes on.

* * *

Ignorance of Large Type Advantages; More than One Flavor at Time.

Reply:—Our opinion is as follows:

1. This size is large enough for many manufacturers just starting in business, and no surplus capital available to stock larger machines before actually needed.
2. When gradually enlarging, the addition of one 40 quart freezer takes care of the extra business at the least investment.
3. Smaller manufacturers having two small freezers can have a breakdown on one of them without seriously impairing production, which would not be the case with one large machine.
4. Prevalent superstition (?) that smaller machine does better work, gives more overrun, etc.
5. Ignorance of advantages of larger type (most important reason).
6. Large and so-called model plants generally have been using this size freezer.
7. Freeze more than one flavor at one time.

* * *

Large Freezer Not Suited to Business.

Reply:—My answer is that first we have a complete battery of 40 quart freezers that are in A-1 condition and do not think it economical to junk these freezers for larger type. Second, I am doubtful if the larger freezer would fill out wants as well as a 40 quart freezer, as nearly 50 per cent of our business is brick business and from observation made in plants using the 80 and 100 quart size, I find that there is too big a variation in the overrun of bricks made from 100 quart freezers and the biggest portion of our business is in two and three gallon cans and outside of straight bulk vanilla ice cream we would have no use for an 80 or 100 quart freezer. Furthermore, from observation made, I believe it possible to produce just as velvety and smooth ice cream in a 40 quart freezer as it is in a larger freezer and so far as overrun is concerned, our problem is to keep our overrun down.

* * *

Reply:—We use two 40 quart freezers, instead of one large one, as we are small ice cream manufacturers and

(Continued on page 70)

A Couple of Bouquets

RANGE BOILERS
PNEUMATIC TANKS
STORAGE TANKS

CODE WORD
"ELECTRWELD"
WESTERN UNION CODE

JOHN WOOD MANUFACTURING COMPANY

Electric Weld PRODUCTS

CONSHOHOCKEN, PENNA.

"ELECTRIC WELD"
ICE CREAM CANS
RIVETLESS - SOLDERLESS

SPECIAL WELDED
CONSTRUCTION
FOR ANY SERVICE

May 3, 1922.

Ice Cream Review,
210 Sycamore St.,
Milwaukee, Wis.

Gentlemen:-

We are enclosing copy of letter to A. W. Kunkle & Sons of Montrose, Penna.

You will be pleased to note that your advertisement is bringing us inquiries.

Yours truly
JOHN WOOD MFG. CO.
By George Hofstetter, Jr.
Advertising Manager.

G. HOFSTETTER, JR.
GM.

PITTSBURGH NEW YORK

The McCormick Company, Inc.

ARCHITECTS AND ENGINEERS
CENTURY BUILDING

WM. D. McCORMICK
J. EDWIN HOPKINS
S. NELSON MARTIN

PITTSBURGH, May 8, 1922.

The Ice Cream Review,
723 Germania Building,
Milwaukee, Wis.

Gentlemen:

You may be interested in knowing that we have received a communication from a firm in Hamburg, Germany, making inquiry as to our services as architects and engineers for an ice cream plant to be located in that city.

They tell us they saw our advertisement in the "Ice Cream Review".

We did not know your paper had such an extensive circulation.

Very truly yours,

THE McCORMICK COMPANY, INC.
By Wm. D. McCormick.

McCormick-C

WARNING---To Manufacturers



THIS BREAKAGE PROTECTION RING IS PATENTED

SEE ILLUSTRATION ON NEXT PAGE

THE Patented McLaren Breakage Protection Ring has proven itself to be a meritorious and advantageous improvement in ice cream cones.

Several cone manufacturers, without authority from us are manufacturing and selling cones which embody this patented feature.

The laws covering the unauthorized use of a patented article and unfair competition are fairly well known and the NEW LAW recently passed by Congress makes provision whereby the recovery of profits and damages are greatly facilitated over former practice.

Under this new law THE MANUFACTURER, THE JOBBER, THE RETAILER or any other person or firm that, without authority from us, makes or sells cones which embody the McLaren Breakage Protection Ring feature, or which imitate unfairly our patented Design, is LIABLE AS AN INFRINGER.

It is necessary that we protect our customers and ourselves against unfair competition, and we are sending out this general notice to the trade so that no one may innocently become liable to suit through being a party to the unfair practices above mentioned.

The following concerns, and these only, are licensed by us to use the McLaren Patented Breakage Protection Ring:

THE McLAREN PRODUCTS CO.
DAYTON, OHIO

McLAREN PRODUCTS CO.
KANSAS CITY, MISSOURI

PEORIA CAKE CONE CO.
PEORIA, ILL.

THE McLAREN PRODUCTS CO.

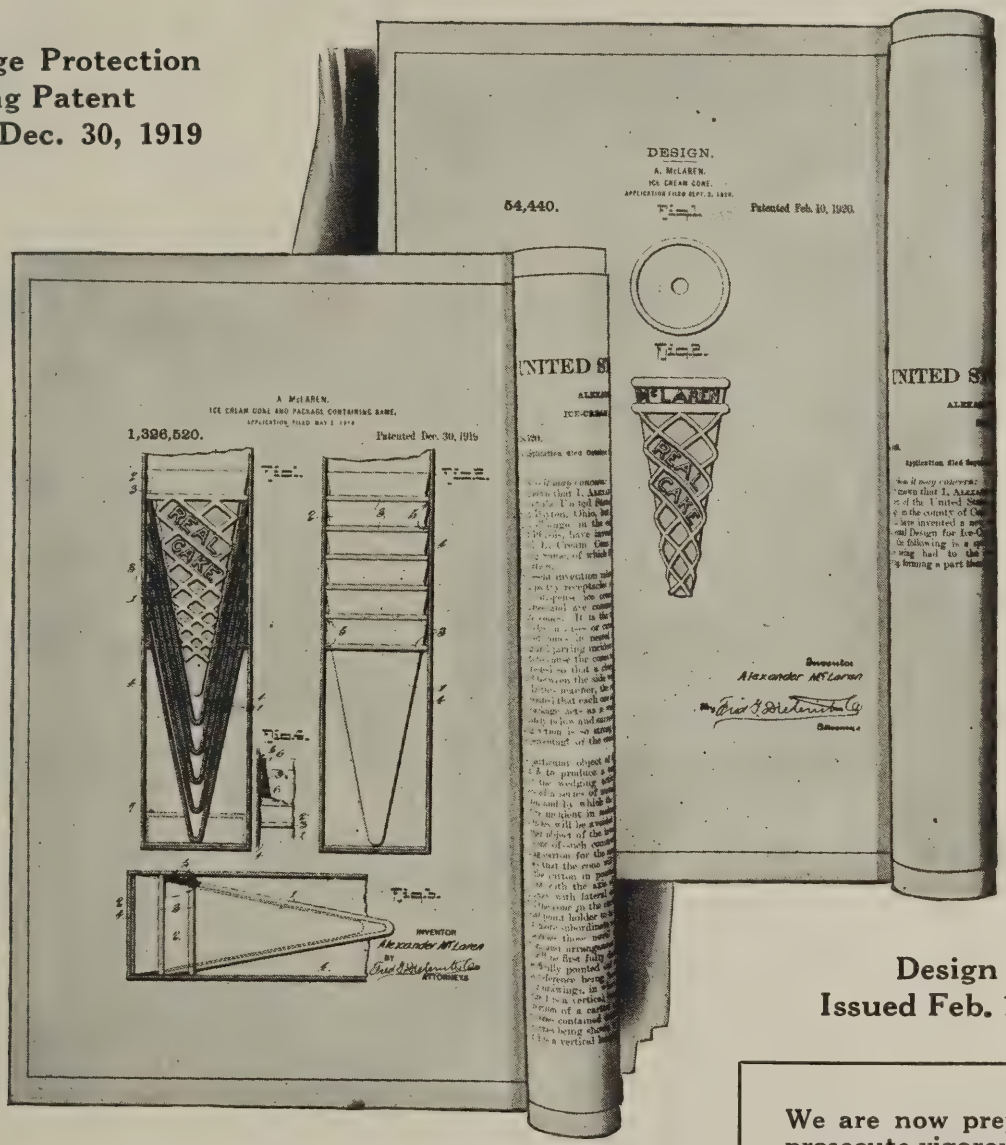
DAYTON OHIO — KANSAS CITY MISSOURI

June 1st, 1922

Are You Encouraging Unfair Competition?

nd Distributors of Ice Cream Cones

Breakage Protection Ring Patent Issued Dec. 30, 1919



Design Patent Issued Feb. 10, 1920

Photographic Reproductions of Breakage Protection Ring Patent No. 1,326,520 and Design Patent No. 54,440 which protect the Nesting Ring and General Design of McLaren's "Real Cake" (Double Ring) Cones.

We are now preparing to prosecute vigorously Manufacturers and Distributors of Ice Cream Cones which infringe the patented features of our product.

THE McLAREN PRODUCTS CO.

DAYTON OHIO — KANSAS CITY MISSOURI

June 1st, 1922

Are You Handling Cones That Infringe These Patents?

COVER ICE CREAM BARS WITH GOOD CHOCOLATE.

make small mixes and small freezers in the winter time, say 80 to 200 gallons a day and often have 2 or 3 specials to make, which is very easy to handle with small freezers.

I expect one reason why ice cream plants use 40 quart freezers is because larger freezers are very new and have just been out a few years. Everyone has installed small freezers and equipped their building and plants with that special freezer.

* * *

Reply:—As I am only a small manufacturer, I only have one machine and I often have some specials to freeze of two or three gallons which a large machine could not do so well. But if I were using two machines I think the 80 quart would be the thing.

* * *

Reply:—Our reason for making a choice of 40 quart machines is due to our being able to always have more machines in working order. If we used, for instance, an 80 quart freezer and it was disabled, we would be in a bad fix, while if one of the 40 quart size is disabled we can still get along.

* * *

Overrun Cannot be Controlled.

Reply:—In conjunction with four 40 quart freezers, we have been operating one 80 quart and one 100 quart freezer in our plant for a period of about four years. While it is true that a saving in motor power, first cost, labor and space is to be realized from the use of the larger type freezers, we do not find that a more velvety product and a better overrun can be secured from them.

As a matter of fact, we feel that 80 and 100 quart freezers are entirely unsatisfactory except for pulling cream in five gallon cans. This is because of the fact that these freezers must be emptied just as rapidly as a 40 quart freezer in order to prevent increased or decreased swell during the process of pulling the freezer. The larger volume of cream in the larger type freezers cannot be pulled satisfactorily into two and three gallon cans because of the length of time required to empty the freezer, which either results in a loss of swell or too much swell.

Were we to install new freezing equipment in our freezing room, we would buy one 100 quart freezer and six 40 quart freezers.

* * *

Reply:—The manufacturer sticks to the small freezer because it takes so long to draw the mix from a large freezer into small cans that the last end of the batch in a 100 quart freezer might show larger per cent of overrun. Ice cream of more even texture and overrun can be drawn from a 40 quart freezer.

* * *

Expense Must Be Considered.

Reply:—Regarding the use of the old type 40 quart freezer: You mention the fact that the larger types save one half the floor space, one third the motor power, one fourth the cost, one half the labor and one half the upkeep, and at the same time produces a smoother, more velvety product and a better overrun than any of the smaller types of freezers. The greater portion of this statement is correct, insofar as our view-point is concerned. However, our experience has not justified the statement that the larger freezers will produce a smoother, more velvety product. Why should they? The same operation takes place in either case and the body and texture of the cream is not improved by the use of a larger size freezer.

You refer to a better overrun. This again needs ex-

(Continued on page 127)

JACK RABBITS

ELWIN F. WEIL, Secretary

514 New York Life Bldg.,

Kansas City Missouri



In regard to the condition of ice cream here in Kansas. The weather has been a little backward, and we have had lots of rain here this season, so the ice cream business has been very slow. But we are getting a bumper of a wheat crop. But now the sun has broken through, and ice cream makers have all they can do. Things are looking very favorable for everybody here in Kansas, and everybody feels like they will have a great season as soon as the weather will allow.

The Kansas Jack Rabbits are jumping from one corner of the state to the other, but they will have a hard time to keep up now that the sun is shining. Best regards.

S. K. JENSEN.

* * *

A DOCTOR.

Mr. A. C. Abel, President of the Impruv-Mix Company of New York is known the country over as an ice cream doctor.

You know, just like a regular surgeon. He takes his patient and finds out what the ailments are, looks up all the symptoms and asks questions as to how it has been acting of late. When he discovers where the real trouble lies, he begins to operate—you know — just like a real doctor. First he removes all the ailments and then sometimes puts in the real parts which should have been there before but have disappeared.



Then after the operation, to improve the health of his patient, "Doc" Abel gives it some medicine in the form of "Impruv-Mix." If "Doc" isn't Abel to make ice cream feel well and get it on its feet and be a selling in a short time, the patient is incurable.

Wonder how many sick ones there are in the country?

* * *

You ask how conditions are in the Southwest as pertaining to the ice cream industry. Your question can be briefly answered by saying that we have had nothing but rain for the past couple of months.

As to the future, we are optimistic. The unemployment situation is improved. Money is easier. Crops, with exception of a few places where they have been washed out by the main, necessitating replanting, look good.

There are very few ice cream manufacturers who have not improved their plant, and all look for a much better season than 1921. It seems that the entire trade is realizing the value of printer's ink and are doing more advertising than ever before. Now that we all are using better merchandising methods and making better quality ice cream, all that is needed is good weather.

KARL R. ZIMMER,
Menasha Printing & Carton Company.

BING!—There Goes the Bottom!



—but the far-sighted ice cream manufacturer has a **Frick Bottom Hoop** handy and in a jiffy the tub is as good as new—and it will last two or three times longer than a new tub of the present type.

"Save the bottom and you save all"

WRITE TODAY FOR PARTICULARS

Not a Cheap Repair Job *But*— a permanent improvement. We use heavy, rust-resisting Ingot iron—hot galvanized after manufacture. Hoop not driven on but put on snug.

Will stand all rough usage.

Resolve today to equip all weak bottom tubs with bottom hoops.



Pat. 6-29-20. Pat. Pnd.

FRICK HOOP CO., Corsicana, Texas

ESTABLISHED 1879

Gelatine is the most efficient of all stabilizers for Ice Cream

WHITTEN'S GELATINES Are Standard

Guaranteed to Comply with all National and State Pure Food Laws

STRENGTH, PURITY AND UNIFORMITY GUARANTEED

MANUFACTURED BY

J. O. WHITTEN COMPANY

Main Office and Works

Winchester, Mass.

Woolworth Bldg.
NEW YORK CITY

20 E. Jackson Boulevard
CHICAGO, ILL.

Even Uncle Sam's Mail Clerks Interested in Nat'l Exposition

Advertising by Association of Ice Cream Supply Men Puts New Color Into Nation-Wide Mails

THE Post Office Department's several thousand clerks throughout the country are now stopping for a minute to study the red, green and blue small poster-drawing borne on thousands of envelopes going into the mails every day from the hundred member companies of The Association of Ice Cream Supply Men in cities from coast to coast.

The attractive little poster-drawing really has only an incidental interest for Uncle Sam's many mail clerks, for it is intended principally for the eyes of the persons from the Pacific to the Atlantic, from the Gulf of Mexico to the Hudson Bay, who are directly interested in the production and sale of ice cream. To them the little poster-drawing tells a story as important as anything that the year will hold—the story of the great combined Conventional-Exposition week of the ice cream business in Cleveland next October.

"Ice Cream—A National Industry—Come to Cleveland October 16th to 21st inclusive"—the poster-drawing reads, and back of the letters is shown a gigantic ice cream factory with evidence of ceaseless mid-season activity all about it. The little drawing also shows down in one corner the busy, colorful sky-and-shore line of Cleveland, America's Fifth City.

There are many evidences accumulating according to The Association of Ice Cream Supply Men, that the slogan reproduced in the colored envelope adornment, "Ice Cream—A National Industry—Come to Cleveland October 16th to 21st inclusive," is expressive of the dominant spirit of the ice cream industry of 1922.

"If there ever was any doubt that the business of commercial ice cream has become a self conscious, big-visioned, ambitious national industry, according to O. S. Jordan, President of the Association, "that doubt is now dispelled. When one remembers that ice cream is not a commodity essential in the sense that lumber, iron, coal, oil, wheat, cotton, wool, etc., are essentials, but is only a secondary essential, he cannot help but realize, by its present size, the comparatively major national position that ice cream has come now to have in American business life."

Numbers of ice cream manufacturers and supply men who are planning to be in Cleveland the week of October 16th, where the 22nd annual convention of the National Association of Ice Cream Manufacturers will be held October 16th, 17th and 18th, and the National Exposition for the ice cream industry, under the management of The Association of Ice Cream Supply Men, will extend from October 17th to 21st, inclusive, have expressed their early interest by visiting the great Cleveland Public Hall where the National Exposition will be held.



CLEVELAND PUBLIC HALL

One of the outstanding features relating to the exposition, at least as plans and arrangements have been announced so far, in fact, is the exceptional character of this Public Hall.

It is a magnificent fire-proof building, located in the heart of Cleveland's business district and has been designed and built specifically for expositions, conventions, tournaments, concerts and other large gatherings

and pageants. It is, in fact, the very last word both in municipally owned public structures and in architectural provision for expositions and conventions.

The location of the new building is doubly advantageous in that it affords an unobstructed view of the Cleveland harbor and of Lake Erie. It is also within easy walking distance of the principal Cleveland hotels, theaters, retail and wholesale districts, and of the Union Passenger Station. Railway freight terminals are conveniently at hand. It is only two minutes leisurely walk from the Hollenden Hotel, the headquarters of the National Association of Ice Cream Manufacturers, where the 22nd annual convention of that body will be held.

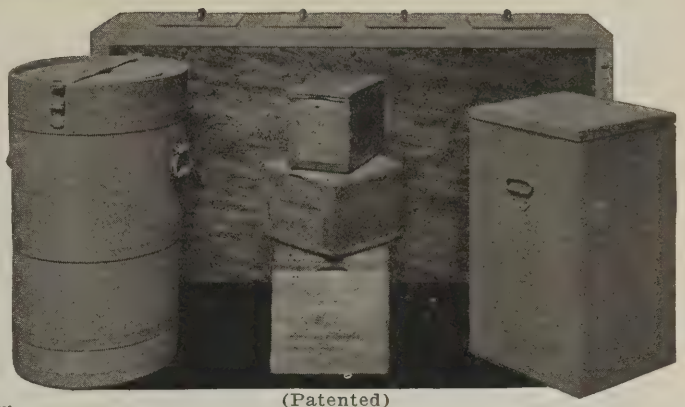
More than 30,000 square feet of space in the Public Hall will be utilized by the National Exposition, according to The Association of Ice Cream Supply Men. The exposition hall of the building is 235 feet long by 121 feet and 6 inches wide, broken only building columns. A very attractive feature of the exposition hall is that the ceiling has 16 feet clearance above the floor.

At each of these building columns is a service station with connections for electric current power or decorative purposes. At many of these stations are also connections for hot and cold water, compressed air, gas, high pressure steam, vacuum, vacumm cleaner and drainage for waste water.

The Public Hall has been several years in construction and was opened for use only two months ago. Its final cost will approximate $6,500,000. Its appointments throughout are the most elaborate and sightly.

The Association of Ice Cream Supply Men has announced that the general enforcement of all exposition rules and the carrying through of exposition arrangements will be in the hands of an Exposition Committee of which K. W. Schantz is Chairman and L. B. Ismon, Albert McDougal, Thomas J. Stewart and Henry W. Stern are members.

Exposition diagrams have already been sent to member houses of The Association of Ice Cream Supply Men. The Association anticipates that many of the displays will have a more pronounced educational character than displays have heretofore.



(Patented)

BALSA ICE CREAM EQUIPMENT

INSULATION IS A GOOD INVESTMENT

BALSA is the only heat insulating material possessing real structural strength.

Balsa containers are built without non-insulating hardwood frames.

Balsa insulation entirely surrounds contents, reducing heat leakage to a minimum.

Balsa Insulated Containers

Shipping Tubs
Dry Packed Cabinets
Special Eskimo Pie Boxes
Ice Packed Cabinets
Brick Containers

Let Us Figure on Your Requirements

AMERICAN BALSA CO.

305 Vernon Ave.
Long Island City, N. Y.

"DEPENDABLE REFRIGERATION FOR ICE CREAM PLANTS."

This is the title of an interesting, beautifully illustrated, booklet which we have just spent a few profitable moments reviewing. It is issued by the Baker Ice Machine Company of Omaha, Nebraska, giving an interesting description of the freezing, hardening and packing of ice cream by modern methods. One portion of the freezing process which is discussed at length is the "swell," and how to control it. After reading it, one is firmly impressed with the importance of refrigeration in the manufacture of ice cream. To quote the opening paragraph, "Ice cream being a frozen product, refrigeration becomes the principal process of manufacture, and profits depend largely upon an efficient and economical refrigerating system." The competition in the ice cream field today makes it practically a necessity for even the smaller manufacturer to have mechanical refrigeration and the advantages it gives to avoid being crowded out. The manufacturer who uses the ice and salt method of freezing and hardening will find this booklet particullarly interesting. Copies may be obtained by writing the Baker Ice Machine Company for them.

The New Home of The Olsen Publishing Company



This modern building, 100 feet wide and 150 feet long, two floors and basement, is the new home of The Olsen Publishing Co., Milwaukee. It is located at the corner of Fifth and Cherry Streets, close to downtown points and ideally adapted to the publishing and printing business. The building is of steel and concrete construction faced with red brick and is, of course, strictly fireproof. A 50 foot vacant lot to the south, an alley to the west and streets on the north and east provide abundant light and air. In this beautiful, substantial home of our own we are equipped to serve readers and advertisers of our publications, and patrons of our printing department, in a highly efficient manner. Friends are invited to visit us.

PACIFIC ICE CREAM MANUFACTURERS' ASSOCIATION.

Announcing the Seventh Annual Convention.

The Directors of your Association have accepted an invitation from the manufacturers of Spokane, Washington, to hold the next convention in their city, November 13 to 15, 1922, with headquarters at the Davenport Hotel.

The past few months have witnessed innovations which have had a far-reaching influence upon the industry. They have served to emphasize the fact that the business of making and selling ice cream is still in its infancy, and to point out the wonderful opportunities for development.

The future of the business will be what we make it, and one of the greatest incentives to increased effort is to detach ourselves occasionally from our own workshops, so that we can get the OTHER FELLOW'S point of view. A man who builds a house must see it and work upon it from the OUTSIDE as well as the inside, if he is to have a complete and harmonious dwelling. So must we do with our businesses, if they and the industry, of which they are a part, are to have the greatest measure of accomplishment and progress.

Our past conventions have been well worth while, and have contributed materially to the advancement of the industry. With YOUR help and enthusiastic support, we hope to make this the BEST CONVENTION we have ever had. RIGHT NOW, while the matter is fresh in your mind, let us have the benefit of your suggestions as to subjects, speakers, and any other factors which will contribute to its success.

We shall have further announcements to make later as to convention plans, some of which have already been formulated. The purpose of THIS LETTER, however, is to assure you that YOUR SUGGESTIONS will receive careful consideration, and will be greatly appreciated. We ask two things of you at this time:

FIRST—Make a note NOW on your calendar to hold the dates of November 13 to 15 open for the convention; and,

SECOND—Let us have your EARLY RESPONSE TO THIS LETTER.

PACIFIC ICE CREAM MANUFACTURERS' ASS'N.,
W. V. S. Robb, Secretary.

Attest:
Bert H. Walker, Secretary.



HALF RATES.

Beggar—"Please give a poor old blind man a dime."
Beggee—"Why you can see out of one eye!"
Beggar—"Well, then, give me a nickel."—Sun Dodger.



IMAGINE what an appeal this beautiful illustration made to the *hundred thousand or more women* who received it in their homes.

It is a cover-design illustration of the Mathews ice-cream magazine "*Safe Ice Cream*" which is used by many of the most successful ice-cream manufacturers *everywhere* to stimulate the adoption of ice-cream as a "family food" to be ordered *often* to take the place of more expensive and more difficult-to-prepare desserts.

THE ASSOCIATION OF ICE CREAM SUPPLY MEN • MEMBER

FREDERICK C. MATHEWS COMPANY

"SERVANTS TO THE DAIRY INDUSTRY"

P. O. BOX 834 . DETROIT, MICH.

This insert was produced complete by the Frederick C. Matheus Company, Detroit, Mich.

"Stand back of our belief by re-ordering"

THAT'S a line picked out of E. D. Francke and Sons telegram reproduced below.

What did they re-order? Why the "Mathews" ice cream folder campaign which had been so successful in winning new ice-cream customers and selling more ice-cream for their dealers the previous season.

It isn't every day that *you* have the chance to buy "*proven-successful*" advertising; "profiting at the other fellow's expense" it *might* be called!

Even if your business *is* different it would have to be *mightily* different indeed before what influenced the housewives of Saginaw would fail with the womenfolk of *your* city. Call your stenographer; "take a letter to:"

FREDERICK C. MATHEWS CO.

"SERVANTS TO THE DAIRY INDUSTRY"

P. O. BOX 834
DETROIT
MICH.

MEMBER — THE ASSOCIATION OF ICE CREAM SUPPLY MEN

MEMBER — THE ASSOCIATION OF ICE CREAM SUPPLY MEN

Form 1201

CLASS OF SERVICE	SYMBOL
Telegram	
Day Letter	Blue
Night Message	Nite
Night Letter	N L

If none of these three symbols appears after the check (number of words) this is a telegram. Otherwise its character is indicated by the symbol appearing after the check.

WESTE[illegible] UNION

TEL[illegible]RAM

NEWCOMB CARLTON, PRESIDENT — W. E. ATKINS, FIRST VICE-PRESIDENT

CLASS OF SERVICE	SYMBOL
Telegram	
Day Letter	Blue
Night Message	Nite
Night Letter	N L

If none of these three symbols appears after the check (number of words) this is a telegram. Otherwise its character is indicated by the symbol appearing after the check.

RECEIVED AT Duplicate of Telephoned Telegram

OPEN FOR BUSINESS---8----A. M.

OCT 28 PM 6 31

RECEIVED OCT 31 1921

283SA JP 64 COLLECT NL Cutup OK

SAGINAW MICH OCT 28 1921

FREDERICK C MATHEWS CO

DETROIT MICH

WE HAVE USED YOUR WINTER CAMPAIGN FOLDERS AND ARE WELL PLEASED WITH RESULTS HAVE HAD MANY REQUESTS FOR ADDITIONAL COPIES FOR FRIENDS OF THOSE TO WHOM SENT WE BELIEVE THIS CAMPAIGN CREATES INTEREST DURING WINTER MONTHS AND HOLDS THE BUSINESS UP WHERE ORDINARILY IT DROPS OFF NOTICEABLY WE BELIEVE IT IS WELL WORTH THE COST AND STAND BACK OF OUR BELIEF BY REORDERING

E D FRANCKE AND SON

628P

Telephone No. Main 2478

Telephoned to F.K.

Time Delivered 9:30 a.m.

HE NOW SPECIALIZES IN MANAGING.

By C. W. Esmond.

"I had to lay off from hard work for a year," remarked an ice cream manufacturer in a small city the other day. "But I didn't stop working with my head. In fact, I worked my head as I had never done before, with the result that I had the best year in my history.

"That taught me a mighty important lesson. I have been hiring men to do the heavy work ever since, and



I hire men to do the heavy work and busy myself around the office.

I have been using my head. Of course, I don't hesitate to jump in in an emergency. I'm doing the bookkeeper's work today. But I don't tie myself down to manual work day after day. And I have been making more money and getting ahead faster than I ever dreamed was possible when I was trying to be a manager and a laborer in one."

⚜

TOO MUCH ESKIMO PIE.

Chicago.—Anybody'd think dipping ice cream into hot chocolate would melt the ice cream, Christian Kent Nelson discovered the way to do it, however, at just the right temperature. The result—eskimo pie.

Until he made his discovery Nelson was a poor but contented teacher at Onawa, Ia. Today money's pouring in on him so fast that he's scared. "I want to stay human," he says.

He tried hard enough to market his idea before it "caught on." Most people he approached were skeptical. Finally Russel Stover, of Omaha, went in with him. From that moment the golden tide began to rise. For Nelson, at any rate, it rose too high.

"Money! The more I see of it, the less I like it; I'd rather be with my books, or back on the job as teacher again," he exclaimed. He hasn't even bought an automobile. Perhaps wealth came a bit too fast—about a year, from a shoestring to offluence, is sudden enough to be disconcerting.

Nelson's a graduate of Nevada University. He's only 29. His father and mother are living and he has brothers and sisters. He's unmarried. When a reporter asked him, "Do you intend to take a wife?" "Maybe," he answered.—Pittsburgh Press.

⚜

"Learned men have taught us that not only with a choice of evils we should choose the least, but that from the evil we should endeavor to extract some good."—Cicero.

* * *

Some men will eat thirty different kinds of food at one meal and then hold the olives responsible for their indigestion.—"Dynamo."

The Viscolizer

"In July and August—When Fresh Cream is Hard to Get"

Hot weather, low cream supply, extra heavy demand—then is when you'll want a Viscolizer. Butter, milk powder, skim milk or water, and a VISCOLIZER, and you may have better cream, in any quantity, any time.

Nothing to worry about.
Nothing to waste.
Always ready to run.
Always works.

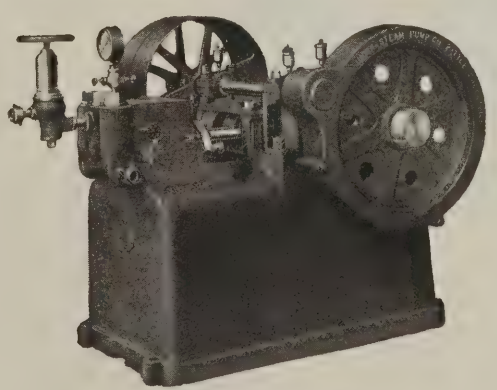
As an aid in the making of better, smoother, richer flavored ice cream, the VISCOLIZER is unsurpassed. For stabilizing evaporated milk and emulsifying, it has proved unusually effective.

There is a VISCOLIZER for every possible demand. TheVISCOLIZER is built in five sizes—for the requirements of the Soda Fountain to the largest condensary, where service is exacting and heavy.

In mechanical construction and design, the VISCOLIZER represents the most practical development in its field. Built in the largest factory in America, devoted exclusively to the manufacture of pumps of all kinds, backed up by an organization of specialists who have spent fifty years on scientific pump development.

Write for new booklet just off the press.

"There is a Viscolizer Jobber near you"



JOHN W. LADD COMPANY
DETROIT CLEVELAND

CHERRY-BASSETT-WINNER CO.
PITTSBURG - PHILADELPHIA - BALTIMORE

Why Ice Cream Churns in the Freezer

Question asked by a subscriber, and replies by ice cream manufacturers and dairy experts



JIMMY used to stop long enough to shout a "Hurrah!" or two when the first little globules of butter showed up around the dasher handle, and then start in with renewed vigor to finish his task. But Jimmy grew up into an ice cream manufacturer and he tells us that the same little grains of butter that used to make him feel so good are threatening to ruin his business because they insist upon appearing in his ice cream freezers in the spring of the year. We gave him some advise and have asked several ice cream manufacturers for their opinions on this subject. We are publishing a few of the replies received in the hope that any other "Jimmies" there may be in the trade will find them valuable.

Question: Our ice cream mix is churning in the freezer and we cannot discover the cause. We handle our mix just as we always have and use the same ingredients. The only reason we can conceive for this condition is that the butterfat churns easier in spring than at any other time of the year, for we very seldom have this trouble except in spring.

We do not know what to do about this and would very much appreciate some information as to the cause and prevention of this business-losing circumstance.

* * *

Homogenizer Real Solution.

Reply: I am glad to be able to say that I have had very little trouble with churning of cream. Practically all our mixes are homogenized, which has eliminated that trouble. For a short time last spring I used fresh cream and experienced some difficulty. I found that the colder the mix was before entering the freezer, the less trouble I had. Also a low brine with resultant faster freezing helped. I was also very careful to shut down the freezer when not actually freezing, as butter formed very rapidly if machine ran idle with no brine on. The real solution, I think, however, is the homogenizer.

* * *

Homogenize—Adjust Paddles on the Dash.

Reply: We have never noticed that our ice cream mix churns more easily in the spring than any other time of the year—in fact, we never have any trouble. It may be largely due to the fact that we homogenize all of our mix and it would be impossible for us to churn our mix if we wanted to. Before we homogenized our mix we had more or less trouble all the time with our cream churning, but as a rule we found that when we did have this trouble, it was due to the paddles not scraping the drum of the freezer clean, and by adjusting the paddles on the dash, we could overcome our trouble. Another reason would be that if the brine was not cool enough the cream would be whipped too long.

* * *

Freeze at Lower Temperature.

Reply: In reference to the manufacturer whose ice cream churns in the freezer more easily in the spring than any other time of the year, we are pleased to advise that we have found this true. In fact, as the result of having been in the creamery business for a good many years, we find that cream of all kinds churns and breaks a little more easily in the spring than any other time of the year. This manufacturer will, perhaps, be able to eliminate this churning tendency of his ice cream mix by cooling the mix to a lower temperature than he is at present. Cold cream or cold mix will not churn as easily as warm cream or warm mix.

* * *

Fat Churns Easier in Spring—Cool.

Reply: We wish to advise that in the spring of the year cows give much richer cream and, naturally, it churns more easily for ice cream. It also may be possible that, at other times of the year, he has the brine too warm and runs his freezer too fast. In our opinion, these are the reasons for the trouble that he is experiencing.

* * *

A Matter of Cooling and Agitation.

Reply: The matter of churning in the freezer is the same as churning in a churn. We all know that butter churns easier in the spring, when the fats are soft and the weather is warm. Later in the summer it does not churn quite so easily because the butter fats themselves change in composition, and partly because they are somewhat smaller in size, due to the advanced stage of lactation of the cows, but in any case, the difficulty can be avoided by thorough cooling of the product. If the person who has the trouble cannot homogenize in some way, he should be doubly careful to cool his cream to a temperature of at least not warmer than 40 degrees, and to cool it thus several hours before he is ready to freeze. It will enable him to freeze a better ice cream, make a smoother ice cream and more of it, and will also do all he can do to avoid churning. Of course, the best thing to avoid churning is to break up the butterfat globules with a homogenizer, but if this is not possible in his particular case, have him cool his cream very thoroughly before trying to freeze it, and then he should turn on his brine and dasher for a little while until the interior of his machine is very cool, then stop his machine, that is, stop the dasher and the flowing also and let the cream cool down. In this way the cream can be cooled to such a low point that it will be next to impossible for the butter particles to form in the cream. In other words, it is purely a matter of temperance and agitation.

* * *

Freezer Goes Too Fast.

Reply: We have never experienced this trouble, but to make a guess, we would think the trouble was due to the temperature of the mix and the freezer operating with too much speed.

* * *

Freezing With Brine Too Warm.

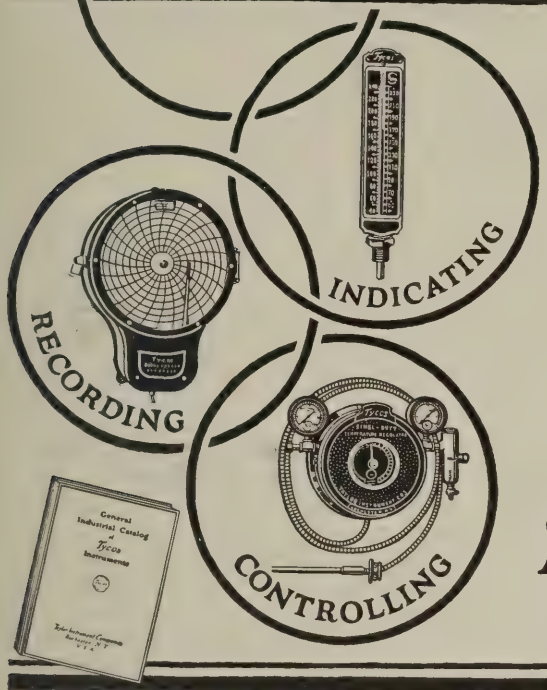
Reply: We use a homogenizer so that there is almost no likelihood of the cream churning unless it should happen that the brine is very warm, and we whip it for an extended period, we have never had any trouble here at all with this. We do not believe that anyone would have trouble along this line unless they had very warm brine and whipped the mix too long in the freezer, even though their mix was not homogenized.

* * *

Cream Ripened Too Long.

Reply: The only reason I could give as a solution on this subject, especially when the trouble comes in the spring of the year, would be due to an over supply of sweet cream which would be ripened for three or four

Tycos Temperature Instruments



We are always ready to apply our knowledge and experience to the solving of temperature difficulties in the Ice Cream Field.

What Is Your Problem???

Taylor Instrument Companies
Rochester, N.Y., U.S.A.

Theres a *Tycos* and *Taylor* temperature instrument for every purpose 313

No Loss-

The Grand Rapids
ICE CREAM CABINET OF QUALITY


Style No. 5


Style No. 4

Through Shrinkage with a
Grand Rapids
Ice Cream Cabinet


Construction of our "ZERO" Brick Cabinet

THE high degree of perfection in insulation which is attained in a Grand Rapids Ice Cream Cabinet is responsible for the maintenance of a consistently low temperature. Loss in volume of your product is therefore eliminated.

The daily shrinkage in volume caused by an inferior cabinet may be so small as to almost escape notice. But multiplied by the number of cabinets in service and then estimated for a year, the figure representing the financial loss is surprising.

Of course you are interested in stopping the small leaks that cut into your profits. We are ready to show you conclusively that our cabinets eliminate shrinkage.

GRAND RAPIDS CABINET COMPANY

Successors to CHOCOLATE COOLER COMPANY
55-59 Alabama Avenue N. W. GRAND RAPIDS, MICH.
New England Sales Office and Warehouse, - Merrow Bros. Inc., 44 N. Market St., Boston, Mass.
South Eastern Sales Office and Warehouse, - Cherry Bassett Co., 33 So. Charles St., Baltimore, Md. 1918 Market St., Philadelphia, Pa.
Central Sales Office and Warehouse, - Cherry Bassett Winner Co., 1139 Penn. Ave., Pittsburg, Pa.
North Western Sales Office and Warehouse, - A. C. Black, 515 Lumber Exchange, Minneapolis, Minn.

ICELESS CONTAINERS HAVE PROVED TO BE A GREAT ICE SAVER.

days before freezing. I think this might possibly cause some trouble, and if such is the case, by freezing with the brine at a lower temperature would help eliminate the trouble.

* * *

Cream Warm When Placed in Freezer.

Reply: This is probably due to the fact that the weather is getting warmer and the cream is warm when placed in the freezer and churns into butter before it freezes. This difficulty would be eliminated entirely if this man would homogenize his cream before freezing it.

* * *

Mix Not Cold Enough.

Reply: We have never had the trouble that this manufacturer is having, but we think that his whole trouble is that he is not getting the mix cold enough before he puts it in the freezer. We are putting our entire mix through the emulsifier and cooling to 40 degrees and holding it there over night and are very particular about keeping it at that temperature.

* * *

Chill to 35-40 Degrees.

Reply: This cause usually arises from the mix, which is not properly chilled. We suggest the best remedy for this trouble is to chill the mix down to anywhere from 35 to 40 degrees. Another cause might arise from not having the brine the proper temperature; this will cause the freezer to churn the mix before it freezes it.

* * *

Reply: There is no material difference as to the season of the year. We have experienced that difficulty during our early stages of making ice cream, and one of the chief causes is that the mix is not properly chilled before going into the freezers, or the brine turned off before the alloted time.

* * *

Reply: Our opinion is that this man must not homogenize his mix properly before freezing, and in addition must not, and probably does not, cool his mix low enough before introducing into freezer. Also, he may have carried the temperature of the brine in the freezer too high. Any or all of these conditions would tend to cause the mix to churn before freezing. Our suggestion would be to thoroughly homogenize; next, cool as low as possible, say to not above 33 or 34, and carry the brine in the freezer not to exceed 8 degrees.

* * *

Reply: We do not know why this should happen in spring. We never have trouble of this nature because we thoroughly homogenize the mix before freezing.

Reply: There are three reasons for ice cream churning. The first reason is that by over-freezing ice cream it will butter; the second reason is that the raw material is going into the freezer too warm, and the third reason might be that his freezers are not running fast enough and the mixture must remain in the machine too long.

* * *

A Matter of Cooling and Agitation.

The matter of churning in the freezer is the same as churning in a churn. We all know that butter churns easier in the spring when the fats are soft and the weather is warm. Later in the summer it does not churn quite so easily because the butterfats themselves change in composition, and partly because they are somewhat smaller in size, due to the advanced stage of lactation of the cows, but in any case, the difficulty can be avoided by thorough cooling of the product.

If the person who has the trouble cannot homogenize in some way, he should be doubly careful to cool his cream to a temperature of at least not warmer than 40 degrees, and to cool it thus several hours before he is ready to freeze. It will enable him to freeze a better ice cream, make a smoother ice cream and more of it, and will also do all he can do to avoid churning. Of course the best thing to avoid churning is to break up the butterfat globules with a homogenizer, but if this is not possible in his particular case, have him cool his cream very, very thoroughly before trying to freeze it, and then he should turn on his brine and dasher for a little while until the interior of his machine is very cool, then stop his machine, that is stop the dasher and the flowing also and let the cream cool down. In this way the cream can be cooled to such a low point that it will be next to impossible for the butter particles to form in the cream. In other words, it is purely a matter of temperature and agitation.

* * *

Replies from State Colleges.

The trouble that this manufacturer has with the churning of ice cream during the freezing process is no doubt due to the fact that the butterfat in the spring is of a lower melting point, and being softer, churns more readily.

There are several factors which contribute to this trouble. First, the temperature at which the mix enters the freezer; second, the length of freezing time; third, the condition of the freezer.

The lower the temperature when the mix enters the freezer, the less likelihood there is of churning. With the butterfat in the spring softer than during the rest

Before Contracting For Your

SWEET BUTTER

this season, get a sample tub and prices from

Stricker Bros., Inc.

Makers of Good Butter

220 W. Pratt St. BALTIMORE, MD.

The Powdered Milk with the Natural Milk Flavor

"Merrell Soule" 'Starlac' Brand Powdered Skimmed Milk

For the Creamery, Ice Cream and Butter Maker

The new brand powdered skimmed milk powder of the Merrell-Soule Co., which is superior to any powder put out by Merrell Soule Co. The 'Starlac' Brand is intended for the starter work.

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Writes a Texas Ice Cream Man

Freezing and hardening ice cream the old fashioned way is expensive. Ice and salt are items that unnecessarily increase manufacturing costs and cut down profits. You can reduce your expenses with the

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BAKER ICE MACHINE CO., Omaha, Neb.

Gentlemen:— Please send me without obligations copy of bulletin 65-D. We make..... gallons of ice cream per day.

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of the year, it is necessary to have the mix at a lower temperture, the closer to the freezing point, the better.

If the freezing is carried on rapidly, there is less likelihood of churning than in a prolonged freezing.

The condition of the freezer may also contribute to this trouble. If the scrapers are dull so that the mix is squeezed rather than scraped from the sides of the freezer, there is more likelihood of churning.

Of course, as you know, homogenizing will prevent this trouble under all conditions.

DEPT. OF DAIRY HUSBANDRY,
UNIVERSITY OF WISCONSIN.

* * *

The only reason for ice cream churning in the freezer more readily in the Spring would be that the temperature was higher or that the fat globules were larger.

It is true that in the springtime the cream is more apt to be from fresh cows. The fresh cows produce milk with larger fat globules, and the larger fat globules churn easier than smaller fat globules.

If the operator will have his mix down to a temperature of 40 degrees and have his brine circulating in his freezer before the mix is added, I do not believe that he will have any trouble. It may be that he does not homogenize his mix, or possibly he has a very high percentage of fat in his mix. If he does homogenize, and does not have over 12 per cent fat, I think his trouble is due to allowing the mix to enter the freezer at too high a temperature.

DEPT. OF DAIRYING,
OHIO STATE UNIVERSITY.

* * *

There are two reasons why the ice cream mix will churn more readily during the spring of the year than at any other time. First: The butterfat is softer and every buttermaker knows from practical experience that he has to cool the cream to a much lower temperature or the butter comes too quickly. Another reason is that we usually have more fresh cows during the spring of the year than at any other time. Milk produced by fresh cows contains fat globules of a larger size and it is well known and understood that churning will be accomplished a great deal more readily the larger the fat globules. I would suggest that your subscriber cool the mix to nearly freezing point before starting to freeze it. I suppose that he has no homogenizer for if he did, he would not experience much difficulty along that line. I consider that if he will average in the neighborhood of 100 gallons of ice cream per day for five months that it would be to his advantage to install a homogenizer or viscolizer.

DEPT. OF DAIRYING,
IOWA STATE COLLEGE.

* * *

An ice cream maker should be very careful to have enough milk solids-not-fat present in his ice cream mix if he wants to prevent churning during freezing. This may be especially true in the spring time, as when the cows are turned on pasture there is a tendency to produce a softer fat which is likely to churn more easily than the fat produced when cows are on dry feed. However, I feel sure that this difficulty can be overcome if a high enough percentage of milk solids-not-fat are used when making the mix, and also if during freezing care is exercised not to have the brine too cold, because when the freezing brine is too cold, it tends to freeze the ice cream on the lining of the freezer and as the dashers come around they will tend to churn out some of the butterfat.

DEPT. OF DAIRY HUSBANDRY,
UNIVERSITY OF ILLINOIS.

I would naturally expect that ice cream would churn more easily in the spring than at any other time of year, because the fat is a little softer at this time of the year. The churning of the ice cream may be due to several causes. First, placing the ice cream mix in the freezer too warm, it should be 40 degrees or below. Second, the speed of the freezer being too fast. Third, not having sufficient freezing medium. In the case of brine freezing, having brine that is too warm, or in the case of an ice and salt freezer, not having sufficient salt in the ice or not good contact with a brine from the salt and ice and freezer. Fourth, freezing the ice cream too slowly. I trust that this gives you the information which you desire.

DEPT. OF DAIRY INDUSTRY,
NEW YORK STATE COLLEGE OF AGRICULTURE.

* * *

The only suggestion that we can make with regard to churning of ice cream in the spring of the year is that at this time they are possibly not watching the temperature of the mix and perhaps the acidity of the mix as closely as they will later in the summer. When summer time actually gets here they realize that they must use lots of brine or lots of ice to get their mix cooled sufficiently before it goes to the freezer, but in the spring they are not so careful as they are just leaving the winter season where it did not take so much effort to get the mix cold and to keep it cold.

DAIRY HUSBANDRY DEPT.,
SOUTH DAKOTA STATE COLLEGE.

* * *

I may say this condition is due to two things. First, that the acidity in the cream is probably a little higher than it has been in the winter time. Second, the fat in the cream changes in the spring to a softer fat and consequently churns easier than in the winter. This condition can be overcome by having the cream at a lower temperature at the time of placing in the freezer. A temperature of 40 or 38 degrees would be desirable.

DEPT. OF DAIRY HUSBANRDY,
PURDUE UNIVERSITY.

* * *

There are two reasons why the small manufacturer will have trouble in the cream churning during the process of freezing at this time of the year. First, because the cream comes from cows which have recently freshened and which now have access to an abundance of blue grass pasture. These conditions have a tendency to make cream churn more easily. Second, the small manufacturer does not have the proper facilities to cool and age the cream. This means that during the first few weeks of warm weather the cream goes into the freezer at a comparatively high temperature. The agitation of the paddles causes the formation of butter granules.

We, in Nebraska, have very little trouble from this as most of the ice cream is made by the large manufacturer who is equipped with homogenizing machinery. As you know, cream which is properly homogenized can not be churned into butter. We would suggest, therefore, that you advise this manufacturer to cool his cream to 40 degrees F. before putting it into the freezer and that he freeze it with his brine at 8 degrees F. or below. We believe that this will reduce his trouble to the minimum.

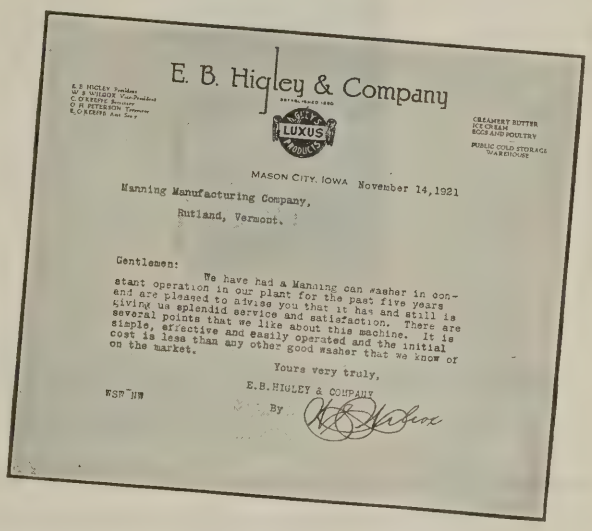
DEPT. OF DAIRY HUSBANDRY,
UNIVERSITY OF NEBRASKA.

* * *

As to the cause of a partial churning of the ice cream mix, I wish to advise that several factors are in-

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That's a good reason for buying a can washer, but if the quality is also "less" it's a poor investment. The Manning Can Washer named in this letter has been in "constant operation for five years and it is still giving splendid service." The Manning is first of all a machine of durability.



E. B. Higley & Company

MASON CITY, IOWA November 14, 1921

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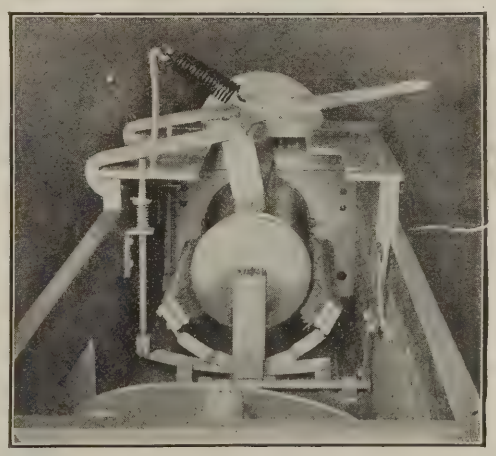
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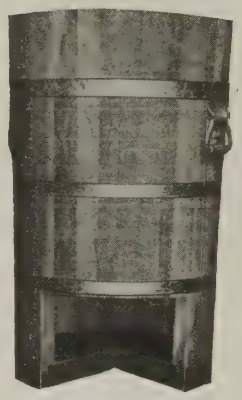
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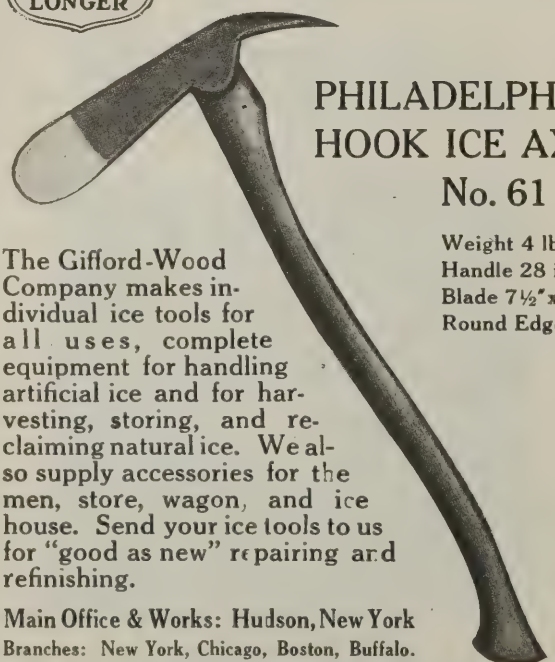
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Weight 4 lbs.
Handle 28 in.
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volved, any one of which may give the ice cream maker considerable trouble. At this season of the year the cattle are taken off of dry rations and placed on pasture. This causes a decided change in the hardness and softness of the fat globules and, as the buttermaker experiences, will cause the butter to appear very sticky and will adhere to the trier when scoring the butter. I would suggest that the ice cream maker lower his freezing temperature, investigate the speed of the dasher and cool the mix down to 40 degrees F. before placing in the freezer drum. I do not have available at this time any figures which would assist you in overcoming this defect.

COLLEGE OF AGRICULTURE,
UNIVERSITY OF MISSOURI.

* * *

This difficulty occurs at all seasons of the year where the mix is run into the freezer at too high a temperature or where the dasher runs too fast, or when the ice cream is frozen too hard. Naturally, if this happens at other seasons, it would be more likely to happen in the spring, when the butterfat is softer. You no doubt are familiar with the fact that butterfat is always softer when the cows are turned out to pasture. A method of overcoming the trouble would be to have the mix colder before it goes into the freezer, and then use care in not over-freezing. It may be that this man's mix lacks viscosity, and he freezes it for a long length of time in an attempt to obtain the desired swell. Proper aging of the mix, at a temperature around 35 degrees, will increase the viscosity and make it possible to freeze in a shorter time.

DEPT. OF DAIRY HUSBANDRY,
KANSAS STATE AGRICULTURAL COLLEGE.

* * *

There are several causes for butter particles existing in the ice cream. The greatest difficulty is encountered I believe, when emulsified cream is being used. It has been my experience that emulsified cream will churn in the freezer much more readily than will ordinary cream. The temperature of the mix as it goes into the freezer is the deciding factor, for the agitation is so great that if the temperature of the mix is above 40 degrees, and two or three minutes of whipping is allowed before the brine is turned on it is very likely to cause churning, therefore we recommend that the mix is always at least below 40 degrees before the churning and freezing process is begun.

Even though the mix may always be cooled to 40 degrees in case of freezing with a semi-continuous brine freezer where the freezer has been in operation for two or three hours, the scraping of the dull blades over the cylinder will create a greasy substance, which, after continuous operation will accumulate on the paddles and gradually will brake off and exist in the ice cream as small particles of butter. This is quite a common practice that may be remedied partially by keeping the blades thoroughly sharpened at all times so that these blades will cut all of the ice cream mix from the inside of the freezing cylinder and not rub it around, such as would happen if the blades were dull. In a case where this difficulty occurs regularly the only remedy is to stop the freezer at the end of about two hours operation and wash it thoroughly with water sufficiently warm to dissolve this fat that has accumulated on the paddle. The freezer is then cooled off and the freezing process continued.

OREGON STATE AGRICULTURAL COLLEGE.

This is probably due to the fact that the ice cream mix is usually of somewhat higher temperature at this season of the year, when run into the freezer, than during the winter months. For that reason the mix probably churns before it reaches a temperature low enough for whipping and freezing. I would suggest that the trouble could probably be overcome by cooling the mix to 40 to 35 degrees F. before running into the freezer.

THE UNIVERSITY OF MINNESOTA,
Division of Dairy Husbandry.

* * *

This would naturally be expected as the butterfat contains more fat with lower melting point and, therefore, would churn out much more easily when cows are on fresh grass than when on dry feed at other times of the year. There will be more trouble with the ice cream churning in the freezer when freezing a high fat content ice cream than when freezing a low fat content ice cream. The most satisfactory way of overcoming this is by using a homogenizer or viscolizer which would break up the fat globules small enough to prevent their churning out when freezing.

MICHIGAN AGRICULTURAL COLLEGE,
Department of Dairy Husbandry.



Nebraska Cornhuskers

Omaha, Nebr.

The Ice Cream Review:

In my trips around over the state I find that the ice cream business has been pretty slow, but this seems to be due to the cool season and the public does not seem to be spending very much on ice cream, but this is not on account of shortage of money, but just a late season.

Most ice cream men are looking for a good business just as soon as warm weather sets in.

Business of every kind is steadily improving and people are spending money a little more freely than they did a year ago and there is no reason why the ice cream man should not get his.

Of course the ice cream man is somewhat held back on account of express rates and I find some of the larger companies are thinking of putting in small plants in other than their own towns in order to save on express and this is going to make it hard on the little man as he is not in shape to compete with the larger company.

The smaller ice cream men, as a rule, are not buying very extensively just now, as I find some of them are just a little afraid of this competition and so are just buying as they need.

Eskimo Pie business has fallen off until there is very few of them made any more. I find most of the ice cream men are buying what few they need for their trade from either Omaha or Lincoln, as they use so few that it doesn't pay to bother with them.

However, in view of all that has happened in the past, if we should have a warm summer and a late fall, I look for the ice cream business to come up very rapidly.

JOE WARD.



"No great thing is created suddenly, any more than a bunch of grapes or a fig. If you tell me that you desire a fig, I answer you that there must be time. Let it first blossom, then bear fruit, then ripen."—Epictetus.

Hardening Rooms

NO matter how good your mix or how modern your freezer, you cannot successfully market ice cream unless it is properly hardened.

We carry ***Pure Cork Board,*** ***Granulated Cork,*** ***Refrigerator Doors,*** *and* ***Asphalt*** *in stock at Minneapolis.*

It requires a well built, CORK insulated Hardening Room to maintain the necessary temperatures.

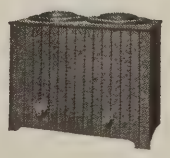
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Wire Your Rush Orders!

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Going into Details

A Lengthy Discussion of Our Questionaire by an Ice Cream Manufacturer

Editor The Ice Cream Review:

Dear Sir: I certainly admire your enterprise as an editor in sending out the questionnaire in regard to ice cream. For a long time I have been more or less perplexed over the question of where editors get their inspirations. Now, however, the situation is somewhat clearer to me since receiving your questionnaire. They get someone else to do their thinking for them and take credit for it in their various publications. Please do not take offense at this statement as nothing personal is intended or implied, I offer this merely as a general statement.

It certainly would have been very kind of you to supplement that long list of questions, on which you are seeking enlightenment, and enclosed the addresses of a number of reputable and able Philadelphia lawyers to whom one could apply for assistance in approaching a reasonably intelligent amount of answers to your interrogations.

Your first question amuses me. "Do you pasteurize your mix?" Now whoever heard of making ice cream in a pasture. I was always under the impression that a pasture was a place for cattle which are the originators of basic materials that should go into the manufacture of the delectable commodity under discussion. I have had considerable experience in mixing, especially with my fellowmen, such as customers, employees, salesmen and gentlemen. I have also been mixed up in poker games, politics, singing societies and riots, but the most interesting affair I was ever mixed up in was a quartet, which certainly took the prize when it came to a question of conspiring against harmony. I never mixed much in society, because the people afflicted with this malady were always talking about tuxedos and such things. My only familiari y with tuxedo is the tobacco masquerading under that name which smokes well in pipe or cigarette. I got mixed up in my directions one night on my way home from a meeting of the Ancient Order of Hibernians. This was in the year 1916, B. P. (before prohibition), by the way when does it go into effect? I was roving about like a ship without a rudder, when one of the minions of the law who sleeps days, and sometimes nights, accosted me and inquired politely, but firmly, as to what I was doing out alone at that time of the night, or rather, morning. I tried to tell him, but he had a hard time understanding my language. He said to me: "Say, fellow, when—when you get all you want to drink why don't you call for sassaparilla?" To which I replied in my thickest English: "Shay, ossifer, when I get all I (hic) want to drink, I can't shay shassprilla." And we both laughed. It was a good thing for me that he came from the right part of Ireland or I might have been in a worse mixup than being inconvenienced by such a little thing as losing my way in the town I had been born, raised and was making ice cream in.





I can't for the life of me figure out why you should propound such a question as "What method do you use in adding gelatine?" I use the simplest method—just put it in.

To be perfectly frank with you, Mr. Editor, I don't recognize your right to question me on whether or not I use a homogenizer, viscolizer or emulsor. But your curiosity having been aroused, for some inexplainable reason or other, I might satiate your inquisitorial makeup by confessing that I do use an atomizer, 'cause I've been troubled with a sore throat from smoking those fakes labeled Havana cigars, which are in truth nothing more nor less than choice alfalfa cleverly composed and disguised in a tobacco leaf and selling at "two fer." A friend of mine handed me a cigar one day that he said was one of two for fifty. I don't doubt his veracity, but I will say that he kept the forty-five cent one. But that's neither here nor there.

In reply to your question, "What type of freezer do you use?" I will say this without fear of successful contradiction, that I use the kind that they make ice cream in. For the love of Mike, Mr. Editor, you don't suppose for a single minute (daylight saving time) that I would use a typewriter or wash machine, do you?

You know as well as I do that there is nothing elastic about an ice cream freezer and that it holds just as much on Tuesday at 9 o'clock as it does on Friday at 10.36 o'clock, so the natural conclusion is that I put in the same amount one time as I do another. What sense is there to such a question in the first place. I suppose you have a reason for asking it, but I have heard of men being shot and otherwise inconvenienced for a much less offense than this.

When I stumbled over that part of the questionnaire entitled "Freezing," I thought I would die laughing. You certainly have your dates pre ty badly mixed. You ask something about brine temperature. How in the world did you ever get pickle making tangled up with the manufacture of ice cream? Your lack of knowledge on some things is to say the least most distressing to an educated person. Paste this in your hat and refer to it frequently: Brine is used almost exclusively in pickle

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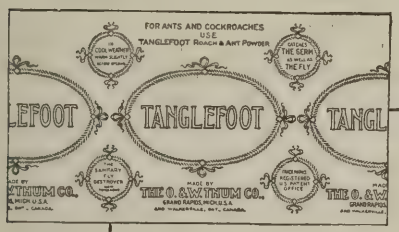
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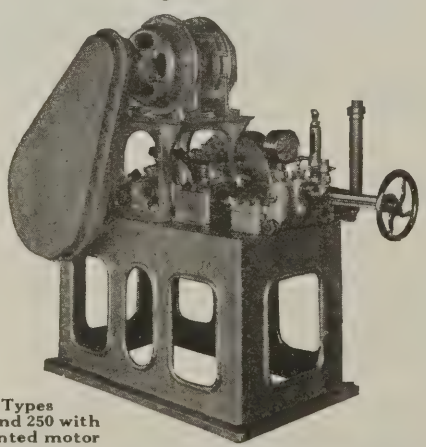
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See Other Advertisement for Lists of Sales Branches

foundries for the express purpose of softening the warts and making them less difficult for the consumer to sneak past the tonsils, which if rudely disturbed get sore and making things most unpleasant in the region of the esophagus or words to that effect.

I was not aware of the fact that you "pull ice cream from the freezer." According to my system I take it from the freezer with the same amount of care and precaution that I employ in removing my right shoe, which is the daytime garage for the most sensitive and whimsical corn that a man was ever endowed with.

In the matter of the amount of ice I use, I might let you in on a secret that should prove of invaluable help to you sometime when you desire to discuss, intelligently, some of the more salient points in making ice cream that can be eaten without fear of waking up with a lily in your hand. I use just enough ice to get the desired results. That may seem a trifle laconic, but it is the truth, and the truth never hurts, unless you hear something about your mother-in-law coming for a protracted visit.

I'll never forget the time I got onto a street car and sat down alongside a rather comely looking young woman. She seemed friendly enough in her actions, although she had nothing to say. That was in the days before I had permitted myself to be inveigled into pronouncing that fatal sentence on myself, "I do." I thought it would be nice if I could strike up a conversation with my seat-mate, so I blurted out: "Isn't this delightful weather we are having?" Without so much as favoring me with a glance, the young lady replied in a tone that was sopping wet with irony: "Indeed it is, but I have already discussed the subject with my husband." Say, Mr. Editor, the air in that street car was so cold that I thonght I was sitting on a chunk of ice up around the North Pole playing seven-up with a gang of Esquimox. After that freezing experience I always keep still when talking to strange ladies on street cars or any other place for that matter.



Well, I wouldn't lay any big wagers that you are going to get very much help out of my answers to your questionnaire, but I will lay a small bet that it is going to take some of the conceit out of you, since you very apparently have become imbued with the thought that the legal firmament lost a very brilliant representative when you turned into a sanctum sanctorum and decided to wield a trenchant and dripping pen for the edification and education and elucidation of the ice cream makers of the country and city.

But before I complete my part of the work, I just want to answer one or two more of your questions. This one in particular: "How long does it take to properly harden your ice cream?" You should know,

Audel's
"Answers on Refrigeration"

A practical treatise for engineers. This book is the most complete work on the subject of refrigeration and ice making on the market today. 690 pages. Half leather binding.
Sent Prepaid on Receipt of $2.00.
OLSEN PUBLISHING CO.
5th and Cherry Sts. Milwaukee, Wis.

if you don't, that it takes only long enough to get rid of the softness that seems to be one of the original faults with the stuff.

Yes, I most certainly do prefer a Still Hardening room, because while it is still hardening there is no danger of ice cream becoming soft, a condition that is very difficult to overcome if the proper methods are not used. You will have to think this one out for yourself.



In summing up I desire to offer this suggestion. There are some ice cream makers in this country who if they really want to enjoy the highest public esteem and "repeat" business, built upon honest goods they ought to try and put some whole milk, just as it comes from the cow—without subtraction, addition or multiplication—into the product they are turning out and quit fooling the unsuspecting taxpayers and other inhabitants of this mundane sphere with some combination that in truth is anything but that. I for one here and now, solemnly pledge myself to try it out once and see what happens.

Very truly yours,
I. M. THROO.

⚜

A FAR-SIGHTED ORGANIZATION.

Realizing the need of diversified farming instead of one-crop farming, in order to beat the boll weevil, and realizing that the dairy cow is the center of diversified farming, the recently organized Sumter Creamery is doing a real service to its community by encouraging purchases of dairy cows. This creamery is buying good dairy cows and placing them among its patrons, and when a patron has not enough ready money to pay for the cow, they let the cow pay for herself in milk delivered. L. D. Jennings, president of the firm, has "started the ball rolling" by purchasing four registered Guernseys from a prize winning herd, and he expects to further augment his herd by purchasing from 50 to 100 more Guernseys. Mr. C. W. Schmolke, general manager of the Sumter Creamery, states that there are many fine positions and partnerships open in that vicinity for young men who have a knowledge of dairy husbandry and a little money to invest.

⚜

DE KALB ICE CREAM COMPANY ABSORBS CRYSTAL ICE COMPANY.

The DeKalb Ice Cream Company, Auburn, Ind., lately incorporated for $32,000, recently began operations. The organization has taken over the old Crystal Ice Company, and added an ice cream making department. All kinds of ice cream will be sold as well as artificial ice. The ice cream will be sold under the trade name of "Just-rite." The firm occupies a new 30x50 reinforced concrete building which is, according to neighboring ice cream men, one of the most modern, up-to-date ice cream plants in the state.

The officers of the corporation are: B. O. Fink, president; C. B. Proseus, vice-president; H. H. Fitch, secretary; C. E. Kingsbury, treasurer and general manager.

FOR A
Smoother, Firmer Ice Cream
Fruit Frost or Water Ice
USE
Rippey's Powdered Foamoline

No Heat Required — Simply mix Rippey's Powdered Foamoline with the dry sugar add your cream or milk and it is ready for the freezer.

Send for a trial package and book of formulas. — For a limited time we will send postpaid a full half pound package on receipt of 25c, together with our formulas for making ice creams, sherbets, etc.

Rippey's Powdered Foamoline is packed in one pound boxes with registered trade-mark and signature of William Rippey on every box. Never sold in bulk.

WM. RIPPEY
101 East Second Street CINCINNATI, OHIO

INSULATION
for
COLD TEMPERATURES

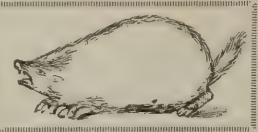
WATERPROOF LITH
LINOFELT — FIBROFELT
PIPE COVERING
MINERAL WOOL

THE RIGHT INSULATION
FOR YOUR PARTICULAR CONDITIONS
The consulting services of our expert insulating engineers are yours for the asking, without expense or obligation. Let us solve your problems for you as we have for thousands of others.

UNION FIBRE CO., INC.
WINONA, MINN.

BADGER FLYERS

Send communications to O. E. HARWOOD Secretary - Treasurer 300 W. Austin Ave. Chicago, Ill.



Milwaukee, Wisconsin.

The Ice Cream Review:

Conditions in the ice cream industry are very bright. Our friends are looking for an unusually good season dependent somewhat, of course, upon the number of warm days that the summer may bring.

Ice cream is gradually getting to a point where it is no longer a seasonable dish, but naturally the peak load comes during the summer and a short rainy or cold spell is a decided loss and cannot be made up.

We find that most of the factories in Wisconsin are equipped with modern machinery and are kept in a clean and sanitary manner.

We see no reason for being pessimistic regarding the future. The ice cream industry is on a firm basis and cannot be legislated out of business. The only thing that might hurt the industry would be the establishment of too many small factories. While the consumption of ice cream has been increasing steadily per capita, nevertheless there will be a point beyond which the establishment of new factories will not increase the consumption, but will lessen the profit of the legitimate manufacturer and which may cause him to cut the quality of his goods in order to stay in business.

This certainly would be deplorable, as in our opinion it is the quality that sells the ice cream.

J. G. HAMMERSCHLAG.

* * *

Minneapolis, Minnesota.

In the northwestern part of the state all manufacturers say that their make is up to last year's; some say no gain so far, and some say a gain of about 10 per cent. All of them feel that they have a good season ahead but on account of the late spring, they do not expect much of a gain over last year. No new plants of any size are going in this year.

M. E. THOMPSON.

* * *

Waukesha, Wisconsin.

Gentlemen:—Your letter of recent date received regarding conditions in the ice cream industry. I find the Shurtleff Ice Cream Co., of Janesville, Wis., are enjoying an excellent trade and have added some new equipment, including a No. 40 De Laval. President Touton always on top.

The Cronin Dairy and Ice Cream Company, Janesville, are also enjoying a fine trade.

The Kellogg Ice Cream Co., Burlington, Wis., has made some improvements and built a fine addition to their plant. Trade is good and improving.

The Sturtevant, Wright & Wagner Dairy Company, Beloit, Wis., are believers in quality ice cream and trade is getting better.

The Waukesha Ice Cream Co., Waukesha, Wis., are steadily growing. They have purchased two additional delivery trucks and engaged an assistant ice cream maker; their future is bright.

The Hurtgen Dairy Co., Oconomowoc, Wis., are manufacturing excellent ice cream and enjoying a fine trade which is still improving. They are moving into their new $50,000 plant.

Storcks Ice Cream Co., Slinger, Wis., are kept in full swing; trade is opening up with an excellent future.

The Racine Pure Milk Co., under the management of M. C. Nelson, is kept very busy and trade is gaining. When in Racine ask for it—of course they use a De Laval. Oh, yes; Billy's Ice Cream Co. is also enjoying excellent trade, and it is getting better each week.

The writer believes the demand is increasing and the manufacturers are striving to put the very best ice cream on the market.

J. R. WILLIAMS,
The De Laval Separator Company.

* * *

SOME STATES CAN BOAST.

Wisconsin makes over 60% of the cheese made in the United States.

Minnesota makes 40,000,000 pounds more creamery butter than any other state in the Union.

Wisconsin has the most dairy cows, 2,683,000.

Wisconsin has the greatest number of silos in use, 82,375. New York next with 50,842.

Minnesota exports 77% of its creamery butter.

Nebraska second with 74%.

Iowa third with 73%.

SUNG BY THE EASTERN BUNCH AT NATIONAL CONVENTION.

Tune: "Long, Long Trail a Winding."

We were very sad and lonely way back in the East,
Our thoughts were of you only and this wonderful feast.
How our hearts yearned to be with you as in the days gone by,
So we borrowed the cash and here we are, but the trip made us so dry.

"It was a long, long trail we journeyed to be with you today,
Our hearts are filled with gladness that we came out your way.
You have fulfilled all your promises as to the good time we would have,
Here's our hats off to the Western folks, they are the best God made."

This ice cream year has been very dreary since July has gone,
August brought us many chills and nearly put us all in pawn.
But the ice cream folks are optimistic going on without fear
For is they don't cash in this season, they will get their's another year.

So on the long, long trail we will journey as we have journeyed in the past.
Doing good to one another is our motto that will last.
We're all one great big family and no matter where we roam
Our thoughts will be with our Western friends long after we reach home.

NEW DIPPING MACHINE ON MARKET.

The Frozit Manufacturing Company, of Columbus, Ohio, have placed on the market a new machine for dipping chocolate coated ice cream bars which appears to be a very simple and efficient outfit. Only two girls are needed to operate it, one at the feed end and one to remove the dipped bars from the hooks. The travel from the chocolate bath to the take-off and is long enough so that when the pieces reach the second operator they are dry enough for wrapping. It is claimed that this machine will give perfect results with no waste in time or material. Its normal capacity is 25,000 pies or cakes in a day, and by making a simple adjustment the machine can be speeded up to a daily production in excess of 30,000 pies.



Sethness Company,



Western Branch
DENVER, COLORADO
2910 Huron Street

Pittsburgh Office:
609 Chamber of Commerce Building
PITTSBURGH, PA.

659 HOBBIE ST., CHICAGO

Operating 75,000 Square Feet for Quality and Service

COSCO BRAND

FRUITS

ICE CREAM CRUSHED FRUITS (BULK)
SOLID PACK FRUITS IN NO. 10 TINS
COLD PACK STRAWBERRIES
C. P. CRUSHED FRUITS IN BULK PKGS.

EXTRACTS

FLAVORING EXTRACTS, ARTIFICIAL
TRUE EXTRACTS
ORANGEADE EXTRACT (FOR ICES, SHERBETS AND PUNCHES)
CONCORD GRAPE EXTRACT (FOR ICES, SHERBETS AND PUNCHES)
VANILLA COMPOUNDS
VANILLA EXTRACTS, PURE
MARVEL PURE VANILLA BEAN EXTRACT
VANILONG
WALNUT FLAVOR
MAPLE COSCO CONCENTRATED
PINEAPPLE JUICE
QUINTOLS
EMULSIONS

COLORS

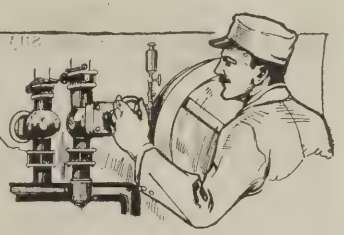
LIQUID CERTIFIED COLORS
CERTIFIED DRY COLORS
CARAMEL SUGAR COLORING
BUTTER COLOR ANILINE
NEW YORK ICE CREAM COLOR

TRUE FRUIT PASTES
CERTIFIED PASTE COLORS
MARSHMALLOW TOPPING
COCOA
BUTTERSCOTCH SUNDAE
CARAMEL SUNDAE
GELATINE
CITRIC ACID
GUM, PURE INDIA, POWDERED
ICE CREAM POWDER
SOLUBLE SKIM MILK POWDER SPRAY
KREMOLIN R. ICE CREAM RIPENER AND BINDER
VANILLA BEANS
VANILLIN
COUMARIN
GLYCERINE
TARTARIC ACID

SODA FOUNTAIN FRUITS AND PRIVATE LABEL MARSHMALLOW TOPPING FOR JOBBING PURPOSES

CP Mechanical Refrigeration

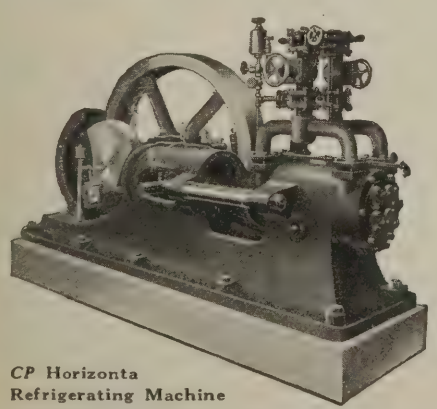
The Modern Method of Maintaining Uniform Temperature



For Ice Cream Freezing, Hardening and Storage

IN NO other field does ***CP*** Mechanical Refrigeration prove more valuable. It is more economical than natural ice for it requires less space and fewer men about the plant. Ice can be made on the premises with the ***CP*** System for icing tubs, cabinets, etc., at very low cost.

The ***CP*** Mechanical Refrigeration plant is strictly sanitary as dirt is confined to the boiler room and slop to the wash room away from the rooms where cream is frozen, hardened and stored.



CP Horizonta
Refrigerating Machine

CP Refrigerating Systems can be supplied in all sizes ranging from ¾-ton up with either horizontal or vertical compressors and driven by belt, direct motor drive or direct Corliss engine drive as desired. Send for free ***CP*** Refrigerating Machine catalogue.

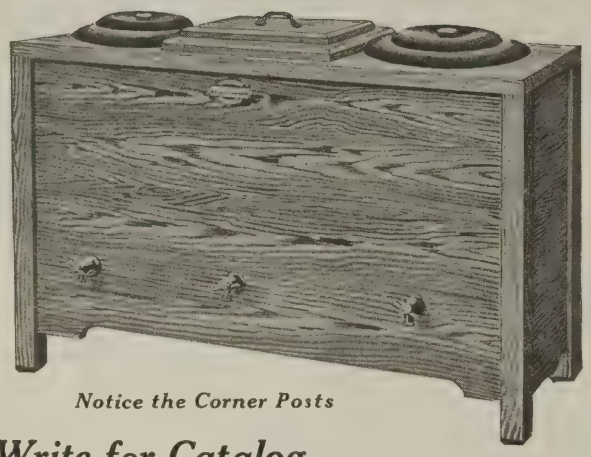
The Creamery Package Mfg. Company

SALES BRANCHES—(Write to Nearest One)

Chicago, Ill., 61-67 W. Kinzie St.
Boston, 138-140 Washington St. N.
Buffalo, N. Y., 133-137 E. Swan St.
Kansas City,Mo., 1408-10 W.12th St.
Minneapolis, Minn., 318-20 3d St. N.
Philadelphia, Pa., 1907 Market St.
Portland, Ore., 6-8 N. Front St.
San Francisco, Cal., 699 Battery St.
Toledo, Ohio, 119 St. Clair St.
Waterloo, Ia., 406-8 Sycamore St.
Omaha, Neb., 113-15-17 So. 10th St.

SELECT QUALITY FOR SERVICEABILITY IN TUB COVERS.

Brooks Cabinets



Notice the Corner Posts

Write for Catalog

Gives full information and illustrations of latest models in Tub, Metal Lined, Brick and Combination Ice Cream Cabinets, also

Counter Cabinets

Counter Cabinets are made for either Brick or Chocolate Coated Ice Cream. Finished in white enamel. Every Brooks cabinet is perfect in every detail.

Brooks Cabinet Co.

1001 W. 27th Street NORFOLK, VA.

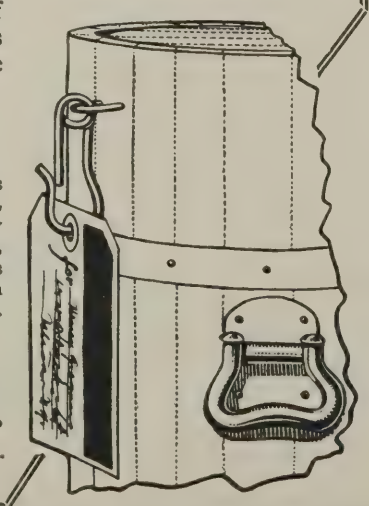
TAG HOOKS
Save Dollars

Why use expensive, untidy, time-losing strings or wires while tagging your tubs or pails of ice cream?

SNAP 'EM ON

and use our rust-proof tag hooks.

SAVE TIME—Figure the cost of strings or wires. Then think of the value of a man's time while tying the tags on your tubs.

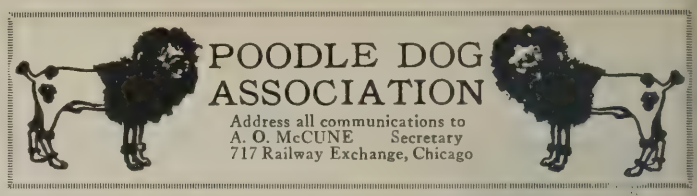


CAN'T RUST

Our new type of hooks are made of SPECIAL SPRING BRASS. They sell at $1.95 per hundred, including staples. Besides a 10 per cent discount in lots of a thousand or more. Samples on request.

DALY BROS.

SCHENECTADY N. Y.



Minneapolis, Minn.

The Ice Cream Review:

Answering your recent letter relative to trade conditions in the Northwest beg to advise that we feel very optimistic over prospects for the coming season throughout the entire Northwest.

The ice cream business in general has been somewhat retarded during April and May due to the extremely cold and rainy weather which prevailed during the better part of these two months throughout the Northwest. However, most of the manufacturers report an increase in May of this year over the same period of last year. The recent increase in the price of farm products has helped the shipping business to the country trade very materially and all of the manufacturers are expecting good business through the summer months and have been preparing or are preparing to take care of the three months' rush of June, July and August by installing additional pasteurizing and aging equipment, also freezing and storage capacity which shows more than anything else that conditions have taken an upward trend and everyone is feeling more optimistic.

All manufacturers both large and small are evincing a greater interest than ever before in modern equipment such as glass lined combined mixers and pasteurizers as well as vats for other purposes. Practically all of the Twin City plants are now completely equipped with Elyria Tanks which is a further indication that all are expecting conditions to continue to improve.

Our sales are normal and prospects for future business look even better than normal. A large number of the manufacturers are installing new machinery at present and quite a number throughout the Northwest have purchased new machinery to go into new plants which will be put in operation even during the midseason, which is a still better indication of the optimistic attitude of the trade in general.

We certainly wish to compliment the Ice Cream Review on its interest in the welfare of the ice cream business as well as the manufacturers who cater particularly to the ice cream trade. We look forward each month to the coming of our "Review" as each issue seems to be even better than the last one and certainly contains a vast amount of interesting as well as useful information not alone for the manufacturer of ice cream but also for the supply manufacturers. You are putting out a wonderful trade magazine and we certainly hope you will continue the good work.

Trusting the above gives you the desired information as to trade conditions in the Northwest, we beg to remain.

D. M. WEBSTER.

* * *

Waterloo, Ia.

The writer calls regularly upon the Northeastern Iowa ice cream manufacturers and if there is a single one with pessimistic ideas, I believe I would know it. With favorable ice cream weather, they anticipate a very good year. Altogether, it might be stated that they are a very much alive class of manufacturers and would be successful anywhere in any line of business.

H. W. WALKER,
Western Rock Salt Co., Kansas City, Ia.

J. B. ANDREWS, President
H. F. WILDE, Manager



Albemarle Creamery Co.

Butter and Ice Cream Manufacturers

706-709 Brown Street

Charlottesville, Va.,

NOTICE!

THIS is one of the many ice cream manufacturers who lets "the picture tell the story."

You, too, should let the picture convey the fact that you sell ice cream.

See the other side for details.

TEMPTING pictures will create more desire for your product than mere words or any arrangement of type!

The picture tells the story. It conveys your business to the reader at a glance. Its attractiveness commands attention and the thorough reading of your letter which you strive for. It creates desire for your product, and makes the reader "sit up and take notice".

You can have this idea incorporated into ***your*** letterhead.—printed in four colors with your firm name and wording along the line of this sample and on the same grade of stock at prices that will interest you.

Only one ice cream manufacturer in each city can secure the use of this distinctive design. You may need a supply before long. Here is your opportunity for something different.

Write for prices.

THE OLSEN PUBLISHING CO.
MILWAUKEE, WISCONSIN



PROF. BAER'S INQUIRY DEPARTMENT

Dear Sir:—Please give me a formula for a 10% butterfat ice cream. I want to use the following: 6% sweet milk, sweet butter, sugar, gelatine and vanilla, 1 lb. of Purity Powders to 100 lbs. of mix. I would like to have this formula for a 100 lb. mix. L. E. P.

Reply: I am glad to refer you to Table No. 1 below, where I have figured out such a mix as you describe for you:

Table No. 1.

Ingredients	Fat	Serum Sol.	Total Sol.
14.0 lbs. sugar	.....	.....	13.30
.3 lbs. gelatine	.....	.....	.27
1.0 lbs. Purity powder	.....	.....	.95
6.3 lbs. 84% butter.....	5.29	.....	5.29
78.4 lbs. 6% milk	4.70	6.56	11.26
100.0 lbs.	9.99	6.56	31.07

You will notice that with the ingredients in your mix you have only 6.5% serum solids and the total solids are also low. You could easily increase the total milk solids so as to make them about 20%. Most of the commercial factories use 20% total milk solids making up the deficiency in serum solids by using skimmilk powder of condensed milk.

* * *

Dear Sir:—I would thank you very much for a good formula for an ice cream mix to be made with cream and not with powdered or condensed milk. M. N.

Reply: I am suggesting below, in Table No. 1, how you could make ice cream, using milk and cream only:

Table No. 1.

100 lb. mix, 14% fat, for 20 gallon mix.

Ingredients	Fat	Serum Sol.	Total Sol.
14.0 lbs. sugar	.....	.....	13.30
.5 lbs. gelatine	.....	.....	.47
85.5 lbs. milk and cream....	14.00	6.36	20.36
Vanilla to flavor.			
100.0 lbs.	14.00	6.36	34.13

Suggestion 85.5

44.0 lbs. 30% cream	12.3 lbs. fat.
44.5 lbs. 4% milk	1.78 lbs. fat.
85.5 lbs.	14.08 lbs.

In order to get sufficient milk solids, namely, 20%, it would be necessary to make the mix test about 14% butterfat. You understand that the percent of cream would vary from day to day and 85.5 lbs. suggested in the table would have to be calculated each day.

* * *

Dear Sir:—We do not pasteurize but simply use raw sweet cream for making our ice cream.

We use 44 lbs. raw sweet cream reduced with skim milk to test 20 per cent butterfat, 7 lbs. cane sugar, 2 oz. vegetable gum mixed thoroughly with sugar, then stir into cream, 2 oz. gelatine with a little water dissolved and stir into batch. Let this age for three hours, add three ounces of vanilla, then freeze. This batch will make ten gallons of ice cream. With this formula we generally mix up one batch consisting of from fifty to seventy-five gallons of ice cream.

If this is not the correct way kindly give us a new formula, stating just what to use, whether or not to use gelatine alone and how to use it. What temperature

Speed Up
Your Brick Cutting Dept. with a "New Era"

Cuts standard ice cream slabs from molds into quarts, pints or any size desired, as fast as the operator can release the ice cream from the molds.

Can be adjusted to cut slices for Chocolate Coated Ice Cream Bars.

Absolutely Uniform

and unfailingly accurate is the "New Era" Ice Cream Brick Cutter. It's simplicity, speed and accuracy.

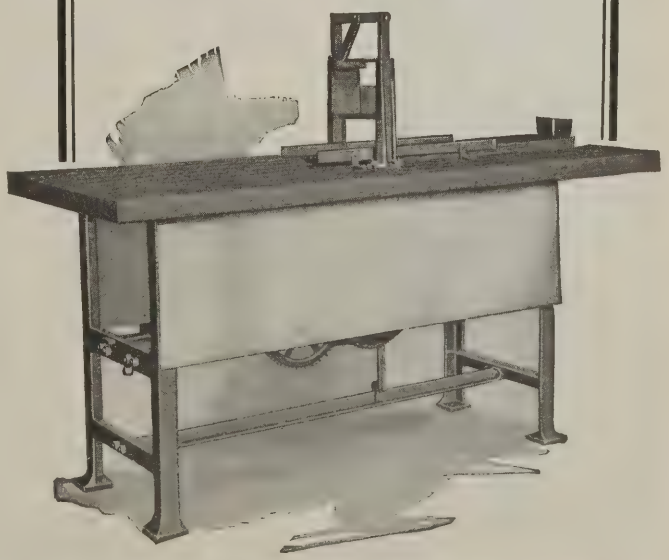
Reduces Costs

Our circulars tell all about this simple, practical machine. Get one.

Write us or our nearest representatives for circular and prices.

Cherry-Bassett-Winner Co., Baltimore, Md. Philadelphia, Pa. Pittsburg, Pa.
Wright-Ziegler Co., Boston, Mass.
J. W. Ladd Company, Cleveland, Ohio. Detroit, Mich.
Meyer Dairy Equipment Co., St. Louis, Mo.
A. H. Barber Co., Chicago, Ill., Minneapolis, Minn.
Davis-Watkins Dairymen's Mfg. Co., Denver, Col. San Francisco, Cal.
G. Lessenhop & Sons, Lincoln, Nebr.
J. G. Cherry Company, Cedar Rapids, Iowa.

The New Era Company
146 Merritt St. Oshkosh, Wis.



should the gelatine be brought to when dissolved, and also when stirred into the batch?

So far we have had no trouble with our cream, except in the spring of the year when the wild onions come up the cream tastes of the onions. Is there any way to overcome this without pasteurizing or any other machinery excepting the freezer? M. C. Co.

Reply: I have analyzed your formula below, in Table No 1:

Table No. 1.

Ingredients	Fat	Serum Sol.	Total Sol.
44.0 lbs. 20% cream	8.8	3.13	11.93
7.0 lbs. sugar	.....	.....	6.65
.25 lbs. gum and gelatine...	.....	.....	.24
51.25 lbs.	8.8	3.13	18.72
Per cent 17.1		6.2	37.2

You will note that you have an extremely rich ice cream, testing 17% butterfat. You have, undoubtedly, been reading over some of the formulas in The Ice Cream Review and have noted that most of the condensed skim milk, butter and condensed milk was used for the purpose of increasing the milk solids not fat where the butterfat content was about 10%. Your formula has a total milk solids content of 23% and you should have, of course, a good quality of ice cream but in my opinion it contains too much butterfat.

If you will let me know what percent butterfat you desire in your ice cream and what you have to work with I shall be glad to figure out a more satisfactory formula for you.

Relative to the use of both gum and gelatine in ice cream, I see no reason why you should not continue to use both although it appears to me that two ounces of gum used along with two ounces of gelatine is too large a proportion of gum. I would sooner use one ounce of gum and five ounces of gelatine. After dissolving the gelatine in a little water the temperature would have to be brought up to about 160 degrees in order to have it stirred through the rest of the batch, especially if this batch was cold.

Relative to the matter of the wild onion flavor which we have in the spring of the year, our experience has been that we can get rid of this flavor somewhat by pasteurizing and aerating. When milk or cream is at a hight temperature the wild onion flavor will disappear. I believe you would have less trouble from the wild onion flavor if you would pasteurize your mix instead of using it raw. Many states now require the pasteurization of an ice cream mix. In my opinion no ice cream should me made from a raw milk, especially where the milk is supplied from farmers in the community. Ice cream cannot be an ideally safe product without pasteurization due to diseases caused by germs which are apt to be in the milk or cream.

* * *

Dear Sir:—We received the analysis of our ice cream mix and tried the one that you gave us. We wish to change our formula in our ice cream mix to sweet cream 30% sweeten-condensed skimmed, 4% milk, sugar gelatine, water, milk powder.

Please give us a formula testing 10% butterfat, 14% sugar and 36% total solids, it would be very much appreciated by us. We make a 100 gallon mix at one time.

R. I. C. CO.

Reply: You stated that you made a 100-gallon mix at one time. I presume that you mean sufficient mix to make 100 gallons of ice cream. This would be a mix totaling 500 pounds, allowing 5 pounds to a gallon of ice cream and I am suggesting below, in Table No. 1, how you could make up such a mix with the ingredients which you stated in your letter:

Table No. 1.

500 lbs. mix, 10% fat, 14% sugar, 36% T. S.

Ingredients	Fat	Serum Sol.	Total Sol.
38.0 lbs sugar	.....	.....	36.10
2.5 lbs. gelatine	.....	.....	2.37
80.0 lbs. sweet condensed ...	.....	21.60	53.60
135.0 lbs. 30% cream	40.50	8.46	48.96
242.5 lbs. 4% milk	9.70	20.69	30.39
2.0 lbs. skimmilk powder ..	.....	1.90	1.90
500.0 lbs.	50.2	52.65	173.32
Per cent 10.04		10.53	36.6

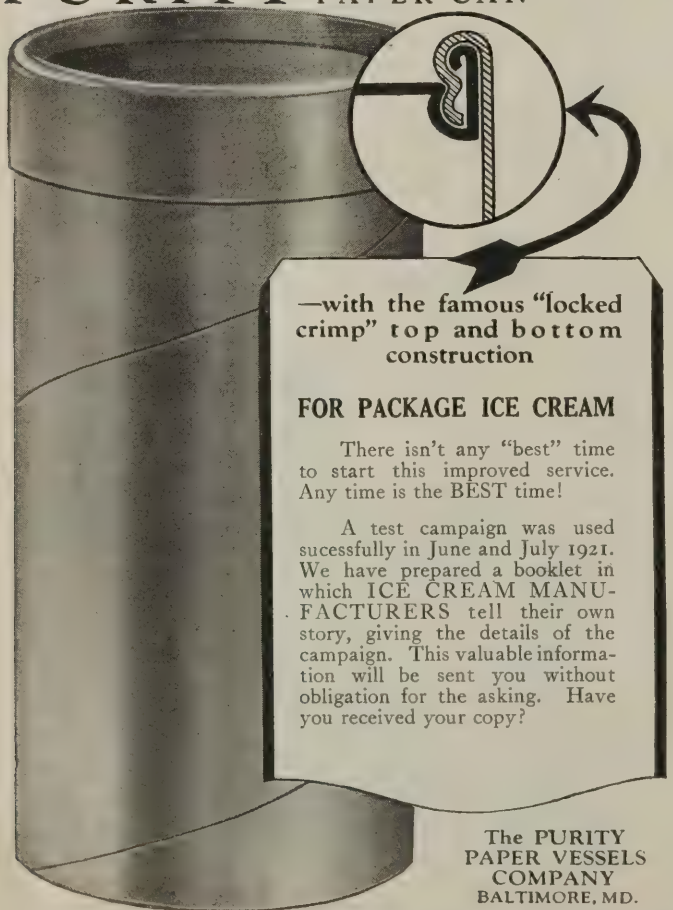
You could, of course, modify this formula by using less than 80 pounds of sweet condensed milk and making up the solids by using more skimmilk powder. Should you desire to do this and not see your way clear to figure it out I shall be very glad to assist you farther.

* * *

Dear Sir:—I wrote you several times for advice in regard to my work in an ice cream plant. I feel myself under a great obligation to you for the help you have given me but I find it necessary once in a while to ask some authority about difficulties which come up in my work.

We are using a mix made up of whole milk, skim powder, sweet butter, sugar, gelatine and flavor. We have milk none of which is over one day old and the other ingredients are all as good as can be bought for ice cream. We viscolize at from 2,500 to 3,500 pounds, pasteurize to 145 degrees and hold for twenty minutes, cool to 130 degrees before viscolizing. Our trouble is that we cannot geth the same results from the viscolizer on each mix. One will come over the cooler thick, vis-

PURITY THE ORIGINAL PAPER CAN



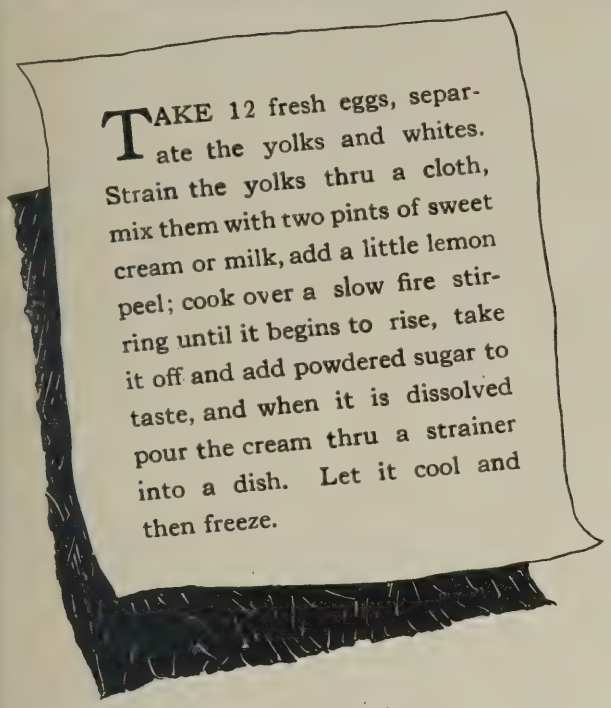
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A test campaign was used sucessfully in June and July 1921. We have prepared a booklet in which ICE CREAM MANUFACTURERS tell their own story, giving the details of the campaign. This valuable information will be sent you without obligation for the asking. Have you received your copy?

The PURITY PAPER VESSELS COMPANY BALTIMORE, MD.



Ice Cream as it was before Washington was President

ALMOST interesting recipe, this, for it is one of the earliest ice cream formulas known, having been made up by Sieur Gilliers in 1768. It is really the begining of what is now a great American industry. Tortoni, Conteau and other ice cream makers of that day have left us a heritage because their product was always good.

The modern manufacturer will safeguard his reputation and business by taking that leaf out of Tortoni's book. And the surest way to be satisfied as to the quality of the milk solids you use in your ice cream is to depend on

The Genuine
Merrell-Soule Powdered Skimmed Milk
MERREL-SOULE SALES CORP.
Syracuse, N. Y.

Crown Fruit Products

Superior Quality

FRUITS & EXTRACTS

for

FLAVORING ICE CREAM

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CROWN FRUIT & EXTRACT CO., Inc.
418-420 WEST BROADWAY
New York City, N. Y.

Dependability!

Careful selection of raw materials, expert supervision and frequent, careful testing during manufacture gives the Manning Batch Mixer a factor of safety never before built into a similar piece of ice cream apparatus.

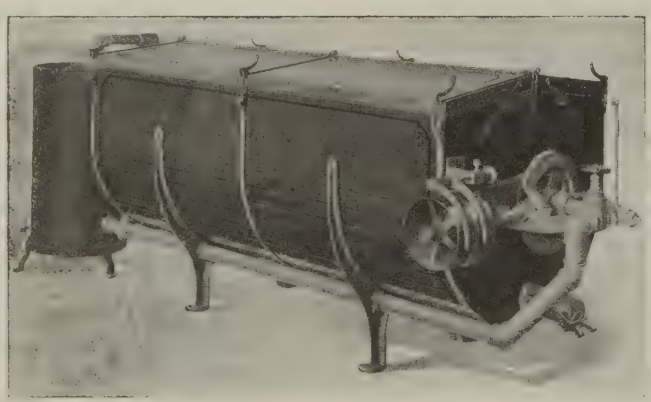
Every coil is tested to 300 pounds hydrostatic pressure. Every machine, upon completion is set up and operated under actual working conditions for two hours.

No faults can escape this minute inspection.

MANNING EQUIPMENT

MANNING MANUFACTURING COMPANY

Rutland, Vermont U. S. A.



The First Cost,— Low as it is,— Is Practically the Last!

cous and as smooth as could be asked for and the next batch will be thin and run, of course, at the same pressure. The valves on the viscolizer have been ground and the machine seems to be in good shape. Please give us any advice you can and any criticism you may find of our methods. D. H. B.

Reply: I cannot see why the viscolizer should be responsible for the difficulties in your mix. The trouble, undoubtedly, is caused by aeration in the physical condition of your mix before viscolizing. This could quite naturally vary from day to day.

It is possoble that your whole milk is the cause of your trouble rather than the viscolizer. I suggest that you work on your whole milk, testing it for acidity from day to day, and also paying particular attention to the pasteurizing temperature of the mix and also to the temperature at which the mix passes through the viscolizer.

* * *

Dear Sir:—We make two grades of ice cream. Our ambition is to make our best grade as pure, smooth and palatable as it is possible to manufacture ice cream, regardless of cost, and would like to have your opinion of ingredients to be used, proportions of same, amount of over-run and process of manufacture.

The materials at our disposal are pasteurized separated cream, testing 40 to 44%, pasteurized milk, condensed skim milk containing 30% solids, cane and beet sugar, maltose and corn syrup, eggs, gelatine, gum and improvers, and pure flavors.

Our equipment consists of a 300 gallon capacity pasteurizer with a working capacity of 2,500 to 2,800 lbs. of mix. The pasteurizers can be heated to 180 degrees. We have storage vats of sufficient capacity to age mix seventy-two hours, steam kettle capacity 100 gals., viscolizer, Mojonnier over-run tester, brine freezers. Brine temperature runs from 0 to 10 degrees above zero, and can standardize it at any degree in between. Storage rooms carry temperature of 5 degrees below zero to 10 above, still air system, climatic temperature ranging from 50 to 70 degrees in the winter and 65 to 80 degrees in the summer.

We want an ice cream that will hold up in our storage rooms for ten days, no limit as to cost, but want quality product.

Would also like to have your opinion of what effect the change of temperature from ten degrees below to ten degrees above and back to ten degrees below have on ice cream. P. M. D. CO.

Reply: I am suggesting below, in Table No. 1, the ingredients for a 100 pound mix which ought surely to make a very satisfactory product for you.

Table No. 1.

100 lb. mix, 20 to 21 gallons of ice cream.

Ingredients	Fat	Serum Sol.	Total Sol.
14.0 lbs. sugar			13.30
.5 lbs. gelatine			.475
10.0 lbs. condensed skimmilk		3.00	3.00
31.0 lbs. 40% cream	12.40	1.67	14.07
44.5 lbs. 4% milk	1.78	3.78	5.56
100.0 lbs.	14.18	8.45	36.40

Of the ingredients which you mentioned you had available the cane sugar is much preferable to beet sugar and is, of course, much cheaper as a sweetener at this time. Personally, I prefer the use of a good grade of gelatine for the filler. If you want to use some eggs, of course, you might do so for certain trade which desires that ingredient. In the commercial manufacture of ice cream, however, eggs are never used.

In processing the ice cream mix it is not necessary

Chocolate Coated Ice Cream and Tin Foil

THEY started out together and have developed into a strong team. The tin foil protects the chocolate coating and keeps the ice cream center firm and cold.

A Conley Foil wrapper, attractively printed in one or two colors, will keep your chocolate covered ice cream bar or Eskimo Pie selling at a lively clip this summer.

It will pay you to get in touch with us at once.

Perfect protection for perishable products.

Distinctive dress for all products.

Conley Foil

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or advisable to heat above 145 degrees. The mix should be held, however, at that temperature for about thirty minutes and then cooled to 120 degrees and passed through the viscolizer, thence over the cooler and into the storage vats.

It is not necessary to age a mix over 24 to 48 hours. After that a temperature of 40 to 45 degrees is sufficient to get the proper smoothness and over-run.

In storing ice cream in a cold storage it is always advisable to maintain a uniform temperature if possible. While 10 degrees above zero would not soften the ice cream, repeated changes of temperature from 10 degrees above zero would not soften the ice cream, repeated changes of temperature from 10 degrees below to 10 degrees above would tend to have some effect on the body and smoothness of cream after held in cold storage five days or longer.

* * *

Dear Sir:—I notice in your formulas in The Ice Cream Review you allow 60 lbs. of sugar to 100 gallons mix. I have been using 100 lbs. of sugar to 100 gallons mix, or one pound to every gallon. Kindly let me know if I am right or wrong. P. A. M.

Reply: I have your letter of recent date referring to a formula which you found in The Ice Cream Review, where 60 lbs. of sugar was used to a 100 gallon mix, meaning by a 100 gallon mix sufficient mix to make 100 gallons of ice cream. Figuring the weight of ice cream at 5 lbs. to a gallon this ice cream would be made from 500 pounds of mix. Allowing 12% sugar, or 12 pounds of sugar to 100 pounds of mix would total 60 pounds of sugar.

If you are using 100 pounds of sugar for 500 pounds of mix you are using 20% sugar which would make a product entirely too sweet. Some of our factories are

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Universal Purifier For the Dairy Industry

B-K has been accepted by the Dairy Industry as the Standard Sterilizing Agent. From farm to factory it is used to prevent bacteria from causing inferior dairy products. Farmers, manufactures, inspectors, physicians, health boards, and dairy schools agree that B-K fills an important need in the problem of maintaining greater purity of dairy products.

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The "STAY-ON" is made right by men who know how, and have studied the requirements of the Ice Cream manufacturer and shipper.

Thats why the "Stay-On" today is the biggest seller, and enjoys the widest distribution.

Get the information from your jobbers' salesman or address below.

Canvas Products Corporation
BOX 66
FOND DU LAC, WIS.

using 14% sugar which would, in this case, be 70 pounds for the 500 pounds of mix.

* * *

Dear Sir: I have enclosed a schedule showing the ice cream mix I am using in manufacturing my ice cream. The ice cream manufactured in accordance with this ice cream mix does not seem to be satisfactory, and I am not able to get 100% overrun. The best I am able to get is 85 to 87% overrun.

I would appreciate your careful analysis of this mix and advise me just what the irregularities may be, as I want to make the best ice cream possible and also to get at least 100% overrun.

I am willing to make any change, or changes necessary in order to improve my ice cream, and I would also appreciate you sending me a table covering what you believe to be the best mix.

I have analyzed your ice cream mix and you will find the details given below in Table No. 1:

Table No, 1.

Ingredients	Fat	Ser. Sol.	Tot. Sol.
150.0 lb. 84% Butter	126.00	.....	126.00
431.0 lb. 4% Milk	17.24	36.85	54.09
100.0 lb. Sugar	.....	.....	95.00
60.0 lb. Skimmilk Powder	.....	57.00	57.00
110.0 lb. Sweet Condensed	.....	29.70	73.70
7.0 lb. Gelatine	.....	.....	6.65
5.0 lb. Vanilla	.....	.....	.75
250.0 lb. Water	.....	.....	.....
1113.0 lb.	143.24	123.55	413.19
Per cent	12.8%	11.1%	37.1%
Per cent sugar	12.9%		

You stated in your letter that you had trouble in getting a satisfactory over-run and that also your ice cream was not just what you thought it should be. It is possible that you could increase your over-run by reducing the serum solids a little bit. It would really not be necessary to use over 8% serum solids with a butter fat content of nearly 18% as you have. Twenty to 21% total milk solids would be sufficient for a good ice cream.

You did not state in your letter just what you thought was the matter with your ice cream mix which resulted in an unsatisfactory ice cream, whether the difficulty was in flavors, or texture of your product. I suggest that you write to me again giving me all the details of handling your ice cream mix, pasteurizing, and any processes you do, length of time you age it, the temperature of your hardening rooms and any other information which will enable me to locate your trouble.

* * *

Dear Sir: The following is our method of making ice cream. We would ask for analysis as to solids, etc., and suggestions for improvements.

Our pasteurizer holds about 50 gal. We use: 30 gal. 20% cream; 8 gal. 8% condensed (unsweetened); 5 gal. 4% whole milk; 50 lb. sugar; 2 lb. gelatine; 20 oz. vanilla powder; 14 oz. meloine.

The first four items are put in pasteurizer first and gelatine (dissolved in gallon of water) and vanilla added just as we are ready to draw off, thus mix runs through emulsifier and then over the cooling coils. When put in cans meloine is added, and let mix set in cool room from 24 to 48 hours to ripen.

We have had no trouble, unless it is that some of our stores claim they can not keep the cream hard enough.

We keep our cold room between 2 and 8 above zero and cream does not get as hard as it seems it should. Wish you would write me giving analysis and sugges-

tions for improvement of mix and also mix that would run about from 12 to 14 per cent butterfat. W. H. S.

Reply: You will find this analysis given below in Table No. 1.

Ingredients	Fat	Serum Sol.	Tot. Sol.
30 gal. or 249.0 lbs. 20% cream..	49.80	17.80	67.60
8 gal. or 72.0 lbs. 8% condensed	5.76	12.96	18.72
5 gal. or 43.0 lbs. 4% milk....	1.72	3.65	5.37
50.0 lbs. sugar.....	.....	.....	47.50
2.0 lbs. gelatine.....	.....	.....	1.90
8.3 lbs. water.....	.....	.....	.....
2.0 lbs. vanilla and Meloine	.....	.....	1.50
425.3 lbs.	57.28	34.41	142.59
Per cents	13.44	8.079	33.4
Per cent sugar.....	11.7		

You suggest further that you want a mix testing between 12 and 14% butterfat. Your present mix is according to this statement just about what you want and I am, therefore, not suggesting another one. I am sure that you should have no trouble in securing a very satisfactory quality of ice cream from your present mix. You will notice, however, that the sugar content of your ice cream mix is somewhat low. Most of our factories are using about 13% sugar. I would also say that I could improve your mix somewhat by using a little more milk serum solids. This could be done by using a little more condensed milk or by using skimmilk powder.

You stated further that you kept your hardening room from 2 degrees to 8 degrees above zero and that the cream did not get as hard as it should at that temperature. You should have your hardeneing room from 0 to 10 degrees below zero as the temperature you are using is hardly low enough to harden your cream as it should and also harden it in a short enough period of time.

⚜

PERSONALS.

S. W. Mendlesen, with A. Daigger & Company, Chicago, breezed in one day recently bubbling over with optimism for which he is famous. He isn't a bit "fussy" about riding in a tin lizzie. We asked him to join us in a spin over to a local ice plant and he accepted with the alacrity of an office boy taking an afternoon off for the circus. "Business is good and getting better" is his slogan.

* * *

John Joslin, one of the fellows who made Minnesota famous for good buttermakers in the days when she won all the silk banners, writes from Greenville, Pennsylvania, where he is manager of the Greenville Dairy Company, that a new 8 ton York ice machine has been added to their equipment. They have enlarged their hardening room and put in a 4 ton ice tank. They are now equipped to handle 1,000 gallons of ice cream, and are counting on a big ice cream business this summer. Friend Joslin adds, "drop in and have a bite." Take a bite yourself, John, its good for you and will put fat on your ribs. Then your old time friends won't know you.

⚜

AT THE PHARMACY.

Diffident Young Man—"I want some Sarah soda."
Puzzled Clerk—"Some what?"
Diffident Young Man—"Sarah soda."
Puzzled Clerk—"Do you mean sal soda?"
D. Y. M.—"Well, you may call it that. I'm not so familiar with it."

Keep your cans on wheels—

the handy, labor and time saving way for handling your ice cream cans. Here's the truck to do it with, **the truck that is built to last for generations.**

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California and Southwestern States Ice Cream Mfrs' Ass'n

Proceedings of Seventh Annual Convention, Held in Stockton, California

(Continued from May issue)

SECOND SESSION—December 6, 1921.

The President: If my watch is correct we are a few minutes behind time this morning—only an hour and twenty-five minutes. We were supposed to have started at 9:00. It is now 10:25.

We have a pretty full program this morning, and there are several talks on the program. We were unfortunate on having several numbers come up minus on yesterday's program. For this forenoon we will have a full program and some very interesting numbers. There is nothing of a miscellaneous nature to take up and we will go right on with the program. The first number is Mr. Walker, and the subject is:

ASSOCIATION STABILIZERS.

Address by Bert H. Walker, Secretary Pacific States Ice Cream Manufacturers' Association.

Mr. Walker: Unfortunately our past president could not get down here. He is our orator and I had to have this down on paper. I could not get away with it any other way.

When I received a wire from your secretary requesting me to come down and say a few words to the members of the California and Southwestern Association, it reminded me of the story of the man who asked a stuttering newsboy where the Union Depot was. After trying for some time to get the words out the kid said "H-h-hell, there are 100,000 people in this city and you had to pick on me." I might be able to think of what I wanted to say after it was all over, but when I get on my feet I feel like the glassware in Doc Capron's room—absolutely empty.

After getting here and meeting so many pleasant people I feel there is a lot of truth in a tale that has been told all over the country by Wynn Morris, when he is called on to speak. A farmer and his wife were entertaining a few of their friends one evening. The men talked over the usual topics of interest, such as getting more for butterfat, etc.—you all know the line—this continued well along into the evening when the host went to the pantry and got a pitcher, of which his wife was very proud, and started for the cellar for some cider. In some way he tripped on the stairs and rolled to the bottom. His wife, quite alarmed, went to the door and called to him, "Josiah, you didn't break my pitcher, did you?" to which he replied, "No, but by gad I will."

Association and Organization are two great factors in everything that goes to make up the business and social world, from the U. S. government to the Potato Peelers Union, and when properly conducted are wonderful influences in obtaining the benefits sought by the individual association. In order to get anywhere you must have co-operation. This must come through constructive leadership. You must have some man in the community who will take the load and carry it through, and he is the fellow who is going to have his troubles, too, but in the end the satisfaction of what has been accomplished will be worth all the effort it has cost.

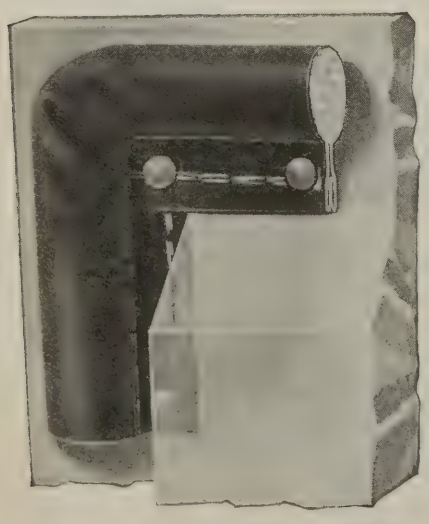
Association Stabilizers, the topic assigned to me, are quite numerous, so I will not attempt to classify them, nor yet to cover them all, but will touch lightly on a few of what we have found most important in building up an association to where it functions for the best interests of its members.

Every trade association that has ever been organized has had to run the gamut of criticism from within its industry; from the Hawkshaw eye of politicians in office who feel they must make secure their hold upon their particular job; and by unthinking persons outside who invariably attribute the worst motives to business competitors who meet together for the improvement of their industry.

The legitimate trade association organized openly and above board, with constitution and by-laws, has been a decidedly helpful factor to the various lines of industry. The one which is harmful is one which has no such safeguards and which governs itself by so-called gentlemen's agreement. These associations result in suspicion being cast upon the legitimate ones.

It is due to associations that so many of the objectionable trade abuses have been abolished and in place of antagonistic feeling existing among some of the trade a friendly spirit and desire to meet and talk over their various problems is the safe and sane course followed.

I might use as an illustration of loyalty, the story of a kindly old Jewish merchant who was taken to the hospital with the small-pox. He was a very sick man and felt he was surely going to die, although the attendants tried to assure him to the contrary. As he persisted in the idea they asked him if they could do anything for



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Peaches, Strawberries, Black or Red Raspberries, Blackberries—all ready for immediate shipment.

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GELATINE IS USED IN ICE CREAM—

(1) As a smoother.
(2) As a stabilizer
(3) To prevent crystallization.
(4) To aid digestion
(5) To increase food value

It is a scientific fact supported by innumerable scientific men, that nothing else on earth has equal value, used as a substitute for good gelatine in Ice Cream.

REMEMBER—The argument that low grade gelatines are just as good as the highest grades is foolish. YOU know it. Use DELFT top quality grades, save money and gain satisfaction.

ASSOCIATION OF ICE CREAM POWDER MEN MEMBER

Harold A. Sinclair

him, to which he replied that he would like to see a priest. They thought this a strange request, and said, "Mr. Cohen, you are a Jew, are you not?" "Why certainly I am." "Well, it seems to us you would rather see a Rabbi." "Father Abraham!" replied the old man, "should I give the Rabbi such a disease?" You see he was loyal and wished to afford his friends all the protection possible.

There are many problems in association work that require tact which is a stabilizer. You are going to discus your problems and I have no doubt you will do so with an open mind, but right there is where one of our troubles comes in. We are not always ready to approach the problems of our own industry free from prejudice.

In Seattle we have a little informal association where the local members meet each week for lunch and thrash out some of their troubles. This is not confined to Seattle, but takes in neighboring cities. This is a means of getting better acquainted and we get at each other's problems. We have committees appointed to take up the work and it brings the men closer together. Still, outside of following general rules, I am a firm believer in the fact that every manufacturer has his own problems to work out, and in his own way, but we can at least adhere to a scheme of dealing fairly with our competitor.

We must respect the other fellow's opinion, too. He is as apt to be right as we are. We must remember there are three sides to a question—your side, my side and the right side. Don't take the view of the old Irish lady who was watching the Bishop in his garden teaching a dog to jump over a cane. She called to another old dame to come over and have a look. "Glory be," said the second one, "but it takes little to amuse the Holy Father." "Sure, that is not our Bishop," said the first one, "that is the Protestant Bishop, is it not?" "Well, well, the d——d old fool."

In your meetings here as well as in business at home you are going to find those who do not agree with you. I know they don't with me, as I had good reason to learn last summer when I inadvertently stirred up a hornet's nest, when, acting under the orders of the president, I sent out a series of letters regarding a line of material being used in an ice cream mix. Still, we can always find a way out gracefully, and reach an amicable conclusion. This can be illustrated by a little story. There was a Jew up in Washington who was sentenced to serve a term in Walla Walla. They don't get many of them there—whether they are too shrewd or too honest does not apply. When this man was brought before the warden, he was asked if he had a trade or profession. He replied, "I can make any kind of a coat, just as fine as you ever looked at." "I am sorry," said the warden, "but the tailoring department is all filled up." "Well," answered the Jew, "I could travel for you." He could see a way out, and I believe you can all do the same thing, but I trust the conditions will not be the same.

We, in the ice cream business, are greatly interested in our State and National Associations, if we are not, we should be. Here I wish to correct an opinion that at one time prevailed, namely, that the Pacific Association wished to consolidate or absorb the California Association to a point where they would lose their identity. As a representative of that association I can assure you this was not true in any way. Those of your members who have attended our conventions will bear me out in this. There is the most kindly feeling for the members of this organization, several of whom are also affiliated with us. As we see it, the state associations should each be in a position to deal with their own local conditions to obtain any real benefits. Your situation in California is different to ours, and to attempt to consolidate would be the same as the Pacific Coast National, and we would lose what we are striving to hold. In other words, we are taking in too much territory. As the man said, when he made the remark that he could lick the whole state of Minnesota—a rap on the nose convinced him of his error. If any manufacturer in any state wishes to come in with our bunch, they are sure of a hearty welcome, and all the hospitality we can extend. I am also sure the same would be true with anyone affiliating down here, but I wish to emphasize the fact that there is no thought or intention on the part of any officer or member of the Pacific Association to merge the entire coast into one concern.

Another Stabilizer is compromising. I remember a few years ago after a session of the Washington legislature when one of the food officials made the remark to a friend of mine, that he was going to see that we all turned out a 14 per cent finished product under the government ruling then in effect—that states not having a law to the contrary, would be compelled to meet it. We got busy and arranged a meeting with the Commissioner of Agriculture, placed our side before him, and asked for an 8 per cent standard. This was taken to the attorney general for an opinion, and he compromised in this manner—while the law had to stand on the books he would not make any prosecutions where we had a 10 per cent product. The next season we got the 8 per cent standard and that was some stabilizer for us—a drop of 6 per cent. Speaking of compromises, you may have heard the story of the Hebrew kid who was crazy over baseball. He used an old pick handle for a bat and a discarded bird cage for a mask—anything to be in the game. Father was too busy keeping the moths out of

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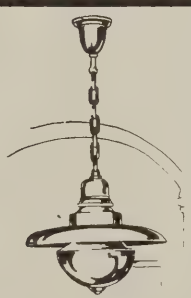
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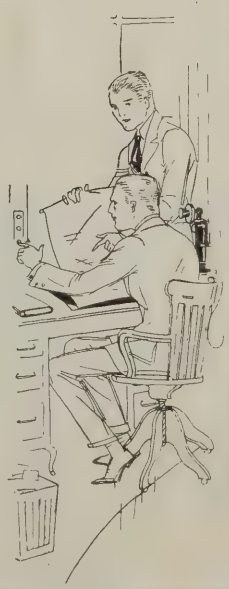




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the clothing, to pay any attention, until Sammy got to be a league player and was getting real money, so one day when they were playing on the home grounds the old man went out to the game and had a seat right down in front. As the game progressed, there were two men out and three on bases, with Sammy at the bat. He soaked the pill across the lot and got to first and started for second, when the man on second got the ball. They kept closing in on him, and you know how much silence there is at such a time—as they were about to tag Sammy the old man jumped up and shouted, "Sammy, for God's sake compromise with them."

You must expect to give service to your association, we all get out of it according to what we give, so you cannot expect to get something for nothing. Don't think you have done your duty if you attend the annual convention, pay your dues and enjoy the program and entertainment furnished by those who have planned for the better part of the year to give you a good time, then you go out on a few parties chaperoned by Bill Hosking or Dudley Dorman, after which you go home and forget about it for another year. Try to stabilize your association by getting some other manufacturer in your section to come in with you. I know some of your members did not have a bed of roses during the last session of your legislature. Did the fellows who carried the load have the full support of the membership? They certainly were entitled to it. They needed that stabilizer, and I trust they got it, for there is nothing so discouraging to the man on the firing line as to have the rest sit back and "let George do it."

Manufacturers are continually confronted with new conditions and from experience will say, that most of them are brought about by people who break into the business who have the idea they can do the impossible, giving service that costs more than they receive for the goods, and lining some little shack with enough cabinets to serve a fifty gallon customer and otherwise "gum up the cards." This is the spot where you need a Stabilizer and need it badly, for there is no harder competition than this class. The salvation of the industry is for the manufacturer who does know his business, to go after this individual and get him in line. This may not be as easy as it looks, for that kind of a bird has an idea he knows it all and is hard to approach. He is naturally suspicious of your motives and will be cold and distant, but in time he may warm up and be a regular fellow.

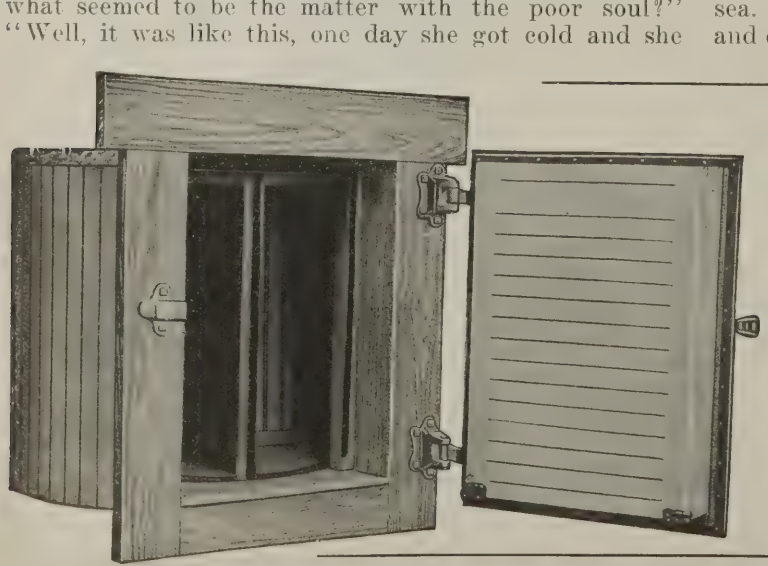
There were a couple of Irishmen met one day who had not seen each other for some time. Casey said, "Hogan, did you hear I lost my wife?" "Indeed, I had not, what seemed to be the matter with the poor soul?" "Well, it was like this, one day she got cold and she kept getting colder and colder until at last she died." They sympathized with each other for a few minutes, when Casey said, "It must be a great consolation for you to know she is warmed through by this time!"

The supply men are a good type of Stabilizer also. They cover a lot of territory and usually keep their eyes open, and their order books handy, but those who really know the game are a source of information for the manufacturer, if he will take advantage of the opportunity. They are good judges of men and conditions, some of them have other qualifications that I will not mention at this time, but if your business has not been up to your expectations the old adage, that misery loves company, comes to your rescue, when he tells you confidentially, of course, that Bill Dreyer is not selling all the ice cream in and around San Francisco, you all know the feeling. I don't have to tell you what it is.

I do not know just what your secretary expected me to say ,or how much, but if anyone is holding a watch on me will say, the ordeal will soon be over. I have tried to bring out a few points that to me seem essential for a successful trade association. I will admit they may be rather disconnected, and you will think I began in the middle and worked toward both ends. In this, I have a perfectly good alibi. Several of the ice cream men know I am a reformed piano tuner—some say, the only one in the U. S. in the ice cream business. In that trade it is necessary to begin in the middle and work both ways, so in this paper I have approached it cautiously in the middle register, seeing no trouble I dropped down into the lower part, then worked up to the thin tones in the upper part, and if you have followed me you will agree I am running out, but I will at least have run true to my early training.

In conclusion, I want to thank those Californians who attended our Seattle convention and assisted us so much. We trust they were not disappointed. If they were, we are double so. We appreciate the membership from this state and hope to see it grow. We will at all times be glad to co-operate with your officers or individual members in any way possible for the betterment of the ice cream industry. I also wish to thank you for the opportunity of meeting with you and to know you have listened to what I had to say without any sign of violence. If I have brought out an idea that will be helpful I will feel well repaid.

I am reminded of a short story that seems to fit the occasion in closing. Two young men had attended the same college and graduated at the same time. One chose the ministry as his life work, while the other went to sea. They managed to keep in touch with each other, and one day it happened the sailor dropped anchor in the



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city where his friend of the cloth was located. During his travels the sailor had picked up a parrot that was quite a fluent talker and he was very proud of it, so took it along when he called on his friend. After the usual greetings the sailor spoke of his parrot. The minister said, "This is quite a co-incidence, as I too have a well trained parrot." They brought both birds into the room where they gave each other the once over, when the minister's bird said in a solemn voice, "What shall we do to be saved," to which the sailor's bird replied, "Pull like hell or go to the bottom." This, too, I believe. is our lesson also. We need concerted work or we too will go to the bottom.

The President: I will be glad to near any question or comments, or discussion on the paper just read. It has been a very interesting paper.

Mr. Swanberg: I would like to make the comment that it is the best thing I ever heard in my life—humor and good sense put together.

The President: I should mention, which you will see on the program, that Mr. Walker is here as a guest of the association representing the Pacific Ice Cream Association, and we certainly appreciate the fact that he has come this distance to participate in our activities and good time here and add to the interest of our program by this excellent paper.

Any further comments or questions that you would like to ask Mr. Walker in regard to their association, or regarding anything germane to the subject? I think I should mention again what I spoke of last evening, don't forget the importance of the round table this afternoon. Anything that is on your mind or that has occurred to you that will be an appropriate subject to discuss or consider at that round table conference; anything that you think would be of interest, or anything that has occurred to you during the past year, or months, or that you would like to hear the views of others on and have discussed, just make a small note of it in whatever form you wish, pass it in to the secretary so that we may have those suggestions or points all in hand before we meet. It will add very much to the results and the good we get out of the meeting.

The next subject on our forenoon's program is the Effect of Gelatine on the Texture of Ice Cream, by Prof. Turnbow of the Dairy Division at Davis. Prof. Turnbow:

THE EFFECT OF GELATINE ON THE TEXTURE OF ICE CREAM.

Prof. G. D. Turnbow, Dairy Division, U. C., Davis, Calif.

Prof. Turnbow: I am frank to admit that when I started out to get information on the subject for which I appear on the program that I knew very little about it. I had some ideas from a practical point of view, but when you get into gelatine, you get into a technical subject and so some of the material may be a little bit theoretical. It will not apply absolutely in every case, however, and I will make that part of it short and I am going to give some information I think that is new to some of us, but probably most of us will make out some of the things I will give you this morning. If there are any questions, I would rather you waited until we get near the end of it.

Gelatine is regarded as an albuminoid but does not come strictly under this classification. It is an artificial derivative of collagen and is formed from it by boiling with water or subjecting to steam under pressure. It is manufactured from bones and hides of animals (cattle, sheep and hogs). It is made up of carbon, hydrogen, nitrogen and oxygen in the following proportions: Carbon, 76, Hydrogen 124, Nitrogen 24 and Oxygen 29 parts. It is a protein and is very easily digested. It is high in food value and it is said that gelatine aids in the digestion and assimilation of casein and butterfat found in ice cream.

Palatability of ice cream is a very important factor in the ice cream industry. The score card used in this contest allows 50 per cent of the total score to this factor. Gelatine is an important ingredient in bringing about palatability, inasmuch as it tends to prevent the growth of crystals (all kinds), and acts as well as a lubricant, in much the same way as vaseline would in a mass of small sand grains, because it forms a coat around each crystal. Both of these factors contribute materially to the smoothness of ice cream. One authority states that gelatine distributes and helps to retain the flavor.

Some manufacturers use gums, such as gum tragacanth, in place of gelatine, claiming that they can manufacture a cream that will stand up much better under hard handling. This may be true under some conditions, but from all information I have gathered, gum is more of a filler and is very questionably a binder. Virginia Experiment Station has done some very good work with respect to gum.

I have prepared a couple of little tables here that I

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would like to show you (placing before the convention two large placards showing the tables copied below):

Table I.

Eight Per Cent Cream—Loss in Weight by Belting of 500 Gram Ice Cream Brick.

Binder	Weight of each brick in grams after melting. 1 hour	2 hours	3 hours	4 hours
Control	454	315	193	119
4 oz. Gelatine per 10 gal.	485	385	281	150
4 oz. Gum Tragacanth per 10 gal.	482	346	218	118

TABLE II.

Nineteen Per Cent Cream—Loss in Weight by Melting 500 Grams of Ice Cream Brick.

Binder	Weight of each brick in grams after melting. 1 hour	2 hours	3 hours	4 hours
Control	475	357	235	122
4 oz. Gelatine per 10 gal.	500	447	354	253
4 oz. Gum Tragacanth per 10 gal.	445	292	151	50

Under Table I the gum tragacanth did not materially increase the hardness of the ice cream. The melted portion when the gum was used, was quite viscous and was not watery like the control.

In the second experiment the same methods were used as given under Table I. Here we find the gum decreasing the resistance instead of increasing it. An increase in fat lowers the resistance to melting in the presence of the gum. The gum tragacanth here increases the viscosity in the melted mix and makes a smooth and slightly higher colored cream.

I have put them this way: In one, ice cream which I call the control, contains everything that the other two did except it did not have any gum or gelatine. The next mix contained for ten gallons, four ounces of gelatine and there is four ounces of gum tragacanth. It was allowed to melt. At the end of one hour everything was weighed and in the case of the control, the one that had no gum or gelatine, weighed 454 grams; the one with gelatine weighed 485 grams, the one with the gum weighed 482 grams. Now, it is true that we had some kind of a binding effect on the ice cream in the control. It weighed a little less and did not stand up quite as long as the other two. However, there is only three grams difference between the next two.

I have heard some manufacturers say that the reason they liked to use gum is because it retarded the melting in the beginning. From this table, this is not the case. After melting one hour the sample containing the gum weighed a little less than the sample containing the gelatine. The sample containing the gum was a little more resistant than the control, showing some tendencies as a binder. You will notice the gum is less efficient than the gelatine. We would have been helped if we had not used any gum at all, because without any gum the gelatin weighed 119 grams, against 118 grams using the gum. We might say even that gum really conducts heat rather than retards it because the heat has penetrated that ice cream.

The President: There is a feature in that chart when I was looking at it before the meeting that it is not clear to me. I would like to call to your attention and have you explain it. The heading there is weight of each brick in grams, showing one, two, three, four hours, as though the weight had reduced, reduced in weight from 454 to 119. Do you count the weight of the unmelted part?

Mr. Turnbow: Yes, that is the unmelted part. The brick weighing 500 grams was placed on a board. First we weighed the board. As it melted we weighed the board.

That is for 8 per cent cream. Maybe now some of you are saying, I expect, "We do not care about that, we do not use gum anyway." That is true, but I know several of them in the state using gum. There were a couple of samples in the ice cream show had gum.

On the other table (pointing to Table II), we have 19 per cent cream, which is impracticable for commercial sale. It is the same kind of mix as the others. The same 500 grams were used, etc., and the gelatine, 4 ounces, at the end of one hour it had been weighed. Notice here, 445 grams against 475. You would have been a lot better off if you did not have the gum tragacanth in it. Notice how much faster with the increased butterfat we get remarkable reduction in the resistance of gum tragacanth. Only fifty grams melted at the end of four hours.

I will probably get in wrong here but really I cannot see any place for any of the gums in the ice cream industry. It does not add to the flavor. It does not add to the palatability and it does not add to the resistance in the melting point. I think I am more convinced that we have overlooked a good bet on gelatine. But I am speaking of certain classes of gelatine now.

Mr. Swanberg: You will get in wrong all right.

Prof. Turnbow: I think so. I am going to assume from here on that gelatine is the only practicable binder. Even then, great care must be exercised in the grade of gelatine used. With the assistance of Mr. Kassebaum, we have conducted various experiments in the laboratory to find a simple but efficient method of determining quality. Roger's Manual of Industrial Chemistry of 1920 states "that the melting point of jelly is generally speaking proportionate to the jelly strength." We worked from this idea and found that a solution of 1.5 grams of gelatine dissolved in enough water to make 100 c.c. of solution. The beakers used were 250 c.c. size and of a diameter of 2½ inches. All samples were heated to 160

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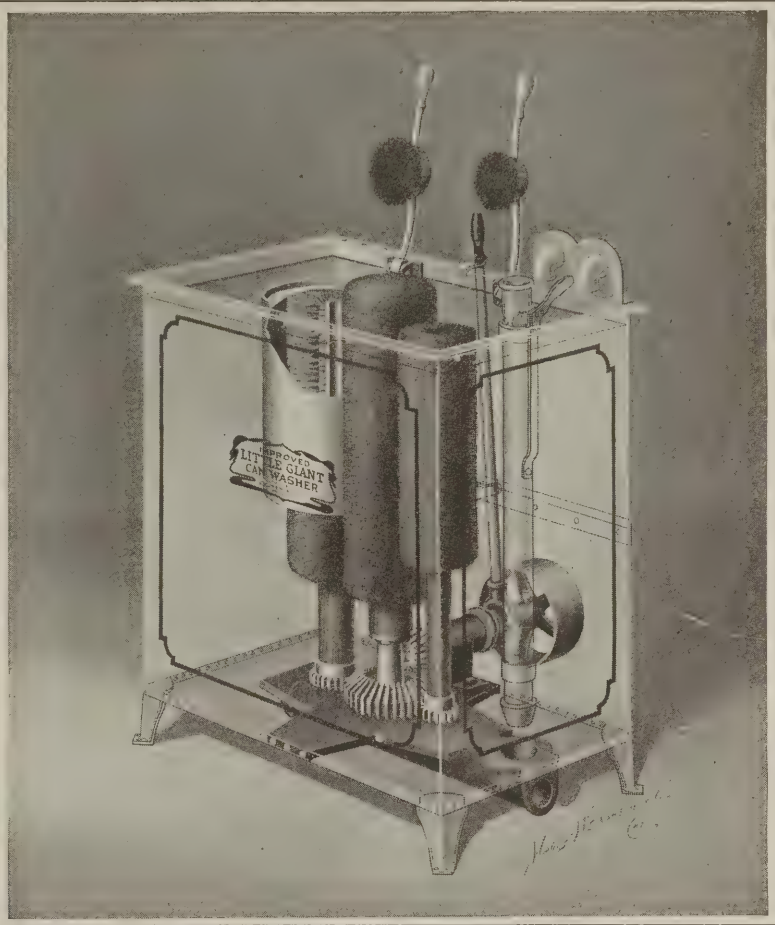
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degrees Fahr. to thoroughly put the gelatine into solution, and then allow to set at a temperature of 50 degrees Fahr. for 24 hours. The better grades of gelatine after going through this test will remain in the beaker when inverted and will have a thick, clear, jelly consistency. The poorer grades will be semi-liquid and in some cases only a viscous liquid will be the result.

I have prepared here in the room some samples. They have only set twelve hours and there is a difference in the body of an ice cream whether it is aged twelve hours or twenty-four hours. That is, an ice cream with a certain amount of gelatine is aged twelve and another twenty-four. You cannot expect the same in ice cream as far as your gelatine is concerned. I have six gelatines here (pointing to six beakers of gelatine which he placed on the table). We wrote to everybody to get these samples. We received stacks of grades of gelatine. We have taken six of them here and we set them last night. Here is a gelatine that was set last night (picking up the beaker and turning it upside down.) You can turn it upside down. Here is another gelatine you can do the same thing to it (illustrating), 1½ grams of gelatine, ½ c.c. Follow me on the gelatine, you cannot tip this over, can you (illustrating wtih another beaker which was practically liquid). Take this one (like water), I can pour it right out. Where is the man from Room 101, he can tell me what that is (laughter), it is all the same thing. I have taken two of the poorer grades, two of the medium and two of the better, there are six of them. This little test can be done in the laboratory, and I will tell you what it means.

The bacterial counts will run in all samples, and in every case the high bacterial count and the low jellying qualities were facts indicating that the above test was a good index to the bacterial count of gelatin. On this sample (illustrating with the watery gelatine) we found 40,000,000 per gram and on this sample we got 7,000 per gram (pointing to the stiff grade), and on this (pointing to the next consistent grade), 7,400 per gram. Seven thousand is the lowest we get in the United States. Notice the rough treatment it will stand (shaking the 7,000 gram beaker violently). To get the same result in your ice cream you would not have to use nearly as much of this (pointing to the best grade) as this (pointing to the poorest). (Resuming paper): Bacterial counts were run on all samples and in every case with a high bacterial count low jellying qualities were found, indicating that the above test is a good index to the bacterial count of gelatine. The strongest jells were of a comparatively low bacterial count. Solutions of gelatine of high bacterial count when incubated gave a putrid odor. These high count gelatines in the original package did not in all cases have an objectionable odor, some being almost odorless. In one case an average count of 200,000 was obtained on a gelatine of very low jellying strength, but the incubated sample contained a predominance of putrefactive organisms.

You know, we talk about the bacterial count of ice cream. I have come to the conclusion that a big bunch of it came from our gelatine. A health officer said to me the other day, "I am going to put a man on to do inspection work. I am going to check the bacterial counts of ice cream to put the quality up." I believe the ice cream manufacturer can do more to keep down the bacterial count in his ice cream by testing his gelatine. In every case, in all gelatines, where we got a strong jell we got a very low bacterial count. I might say this, too, we ran moisture tests on all these gelatines and they varied five, ten and on up, and there is one thing I naturally supposed, the higher the moisture, the lower the jell. Not so, the moisture count is no index to the quality of the gelatine. We checked it up and made sure from other authorities. There are no acids driven off except moisture.

The test I want to get across today is this one test. We run several others and we had a good deal of cooperation in some of them. Beakers containing jells were placed in a water about at 100 degrees Fahr. and the time required for each jell to assume a liquid state was determined. The water bath was kept at 100 degrees Fahr. (near as possible) during the entire time of melting. Great variations were found between the samples. Some gelatines required only six minutes to assume a liquid state and the samples varied from this to 24 minutes for the better grades. The time required to melt the gelatine was easy to ascertain and is a simple test that could be used in any factory without much trouble.

Other samples were prepared and allowed to freeze. The poorer grades of gelatine congealed in about the same length of time as the stronger grades, but the poorer grades formed long spines, much the same as water might freeze in a bucket. The stronger grades formed short, mealy crystals. Moisture tests on the original samples showed that in some cases the weak gelatines contained less moisture in the original package than some of the stronger grades. The action shown by this freezing test, I presume, is similar to what we may expect in ice cream, only not so extreme. In order to protect your quality it is necessary to use a gelatine that will keep these crystals as small as possible.

Through the courtesy of Mr. Seba of the Pure Milk Distributors, we obtained a device for determining the resistance to penetration of the jells. The essential part of this device was a plunger with a cone on the lower end. The entire shaft weighed 300 grams. Five per cent

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jells of 100 c.c. volume were made up in one-quarter pint milk bottles and allowed to set for twenty-four hours at a temperature of 50 degrees Fahr. The plunger was placed upon the jell and the time determined for the cone to penetrate to the bottom of the jell. This method checks with the melting test described above. It is doubtful whether such a test is as satisfactory as the jellying and melting test. However, Mr. Seba deserves a great deal of credit for figuring up this device.

Numerous investigators tell us that "Gelatine retards super-cooling in aqueous solutions by preventing convection. In other words, it tends to hold the water in place so that it is frozen in situ. It is quite likely that in case of the ice cream mix containing the gelatine in a completely gelated stage (aged), the mix is imbued with a greater viscosity and hence there is less chance for convection within the freezer in the presence of the scrapers and beaters."

Mr. Zoller of the Washington Dairy Office, U. S. D. A., conducted a simple experiment in which he concluded that "when a very small quantity of gelatine is added to an ice cream mix it greatly increases the viscosity because of its enormous power of combining molecularly with water hydration or hydratation).

This gelatine here (indicating liquid one), if I left that for twenty-four hours would become a little heavier than that one (indicating the next firmer one). It gets a little thicker. With Mr. Seba's little device, while I am not absolutely sure in this statement, there seems to be a slight drying on top of that gelatine and the penetration starts slowly and then it goes rapidly as it gets down in and in a case like this we would have a very hard time in using the device because we could not record the time to drop the plunger.

That it requires considerable time, at ordinary temperatures, for the gelatine to become completely hydrated or set has been demonstrated. This slow setting of gelatine is very intimately concerned with the desirability of ageing ice cream mixtures which contain it."

Briefly summarizing the effect of gelatine in ice cream, we are safe in saying that if a gelatine of sufficient quality is used it has a desirable effect upon the palatability by producing a smoother and more digestible cream. A cream that is higher in food value and apt to be more evenly flavored, this being due in a large measure to the remarkable protective power of the gelatine on the formation of ice cream crystals. It is questionable whether there is a place for gum tragacanth under any condition in the ice cream industry.

Great care should be exercised in the purchasing of gelatines. There are many grades on the market and there exists a great variation in the quality of the gelatine. The ice cream manufacturer should ask that samples be submitted before purchasing his yearly supply and make the necessary tests to definitely determine that it is of the desired quality. A large enough sample should be submitted so that it can be compared with the purchased quantity.

I have only very briefly covered some of the minor effects of gelatine on the quality of ice cream, and there is left to be done a large quantity of investigation work to adequately furnish the ice cream man the information that he needs with reference to this important ingredient.

The President: Ladies and gentlemen, I want to say that if we had heard nothing during this convention except Prof. Turnbow's talk the convention would have been eminently worth while. It certainly is the kind of a talk and paper that we need.

Mr. Swanberg: I would like to ask a question. Do you suppose that if we lal started in getting the best grade of gelatine that the supply would be large enough?

Prof. Turnbow: Sure, you can force them to it.

Mr. Swanberg: I always understood that the supply and demand regulates the markets of the world. Is there enough, can there be enough made? At present you have supply and demand, but you have to force that. I presume that is the way it runs. Supposing that those who are making poor jelly find they cannot sell it; and so if the ice cream men now are up to date I know they cannot sell it—they can't sell me poor jelly. Can they get enough of the first grade?

Prof. Turnbow: I could not absolutely answer that question, but I think you can. I never heard of a shortage of gelatine, but I think it is up to each ice cream manufacturer to see that he gets his gelatine anyway.

The President: Gelatine is used in so many industries, the volume that is made is so large, it would seem to me that the ice cream people, if they made up their mind to do it, would have no difficulty in getting an adequate supply.

Mr. Swanberg: Thank you very much.

Mr. Dryden: Is it not the concensus of opinion of gelatine manufacturers that what they cannot sell for capsuls they unload on the ice cream men?

Prof. Turnbow: I have heard that said, yes.

Mr. Wilson: Is it your opinion that heating the gelatine over 150 degrees Fahrenheit you do not lose the jellying strength?

Prof. Turnbow: I have heard said that—a good many gelatine men have said that if you heat gelatine above 150 or 160 degrees Fahrenheit you do not get the jellying strength. We have heated those test gelatines at 204 degrees, a little better than 200 degrees and

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we get just exactly the same strength jell as heated at 160 degrees. That being the case I think if I was pasteurizing before homogenizing I would put my gelatine in before it goes through. We have found 145 degrees—I do not figure any man would pasteurize lower than that—we found the gelatine loosened in first class shape. I might say, up at college we are putting our jelly in solution at 185 degrees and then putting it in a mix.

Mr. Dreyer: You would not recommend sprinkling it in the mix?

Prof. Turnbow: We are heating ours up much higher than the ordinary gelatine men tell us to, and in what tests we make, we get the same strength jell and we do get rid of some bacteria at 185 degrees.

Mr. Dreyer: Does it make any difference how you soak it in water and what quantity. I understand one gallon to one pound—that is eight pounds of water to a pound of gelatine, is that the proper proportion?

Prof. Turnbow: I think the manufacturers can answer that better than I can. We are adding cold water to it and we are putting in about one-half enough, to put our gelatine in the dry runs, just so it is almost in solution. Just sort of a semi-liquid state. I am not saying we are right. I have discovered gelatine is a pretty complex proposition. We do not find much about it.

Mr. Wilson: You say, no, by all means do not sprinkle it in?

Prof. Turnbow: Why not, because you put your gelatine in a solution and then that solution will become distributed more uniformly. If I get your point that by dumping the gelatine right into your ice cream when you pasteurize it. We are putting it in solution first. How much are you heating it?

Mr. Wilson: 145 degrees.

Prof. Turnbow: I do not think that is heat enough. The bacterial count in our lowest count was 7,000, which is good, and 40,000,000 per gram in the poorest. I would go as high as I could,—even 200 degrees and then have no reduction in the jellying strength and come nearer sterilizing our gelatine.

Q. We are putting in our gelatine dry. I do not think you have demonstrated any reason why you should not put it in dry?

Prof. Turnbow: How do you heat it?

Q. 150 degrees.

Prof. Turnbow: What is the bacterial count?

Q. 20,000.

Prof. Turnbow: What if you heated it more?

Q. It would probably be lower.

Prof. Turnbow: You can heat it to 200 degrees and you will agree with me that you will kill more bacteria.

Mr. Stiegler: You overlook the fact that the bulk of your ice cream is made of milk products. The bulk of it is made of "B" cream, is it not?

Prof. Turnbow: I am not sure of that.

Mr. Dreyer: Ninety-five per cent is made from "B" cream, from the tests in the southern part of the state. It is impossible to get cream for ice cream with a bacterial count of less than 200,000. That count is a low count for ice cream.

Prof. Turnbow: You understand I am just simply up here to put the question. I cannot answer them. I have my own ideas and I am quite set.

The President: The meeting was to bring out a discussion of this kind.

Prof. Turnbow: What advantage do you have in the dry state over the liquid state?

A. Why, not adding any water, mixing cream and butterfat you get plenty of moisture in your mix without the addition of water, and as far as I can see we get as good or a little better solution of the stuff in that way.

Prof. Turnbow: Maybe you do. I think that is a debatable question. You may be right.

Mr. Wilson: Does the gelatine take hold of the moisture in the mix? Then if you are going to put water in the gelatine beforehand, don't you reduce its ability to do that?

Prof. Turnbow: The amount of water you use is practically negligible. You have, we will say a 36 per cent solid mix. The small quantity of water you add with the large quantity that is in there is very small and you have a surplus in 6-10 gelatine. It will stand up a week if you use that gelatine.

Mr. Dreyer: If the gelatin is sprinkled in on the mix, where the mix is 145 degrees or even 150 degrees, while those particles are dissolving the coagulation and precipitation of the albumen is too severe and not evenly divided through the mix, but if you put it in a solution and then pour it in, it is divided more evenly throughout the mix. I think that is the reason water is used to dissolve it, aside from the fact that you are decreasing your bacterial count.

Prof. Turnbow: Oh yes, Mr. Dreyer just brought out a good point. There you get Mr. Dreyer's point of view. If you are homogenizing you get it fully distributed. Gelatine has a half a dozen different actions in the mix, and all we have been thinking of so far is its use simply as a binder. My idea is to give the gelatine just as good a chance as we can to work quick. Mr. Stiegler, do you add your gelatine after you get to 145 degrees?

Mr. Stiegler: All of it is in solution. Our trouble



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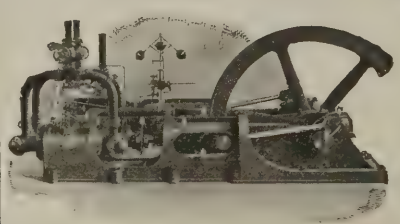
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two years ago was whether you can pasteurize and homogenize and mix with the gelatine in.

Prof. Turnbow: The main thing I want to do is to bring it before you, and I think you ought to bring it out yourself. I tried to get out of this talk but we have worked very hard at it and I am thinking I am apt to be right. We get ice cream from all your factories in from the dealers all the time, and we just watch this ice cream from time to time and know the methods they use. We have formulated our own plans but I am not saying I am right. I would like to see you ice cream men do the work on this.

Mr. Stiegler: Isn't it a fact that gelatine is all about the same composition, or it would not be gelatine?

Prof. Turnbow: Gelatine varies. It gets into such fine figures, so many decimals, it is hard to figure it out. Gelatine contains carbon, hydrogen, nitrogen and oxygen. Carbon 76, hydrogen 124, nitrogen 24, and oxygen 29 parts. It is practically commercially pure.

Mr. Dreyer: I was told by one who had a great deal of experience with gelatine that the proper way to put in gelatine solution was to use one can to eight pounds of water and bring it up not lower than to 185 degrees Fahrenheit and he said to be sure to get the best grade of gelatine that money could buy because if you have a poor grade of gelatine it will not stand that heat. It will destroy the jellying properties of a poor grade of gelatine. I would like to ask Prof. Turnbow if that is true. Will they stand that high temperature?
and as far as we can determine it is just as strong at 200 degrees as at 160 degrees. In the last ice cream trade journal, and the last review when they had all that dope on gelatine, you will see that the different salesmen have written up how to handle gelatine. You will find six different methods of putting up gelatine, six different temperatures and the majority do not heat it above a certain place. They do not agree.

Mr. Dreyer: High heat destroys the poor grade?

Prof. Turnbow: Yes, but I do not figure on people buying that poor grade of gelatine. (Clapping).

The President: Your discussion has dealt with the different grades of gelatine, designating high and poor grades, and your illustration has all been along that line. I want to ask this question, if you have no objection to answering it. Do you find any close relation between the various grades of gelatine as you designate them, the high grade and the poor grade, etc., did you find any close relation between the different grades, as you refer to them and the price?

Prof. Turnbow: No, the old prices, I think we will talk about 90c and 60c gelatine. The 90c gelatines in every case were better grades of gelatine. However, I found some 85c gelatines that fell right near the bottom. The two best gelatines that we got are the two highest priced gelatines and they are pretty close together, but they are different gelatines, and on the lower grades of gelatine they get as much for as they can. I want to say this, that all the gelatine men co-operated, that is 100 per cent. I don't think that if they knew what we were doing they would have come through as they did. In some instances they sent five pounds, and we appreciate it.

Q. I would like to ask Prof. Turnbow in reference to texture. In using high grade gelatine and cheap gelatine, where you would use a larger quantity, what difference do you find in the texture of ice cream.

Prof. Turnbow: The poor grade of gelatine has not the body to hold the crystal. It may partially surround the ice crystal but has not the jellying strength to hold the crystal from growing. If you put sand in, it will give you a seed to start crystalization, and the poor grade gelatine, even in increased quantities, has not the body to hold the crystal small enough.

The President: If there are no further questions we will pass on to the next number on the program.

The President: I am asked that Mr. Walker and Mr. Kugler step forward. These gentlemen are to be arraigned before the tribunal of this convention.

Mr. Dryden: I have been asked on the part of a certain committee of ladies and gentlemen present to have these two gentlemen stand before you. They both of them are from Washington, originally, and they have conspired in every northern ice cream meeting to upset all programs and precedent and they both behaved themselves so excellently here that this committee wishes me to thank them and present them with a little token of our appreciation. (Hands beautifully decorated basket of ribbons, flowers, etc., with cigars and cigarettes in the bottom, to Messrs. Kugler and Walker.)

Mr. Kugler: I just want to say a word. My affections with the two associations are about evenly divided. I go north every year and come down here every year and there is nothing I enjoy more than working with you and doing all I can to help the industry and to make tnings lively.

Mr. Walker: I do not think it is necessary for me to say a word after that. Of course this is my first trip down here and I hope it will not be the last. In fact I am kind of looking for an invitation for next year.

The President: I think there will be no objection to changing the order a little on the program. Mr. Miller has anotner engagement he is anxious to keep and it will accommodate him if we would call for Mr. Miller's paper the next on the program. Mr. Miller.

(To be concluded in July issue)

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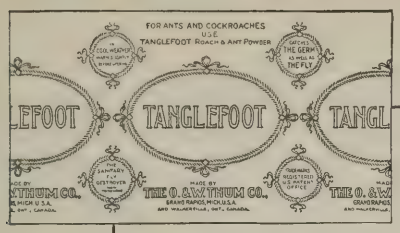


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Newspapers Make Misleading or Incomplete Statements of the Law

NOW that Wisconsin ice cream manufacturers are again beginning capacity production of ice cream, the recent ice cream laws are being given considerable publicity, especially regarding the use of vegetable color in vanilla and New York or New York egg or custard ice cream. Many newspapers throughout the state have contained articles on the subject which were misleading or incomplete. The facts are as received from the dairy and food commissioner, that there is no law dealing directly with vanilla or New York ice creams, but the use of artificial color in these varieties of ice cream is prohibited by the adulterated food law combined with the recent law which defined and standardized ice cream in general.

A part of section 4600 of the Wisconsin law on the adulteration of foods, defines food as follows: "The term 'food' as herein used shall include all articles used for food or drink or condiment by man, whether simple, mixed or compound, and all articles used or intended for use as ingredients in the composition thereof or in the preparation thereof."

It is clearly evident that this definition includes ice cream.

Another part of this section forbids the sale of foods which are adulterated.

Then in section 4601, the law declares when an article shall be deemed to be adulterated within the meaning of the preceding section, first in the case of drugs, which does not concern us in this particular case, and second in the case of food. There are seven specifications in that section as to what is declared to constitute adulteration of an article of food. The sixth specification provides as follows: "If it (that is, an article of food, and in the case we are considering the article of food is ice cream) is mixed, colored, coated, polished, powdered or stained, whereby damage or inferiority is concealed, or if by any means is made to appear better or of greater value than it really is, or if it is colored or flavored in imitation of the genuine color or flavor of another substance, the said article of food is declared to be adulterated."

The Wisconsin Dairy and Food Commissioner holds that New York or New York egg or custard ice cream containing artificial color comes within the terms of this definition of adulterated articles of food.

To determine whether or not ice cream in any given case is adulterated under the terms of the law, it is necessary to know first what ice cream is by the terms of the Wisconsin law. Section 4601-4a states that, "In all prosecutions arising under the provisions of these statutes relating to the manufacture or sale of an adulterated, misbranded or otherwise unlawful article of food, the following definitions and standards for food products shall be the legal definitions and standards, to-wit:

We are now ready to proceed to section 4601-4a (Chapter 331 Laws of 1921) which gives a general definition and standardization of ice cream. It reads as follows: "Ice cream is a frozen product made from cream, or milk and cream, and sugar and may contain added milk solids, added milk fat, eggs, natural flavoring, edible gelatine or harmless vegetable gum, and shall contain not less than 12% of milk fat, nor more than one-half of one per cent of the said gelatine or gum or a mixture of the said gelatine and gum. The volume of the ice cream after being melted shall not be less than one-half the volume of the ice cream as manufactured and sold." That is the product which the Wisconsin Legislature has declared to be ice cream. Therefore, such ice cream, if artificial coloring is added, is an adulterated article of food under the sixth specification of the law defining adulteration.

J. Q. Emery, Wisconsin Dairy and Food Commissioner, in a recent letter writes: "What you call New York custard or New York egg ice cream with added vegetable color is neither specified nor defined nor standardized by the law of Wisconsin but, as before stated, ice cream under the definition quoted may contain eggs. Eggs, when forming a constituant part of ice cream, impart color to that ice cream and New York ice cream so called, is known to be an ice cream manufactured by the use of eggs and therefore the natural color of New York ice cream is an indication of the quantity or amount of egg used in its manufacture.

"We hold that to attempt to manufacture New York ice cream with one or two eggs and ten gallons of mix, with the addition of artificial color to make it resemble genuie New York ice cream made with eggs, comes squarely under the terms of specification six of the general law defining adulteration of foods. The use of the artificial color plainly in this case is to make the article appear better or of a greater value than it really is.

Boxes for packing
ESKIMO PIES
AND OTHER CHOCOLATE COATED ICE CREAM, CARRIED IN STOCK.


Ice Cream Boxes of "Distinction"
OUR SPECIALTY

BRICK BOXES
in all styles
Plain or Paraffined
PAILS
SENATE—EASY CLOSING
JACK FROST
Tape and wire handles
THIS
"CHICAGO" CAN LINER
has many features you should investigate
Send for Samples and Prices
Ferguson-Lander Mfg. Co.
1733-1737 W. Austin Avenue CHICAGO

MERIDALE POWDERED MILK



Meridale Powdered Skimmed Milk is made with a view of retaining the normal flavor of high grade milk.

Meridale Powdered Whole Milk is a protection to ice cream makers especially when the supply of cream is short. In such cases, use Meridale.

39 South Water St. PHILADELPHIA **AYER & McKINNEY** 541-543 W. 22nd St. NEW YORK

Manufacturers of Whole and Skimmed Milk Powder of Quality

DISTRIBUTORS:—Jos. Middleby, Jr., 327-347 Summer St., Boston, Mass. Lee & Saddler Company, Atlanta, Ga. Haines-Carpenter Dairy Products Co. 716 N. 18th Street. St. Louis, Mo. SOUTHERN REPRESENTATIVE:—C. Gibson Ford, 1012 Union Trust Building, Baltimore, Md



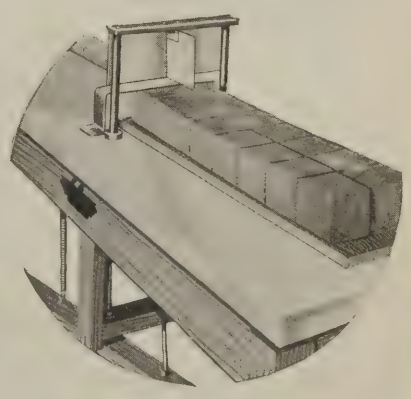
Jiffy Ice Cream Cutter

Will cut any shape that can now be cut with the most expensive ice cream cutter. It will do it just as fast and with only a little practice.

It cuts Eskimo Pies uniformly and the quantity is only gauged by the speed of the operator.

Pints or Quarts require only the omission or insertion of the projecting knife shown in illustration to the right.

Non-rustable table of substantial construction.



Two Weeks Free Trial Offer

To any responsible ice cream manufacturer we will ship one of these cutters on two weeks free trial. Put it to any test. Make any comparison you desire. If not satisfactory all you have to do is to write for shipping instructions and we will pay freight both ways.

Illustrated circular sent on request.

DAMROW BROTHERS CO.

MANUFACTURERS

Fond du Lac Wisconsin

GET THE CORRECT WEIGHT RECORD FROM AN ACCURATE CONTROL.

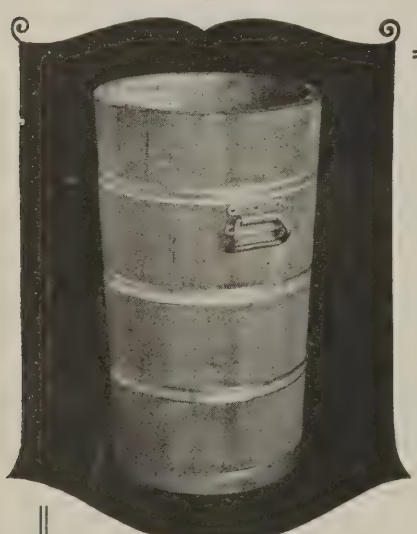
That is, to make it appear as though it was made from eggs when in fact it is not.

"In all this I have considered the relation of what you describe as New York custard or egg ice cream with added harmless vegetable coloring in its relation to and in violation of sub-section six defining what constitutes an adulteration of food. I wish to add, however, that the said article as described by you as we hold is also in contravention of the last part of the third specification as to what constitutes an adulterated article of food, namely, "If i t is below that standard of quality, namely, "If it is below that standard of quality, strength or purity represented to the purchaser or consumer."

The case of vanilla ice cream is exactly the same as that of New York ice cream, except that vegetable color is used in vanilla ice cream for the purpose of giving it a rich creamy color indicative of much butter fat when in reality there is little.

The legislature has defined and standardized some varieties of ice cream and has specifically authorized the use of harmless artificial coloring in certain ones of these, namely, fruit ice cream, nut ice cream, orange ice cream, lemon ice cream, wintergreen ice cream, and maple ice cream. The legislature has expressed its judgment that the use of artificial coloring is those kinds of ice cream would not be fraudulent or misleading.

It may be worthy of note, also, that it is not permissible to use artificial coloring in other varieties of ice cream than those specified even though the manufacturer were to state on his invoice that such coloring was used and the retailer were to put up conspicious posters in his store to the same effect. The Wisconsin legislature has made no such provision and, on the contrary, has emphatically repudiated and turned down a bill containing such provisions.



A New Packing Tub

Built of Douglas Fir, a Pacific Coast shipbuilding timber; selected for its ability to withstand salt water and "stormy" handling.
A dove-tailed, double bottom 2 inches thick; armoured with a 12 gauge, galvanized iron band.
Using the expert knowledge gained from the manufacture of tubs since 1849, the Menasha Tub combines every quality calculated to give it Stamina and Carrying ability.

Menasha Wooden Ware Company

Branch Offices: MENASHA, WIS.
CHICAGO CINCINNATI NEW YORK ST. LOUIS
FOUNDED 1849

VOIGHT BILL PASSES THE HOUSE.

By a vote of 256 to 40 the House of Representatives on May 25th, passed the Voight Bill H. R. 8086. The bill now goes to the Senate.

One slight amendment accepted by the friends of the measure was offered by Representative Towner of Iowa in order to clarify the intent of Congress. Passage of this bill by the House constitutes a great moral victory for the Milk Producers of the nation. The bill, as it passed the House, follows with the Towner amendment underlined:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled. That whenever used in this Act—

(a) The term "person" includes an individual, partnership, corporation, or association;

(b) The term "interstate or foreign commerce" means commerce (1) between any State, Territory, or possession, or the District of Columbia, and any place outside thereof; (2) between points within the same State, Territory, or possession, or within the District of Columbia, and through any place outside thereof; or (3) within any Territory of possession, or within the District of Columbia; and

(c) The term "filled milk" means any milk, cream, or skimmed milk, whether or not condensed, evaporated, concentrated, powdered, dried or desiccated, to which has been added, or which has been blended or compounded with, any fat or oil other than milk fat, so that the resulting product is in imitation or semblance of milk, cream, or skimmed milk, whether or not condensed, evaporated, concentrated, powdered, dried, or desiccated, **and as much is an adulterated and deleterious article of food and when marketed as such constitutes a fraud upon the public.**

.. Sec. 2. It shall be unlawful for any person to manufacture within any Territory or possession, or within the District of Columbia, or to ship or deliver for shipment in interstate or foreign commerce any filled milk.

Sec. 3. Any person violating any provision of this Act shall upon conviction thereof be subject to a fine of not more than $1,000 or imprisonment for not more than one year, or both; except that no penalty shall be enforced for any violation occurring within thirty days after this Act becomes law. When construing and enforcing the provisions of this Act, the act, omission, or failure of any person acting for or employed by any individual, partnership, corporation, or association, within the scope of his employment or office, shall in every case be deemed the act, omission, or failure, of such individual, partnership, corporation, or association, as well as of such person.



NEW FIRM DOING BUSINESS.

The City Dairy and Ice Cream Company, St. Joseph, Mo., incorporated on April first, with capital stock of $20,000, and is now busy manufacturing ice cream. The new firm is only manufacturing a complete line of ice cream but expect to handle other dairy products in the future. They have bought a considerable amount of new machinery and are operating in the building of the St. Joseph Warehouse and Cold Storage Company. C. R. Haas is president and general manager of the corporation, and H. C. Heschman is treasurer.



No man can live with a cow and treat her decently that is not a broader, better man at the end of the year. —Hoard.

Dunn's Celebrated Gelatines

Guaranteed to Comply With all State and National Pure Food Laws

Specially manufactured and blended for use in the

Ice Cream Industry

Also owners of "COX'S GELATINE" in the "Checkerboard Box"

THOMAS W. DUNN COMPANY

546 Greenwich Street, New York

Canadian Office and Warehouse **55 Cote Street, Montreal**

NEW ICE CREAM FACTORY OPENED IN SEATTLE.

With the opening of the new plant of the Velvet Ice Cream Company, Seattle becomes the home of a $200,000 ice cream industry. This new plant is equipped with the most modern and efficient types of machinery for the manufacture of their products, and is an important addition to the city's manufacturing enterprises.

Mr. S. H. Berch, President and General Manager of the company, has been identifed with the manufacture of ice cream for a number of years. He is the inventor of the Arctic Roll, a new confection, the latest in ice cream products. This product is to be put on the market through a campagin of national advertising and distribution.

In addition to the Arctic Roll, this company manufactures the Arctic Bar, the nut roll, Arctic ice cream bricks in various flavors, and bulk ice cream. Mr. Berch has a number of patents pending, both for the invention and for the method of manufacturing his product.

L. J. CHRISTOPHER COMPANY INSTALLS NEW EQUIPMENT.

The L. J. Christopher Company, Los Angeles, have just completed the purchase of six new 100-quart Progress Brine Ice Cream Freezers. These freezers are made by the Davis-Watkins Dairymen's Manufacturing Company. This purchase is the result of a sixty day trial, during which it was found that these particular freezers served the purposes of this company best from a mechanical standpoint, and also for texture, body and overrun of the cream.

Brooks Cabinets



Notice the Corner Posts

Write for Catalog

Gives full information and illustrations of latest models in Tub, Metal Lined, Brick and Combination Ice Cream Cabinets, also

Counter Cabinets

Counter Cabinets are made for either Brick or Chocolate Coated Ice Cream. Finished in white enamel. Every Brooks cabinet is perfect in every detail.

Brooks Cabinet Co.

1001 W. 27th Street **NORFOLK, VA.**

North Carolina Ice Cream Manufacturers' Association

Bulletin No. 8, by A. E. DIXON, Secretary

TRUST all our members received the extracts from the State law regarding the washing and returning of cans. Should you require an additional supply, kindly advise the writer and more will be sent you.

I wish to call attention of the members to a practice made by Dagoes and Greeks where they make a low grade of cream of printing the words "Ice Cream Compound" in small letters placed in an obscure and inconspicuous place at the fountain, and on their windows, etc., label and advertise it as "Ice Cream." This is clearly a violation of the law and works a hardship on the Manufacturers who are endeavoring to comply with the state laws. Mr. Allen promises co-operation in trying to eradicate this evil, and you will please give me the names of anyone in your town making this a practice so I can send the names to Mr. Allen at an early date. Kindly do not neglect to do this, as it is to your interest to assist in this matter.

Recently I had a dream and thought I went to the Ice Cream Men's Heaven and upon entering the pearly gates I found emblazoned on the wall in front of me the following creed of the Ice Cream Customers, and after reading it I said, "This must be Heaven:"

"I am going to give you a standing order for the quantity of Ice Cream I am certain to use every day.

I am going to order "specials" as far ahead as possible by mail. If I have to use the telephone or telegraph I expect to pay the charges myself, and I'll get the message to you in reasonable time before the train leaves.

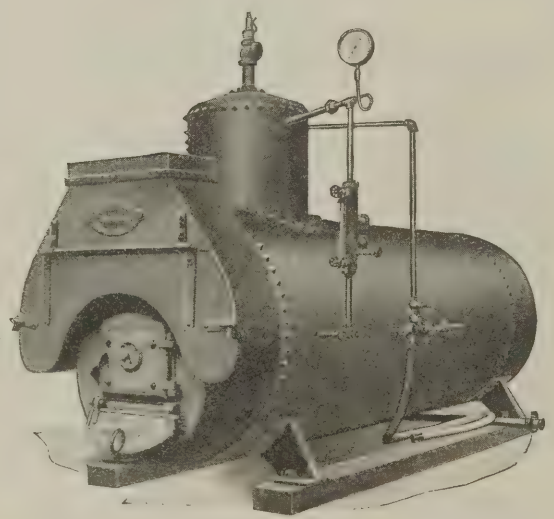
I am going to wash out the cans as soon as they are empty, of course, and I am going to send all empty tubs and cans down to the depot every day when the dray calls with the day's supply of Ice Cream.

I am going to use all the good advertising matter you send me just as if I had to pay with my own money for it.

I am going to talk to people about Ice Cream and sell it—not merely dish it out over the counter.

I WILL PAY CASH ON DEMAND."

(Permission Old Man Pope.)



Before buying a boiler do not fail to investigate the superior merits of the famous

Leffel Scotch Marine Boilers

built in a variety of sizes from 6 H. P. to 100 H. P., and to meet all requirements of the different State Boiler Laws. This boiler meets in fullest measure and most economical and satisfactory manner every requirement of the trade.

This Company also builds Vertical Boilers in sizes of 2 H. P. and larger.

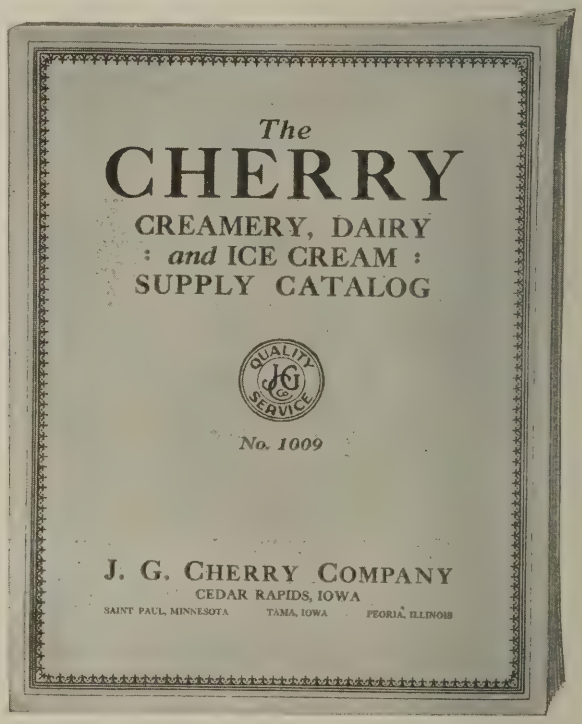
Complete catalog with information of interest and value on request.

The James Leffel & Company

Box 328. SPRINGFIELD, OHIO

NEW CHERRY CATALOGUE.

We are just in receipt of the new 232 page general supply catalogue No. 1009 from the J. G. Cherry Company, Cedar Rapids, owa. It is attractively bound in red, with black lettering, and is conveniently sub-divided into six sections, as follows: Creamery Supplies, Ice



Cream Machinery and Supplies, Dairy Supplies and Equipment, Cheese Factory Equipment and Supplies, Pump Section, Mill and Transmission Supplies.

It appears to be one of the most complete supply catalogues ever published. We are sure the Cherry Company will be glad to mail any of our readers a copy of this excellent book upon request. We believe you will want to have it for ready reference.

FATHER'S CHANGE.

Willie (to his father, who had recently married the second time)—"There's a shop in High Street just like you daddie."

Father—"Shop like me? What do you mean?"

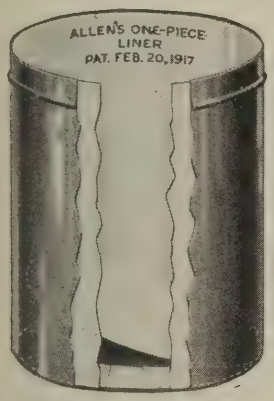
Willie (getting near to the door)—"Why, it's under entirely new management."—Edinburgh Scotsman.

A Letter recently received reads in part:

"The effect of **ALLEN'S ONE PIECE SANITARY CAN LINERS** in our Ice Cream Cans is magical.

Suggestive of Health, Purity and Prosperity, which combined with our own Sanitary Methods of Manufacture insure our product to be Superior to all others.

Our Slogan hereafter will be **A LINER IN EVERY CAN.**"



What an Advertising possibility. Can you afford to miss it?

ORDER FROM YOUR JOBBER OR WRITE TO

The Allen Candy Company

PONTIAC, ILLINOIS

Manufacturers



Custards ***Flavors***

Maraschino Cherry Custard
Mothers Egg Custard

"Acme" Custards	An exact reproduction of the EGG or CHERRY.
Egg or Cherry	Contains all of Nature's delicate FLAVORS and BLENDED COLORS. A delicious Ice Cream of quality distinction. Working sample for 40-qt. freeze, 36 cents.
Bisque Ice Cream	An imitation of the real Walnut or Shelbark with a nutty flavor. Served to social and banquets as a special. Working sample for 40-qt. freeze, 60 cents.
Perfecto *(Trade-Mark)*	A tested smoother of special value in the making of smoothe and tough Ice Cream. Never fails to give satisfaction.
Concretes	Orange and Lemon Concretes are made from the finest fruits that grow in Northern Sicily.
Extracts *(Non-Alcoholic)*	36 different kinds of fruit extracts. Special blends of Vanilla.
Colors	Certified colors of all shades, highly concentrated.

ACME EXTRACT & CHEMICAL WORKS

Extracts HANOVER, PENNA. ***Colors***

PACK YOUR ICE CREAM IN THE RIGHT KIND OF CANS.

FINE NEW ICE CREAM PLANT FOR LOS ANGELES

With the completion of the Globe Ice Cream Company's new plant, Los Angeles can boast of one of the finest ice cream factories in the entire country.

The size of this plant is 148 by 276 feet, and is two stories high. It is of first class construction, and is a strictly fireproof, sanitary, daylight factory throughout. The windows start at an elevation of 12 feet from the sidewalk and extend to within two feet of the roof. The foundations and steel work in the present structure are placed so that they will carry the additional load of two more stories should it be necessary to add them. The plant is equipped throughout with Davis-Watkins machinery. No expense has been spared, either in construction or equipment, to make this one of the most modern, efficient plants in the country.

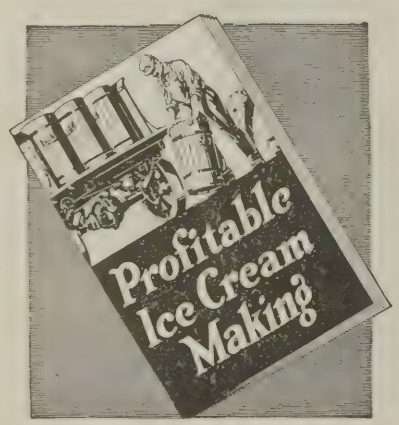
The plant has a daily capacity of 12,000 gallons of ice cream, running one shift of eight hours. Both bulk and brick ice cream are being made, and in time ice will also be manufactured. At the present time, since working from February 1st, a yearly gallonage of approximately 400,000 gallons is under contract. This in spite of the fact that the new plant is not yet open.

This company is capitalized at $357,000. The officers are Will E. Keller, President; A. A. Comey, Vice President; Marco H. Hellman, Treasurer; and J. M. O'Brien, Secretary. The plant will be under the management of Mr. Comey.

Deliveries will be taken care of by a large fleet of Walker electric trucks, all equipped with refrigerator bodies. These bodies have a capacity of 350 gallons of ice cream, 6,000 pounds of ice and 1100 pounds of salt.

It is expected that this plant will be open for business on or before June 15th. Many novel advertising features are being planned and prepared, and the present outlook for business is far beyond the original expectations of the company.

This Book Tells How



HOW to cut down your percentage of solids fat and at the same time improve the quality of your cream — when and how to most successfully use cream, sweet butter, condensed milk or powdered milk — how to make brick ice cream without redipping — how to increase your overrun — most successful brine temperatures — best methods of using gelatine — proper sugar proportions in relation to quality and overrun — savings and improvements possible by correct use of ripeners.

These are just a few of the subjects covered in Mr. Thomas' "Profitable Ice Cream Making." Page after page is devoted to this kind of valuable, profitable, useful information. It is a book that you cannot afford to be without. Order yours now.

The price is only $1.00 postpaid

J. G. Cherry Company
Dept. 301
Cedar Rapids Iowa

ILLINOIS ASSOCIATION OF ICE CREAM MANUFACTURERS.

Extracts from Bulletin No. 27.

Some time ago the American Railway Express Co. filed a petition with the Illinois Commerce Commission for permission to put into effect on intrastate shipments in this State, Official Express Classification No. 27, advancing the estimated billing weight on 5-gallon shipments of Ice Cream from 100 to 115 pounds.

The matter came on for hearing before the Illinois Commerce Commission in Chicago on November 17th.

This Association strenuously contested the application of the carriers for this increase, and we are now advised that the Illinois Commerce Commission has denied the advance. Therefore, on intrastate shipments in Illinois, the billing weight of a 5-gallon packer of Ice cream remains on the old baisis—100 lbs.

The Express Company has been directed by the Commission to publish an exception to their classification in accordance with the ruling therein referred to.

The foregoing again illustrates the value of this Association to Ice Cream manufacturers in this State. Had the advance been granted the carriers—which would undoubtedly have been the case had not the contest been made by this Association—your experience would probably have been the same as that of manufacturers in states where the 115 lb. weight basis is in effect on intrastate shipments: approximately 50% of your shipping business would have been lost to you.

As you are of course aware, it costs money to handle cases of this kind. A special appeal is therefore made to those in arrears to pay their dues at once in accordance with bill enclosed. We need money to carry on our work, a typical instance of which is the case herein referred to. Please send check by return mail.

ICE CREAM MANUFACTURERS CONSOLIDATE.

The Ellensburg Produce Company and the Bradner Company, both creamery companies of Ellensburg, Wash., were recently consolidated under the name of the Ellensburg Creamery Company. Mr. Hull, manager of the Ellensburg Produce Company in Seattle, completed the plans of the transfer. In the past both local plants were subsidiary plants of larger Seattle companies. Under the new organization the Ellensburg Creamery Company is a separate corporation, managed locally but with the advantage of having a big Seattle concern to take any surplus products and making it possible to manufacture locally the entire cream output available.

All the interests of the two companies in this valley are taken over as one and the consolidated plant will be operated in the building formerly occupied by the Bradner Company. The best and most up-to-date equipment of the two plants will be installed in the plant and the older equipment will be disposed of.

George Bales, former manager of the local plant of the Bradner Company, is to be manager of the new Ellensburg Creamery Company.

J. M. Amundson, who for the past year has been manager of the Ellensburg Produce Company plant, has purchased a creamery outfit and expetes to open a new creamery in some other locality in the near future.

WILL YOU HAVE A LARGE OR SMALL FREEZER?

(Continued from page 70)

planation, as what is a better overrun to one manufacturer may not be to another. I presume you mean a greater overrun which is universally accepted as better overrun. However, from the point of view of body and texture and economy in dipping, the better overrun is the lower overrun and it is sometimes a problem for the freezer operator to keep down the overrun rather than increase it. This is too often the talking paint of the freezer salesman—that his freezer is able to produce a high overrun—leastways, in our estimation. He might better lay stress upon the fact that the overrun is more evenly controlled.

If a 40 quart freezer will do the work as well, it is logical to assume that the manufacturer must consider the expense involved in purchasing his freezers as well as the overhead which they carry. In our estimation, it is better to work a 40 quart freezer overtime during some of the warmer months than to have twice the capacity stand on the floor idle during the winter months. The fact that there is a saving in floor space, motor power, labor, etc., is all very true but there are other considerations, as above mentioned, and undoubtedly many more.

* * *

Just a Mighty Good Reason.

Reply:—There are reasons; I suppose every manufacturer has a different opinion. My reason is that we have installed a 15 ton compression, new hardening rooms, batch-mixer, and various other improvements in our plant this last winter at an expense of nearly $9,000, and as we are in the habit of not doing anything unless we are sure of carrying it through, we had to forget about the freezers for the time being.

Our plant is an up-to-date, sanitary ice cream plant; our freezers are not so very old and they still give good service. When winter comes around again, and we are not closed up by the court, we will install new freezers. We realize what these new freezers mean to the business, but it takes money to pay for them.

* * *

Use Larger Machines When Old Ones Wear Out.

Reply:—In our case I am frankly stating that our only reason is that our machines at present are comparatively new and we do not feel that we can go to the added expense and change over a perfectly good machine for one that, in our estimation, will not warrant this additional expenditure. Should our machines get in such shape that it would be profitable to buy new ones, we would not hesitate at all to buy the larger type machines.

* * *

Larger Machines Being Installed.

Reply:—We do not think that many large manufacturers who are purchasing new equipment are putting in 40 quart freezers except in some cases where they feel that the smaller size machine is better adapted for the manufacture of brick cream, due to the fact that it does not take so long to draw out the batch into bricks as it does with a larger machine, and where the larger machine is used, there is considerable additional "swell" towards the end of the batch, due to the continued beating it receives.

* * *

Reply:—Answering your letter of May 20th asking why the Ice Cream Manufacturers stick to the old type of 40 quart freezers. I will say that I did not know that they did in general. We are using a battery of forty quart freezers at the present time but when these wear

Make It Better—

Make It With ESSEX

MAKE it with Essex and make it a better ice cream; better for the youngsters because it is more easily digested and assimilated, and better for the grown-ups, too. Make it with Essex because Essex is economical. With a minimum quantity used per batch the texture and grain of the ice cream is finer, without loss of body; which is economy based on cost per pound. Make it with Essex because the uniform quality prevents variation in the ice cream. Make it with Essex—because Essex gelatine is absolutely pure, sweet, odorless, wholesome. Shipments can be made from Boston, New York, Philadelphia, Chicago, St. Louis, San Francisco.

Essex Gelatine Company

Manufacturers

40 No. Market Street
Boston 9, Mass.

Boston New York Philadelphia
Chicago St. Louis San Francisco

Member Association MEMBER Ice Cream Supply Men

out we will replace them with larger freezers. We have one 60 quart freezer now and same gives us just as good results as a 40 quart size.

* * *

Forty Quart Freezers Do the Work.

Reply:—We are told that the large type does the work better and more satisfactorily, with numerous reasons, claiming to produce a more velvety product and a better overrun. Do we know this to be true? We have just been told.

We have never had any experience with any other freezer then the 40 quart freezer. Our freezers are producing cream as good as any on the market. Our machines yield just what they are supposed to.

Why should we want for any other.

* * *

Doubtful of Advantages.

Reply:—Your question is the best inducement I have seen yet to encourage the use of the larger size freezer. I intended to buy one of the large size, but the salesman did not say that it made better ice cream, larger overrun, saved in motor power and labor, but he told me they were not very successful yet and that one firm had bought the third drum for replacement inside of one season on a single freezer of the large type.

* * *

No Advantage in Large Machines.

Reply:—I am using forty quart freezers and I believe that there is no advantage in using a large machine at this time when our business is gradually developing into a specialized one.

* * *

Prominent Supplymen's Opinions.

The best way for me to answer your question is to enclose you a series of carbon copies of letters from satisfied users of the larger typed machines.

The qualifications specified in these copies particularly apply to overrun and quality which are both the important factors the manufacturer is interested in; as regards the other economies, they are self-evident, viz: Motor power on 120-quart machines, 7½ H. P. Motor power on its equivalent in 40-quart machines, 9 H. P., an economy of about 16% in power; difference in first cost of 120-quart machine and its equivalent in 40-quart represents an economy of 25%.

Space occupied by 120-quart machine, 11x6 ft. its equivalent in 40-quart 12x5 ft. over 50% saving in space. As regards up-keep, the larger typed machines are of a heavier and sturdier construction and cuts the up-keep fully 50%, thus reducing the possibilities of break-down.

Regarding labor, one man can take care of two of these machines with ease, whereas it would take two men to look after its equivalent in 40-quart machines.

The testimonials referred to above are as follows:

We are now using three 120 quart freezers going on the second year. We are very well pleased with their performance in all ways.

They freeze in same time as our 40 quart freezers. Jackets keep tight even with our 20 degrees below zero brine and we are particularly well pleased by the manner in which they empty themselves without squirting all over.

* * *

We have used one of your 120 quart freezers all season and must say we are very well pleased with it. It produces a good overrun of smooth, velvety ice cream and in the same length of time it takes to turn out a batch with a 40 quart machine.

* * *

It is a great pleasure for us to say that we are getting much satisfaction with your freezers. We are now using five of them; they are easy to operate, and with brine at a temperature of zero to 4 below zero Fahrenheit, we freeze a batch (120 quarts) in 12 minutes.

* * *

A Variety of Reasons.

I can think of several reasons why the manufacturer of ice cream might prefer a 40-quart freezer, or a battery of 40-quart freezers to fewer unites of a larger capacity.

If his gallonage is not sufficient for more than one large capacity unit, using more units of a smaller capacity is insurance against a general tie-up in his plant because of any single unit's failure to perform. A one legged dog with an injured foot can only crawl, while a four legged canine may have one or even two injured feet and still chase a cat.

Then, too, there are men so highly satisfied with the performance of the smaller units, that they refuse to be convinced that the larger units are as practical and efficient in their operation as the smaller sizes. Just as, a few years ago numerous ice cream manufacturers insisted that the old fashioned upright freezer produced a better quality of cream than the horizontal brine type. Please understand that I am not agreeing with the man who holds this prejudice against the larger units, but simply answering the inquiry which your letter contains.

There are men, too, whose conservatism prevents their disposing of equipment which has only partially outlived its usefulness in favor of more expensive equipment because of an old fashioned prejudice against borrowed funds, or because of their failure to see the economy of investing in new equipment of any kind while their present machines are operating satisfactorily.

There are many manufacturers of ice cream who are inclined to think that the larger capacity freezers are a fad, bu

The small ice cream maker grins, and the large manufacturer chuckles. They both use *VISCO* in their mix. Read about this latest application of science to your industry.

Send for booklet. **Cherry-Bassett-Winner Co., 1918 Market St., Phila.**

PURE VANILLA EXTRACT

ATLANTIC IMPORTING CO.
617-623 Eleventh Ave., New York City

B4

RETINNING ICE CREAM CANS

Special Department

WE DO REFINISHING of old ice cream cans in a special department of our plant which devotes its entire time throughout the year to doing this one thing and doing it well.

OLD CANS MADE NEW AT LOW COST

And we do know how to fix up your otherwise hopelessly rusty old cans so they will be tight and bright and good as new. IT IS NOT EXPENSIVE and PAYS YOU A DIVIDEND. A can retinned by us has a thicker coat of Pure Block Tin than when new.

SAMPLE CAN RETINNED FREE

This is the time of year to send cans for renewal. Send us a sample can NOW. We will repair and retin it without charge and return it promptly, so you can see the quality of our work. Write us when you ship it, so we will know whose it is, and we will do the rest.

OAKES & BURGER COMPANY

Established 1873 **CATTARAUGUS, N. Y.**

such men are, of course, exceptions, and decidedly in the minority.

There are many manufacturers whose daily gallonage does not warrant a larger unit than the 40-quart size, but we assume of course that the inquirer does not refer to a manufacturer of this size.

* * *

Larger Types in Demand.

I would say that the ice cream manufacturer is not sticking to the old standard 40-quart type of freezer, in fact installations this current season are very much larger upon large capacity freezers, than upon 40-quart machines.

The manufacturers of the U. S. Freezer were pioneers in development and encouragement of the sale of very large capacity machines. No one before had thought of the possibility of building a freezer as large as 160-quart capacity. When this machine was first introduced at the Dairy Show in 1920, the majority of people who looked at it admired its size and sturdy construction, but were dubious about the practicability of such a large unit. However, the experience since then has entirely justified the faith of the manufacturers in constructing a machine of such large capacity. Many installations of this sized machine have been followed with orders for one, two, or as many as eight additional machines.

In this current 1922 season, it is the writer's belief that the 120-quart size has been the most popular seller of the entire U. S. line. Besides that, many sales of 60-quart, 80-quart, and 160-quart machines have been made.

I believe you will see from this situation that the majority of ice cream manufacturers have definitely turned the corner on this proposition, and are replacing their 40-quart machines with larger units.

* * *

Depends Upon Size of Business.

Reply:—On the freezer question, I feel that there is a field for not only the 40-quart freezer but the machine of larger capacity, this governed entirely by the size of the plant, the volume of business handled, etc. The large capacity machine offers some advantages from the standpoint of economy in space, a slight saving in motor-power, a little less initial cost per gallon of capacity, etc., but do not overlook the innumerable smaller plants who do not have the capacity or amount of business to justify installation of the large size machine. From the standpoint of finished product, overrun, quality, etc., one machine will do exactly as good work as the other.

It is my judgment that unless the plant has a volume sufficient to justify a capacity greater than that to be obtained from 5 or 6 of the 40-quart freezers, it is advisable to stick to the 40-quart freezers. A larger capacity would justify installation of some of the larger machines.

The 40-quart freezer has been found more desirable for the handling of brick ice cream work than the larger machine, and observation will show that practically all of the larger plants where the large capacity machines are used on the plain goods, the 40-quart machines are utilized for brick work.

* * *

Satisfactory for Large Cans.

Reply:—It seems that the large capacity freezers, 80-quart, 100-quart, etc., are entirely satisfactory for pulling cream in the 5 or 10 gallon cans. Experience indicates, however, that the large capacity freezer is not quite adapted to filling the smaller cans or slabs for brick work; because of the holding capacity of the machine and the fact that the drawing of the cream is necessarily slowed up considerable over the time obtained in filling the large containers.

B. B. SCOTT,
President,
care Scott Mfg. Co.
Providence, R. I.

Address all communications to
P. N. MILLER, Jr.,
Secretary,
2913 11th Avenue,
Birmingham, Ala.

"A NOTE OF OPTIMISM PERVADES ICE CREAM INDUSTRY,"

Says E. F. Wellinghoff, Director of Sales for the Creamery Package Mfg. Company.

The writer's duties require that much of his time be spent on the road and whether east or west, north or south, careful observation and investigation indicate there is no question about the strength of the ice cream industry.. The leading manufacturers in all sections, are building their business on a solid foundation, indicating their belief in a permanent and successful future.

The feature that appeals most to me of course, is the rapidity with which they are adopting modern labor saving machinery. Large capacity freezers are replacing the 40 qt. machines; jet can washers are rapidly superseding other methods for washing and sterilizing milk cans and packing cans; mechanical refrigeration is everywhere superseding the ice method; and homogenizers are now considered a necessary part of the equipment of very ice cream plant.

Another thing that appeals to me is the improvement in the quality of the goods produced. Most ice cream manufacturers now have vision enough to understand that if they are going to encourage a greater consumption of ice cream on the part of the public they must furnish them a better product.

Competition, of course, is very keen in all parts of the country and in some sections particularly, it seems to be a stimulant to the production of higher quality cream and a greater ice cream consumption. There surely is room for all and the manufacturer who attends to his own business and turns out a good product at a reasonable price, is not going to suffer any from competition. It frequently happens that the greater the competition, the better it is for everyone, for greater effort is made to educate the public to the value of ice cream and hence more ice cream is consumed.

The south in particular is developing in splendid shape. Most of the plants that are established there are well built and well equipped. Of course the south has not been educated to the value and excellence of ice cream as much as has the north, but that will come and those now established in that section have a most promising future.

To sum up conditions as regard the ice cream industry, everything looks favorable to a good healthy growth for the future. Optimism prevails everywhere, quality is being improved, more cream is consumed and the business of today is on a firmer and better foundation than ever before.

Detroit, June 30, 1922.

Editor The Ice Cream Review:

Most ice cream manufacturers with whom I have talked tell me that their sales in May, 1922, are showing a decided increase over May, 1921. In every part of the continent with which I am familiar there has, too, been a large increase in the number of ice cream manufacturers. In some sections there is a marked tendency to "buy" business by giving concessions that are wholly unwarranted. Wherever possible certain types of retail dealers are playing one manufacturer against another to secure lower prices or their equivalent in the way of free cabinets or extra ice, etc.

Two manufacturers in a certain Michigan city deal with these gentry quite effectively by having a thorough understanding between themselves on all these points. When Mr. Dealer comes to one with a tale about the other fellow offering him a lower price or agreeing to pay express, etc., he immediately calls him up, states the charge over the telephone and asks him to affirm or deny it. Mr. Dealer, confronted with the point blank denial of the charge, sees that his little game won't work and doesn't try it any more. They tell me that by this procedure they have practically eliminated concession hunters and each is doing a profitable business. They are not haunted by the suspicion that the other fellow is out to steal trade.



I CALL UP MY COMPETITOR.

I notice, too, that the increasing capacity of ice cream plants and their increasing number is fostering a policy of more intensive cultivation of the territory to get the individual to eat more ice cream, summer and winter alike. It is being recognized that this constructive work is both the most profitable and the most permanent.

C. W. ESMOND,
Frederick C. Mathews Co.,
"Servants to the Dairy Industry."

* * *

New York, N. Y.

Conditions as I have found the ice cream business through the south and southwestern territory past sixty days have been anything but favorable.

There are reasons for this over which no man has any control, the weather is what makes or breaks the ice cream manufacturer and up to ten days ago it had been raining constantly. The past ten Saturdays and Sundays have been rainy and cloudy.

Since weather became settled the business took on a great spurt and, in my opinion, if nothing unforeseen

VISCO costs ten times *less* than any "improvers" on the market. Get the *VISCO* booklet.
CHERRY - BASSETT - WINNER CO., Philadelphia

FANCY ICE CREAM FORMS
(Imported and Domestic)
Featuring
HOLIDAYS
Leaves, W/Stem, Lace Papers
Imported Fruits and Pulps
SCHALL & CO.
81 Barclay St. 16-18-20 W. Broadway
NEW YORK



Patent Applied For

WRITE FOR FURTHER DESCRIPTION

List price **$15.00** *Each*

LIBERAL QUANTITY DISCOUNT.
ORDER A SAMPLE NOW.

A Self Advertising Counter Cabinet

Here is the Cabinet that solves your problem of keeping Eskimo Pies or Individual Portions—

Capacity eight dozen —

Keeps cream hard 36 hours with one icing —

Ice compartment and cream compartment have individual doors —

Cabinet is self advertising. Three sides arranged to carry card signs, and is well worth purchase price for advertising value.

Manufactured by

Virginia Tub Company

(INCORPORATED)

BRISTOL VIRGINIA

FLAVOR YOUR ICE CREAM WITH

Cremilla

"CREMILLA" is better, smoother, creamier and of richer flavor than the finest grade of pure vanilla; and it's more economical.

"CREMILLA" is so concentrated as to make it the best flavor to use with homogenized cream; one-third to one-half oz. flavors perfectly 10 gallons of cream (one to one and a half pints for 500 gallons.)

Trial gallon by express on request. After fair trial, if you don't like it, send back what's left and pay us nothing.

National Fruit Flavor Co.

NEW ORLEANS, U. S. A.



THE TEXAS BARREL COMPANY manufactures the most durable Ice Cream Tub on the market. Sizes in half gallon and up.

Our 29 inch five gallon tub prevents cream from melting at the top. A cream saver.

Specially prepared bottom so constructed as to withstand extremely rough treatment.

CABINET TUBS SPECIALTY

Can make immediate delivery—Write for prices

Texas Barrel Company
HOUSTON, TEXAS

"Simplicity"

is a most essential requirement in a successful refrigerating system for Dairy Manufacturing plants.

Here is simplicity—

York
Refrigerating Equipment



is in a class by itself for simplicity.

Let us show you why. Write

WESTERLIN & CAMPBELL CO.
CHICAGO, ILLINOIS
J. G. HAMMERSCHLAG, *Wisconsin Manager*
1016 Majestic Building Milwaukee, Wisconsin

develops and cold weather doesn't set in too soon, the ice cream business this year will in volume be greater than any year in its history.

The ice cream made in this territory is far superior in quality to any ever made here before. The plants are more modern, and service rendered is excellent.

P. N. MILLER, JR.

* * *

INDICATIONS POINT TO BIG SUMMER BUSINESS.

Just before going to press we received a letter from Chris T. Hollinger, live wire representative of the Hudson Manufacturing Company, which contains such interesting news of prospects for the season's business that we made a special effort to get it in this month's issue.



Mr. Hollinger says in part: "I have been in Texas, Louisiana, Arkansas and Tennessee since Jan. 12th and returned to St. Louis on April 15th. Then I made a flying trip through Wisconsin, after which I left from Chicago for the East, stopping at Washington and in Ohio.

"Prospects seem good for a big ice cream season, and all manufacturers that I have talked to are looking forward to a large output. While prices are very low in nearly every section, all are making a good grade of ice cream. I think prices are too low, quality and service considered.

"Note that the National Ice Cream Manufacturers' Association and the Supply Men are going to hold a big show in Cleveland, Ohio. We are inviting every ice cream manufacturer we meet, and are sure we will have a good crowd."

It looks as if the ice cream business is due for a big boom this summer.

* * *

Conshohocken, Penn.

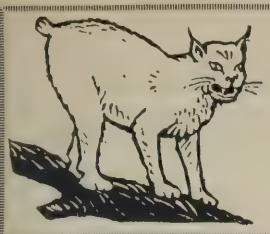
Two or three times we promised to write you a letter and give you some stuff for printing.

It hasn't been our fault that we haven't kept our word. The people we depended on fell down on us, and another plan we had in mind necessitated some personal work on the part of Mr. Hofstetter, who has been sick, and myself, and we simply could not get to it.

If you will notice the advertisement we prepared for the June issue, you will see that we stated, "We are producing more ice cream cans a day than any can factory in the United States."

If we are producing more ice cream cans, we are also selling more, and that means that we are all so busy that we cannot do anything else at this time. It also means that business is good for the Can Department. Thanks to your magazine which has done its share to make this possible.

A. T. SPONAR,
Sales Manager Can Department,
John Wood Mfg. Co.



HOOSIER WILD CATS

President, EDWIN J. SMALL, Indianapolis, Indiana

Send all communications to H. A. STEVENS, Sec'y and Treas. 717 Railway Exchange, Chicago, Ill.

AERIAL ADVERTISING.

The National Baloon Race which started from Milwaukee recently created a big sensation. Newspapers from all over the country printed news of the progress of the race, and in those localities over which the balloons passed a big demand was noted for arnica and similar lotions to alleviate the neck stiffness acquired from unaccustomed position of looking upward. Most of these purchases were made by men, which is accounted for by the fact that since the upward trend of women's skirt styles the neck muscles used in looking upward have grown weak from disuse.

The interest shown in this race proves that air travel is still enough of a novelty to arouse curiosity without much effort. The Morton Salt Company tried out this idea in advertising their product last fall, and the result was successful even beyond their expectations. Mr.



This is the carnvan of the air that the modern salesman uses in calling on customers. Used by H. A. Stevens of the Morton Salt Company.

H. A. Stevens, district sales manager of this company, and also secretary of the Hoosier Wildcats, was the star performer.

The trip was made October 21st and 22nd. Mr. Stevens was picked up, literally and figsratively, at Cairo, Ill., from which point they moved to Metropolis, Illinois, and Paducah, Kentucky, and then back around the Ohio River into the Mississippi, stopping at Hickman, Kentucky, Caruthersville, Missouri, Osceola, Arkansas, finally landing at Memphis, Tennessee. Souvenirs were dropped overboard along the route. Mr. Stevens says that it is trips of this kind that make some of the Wildcats wild.

* * *

Replying to your letter wherein you ask my opinion of general conditions at present and prospects for the future.

Being in the salt business you can readily see that my line is one which would act as a very good barometer by which you can determine what activities are going on among ice cream manufacturers.

(Continued on next page)

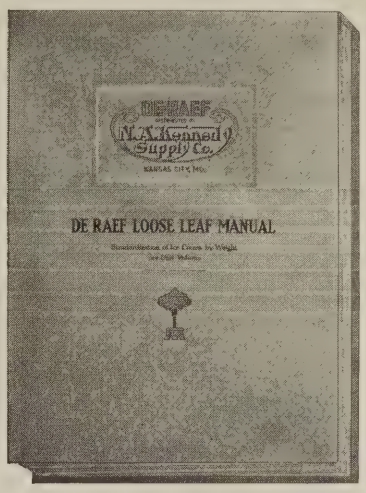
DE-RAEF LOOSE LEAF MANUAL

FOR THE PRACTICAL

ICE CREAM MANUFACTURER

The only manual of its kind published to date devoted exclusively for the Ice Cream Factory

Copyright April 21 1921 Registration No. 618,893



Copyright July 5 1921 Registration No. 620,254

Written in Plain, Intelligent Language for the Practical Ice Cream Factory Manager and Ice Cream Maker from Several Years of Practical Experience Visiting Plants Throughout the States in the Middle West.

De Raef Loose Leaf Manual, circular sent on application to the Ice Cream Department.

Published by

N. A. KENNEDY SUPPLY CO.

KANSAS CITY MISSOURI



Boost Your Sales The Sanisco Way

Extra Business

Awaits the progressive Ice Cream man who lets the fact become known that he can furnish a "SANISCO"—the popular, clean, sanitary and rapid dispensers of ice cream for social events, as

Dances—Parties—Bazaars

Full Details on Prices on Request

SANISCO CO. MILWAUKEE WISCONSIN

ICE CREAM MIX READY FOR FREEZING IS ON THE MARKET.

For the past five weeks a very healthy demand has been in evidence although extravagant buying such as has been experienced in the past is not present at this time. Most manufacturers and dealers that I have talked with feel very optimistic and now that the public generally is being educated and becoming more familiar with the beneficial qualities of ice cream, I venture to predict that with reasonable weather this will be a banner year for ice cream manufacturers.

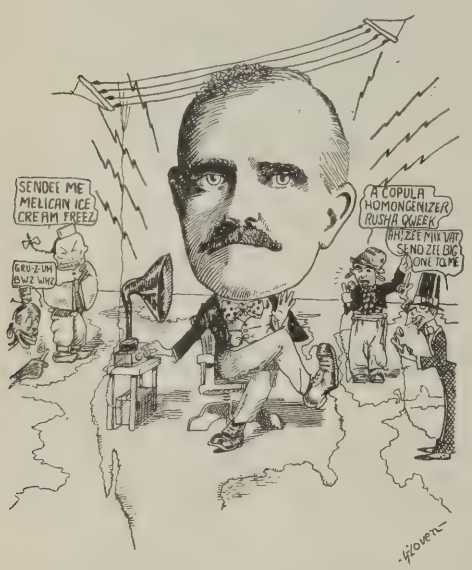
Thanking you for affording this opportunity to express myself, I am,

H. A. STEVENS.

* * *

RADIO NEWS.

Our good friend R. J. Decy, with the Emery Thompson Machine and Supply Co., New York City, tells us that ice cream is becoming so international in character that some of their across seas customers can not afford to take chances with the old-fashioned method of calling their orders for machines, and now resort to the Radio Service in their efforts to expedite shipments. Mr. Decy considers this a very pronounced adaptation of that old American political adage of several decades ago that "American prestige follows the flag."

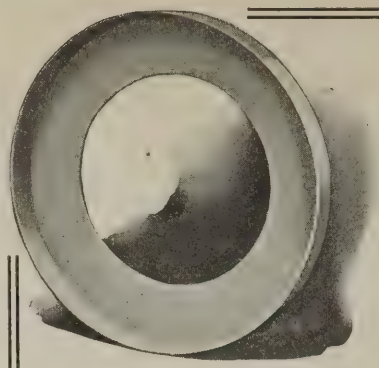




ICE CREAM POPULAR IN AUSTRALIA.

THAT the people in far away Australia do not intend to be outdone by Americans when it comes to eating ice cream is strikingly illustrated by the fact that the J. G. Cherry Company of Cedar Rapids, Iowa, has received an order from Peter's American Delicacy Company of Sidney, Australia, for four eighty quart freezers. This concern has for some time been using four Cherry Model 40 Brine Freezers and their business met with such success they decided to enlarge somewhat. In fact they are making very elaborate plans for marketing a brick ice cream which is entirely new, and for that particular purpose have also ordered a Rogers Brick Maker.

As long as the world does move will women give their husband's pipes for birthday presents and then scold them all the time for smoking the vile things.—"Dynamo."



B. L. R. Re-inforcing Tub Bottom Hoops

"For Ice Cream Tubs"

How Many "Drops" Will Your Ice Cream Tubs Stand?

Government statistics show the average life of an Ice Cream tub to be 150 to 180 "drops." Records kept in several plants where B. L. R. Hoops have been in use show that tubs so equipped will stand upwards of 500 "drops" without loosening of staves or breaking of chimes.

The weakest part of all tubs (the groove or chime) is thoroughly protected and additionally reinforced by the use of B. L. R. Hoops on the tub bottoms.

In ¼" sizes from 14½" up to 18½".
"A B. L. R. Hoop on very tub bottom."

EVANS SPEED-O-STAMPS
INDIVIDUAL ICE CREAM FAVORS
"Just Like Mother Stamping Cookies"



Evans Speed-O-Stamp is a simple device requiring no skill to operate. Just take a brick of ice cream, any flavor, cut 6, 7 or 8 slices to the quart, and stamp the required design out of each piece.

"Just like Mother stamping Cookies."

Sold only in sets of 6 designs — Heart — Shamrock — Masonic — Shrine — Kiwanis — Spade.

Complete set, $27.50

JOHN W. LADD COMPANY

"National Approved Distributors Specialists"

DETROIT CLEVELAND

TEXAS LONGHORNS

President—J. R. KRAMER,
Creamery Package Mfg. Co.,
Dallas, Texas.

Secretary—J. B. HUFF,
Prail-Huff Co.,
Fort Worth, Texas.



The Ice Cream Review:

I have your favor requesting an expression of my opinion of general conditions at present and prospects for the future. I have within the past six weeks covered practically all of the Southwest and am glad to give you the status of business in the ice cream and soft drink industry in this section as it appears to me from my experience on this trip.

Weather conditions have been very unfavorable in the entire southwest all of the year. There have been very few days that were warm and dry enough to create any demand for our products. What little favorable weather there has been has consisted of periods of such short duration that business would no more than begin to get under way when it would be checked by rain and cool spells. However, I have noticed that when a day or two of good warm weather does come the trade responds to it to a considerably greater extent than it did last year. I was actively engaged in the manufacture of ice cream last year at this time here in Texas and I keep in close touch with the same plant this year altho I am back on the road for The Warner-Jenkinson Co., with whom I have been connected for the past eleven years. I notice that this plant that I mention does a considerably better business on favorable days this year than it did last year at the same dates. I have inquired among many of my customers and they most all tell me the same thing. This leads me to believe that conditions must be better generally than they were a year ago. I hear less talk about tight money and hard times than I did last year, and also collections are easier. Current accounts are being paid fairly well, altho accounts carried over from last year, of which there are more than usual among ice cream supplymen generally, are being paid very slowly on account of the late opening of the season. Plant managers are buying very sparingly this year, it seeming to be their purpose to hold expenditures down to the minimum, this applying specially in the cases where they are carrying over indebtedness from last season, and if this policy is continued and the customary dry hot weather in this country in July and August prevails it looks as though there may be virtually a complete liquidation of old indebtedness this year, resulting in the industry getting back on its feet and re-established on a firm foundation once more. It is at present still suffering from over-inflation. Too much new equipment and too many new plants, in many instances of much greater capacity than needed, were built just before the bottom dropped out of everything. It takes time to readjust matters to fit these new conditions. A few here and there have fallen in the melee, but most of them are fighting a good fight and will pull through all right.

Prospects for the future look much more hopeful to me that they have for some months past. It looks as though there is a tendency among the trade to stabilize prices on ice cream and there is less granting of concessions such as special advertising, free ice cream, special discounts and such, being given this year than there

(Concluded on page 139)

KOKOREKA

The ORIGINAL
and BEST

VEGETABLE
BUTTER

FOR

THINNING
CHOCOLATE
COATINGS

Write for Free Sample

India Refining Company
McKean & Swanson Sts.
PHILADELPHIA

CHICAGO
222 N. Wabash Ave.

SAN FRANCISCO
203 California Street

ELPAM

(*Imitation Maple Flavor*)

For making MAPLE Ice Cream. A trial will convince you as to its quality and business building qualities.

G. W. Wardrop Co., Inc.
450 BROADWAY BOSTON, MASS.

Powdered Milk Market Report for May, 1922

By Bureau of Markets and Crop Estimates, United States Department of Agriculture.
Prices Paid for Raw Material Delivered During April, 1922, F. O. B. Factory.

Geographic Sections	Whole Milk			Buttermilk per gallon	Skimmilk per cwt
	Price per CWT	Butterfat Basis	Allowance 0.1 p. c. fat		
New England	1.62	3.5	3.8	...	..
Middle Atlantic	1.50—1.71	3.5	4—5	...	20
South Atlantic	1.33—1.70	3.5	4—4½	...	..
E. North Central	1.40—1.70	3.5	4	...	..
W. North Central	1.79—2.08	3.5	3	¾—1¼	..
South Central	....	...	..	...	..
Northwestern	1.33—1.44	3.5	4	...	..
Southwestern	1.24—1.54	3.5	4	...	..

Manufacturers' Wholesale Selling Prices During April.

The wholesale prices given below are based on reports of manufacturers covering actual sales made to jobbers, wholesale grocers, and similar buyers on basis of cash or short time credit with freight included to distributing point in each section.

Prices in the column headed "Range of Prices" are the highest and lowest reported by all firms. Those given under "Bulk of Sales" are the highest and lowest reported by different firms as the "bulk of sales" prices.

Geographic Sections		Whole Milk Powder		Skim Milk Powder		Buttermilk Dried	
		Range of Prices	Bulk of Sales Prices Fresh Goods	Range of Prices	Bulk of Sales Prices Fresh Goods	Range of Prices	Bulk of Sales Prices Fresh Goods
N. E.	Case	60	60	15–33	15–33	9½	9½
	Bulk	26–28	26–28	7½–11	7½–11	7.1–10½	7.35–10½
M. A.	Case	45–60	45–60	15–33	15–33	.....	.....
	Bulk	23–28	23–28	5–11	6–11	5.8–10½	7–10½
S. A.	Case	62	62	15–36	15–36	10½–11.9	10½–11.9
	Bulk	26–28	26–28	8–11	8–11	7.08–10½	7.08–10½
E. N. C.	Case	29–60	29–60	15–33	15–33	9½–12.45	9½–12
	Bulk	18–28	18–28	4–12	4½–12	5¾–12½	6½–10½
W.N.C.	Case	60	60	33	33	9½–12.45	9½–12
	Bulk	26–28	26–28	6–11	7–11	3½–11¼	3½–10½
S. C.	Case	62	62	36	36	.....	.....
	Bulk	26–28	26–28	7¼–11	7¼–11	6.8–11¼	8–10½
N. W.	Case	40–65	40–65	38	38	.....	.....
	Bulk	28–29	28–29	7–11	7½–11	10½–11½	10½–11½
S. W.	Case	40–65	40–65	38	38	9.4–10	9.5
	Bulk	28–29	28–29	6–13	6–13	5–11½	5–11½

NOTE: Bulk goods includes that sold in barrels and drums. Case goods includes that sold in tin containers.

NOTE: Skimmilk powder for export trade was reported sold at 10c per lb. F. A. S. Atlantic Seaboard, and 8c per lb. F. A. S. Pacific Seaboard.

New England (1)—Maine, New Hampshire, Vermont, Massachusetts, Rhode Island and Connecticut. Middle Atlantic (2)—New York, New Jersey, Pennsylvania. South Atlantic (3)—Delaware, Maryland, Dist. of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia and Florida. East North Central (4) Ohio, Indiana, Illinois, Michigan and Wisconsin. West North Central (5)—Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska and Kansas. South Central (6)—Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, Oklahoma and Arkansas. Northwestern (7)—Montana, Wyoming, Idaho, Washington and Oregon. Southwestern (8)—Colorado, New Mexico, Arizona, Nevada, Utah and California.

PLEASE MENTION THE ICE CREAM REVIEW WHEN WRITING TO ADVERTISERS

MILK

Powdered **Bulk Condensed**

FOR

ICE CREAM

We are furnishing particular buyers with milk manufactured according to their specifications. Let us quote on your requirements.

Special Sugar **Special Fat** **Special Solids**

Wire us for price on your requirements for the season. Always in position to make prompt shipments to any point.

McKee-Fulton-Bartel Corporation
261 Broadway **New York**

NOTE:—We furnish either whole or skimmed spray process powder, and bulk condensed either whole or skimmed of fine smooth consistency

The Man Who Increases

ICE CREAM QUALITY INVITES GREATER CONSUMPTION
AND GREATER PROFITS

MICHAEL'S MEXICAN
THE ORIGINAL
VANILLA POWDER
WITH AND WITHOUT THE BEAN SHOWING

"AN INCREASER"

MEMBER — THE ASSOCIATION OF ICE CREAM SUPPLY MEN

DAVID MICHAEL & CO.
INCORPORATED
MILLERS AND MANUFACTURING CHEMISTS
GUMS AND FLAVORING EXTRACTS
RIDGE AVE., GREEN & CLAY STS.
PHILADELPHIA

MEMBER — THE ASSOCIATION OF ICE CREAM SUPPLY MEN

Condensed and Evaporated Milk Market Report

By Bureau of Markets and Crop Estimates, U. S. Department of Agriculture.

Manufacturers Wholesale Selling Prices of Condensed and Evaporated Milk (April).

The wholesale prices given below are based on reports made by manufacturers covering actual sales of condensed and evaporated milk to jobbers, wholesale grocers and similar buyers, delivered at manufacturers' distributing points on basis of cash or short time credit. Foreign prices are given as F. O. B., or F. A. S., points of export in section in which sales were made.

Geographic Sections	Sweetened Condensed, Bulk, Per Cwt. Unskimmed	Sweetened Condensed, Bulk, Per Cwt. Skimmed	Unsweetened Evaporated, Bulk Per Cwt. Unskimmed	Unsweetened Evaporated, Bulk Per Cwt. Skimmed
New England—				
Range	7.50—8.75	4.00—5.47	8.25	4.00
Average	8.13	4.54	8.25	4.00
Mid. Atlantic—				
Range	8.25—11.40	3.38—5.50	6.00—11.00	2.20—6.60
Average	9.60	4.47	8.03	3.26
So. Atlantic—				
Range	8.75	4.00	....	4.00
Average	8.75	4.66	....	4.00
E. N. Central—				
Range	8.00—8.75	3.00—5.47	5.00—7.48	2.00—5.50
Average	8.25	4.42	6.71	3.63
W. N. Central—				
Range	8.75—9.00	4.50—6.00	7.24—7.50	3.33—3.80
Average	8.92	5.30	7.37	3.56
So. Central—				
Range	8.75	4.50—5.47	....	....
Average	8.75	4.99	....	....
No. Western—				
Range	8.00—9.00	4.50—6.00	....	4.10—4.40
Average	8.58	5.32	....	4.25
So. Western—				
Range	8.75	4.50—5.47	....	....
Average	8.75	4.99	....	....
United States—				
Range	7.50—11.40	3.00—6.00	5.00—11.00	2.00—6.60
Average	8.73	4.80	7.50	3.54

New England—Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, Middle Atlantic—New York, New Jersey, Pennsylvania. South Atlantic—Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida. East North Central — Ohio, Indiana, Illinois, Michigan, Wisconsin. West North Central—Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas. South Central—Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, Oklahoma, Arkansas. North Western—Montana, Wyoming, Idaho, Washington, Oregon. South Western—Colorado, New Mexico, Arizona, Utah, Nevada, California.

MANUFACTURERS UNSOLD STOCKS OF CONDENSED AND EVAPORATED MILK

Includes all stocks held by manufacturers which were not sold or under contract for delivery on unfilled orders.

Commodity	Total Unsold Stocks May 1, 1922		Comparison of Unsold Stocks For Same Firms Reporting			% Inc. or Dec.
	Firms	Pounds	Firms	April 1, 1922 Pounds	May 1, 1922 Pounds	May 1, 1922 over May 1, 1921
Condensed Case Goods	14	20,749,913	14	19,777,517	20,749,913	— 15
Condensed Bulk Goods	40	2,874,214	40	2,191,999	2,874,214	— 54
Evaporated Case Goods	40	97,588,256	39	82,652,158	97,429,616	+136
Evaporated Bulk Goods	19	238,200	17	131,842	236,310	— 59
Total	63	121,450,583	62	104,753,516	121,290,053	+ 69

UNFILLED ORDERS FOR CONDENSED AND EVAPORATED MILK

Includes the amounts of each commodity for which orders have been received by manufacturers whose orders were in excess of their unsold stocks.

Commodity	Total Unfilled Orders May 1, 1922		Comparison of Unfilled Orders For Same Firms Reporting			% Inc. or Dec.
	Firms	Pounds	Firms	April 1, 1922 Pounds	May 1, 1922 Pounds	May 1, 1922 over May 1, 1921
Condensed Case Goods	..	.....	2	5,000	.....	..
Condensed Bulk Goods	1	353,760	1	198,738	353,760	..
Evaporated Case Goods	9	161,687	9	1,345,475	28,892	— 97
Evaporated Bulk Goods	..	.....	..	.....	.....	..
Total	9	515,447	9	1,549,213	382,652	— 91

"UNITED" IRON WORKS INC. FOR SERVICE

"ICE CREAM" and all Dairy Products

should be held in their proper condition to make them particularly attractive to your customer. Your CHILL ROOM, your PACKING ROOM, your STORE ROOM and your DISPLAY CASES should be provided with a dry, uniform temperature, and this is given you through the use of



"STERLING"
Refrigerating and Ice Making Equipment

The lines of business we can serve are manifold. Advise us your line and we will furnish interesting descriptive matter.

UNITED IRON WORKS, Inc., Kansas City, Mo.

We have a representative near you.

TEXAS LONGHORNS.

(Concluded from page 135)

were last. A few manufacturers who last year carried all these unbusinesslike practices to extremes went broke and are now out of business and this seems to have proved an object lesson to the rest of them, and to have been the means of bringing back the use of sane business methods. It also appears that the fountain men have begun to see the light and are going to get their prices back down to a normal basis. One of the principal causes for loss of volume last year was the hold-up wartime prices maintained by the fountains. But they have at last begun to sense the fact that they have not gained by their high prices as they have driven their business away. The people have in a manner readjusted themselves to present financial conditions and they are not so much alarmed at the future as they were and I believe that when the hot dry weather of summer and fall, that always comes to the Southwest, sets in, and with the lowered prices at the retailers with no tax to pay, and the people in general in a more liberal spending mood, good crops in prospect and being gathered and marketed, business will show a regular old time revival and get back to normal and everyone will wear a regular old-pre-war smile.

J. H. ECKEL,
Warner-Jenkinson Co., St. Louis.

* * *

Sulphur Springs, Texas.

Gentlemen: The business has been very slow starting this spring on account of excessive rains and floods in our state, but I look for a grand rush now real soon as the rains have ceased to a great extent and everything points to better times ahead for those who have sat tight in the boat this far.

Congratulations on the splendid paper you are giving us and trust your efforts shall not be in vain.

FRANK B. WESTER.

ICE CREAM IN POWDERED FORM.

A very interesting little booklet has been received in this office treating of a new development in the ice cream industry. This booklet tells of the merits of Washburn's Powdered Mix, and the advantages of its use in the manufacture of ice cream. It is compiled in the form of a questionnaire, and answers every question that might arise regarding the use of this powdered mix—what it is, how it is made and how to use it.

Use of this mix seems to reduce the labor of ice cream making to a minimum, as all that it is necessary to do is to dissolve it in water, age it, and freeze as usual. It has already been pasteurized and homogenized.

A copy of this booklet may be obtained by writing to the International Dry Milk Company, Minneapolis, Minn. Any ice cream manufacturer would find the information contained therein interesting.

DISSOLUTION OF PARTNERSHIP.

The firm or partnership of Sinclair Brothers, Galesburg, Illinois, has been dissolved through the retirement of Evan B. Sinclair. Mr. R. G. Sinclair is now sole owner of the business, which will henceforth be conducted under his name.

Mr. Sinclair will do a jobbing business in fruit syrups, crushed fruits, extracts and cones, and will manufacture ice cream, ices and soft drinks.

Time Required to Freeze, Why it Varies?

THERE are certainly a great many causes for variation of time required in freezing and developing desired overrun in ice cream. Chief among these, perhaps, is the condition of the mix as regards solids, acidity, age, and temperature, or perhaps the temperature and pressure of the brine, but when a manufacturer writes in asking, "Mix being uniform as to solids, acidity, age and temperature, the volume and temperature of brine being the same, why does time required to freeze and obtain desired overrun frequently vary?" we began to wonder what else might cause it.

A large part of the rapid progress of the ice cream business is due to the supplymen and manufacturers. The ice cream supplymen are universally known as the most friendly business competitors in the world, but they will have to step some if they are going to keep ahead of the ice cream manufacturers.

The variety of hitherto unthought-of little causes which manufacturers have discovered, and very pleasantly, even delightedly, forwarded to us for the benefit of the trade, is surprising. Here they are:

Insulation on Inside of Freezer.

Reply:—There are so many reasons why "Mix being uniform as to solids, acidity, age and temperature, the volume and temperature of brine being the same" should vary in time required to freeze and the amount of overrun obtained that we could almost write a book on the subject. However, we will endeavor to give our idea of some of the main reasons for this variance.

It is obvious that all conditions being the same—the results must be the same. If some conditions are the same then differences in result must find their causes in those conditions which are not the same. Therefore, under your proposition we can eliminate from consideration the amount and condition of solids, state of acidity, the age, the degree of temperature, the volume and temperature of the brine. When any of those things vary, you would have at once a good reason for variance in results obtained, but as our proposition shows no variance in those things we must look for causes of variance elsewhere.

One of the first things we would naturally think about is the condition of the paddles in the freezing machine. If these paddles are dull, they will not scrape clean the inside of the freezer, so that a thin film of mixture is left on the walls of the freezing machine acting as an insulation, consequently, retarding the freezing effects of the brine. This will result in the slowing up of the freezing and of course affects the overrun. The paddle blades should always be in first class and sharp condition.

Another primary cause for variance occurs if the brine is turned on before the mixture is run into the machine for freezing. When the brine is turned on and the freezer is empty a coating of frost will accumulate on the inside walls of the freezer and then will act practically in the same way that the film left by dull paddles on the walls.

Another cause is due to leaving drops of water inside the freezing machine after it has been washed out. Then if the brine is turned on before the mixture runs in, little lumps of ice form on the inside walls of the freezing machine to prevent the paddles from thoroughly scraping the walls and the film will therefore accumulate on the walls acting as insulation against the freezing effect of the brine.

These are some of the major causes, and most frequent causes for variance in time required to freeze and in the amount of overrun obtained.

* * *

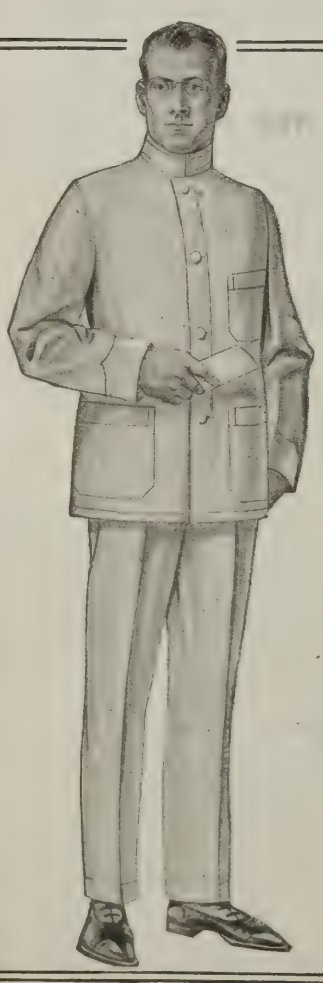
Human Factor Responsible.

Reply:—We would say that if everything is as stated, there should be no variation in time of freezing, as every mechanical detail is identical, but we grant there is a difference, and it is at this point that the human factor enters, using an Overrun Tester, and a Thomas Batch Measure is the best aid that we know of, to give uniform results, and in freezing, our procedure is as follows:

We use as cold a brine as possible; say zero, with from fifteen or twenty pounds of brine pressure; we never pull on the first swell, but freeze back, throw off the brine, and beat the overrun. We wish to take on a thirty-eight total solid, and we take eighty-five per cent and have no trouble in making a uniform product, and as to keeping qualities in dealers' cabinets.

It is very simple to obtain one hundred and twenty per cent overrun, but we find that this is not what the consuming public want.

To sum up, a competent operator is essential on the freezers, and one who is trained to work on the particular make in use. You state that the temperature is uniform, but that is impossible, as there is bound to be a constant fluctuation of from five to six degrees as the constant addition of mix at, say forty to forty-eight degrees has its effect on brine temperature. The amount of mix admitted to the freezer may vary if old style hoppers are used in freezers. This variation may be from four and one-half gallons to six and one-half gallons of mix, and this may be the cause of trouble, and is a point with which we formerly had difficulty, but since installing the Thomas Batch Measure, this condition has been corrected automatically.



Blades Must Scrape Inside of Freezer.

We are wondering if this party has looked into his freezers to note if the blades are coming in contact with the barrel of the freezer at all points, also, are the blades sharp? If not this will make a difference in the time required to freeze.

We find that when we freeze at a temperature of 34 to 36 degrees, the freezing takes place very quickly but it requires considerable time after brine is shut off to get the proper overrun where a temperature of 42 to 43 degrees takes more time to freeze but not long to whip after brine is shut off. Also the lower temperature does not make the same body that the higher temperature does. When frozen at low temperature the finished product becomes light and fluffy and has not the firmness that the higher temperature brings forth.

Temperatures and aging the mix are mighty important factors as well as the acidity, and must be watched very carefully if a uniform product is desired.

Duck Clothing
for
May Special

Duck bib aprons,
$5.50 per dozen

Drill lapel coats,
$15.50 per dozen

White duck overalls with bib, $17.50 per dozen

Duck Coveralls (Combination coat and pants) $25.75 per dozen, name embroidered free, Dairy suits made to order.

Diamond Garment Mfg. Company
105-109 South Market St.
Chicago, Ill.

Due to Difference in Casein.

Reply:—We have noted this variation of freezing time, under what appeared to be identical conditions, and have given the problem some thought and study.

Granted, that the mix is uniform as to fat, solids, acidity, age and temperature, and that the temperature and volume of the brine are the same. And granted that the same formula, and in general, the same types of dairy products were used in the production of the mix; this variation in the time required to freeze and to obtain the desired overrun is probably due to the condition of the casein in the mix.

Acidity, itself, is not necessarily the indication of a well ripened mix. Two batches of mix, each having the same acidity and each having been aged the same length of time under the same conditions, may still show variations in the condition of the casein.

We have found that two or three batches of mix, run at the same time under the same conditions, will show a marked difference in overrun, even when the acidity is the same. Oftentimes the highest acid tank will give a lower overrun, and if that tank is aged another 24 hours there will often be a noticeable increase in the overrun at the second freezing.

We have found that the best method, is to strive for a low acid content at the Pasteurizers, and then to allow sufficient time in the holding tanks to secure the necessary ripening and conditioning of the mix. This method gives us a finished mix with an acidity of under 0.32 per cent. In spite of this seeming low acidity we have no trouble obtaining the necessary overrun.

A short time ago we made a series of experiments with mix in which the acidity had been artificially increased by from 0.1 to 0.2 per cent. This experiment further strengthened our belief that acidity itself, has little effect upon the question of overrun.

The best method of measuring the condition of the casein, aside from a microscopic examination; is by means of a viscosimeter, which measures the force required to produce a definite relative movement of the fluid particles within a mix, in a given time.

* * *

Reply:—I have noted variations in the time required to freeze ice cream. I have noted the variation of three to five batches in an hour.

The rate of freezing is influenced by the temperature of the brine, its rate of flow and density, by the temperature of the mix when put into the freezer and the materials in the mix and the speed at which the freezer is driven.

There are several factors which effect the length of time it takes to secure the desired swell. The temperature of the mix while whipping should be 27 to 28 degrees and it is very important. The size of the fat globules in the cream and the pasteurization of the milk, cream or mix are very important. The correct adjustment of the valves in the homogenizer or emulsor is important and is frequently the cause of the variation in the period of freezing, as it effects the size of the fat globules.

* * *

Many of the replies given in full were supplemented by similar letters from other manufacturers all over the country. The subject of sharp scrappers or dashers in the freezer came in for the greatest share of the comment; several manufacturers seem to have had trouble with changing lengths of time required for freezing and traced it to the coated inner wall of the freezer that resulted from dull scrapers. A few manufacturers using belt driven types of machines apparently have had trouble af this kind because of the belt slipping. Two of the replies suggested that there is a possibility of the quantity of the mix being uniform. One manufacturer says that if the temperature and humidity of the air is always the same, there will be no difference in the freezing time, and another advises that the freezer may be loaded over capacity, thereby keeping out the necessary air for the desired overrun. "It just happens that way and we know it. Though being decidedly ignorant of the real cause, we have summed it up in one word—viscosity," jokingly says one manufacturer who has evidently had this trouble but got rid of it, and we hope that all of the manufacturers having this trouble will soon be able to laugh at it.

It Is Better because it is more convenient, more efficient, more reliable and more simple. That is why Chicago ice cream men have adopted this machine. More of R&D brick cutting machines are now used in Chicago

Than All Others Combined

One user *averages* 3500 bricks daily in three hours.

The R&D Better Brick Cutter Costs Less, Too. It is fully guaranteed, and sent on trial. *Write for particulars.*

REICHEL & DREWS

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HIGH Quality LOW Price

IOWA CONDENSED MILK

makes

BETTER ICE CREAM

Perry Milk Products Co. Perry, Iowa

ESTABLISHED 1868

Milligan & Higgins Gelatine Co.

222-224 FRONT STREET

New York

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We have built our business on 54 years of satisfaction to our customers.

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Quality and Prices always right.



MICHIGAN
ALLIED
DAIRY ASS'N.

Dairy Booster Officers:
Pres., C. J. YUNKER
1112 Radcliffe Drive,
Toledo, Ohio.

Secy., C. J. W. SMITH
c/o Creamery Package
Mfg. Co., Detroit.

THE ICE CREAM SITUATION IN MICHIGAN.

By W. G. Finch, Grand Rapids, Michigan.

The remarkable development of the ice cream industry in Michigan is rather amazing, even to those of us who have been in more or less close touch with the situation.

Not so many years ago the manufacture of ice cream was regarded by the average layman as a back-room industry, at which a few benighted caterers eked out a more or less uncertain living. Naturally, it surprises a person who had that view of the situation when he at-



tempts to realize the hundreds of thousands of dollars represented by the equipment and buildings in our present day ice cream factories.

In practically every city in the state the past two years have seen new factories built and old factories expanded, this in spite of the fact that the general business depression has brought some of our leading industries to a practical standstill.

It is claimed that prohibition made possible the development of the ice cream industry. It is also argued that the man who spent his pay-roll with his foot on a brass rail, would not make much of an ice cream parlor lizard. Perhaps not, but in the majority of cases it is his youngsters that have the nickels and dimes that used to be spent for the frothy substance that made Milwaukee famous.

There is no denying the fact that prohibition has had its effect on the ice cream manufacturers. Let us glance over the state and see what has happened in the last two years.

Kelly of Grand Rapids came out of the alley and blossomed out with a large up-to-date factory. The Arctic of Detroit have built a large modern factory in Grand Rapids. Hoekstra of this city has doubled his plant capacity, while the Wexford Ice Cream Company have plans under way for a $30,000 modern factory. Freeman Dairy of Flint have built or acquired factories at Jackson, Bay City, Cadillac and Saginaw. The American Ice Cream Company and Fleming Ice Cream Company of Jackson have doubled their output. M. & B. Ice Cream Company of Saginaw has tripled its output. Francke & Sons, of the same city, have plans well under way for a plant three times the size of the present one. The Blue Ribbon Ice Cream Company of Kalamazoo started in a back yard and in six months were compelled to move into a modern and well equipped factory, while the Kalamazoo Ice Cream Company started off April 1st of this year and reports good business.

Hanselman Candy Company and Piper Ice Cream Company of Kalamazoo, report increased business. At Port Huron the Wilson Ice Cream Company's growth has been phenomenal, and A. B. Carlyle has just completed one of the finest ice cream factories in the United States. The Connor Ice Cream Company of Owosso have factories at Bad Axe, Lansing and Ann Arbor.

The plants enumerated are only a few of the ones that are making rapid strides. In view of the fact that the factories are increasing in number, and the older factories report increased business, one is forced to the conclusion that more people are eating ice cream, yet when one looks around and makes an estimate of the volume consumed per capita it is evident that the consumtion of ice cream is not one-tenth of what it will be within the next five years.

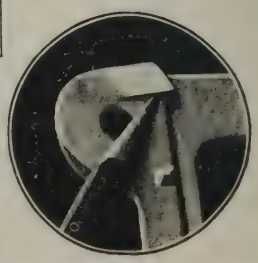
The increasing number of factories have caused considerable discussion regarding a price cutting war to eliminate competitors. It is my opinion that competition will never be eliminated by price cutting. I have observed that the price cutter usually puts out an inferior

Why TAG-BAKS
Bring Your Tubs Back

is best explained by the special patented construction of the TAG-BAK itself and by those who have used them.



The projection on the back is the little device that lets the tag slip in easily and prevents the tag from coming out again. Only a sharp pointed tool; deliberately inserted in the tag can remove it from the TAG-BAK System.



Learn more about the TAG-BAK System thru one of our circulars—write

TAG-BAK, 183 Ogden Ave., Milwaukee, Wis.

grade of cream and gives service that cannot be depended upon, and I believe that the factory that strives for quality and service will get the business, regardless of the manufacturer who puts out an inferior product at a lower price.

It was formerly the practice of the ice cream manufacturers to depend on an outside market for their condensed milk and sweet cream. Recently, they have realized that in order to put out an A-1 product, they must have control of all the milk ingredients that go into their product, consequently, the majority of the larger factories are equpped with milk condensaries and receiving stations, where they get their raw material direct from the farmer.

A review of the situation would convince the most sceptical that the ice cream industry in Michigan has come to stay, although at present it is only in the beginning.



Wolfhounds

J. WILL CARPENTER, Pres.
Haines-Carpenter Dairy Products Company, St. Louis, Mo.
OTIS B. WITTE, Secretary
N. A. Kennedy Supply Company, Oklahoma City, Okla.



EDMOND CREAMERY AND ICE CREAM COMPANY ENJOYING BIG SUCCESS.

The accompanying photograph shows the plant and working force of the Edmond Creamery and Ice Cream Company at Edmond, Oklahoma. The tall gentleman standing with the hat in his hand is Mr. E. J. Sheldon, the proprietor, and the tall, dark haired man second from the left is Mr. J. H. Parkhurst, manager of the creamery.

In a letter from C. R. Hauk in which he tells about this plant, he says:



The working force of the Edmond Creamery and Ice Cream Co.

"Mr Sheldon has built up this successful business in only one and one-half years. This causes the writer to wonder how far this good hustler, with the valuable assistance of Mr. J. H. Parkhurst, his creamery manager, who has had about 10 years' experience, will extend his business and wonderful influence in the next five years. Time alone can tell, and may the writer be on the ground to be the first one to shake them by the hand and congratulate them on their big successes. The world admires this type of business man. More strength to them!"

Ottawa, Kansas.

The outlook for the ice cream season of 1922, in this territory looks good. We are in touch with a large number of ice cream factories on account of furnishing them with raw material, and the demand this spring, while it has been a very wet spring, is far better than the same time last year.

Another thing the factories all seem to realize that it pays to make good ice cream, and there has been wonderful improvement along that line in the territory, plants are better equipped, better machinery is being installed, and better material is being put into the ice cream. The fellow that has not followed the above plan is losing his business, and having a very hard time to pay his bills, if he has not already fallen by the wayside.

We believe that it pays us to have the other fellow make good ice cream, as to our idea, the industry must rise or fall together, and if the other fellow makes poor ice cream, he is helping to make some consumer dislike the national dish that we all make our living out of.

J. H. BENNETT.

* * *

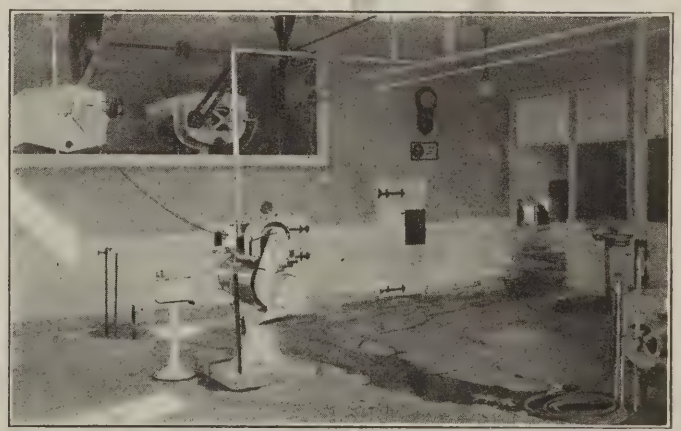
I have just returned from a four months' trip from the Southern California Coast to Canada. Conditions in the ice cream business and business in general are exceptionally good, but prices on ice cream rather low. The ice cream manufacturers will be satisfied when the good hot ice cream weather gets here—that's all they are waiting for to make this a banner year.

J. S. MAY,
Blanke-Baer Extract & Preserving Co.

* * *

SOME FELLOWS DO HAVE ALL THE LUCK.

It always seems to be the good fortune of our enterprising friend, C. R. Hauk, to come in contact with live wire concerns that are actually making things hum instead of waiting for business to come to them. Makes us feel that the old "Birds of a Feather" adage means



Freezing Room of Lindsey Ice Cream Company's plant.

something besides the title of a popular song.

The latest firm of this kind that Mr. Hauk tells us about is the Lindsey Ice Cream Company of Okmulgee, Okla. His letter follows:

To the Editor of The Ice Cream Review:

I am enclosing some pictures of the interior of the Lindsey Ice Cream Company's plant at Okmulgee, Oklahoma. Mr. Ernest L. Lindsey is President and General Manager. This young man of 33 years had had ten years' experience in this great industry, and today his plant at Okmulgee stands out as an object lesson to us all of what hard work coupled with honest and fair methods will accomplish.

Mr. Lindsey is now enjoying a big increase in volume of package cream. He believes in holding up the quality of his cream, and placing it before the public in the neatest of packages. He is also an ardent advocate of ADVERTISING.

At the Okmulgee plant Mr. Lindsey is very ably assisted by Mr. Arthur Faubion, who has entire charge of the ice cream room. Mr. Faubion has put in 17 years' of hard work and study in order to bring himself up to the high standard of efficiency he now enjoys. This young man started in the ice cream business at Flora, Ill., in the summer of 1904. A good record, Mr. Faubion. Keep it up.

The Lindsey Company also has a plant at Chickasha,



Refrigeration machinery and homogenizer in the plant of the Lindsey Ice Cream Company.

Okla., which is managed by Daddy Lindsey and W. L. Lindsey, a brother of Ernst Lindsey. This brother is also a very close student of the ice cream business. Well can Daddy Lindsey be proud of these hustling boys.

Notice the smile on the face of Ernest Lindsey. A fine, new BIG son arrived at his home several days ago. Mother and son are doing fine. The boy wanted ice cream right off the bat, and of course Mother Lindsey would not let him have it. Then, boys, you should have heard the Wolf-Hound yell that he gave! The entire Hauk family join in congratulations to the father and mother, and may the little lad in the years to come prosper through the enviable heritage of character bestowed upon him by his parents.

C. R. HAUK.

There is one point where we feel sure Mr. Hauk or somebody slipped up. We looked all over these pictures with a high powered microscope and failed to locate the smile on Mr. Lindsey's face. The only face in evidence was the one on the clock. We're sorry to have missed it, too, because he certainly had grounds for turning out something pretty nifty in the way of a smile. We hope our readers have better luck. If not, blame Mr. Hauk, not us. We did the best we could.

SODA MENUS

Effective Advertising For Ice Cream Manufacturers

OUR menus are popular among ice cream manufacturers who give them to druggists and confectioners with the manufacturer's trade-mark or advertising slogan printed on them. This is a sure and inexpensive means of advertising the ice cream manufacturer as the menus come to the attention of the customers of the retailer.

These menus are **especially** for the Soda Fountain. They are not hotel menus nor restaurant menus, but are printed and embossed in colors on the highest grade of stock and reproduced from original drawings for the use of Soda Fountains exclusively.

Samples Free on Request.

THE ALLIS PRESS **Kansas City, Mo.**

UNFAIR COMPETITION CONDEMNED.

One of the most despicable business practices on the part of unscrupulous manufacturers is that of embodying some patented feature of a competitor's product in their own. Though there is stringent legislation against this, the idea seems to be to "get their while the getting is good," and rely upon shrewd legal guidance to get out of it.

In the Ice Cream Supply Men's Code of Ethics, under the section entitled, "Unfair Practice of Competitor Against Competitor," paragraphs 9 and 10, deal with practices of this nature that are prohibited. These paragraphs read as follows:

9. False claims to patents or misrepresentations of the scope of patents.

10. Simulating in one's own product the trade mark, trade name, slogans, cartons, advertising matter or appearance of a competitor's product.

Legal prosecution of violators of the laws pertaining to unauthorized use of a patented article is very severe, and members of the ice cream trade are warned against unwittingly becoming a party to such unfair competition.

* * *

Cedar Rapids, Iowa.

We are pleased to report present conditions in the various branches of the dairy industry as excellent, with every indication that they will continue so. Although the ice cream season has been late in arriving in many sections of the country, the manufacturers are optimistic.

W. S. HAMILTON.

The Ice Cream Review:

The general conditions of the ice cream business are fine at present; the future looks very good and the trade looks for the best season they ever had. We have had a great deal of cold weather and rain in this section and, with all that, I do not think the trade has any kick.

Our can sales have been about 50% over last year and at the present time can take no orders until after the Fourth of July; this condition is a good indication of a good season.

D. H. GUNDRUM,
Keiner Williams Stamping Co.

TWO NEW BOOKLETS OF INTEREST TO THE TRADE.

The problems of the milk dealer and the ice cream manufacturer, relative to transporting and storing of dairy products are discussed in two interesting and complete booklets published by the Elyria Enameled Products Co., Elyria, Ohio, which have just come from the press. Truck and railroad transportation—two big problems in the dairy business—are covered, and showing Elyria equipment specially designed to meet the requirements of any situation. Horizontal storage tanks are featured in the second booklet. These booklets will be sent free upon request.

SOMETHING NEW IN THE ICE CREAM BAR FIELD.

One of the most interesting developments in the ice cream industry recently, particularly in the chocolate coated ice cream bar field, is the conception of an idea by a five year old boy for the elimination of mussiness in eating the bars by putting them on a stick.

This boy is little Jackie Morgan of Everett, Washington, whose picture accompanies this article. His father's story of how the idea was developed follows:



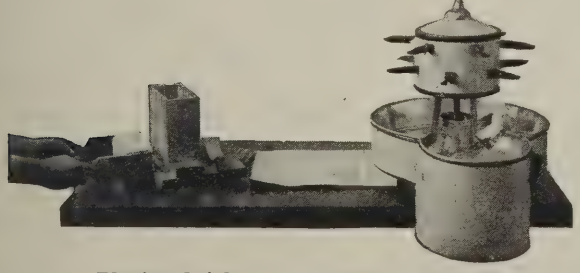
JACKIE MORGAN'S IDEA. NO FUSS—NO MUSS.

"The writer, W. C. Morgan, owns the Peerless Ice Cream Store, Everett, Washington, and the Cave, Inc., Tacoma, Mr. Walter H. Kuhnle is manager of the Peerless Dairy Store and Mr. Virgil Van Patten is my ice cream and candy maker.

"Like every other ice cream manufacturer, when the chocolate coated ice cream bars came out we started to make them. We made the Nut Roll sandwiches and bars. One feature that many people find disagreeable about the bars is that not only children, but grown people too are likely to get more or less mussed up when they eat them.

"My little boy five years old had so much trouble in this respect that his mother and I refused to let him have bars when he was dressed up. So one day when he wanted one very badly he told his mother to have daddy put a stick in it and he wouldn't get mussed up. For a joke I did it, and it worked so well we tried it out.

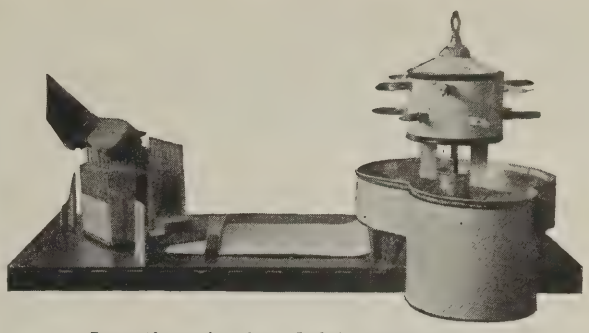
"We had a little trouble at first making the stick stay in the bar. But Mr. Van Patten overcame that trouble, and now days after Jackie Morgan gave us the idea of putting a stick in his ice cream bar, we have manufactured and sold thirty machines, and wherever the machines are in use the bar business has increased from 30 to 300 per cent over the old way of selling the bars. When the Public see them made they want them. One wholesale manufacturer took ten machines, and is renting them to his customers.



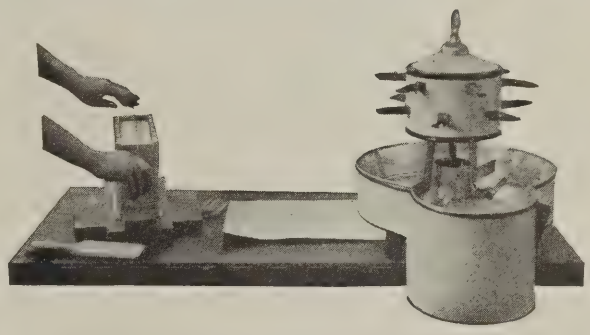
Placing brick of ice cream on block.

"We have applied for a patent on the method of serving ice cream bars and on the machine for dipping them. We have not yet taken up the matter of putting them on the market on a large scale."

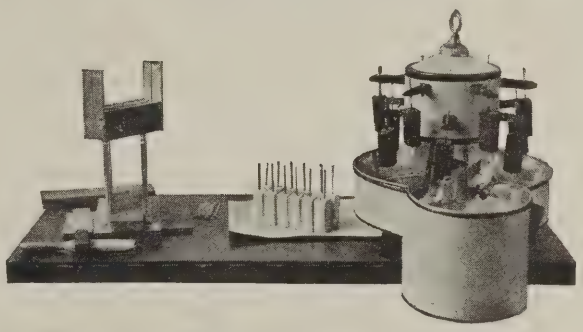
The four illustrations will show the operation of this machine. It is surprisingly simple and efficient. Its unique advantages as an advertising feature may be readily seen. It is claimed that it will convert the ice cream from bricks to chocolate coated ice cream bars in one and one half minutes in show windows or at a soda fountain, without having the hands come in contact with the ice cream or bars during the entire process of making or eating. It appears to be a very sanitary way of making and serving the bars.



Inserting pins into brick of ice cream.



Cutting brick of ice cream into bars.



Brick of ice cream dipped and all ready to sell.



ICE CREAM MANUFACTURER INJURED IN ACCIDENT.

Mr. W. M. Sidebottom, Sr., Secretary and Treasurer of the Sidebottom Ice Cream Company, Nashville, Tenn., and president of the Tennessee Association of Ice Cream Manufacturers, sustained serious injuries recently when the automobile in which he was riding met with an accident. His left leg was broken below the knee, his right forearm was broken in two places, his left wrist was torn and dislocated and his head was badly cut.

After two weeks at St. Thomas' Hospital he was removed to his home still in a helpless condition. However, you can't keep a good man down, and Mr. Sidebottom promises to be at the big doings at Cleveland in October with bells on.

Mr. Sidebottom dictated a letter to The Ice cream Review in which he asked us to let the boys all over the country know that he was mighty glad to get their messages and flowers, and that he will meet them in Cleveland.

WASHINGTON—MAINE

News From Far and Near

CALIFORNIA—FLORIDA

Hope, Ark.—The plant of the Holman Ice Cream Company was recently damaged by an explosion.

Little Rock, Ark.—The Package Ice Cream Company of Searcy has opened a plant here. The company is owned by Ben and R. E. Grisham, formerly of Searcy. They manufacture ice cream for retail trade, selling it only in pints and quarts. The company formerly operated a wholesale ice cream plant at Searcy.

Siloam Springs, Ark.—The Gay-Ola Bottling & Ice Cream Co., D. B. Jackson, proprietor, is now open and in full operation in its new building.

The company is handling a full line of soda waters, and is also manufacturing ice creams, sherbets, ices, fruit creams, fancy brick cream and any fancy cream made to order.

The plant is equipped with the latest machinery, including a pasteurizer for pasteurizing milk and cream; two modern bottling machines with a capacity of 400 cases a day; sanitary bottle washer; the latest improved ice cream freezer with a capacity of 400 gallons of cream a day, and a large hardening room.

Mr. Jackson, who is an experienced bottler and ice cream manufacturer, is rapidly building up a local and wholesale business here and in the nearby towns.

Nogales, Ariz.—An ice cream factory is to be opened here by B. Y. Harris.

Bakersfield, Ca.—The Meadowland Co-operative Creamery has spent $10,000 on complete equipment for an ice cream plant. R. H. Nelson, manager of the company, announces that owing to public demand his company decided to make this move.

A wholesale department will be maintained and a special residence delivery service is to be instituted. All flavors will be found on the list and Nelson states that fancy creams will be made to supply orders for social affairs, bricks and fancy shapes being featured. The plant has just begun operations.

San Francisco, Cal.—The National Ice Cream Company of this city is planning opening a branch plant at Vallejo, Cal.

Marysville, Cal.—One of the finest and most modern ice cream factories and parlors in northern California will be located in Marysville when renovations planned by the Grand Royal Ice Cream Company are complete. According to the plans of Vernon A. Van Horn, manager of the concern, a complete new factory will be built and new machinery installed, and every facility for the manufacture and storage of ice cream will be provided.

Kankakee, Ill.—The Ideal Candy Company is installing a complete ice cream plant. Along with other equipment necessary for a fine modern plant, they will install two 300 gallon Glascote tanks, a 100 gallon Progress homogenizer, a double section cooler, and a 50 quart Progress horizontal freezer.

Rockford, Ill.—The Oak Brand Ice Cream Company opened for business here recently. Russell Smith has charge of the plant.

Auburn, Ind.—The DeKalb Ice Cream Company has been organized here for the manufacture of ice cream and general products. The new firm is capitalized at $32,000.

Gypsy, Ind.—The new ice cream factory which is operated by Ney Brickell, is ready to receive orders for ice cream.

Lebanon, Ind.—George Eden's new milk station is completed and has begun operations.

Mr. Eden, in addition to the milk business, will also handle ice cream. His plant will be a substation for the Lafayette Ice Cream Co., and distribution to local dealers will be made from this substation. Mr. Eden has installed a brine tank of 100 gallons capacity and this will be sufficient to take care of the local ice cream supply.

Humboldt, Ia.—During the past week the Humboldt Creamery Company have installed several pieces of up-to-date machinery for the making of the very best ice cream. Their business in this line had so outgrown the old plant that the change became a necessity.

Maqucketa, Ia.—Kirchhoff Brothers have completed their ice cream plant and have already been making ice cream for a few weeks. The plant is modern in every respect and has a capacity of 400 gallons per day.

Pleasantville, Ia.—O. H. Bare has arranged to manufacture his own ice cream this season. He has a complete factory, electrically equipped, and is prepared to produce as good a product as can be bought anywhere.

Waterloo, Ia.—The Sanitary Dairy was recently incorporated here with capital stock of $60,000. The firm will manufacture dairy products, including ice cream. The officers and directors are: N. P. Sorenson, president; William E. O'Neill, secretary, and I. J. Gaman, treasurer.

Downs, Kans.—J. F. Bergier purchased a building here some time ago, and he has recently began to remodel it for a first-class creamery and ice cream plant. A 20-foot addition will also be built on the rear of the old building.

Downs, Kans.—Another wholesale ice cream and butter factory will be open for business in Downs soon, with Lieth Bergier in charge.

Lincoln, Kans.—Lincoln is to have an ice cream factory and it is proposed to begin operations at once. The Hawkins Ice Cream Co., of Ellsworth, is promoting the project.

Osage, Kans.—The Osage City Creamery opened for business here recently, making butter, ice cream, and ice. Considerable remodeling has been done and much more is yet to be done. A brine refrigeration system and ice plant has been installed.

Wichita, Kans.—The Zipp Butter and Ice Cream Company has recently equipped its plant to care for one-third more capacity than last year, says President C. R. Swisher. Manager C. J. Fraipont stated tnat two more trucks have been added to the company's service, and the machinery and factory have been repainted. More men were also taken on.

Cumberland, Md.—The Spealman Ice Cream Company was recently incorporated here with capital stock of $50,000. S. Edward Spealman, Hugh P. Markwood, and Geo. R. Hughes are the incorporators.

Battle Creek, Mich.—The Fields-Myers Ice Cream Company is just being organized for business, and expects to have their plant in operation by June 15th. N. I. Fields and J. W. Myers are the organizers of this company.

Elkhart, Mich.—The Furnas Ice Cream Company is erecting a branch plant here.

Adrian, Mich.—The Purity Ice Cream Company has begun operations in its new plant.

Brashear, Mo.—Scott Brothers now have their candy and ice cream factory in operation and expect to do a wholesale and retail business.

Marshall, Mo.—Laying the concrete floor is all that remains to complete the Missouri Ice Cream Association building. When that is finished, the building will be ready for installation of the four cars of machinery which are already here. Unless there is some unexpected delay the company expects to be operating soon.

Tom Rumans and W. A. Sparks are promoters of the business.

Sedalia, Mo.—J. J. Weber, president of the Weber Ice Cream Company, with plants located at Jefferson City, Moberly and Sedalia, is moving from Jefferson City to Sedalia.

Beatrice, Nebr.—T. L. Case recently opened an ice cream factory here. The plant has a capacity of 30 gallons of ice cream an hour.

Freemont, Nebr.—The Golden Rod Creamery Company has installed an ice cream plant in connection with the creamery.

Norfolk, Nebr.—The plant of the Graham Ice Cream Company recently began operations with their new equipment. Manager R. A. Grim invited the general public to visit the plant in order that they might see the improvements.

Syracuse, N. Y.—Comrades in service during the World War, Major Frank C. Love, Capt. E. M. McCabe and Lieut. Edward E. Hawkins have formed a partnership, and will conduct a business known as the Cloverland Ice Cream Company, in Syracuse.

Preliminary arrangements have been made. The men on trips of inspection have observed the most scientific plants of which ice cream is the product in the East. Efforts have been made to bring a college instructor from Cornell as chief of production.

A plant has been built. It is a model institution with glass front, open at all times to view from the street. The plant is about to begin operations.

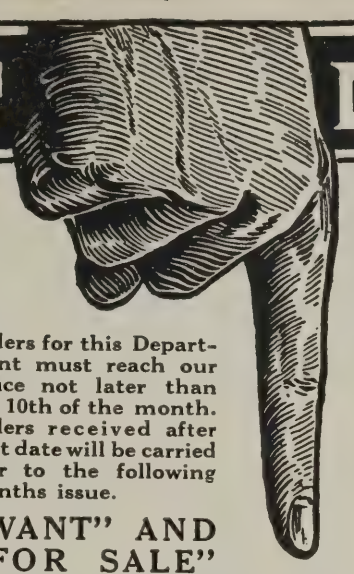
Burlington, N. C.—The Almanace Co-operative Creamery Company was recently organized here for the purpose of manufacturing butter, ice cream, and other dairy products. The officers of the organization are: Dr. J. P. Spoon, president; C. G. Sellars, vice president; and E. L. Henderson, secretary.

Fairmont, N. D.—The Metropolitan Milk Company of Minneapolis, Minn., has located in Fairmont and begun to manufacture ice cream, and will install machinery for a creamery, which is being pushed as rapidly as possible.

Williston, N. D.—The new plant of the Williston Creamery and Produce Company, replacing the one that was

(Concluded on page 148)

WANT DEPARTMENT



Orders for this Department must reach our Office not later than the 10th of the month. Orders received after that date will be carried over to the following months issue.

"WANT" AND "FOR SALE"

Notices will be published at the rate of 2 cents per word, cash with order. For blind address 15 cents extra.

NOTE: Names and addresses of advertisers using blind addresses cannot be furnished direct from this office. The advertiser can be reached only by using the key number and addressing your reply care of "The Ice Cream Review."

NOTICE.

The Ice Cream Review disclaims any responsibility for the reliability of parties advertising in the Want and For Sale Department, nor for the truthfulness of statements made in such advertisements. In answering such ads, ask for references if parties are unknown personally, before sending money. Our subscribers are requested to assist us in keeping unreliable parties from advertising by reporting any suspicious dealings.

HELP WANTED

THE TREMENDOUS SUCCESS of the recently invented confection, "ESKIMO PIE," has demonstrated the wonderful possibilities of protective patents and trade-marks for novel confections. Patents procured, trade-marks registered; 22 years' experience. Instructions and terms on request. Robb, Robb & Hill. 920 McLachlen Bldg., Washington, D. C., and 1385 Hanna Bldg., Cleveland, Ohio. 2-22tf

EMPLOYERS!—Men, men, men—the crying need of the day! If you need any men in your business today, read the following ads and see if you can use any of these. The fact that these men are advertising here stamps them as unusually progressive. Write them and give them a chance to sell their services to you. "Ice Cream Review," Milwaukee, Wis. tf

WANTED—Salesman familiar with general dairy industry to represent us in disposal of glass enameled steel products. Write full particulars concerning your qualifications in first letter. Pfaudler Co., Rochester, N. Y. 6-22

WANTED — Soda Fountain Department Manager—by large Pacific Coast jobber. Must be experienced, live, energetic executive, capable of managing salesmen, ordering and expanding established fountain and supply business. Give full particulars of experience in first letter. F. Norton, 42 First St., San Francisco. 7-22

WANTED—Man with executive ability who can sell a specialty for ice cream manufacturers which has proven meritorious for several years. Write giving full information and references in first letter. Address: R-282, Ice Cream Review. 6-22

WANTED—Good ice cream maker, one that can make his own mix and get the best of results. Attractive and permanent position for right man. Address: R-283, Ice Cream Review. 6-22

WANTED—Experienced ice cream makers who want to know a more scientific way to control the viscosity of their mix. We'll send a free VISCO booklet, explaining this new method. Write to Cherry-Bassett-Winner Co., 1918 Market St., Phila, Penna. 6-22

WANTED—Good all around ice cream maker or freezer man. Attractive wages and good board. Write F. J. Nelson, Osceola, Wisc. 6-22

WANTED—Capable man to make fancy and brick ice cream. Address: R-285, The Ice Cream Review. 6-22

WANTED — Experienced ice cream maker, with knowledge of butter making, testing and pasteurizing. Apply stating experience, references and wages in first letter. Hill County Creamery Co., Havre, Montana. 6-22

POSITION WANTED

HIGH GRADE ICE CREAM MAKER, capable all around dairyman, open for engagement. Thirty years' practical experience, expert on testing, standardizing, pasteurizing milk, cream. Thoroughly experienced in all departments inside, and outside work, steam, refrigeration; good mechanic; reliable; best of references. Will guarantee to save and make you money in your plant. Desire position with reliable firm. Address: R-48, Ice Cream Review. 7-21tf

POSITION WANTED — By ice cream maker, eighteen years experience, desires position with reliable concern. Willing to go any distance. Address: R-284, Ice Cream Review. 7-22

SITUATION WANTED—Looking for a situation in an ice cream mix, so bad that VISCO can't help it. Address: Cherry-Bassett-Winner Company, 1918 Market St., Phila., Penna., for free VISCO booklet. 6-22

POSITION WANTED—By all around ice cream man at once. 13 years experience. Address: R-280, Ice Cream Review. 7-22

POSITION WANTED — As manager of large ice cream plant by experienced man with executive ability, thoroughly familiar with both manufacturing and distribution. Give full particulars in first letter. Address: R-286, Ice Cream Review. 6-22

POSITION WANTED — Manager, possessing proven executive ability, to capably operate plant. Exceptional reference. Address: R-289, Ice Cream Review. 6-22

FOR SALE BARGAINS

FOR SALE—Wholesale ice cream plant in city of 20,000 population, 4 railroads, large territory, located in heart of city, largest ice cream business in territory. Up-to-date plant. Also butter business locally and sub creamery within forty miles in dairy belt. Will sell both plants. Address: R-238, Ice Cream Review. 3-22tf

FOR SALE—Ice Cream Cone Factory, complete plant, machines for both cake and wafer cones. Address: R-288, Ice Cream Review. 6-22

FOR SALE—Large ice cream plant, well equipped, owner wishes to devote his time to other business interests. Address: Penn Ice Cream Co., Glenside, Pa. 6-22

FOR SALE — One-half interest with management and operaiton of ice and ice cream plant in west-central Kentucky; 600 gallons per day ice cream, 7 tons ice; built 1921; modern and complete in every way; private electric plant. Address: R-281, The Ice Cream Review. 7-22

FOR SALE—Ice cream plant located in central Minnesota, city of 4,000 population, doing good business. Will sell entire business or will sell equipment and rent building. Address: R-287, Ice Cream Review. 7-22

MACHINERY AND SUPPLIES AND

BOILERS, NEW AND SECOND HAND—Electric Motors, Engines, Pumps, Pipes and fittings, Valves, Belting, Shafting, Bearings and Pulleys. Money Saving prices. Harris Machinery Co., Minneapolis, Minn. 12-20tf

FOR SALE—Three new Cherry model "I" 60-quart freezers; motor driven. Rich Ice Cream Co., Buffalo, N. Y. 3-21tf

FOR SALE—Cottage cheese in one, two or five tub lots, shipped date of make. Rock Lake Creamery, Lake Mills, Wis. 1-21tf

FOR SALE—12 Babcock tester, 8-10-12 bottle size; 1 Jensen bronze sanitary pump, 1¼ in. connections; 1 Trahern iron pump, 1 in. connection; 1 continuous double disc ice cream freezer, 100 gallon capacity, with counter shaft and pulleys; 1 Ventura 18 in. wall suction fan (new); 1 12 bottle Troemner cream scale. The Bennett Creamery Company, Ottawa, Kans. 8-22

FOR SALE—One Creasy No. 50-Y ice crusher, capacity claimed 25 tons per hour; belt driven; price $125.00 F. O. B. Milwaukee. This crusher is in good condition and has seen two years actual service. The Geo. C. Mansfield Co., Milwaukee. 6-22

FOR SALE—One Meyer icing truck body. Further information furnished on request. Elmira Ice Cream Co., Elmira, N. Y. 6-22

FOR SALE—1 vertical open top, blue enamel tank, 47 in. O. D. x 50 in. high, 375 gal. $300.00 each. 1 horizontal blue enamel 6 ft. 9 in. O. D. x 6 ft. long, 2-30 inch rings, 1,342 gal., $350.00. 4 vertical closed top 6 ft. 0 in. O. D. x 7 ft. 6 in. high, 2-36 inch rings, 1,575 gallons capacity, $400.00 each. Chas. S. Jacobwitz, Buffalo, N. Y. 5-22tf.

FOR SALE — One De Laval Emulsor, three 40 quart Continental direct expansion amonia freezers, motor driven. One 40 quart Miller, one 40 quart Progress brine freezers, belt driven. One 10 ton, one 25 ton refrigeration Continental Amonia compressors, one 10 ton Sterling compressor — also lot of milk, brine and water pumps, 15 motors, 2 to 50 h. p. 2 phase, 60 cycle, 220 volts. Attractive prices—write us. M-B Ise Kream Co., Dallas, Texas. 6-22

FOR SALE—First grade unsalted butter. Get our prices. Golden Belt Cry. & Ice Co., Hays, Kansas. 9-22

FOR SALE—The best equipped small creamery and ice cream plant in the best location in the South. Address R-276, Ice Cream Review. 5-22

FOR SALE — Creamery Package ice cream brick mould releaser. Good as new. Used only one year. Price $125.00 F. O. B. Milwaukee, Wis. Reason for selling, installed Mojonnier automatic brick filler. The Geo. C. Mansfield Co., Milwaukee, Wis. 6-22

FOR SALE—One Gauline homogenizer in good condition. Capacity, 200 gallons per hour. Will sell for $500.00. The Fairmont Creamery Co., Omaha, Nebr. 6-22

FOR SALE—One Progress upright and one Emery Thompson upright brine freezers, capacity ten gallons each. Cheap for cash. Hoefler Ice Cream Co., Box 162, Buffalo, N. Y. 6-22

FOR SALE—One 6 to 8 ton Saver refrigerating machine and high side, including 15 H. P., 220 volt, 3 phase, 60 cycle motor, for the sum of $800.00. Erecting Engineers Co., 9 So. Clinton St., Chicago, Illinois. 6-22

FOR SALE—Rebuilt Miller Globe 40 qt. freezer, good as new, belt driven. Address: Dewart Milk Products Co., Inc., Dewart, Pa. 6-22

SOLD THE FREEZER

The Ice Cream Review
Milwaukee, Wis.
Gentlemen:

Please discontinue our ad in your publication as we have sold the Ice Cream Freezers you advertised for us.

Very truly yours,
STEEL-DE SOTO ICE CREAM CO.
Minneapolis, Minn.

WANTED—Wisconsin State agency for creamery, cheese factory and ice cream specialties by party with wide rcquaintance in the state.
References. Address
R-290 Ice Cream Review
6-22

FOR SALE — ICE MACHINES — SEVERAL SMALL SIZES taken in on larger ones. A No. 1 order. About half price. Will erect and guarantee. **H. A. BORN CO.,** 326 River Street, Chicago. 7-22

FOR SALE—1 1-ton IXL compressor with overhead valves condenser and receiver, belt drive with 3 h. p.—G. E. motor $300.00. 1 1-ton Brunswick ammonia compressor with condenser and receiver, $250.00. 1 80-gal. copper cooker with agitator, $200.00. Address: Lawrence Ice Cream Co., Chicago, Ill. 6-22

FOR SALE—Miller 80-qt. motor drive freezer and twelve 40-qt. freezers, various makes, both belt and motor drive—cheap. Cans, tubs, cabinets, vats, Manning can washers, ice breakers. Send for complete list of bargains in equipment. Philadelphia Retinning Co., North Philadelphia, Pa. 6-22

If you want help for your factory, the quickest and cheapest way to locate same is through The Ice Cream Review Want Department.

FOR SALE—Advance Special. Four 40 quart new and highly efficient motor-driven freezers. Simple, economical and possessing all the advantages found in higher priced machines. Very low price for quick sale. The Advance Dairy Mch'y Co., Frank Tyson, Gen. Mgr., 608 Cherry Ave., N. E., Canton, Ohio. 7-22

FOR SALE—Four foot copper condensing outfit complete in first class condition, guaranteed in every respect. Address: R-291, Ice Cream Review. 6-22

WANTED TO BUY

WANTED TO BUY—Small homogenizer, batch mixer and belt drive brine freezer. Must be reasonable. Write D. O. Bricker, Box 295, Fernie, B. C., Canada. 6-22

NEWS FROM FAR AND NEAR.

(Continued from page 146)

burned last October, opened recently. The new equipment, modern throughout, includes an artificial refrigerating system and complete facilities for the manufacture and storage of ice cream.

Port Clinton, O.—The Esmond Dairy Co. will open its new plant here soon under the management of R. E. Miller. The new plant will be one of the most modern of its kind in northern Ohio, and thousands of gallons of ice cream will be manufactured every week.

Welland, Ont.—The Martin Milk Products, Limited, opened recently and is working to full capacity.

East Liverpool, O.—The Crockery City Ice and Products Company has installed a 50 quart Progress horizontal freezer.

Brookville, Pa.—The business of Clark Brothers has been sold to the Brookville Ice Company, who recently began to manufacture ice cream. Clark Brothers will open another plant at Indiana, Pa., which is to be completed in about two weeks.

Brookville, Pa.—The Brookville Ice Company recently begun operating its new ice cream plant.

The new Brookville Superior ice cream is now being manufactured under the supervision of Mr. W. C. Glassco who comes to Brookville after 25 years' experience in the ice cream business in some of the larger cities of the eastern part of the state.

Special attention will be given to brick ice cream and fancy molds for special occasions.

Hooversville, Pa.—The local ice cream factory, operated by Rodgers Bros., opened for business recently.

Connellsville, Pa.—The business of the Rose Ice Cream Company has been sold to the Hagen Ice Cream Company of Uniontown, Pa.

Kingston, Pa.—The Fadden Ice Cream Company is about to open its new plant, which represents an outlay of approximately $200,000. It is constructed of reinforced concrete, brick and steel.

It is almost entirely enclosed in glass, which permits sunlight to penetrate all rooms of the building. The highest quality of ice cream manufacturing machinery has been installed.

From a very small beginning in 1912, the business has grown until at the present time it requires more than 80,000 square feet of floor space. The business has been built on the combination of quality and service, and these same qualities have been carried forward in the construction of their new plant.

Philadelphia, Pa.—Because of rapidly increasing business, the Abbotts Alderney Dairies, Inc., have installed a 100 quart Progress brine freezer.

Chester, S. C.—The Chester Ice Cream Company was recently incorporated here with capital stock of $7,000. The officers of the firm are: R. C. Gray, president; Earl Wilson, vice president, and R. B. Owings, secretary-treasurer.

Belle Fourche, S. D.—O. H. Barnett has been engaged for the past few months in completely remodeling the cold storage plant at the Belle Fourche Creamery and adding modern equipment to the ice cream making plant.

The new hardening room is of good size and will enable them to maintain a temperature of fifteen degrees below zero.

An addition to the list of products for this season is the chocolate coated ice cream bar and machinery has been installed for manufacturing them. Machinery has also been installed for packaging ice cream at the plant and hereafter it will be sold that way.

Turner, S. D.—With its new equipment the Turner Creamery Company will be able to handle a much larger business, having a production of 600 gallons daily.

Fancy brick ice creams, heart and flower shaped molds for parties, and many kinds of fancy flavored creams are made by this company, to meet the constantly growing demand.

LaFollette, Tenn.—Operations have begun in the new plant of the LaFollette Ice Cream and Produce Company.

Lewisburg, Tenn.—The Lewisburg Ice Cream Company, a $10,000 firm, was recently incorporated here for the purpose of manufacturing ice cream. W. H. Freeman, Louis Koelling, E. H. Smith, C. E. Craig, and J. P. Hardison are the incorporators.

Murfreesboro, Tenn.—The Rutherton County Creamery Association has increased its capital from $10,000 to $50,000.

Nashville, Tenn.—The Union Ice Cream Company recently let a contract for the construction of a three-story reinforced concrete building to cost approximately $200,000.

Waycross, Va.—The Glynn Ice Cream Company, of Brunswick, has purchased and is now operating the plant that was formerly operated here by Seymour Phelps.

Mt. Vernon, Wash.—The Highland Dairy has recently installed a considerable amount of new equipment and began the manufacture of ice cream. An open house day was held and the public invited to inspect the plant.

Charleston, W. Va.—The Angel Cream Corporation of Charleston, was recently incorporated for $25,000. The officers are: O. Stirrat, president; E. F. Kirgan, vice president; R. A. Coyner, second vice president; Sam Cummins, secretary and treasurer. Mr. Stirrat stated that Angel Cream is a combination of ice cream and cake which was developed recently after years of study. The patents of this secret process are now pending in Washington. The cake from which Angel Cream is partly made is first baked and then a layer of icing is applied; after which the cream is poured on top. It is then put through a refrigeration process at 10 degrees below zero and left to harden for 48 hours.

Cline Ice Cream Company has secured the right of distribution for this territory.

Grafton, W. Va.—The Acme Ice Cream Co. has recently made further improvements to their plant in this city. Shortly after the plant was taken over by Mr. Lee, of Clarksburg, who is distributor of the well known Coca-Cola drink in this territory, several improvements were made and now the additional enlargement and increased efficiency of the plant make it one of the best in this territory.

Several thousand dollars' worth of machinery has been purchased and installed in the plant.

Mr. Lee claims he intends to continue the improvement of the business until it is deserving of the highest success.

Lake Geneva, Wis.—A new ice cream factory and a candy and ice cream factory are under construction in Lake Geneva.

Freeman Mann is building a two-story factory for the Mann Candy Company. The first floor will be devoted to the manufacture of ice cream, the brine method being used for freezing and preserving. The upper floor will be devoted to the candy factory.

Joe Nutini is building a good sized ice cream factory on the rear of his Lake Street property. Cement blocks are the building material being used.

Milwaukee, Wis.—The Luick Ice Cream Company has installed a Myers and Burt brick machine and a 12,000 pound Progress milk filter.

Neillsville, Wis.—Excavation for the new creamery and ice cream factory of the Neillsville Milk Products Co., is about completed and work has begun on the concrete foundation.

Platteville, Wis.—J. A. List retires from the manufacturing soft drink business here. His son Louis J. List continues the soft drink and ice cream factory.

Rhinelander, Wis.—The Oneida Milk and Ice Cream Co. was incorporated here recently with capital stock of $10,000. Wm. Gilley, George Burkhardt, B. D. Rathburn are the incorporators. The new firm will deal in and manufacture dairy products.

The Ice Cream Review

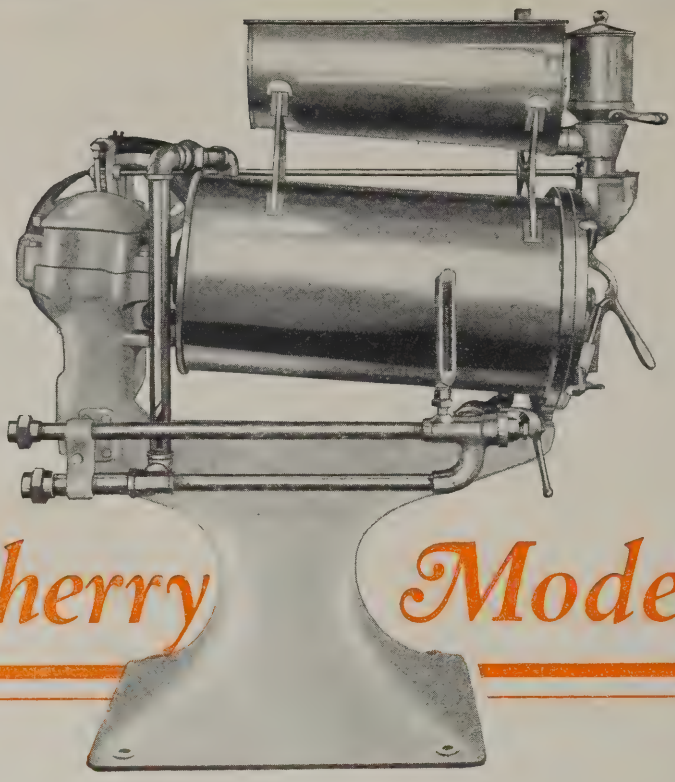
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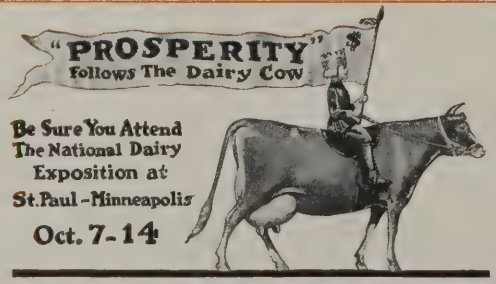
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100 BLOCK EAST BALTIMORE STREET
BALTIMORE

June 23, 1922.

The Association of
Ice Cream Supply Men,
1328 Broadway,
New York, N. Y.

Gentlemen:-

It would fill a book to write all the benefits I have derived from attending ice cream shows and conventions. I absolutely attribute my entire success to the knowledge attained at these meetings. I still not only attend all National Supply Men's Shows, but nearly every state convention that is within reaching distance, and never do I leave one that I do not bring back a valuable little book filled with dollars.

It goes without saying, of course, that the ice cream show is really as important to us as the convention, but now that the two are to be held together, a fellow should borrow money, if he had to, to be in Cleveland during that time.

Yours very truly,

L. Manuel Hendler

IMH/ek

ICE CREAM
A NATIONAL
INDUSTRY
Come to
Cleveland
Oct. 16-21 Incl.

A GOOD ICE CREAM BRICK CUTTER WILL CUT IN UNIFORM SIZE.

The
ICE CREAM REVIEW

PUBLISHED THE FIFTEENTH OF EACH MONTH BY

THE OLSEN PUBLISHING COMPANY

H. P. OLSEN, President and Manager E. K. SLATER, Secretary and Editor

Also Publishers of

"THE MILK DEALER" and "BUTTER, CHEESE & EGG JOURNAL"

FIFTH AND CHERRY STS. MILWAUKEE, WISCONSIN

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Michigan Dairy Boosters
Oklahoma Wolfhounds
Kansas Jack Rabbits
Hoosier Wild Cats
Texas Longhorns
Missouri Mules
Badger Flyers
Dixie Flyers

JULY 1922

BULLETIN OF EVENTS

National Dairy Exposition, Minnesota State Fair Grounds, Minneapolis--St. Paul, Minn., October 7-14, 1922. W. E. Skinner, Secretary, Ryan Hotel, St. Paul, Minn.

National Exhibition, Association of Ice Cream Supply Men. Cleveland, Ohio, October 16-21, 1922, headquarters Hotel Winton. Robert Everett, 1328 Broadway, New York, Secretary.

National Association of Ice Cream Manufacturers. 22nd annual convention, Cleveland, Ohio, Hollenden Hotel, October 16th, 17th and 18th. N. Loewenstein, 155 N. Clark Street, Chicago Secretary.

Pacific Ice Cream Manufacturers' Association—Annual Convention, Davenport Hotel, Spokane, Washington, November 13, 14, 15, 1922. Bert H. Walker, Royal Ice Cream Co., Tacoma, Wash., Secretary.

Southern Association of Ice Cream Manufacturers, annual convention, New Orleans, December 5, 6 and 7. J. W. Clopton, Secretary, Decatur, Ala.

REPORTS from all parts of the country indicate a very satisfactory ice cream business. With favorable weather conditions the remainder of the summer the ice cream manufacturer should be able to close his books at the end of the year with a smile. Many of them, especially those in the southern states, have a great big smile coming, too. There was little to feel mirthful about last year. Some manufacturers will, of course, fail to make a profit. There are always a few men in any business who try to see how cheaply they can produce what they have to sell and then cut prices until there is no profit in the business. The man who keeps up the quality and who charges a reasonable price is the one who wins.

Speaking of cutting prices we are prompted to add that often the worst offender is the fellow who doesn't know what it is costing him to do business. He figures his cost of production too low and thinks he is making a profit while selling ice cream at a price lower than the man who knows what he is doing can produce it. This makes mighty mean competition.

The new man going into the business often furnishes this kind of competition. He fits up a nice factory and for the first season at least his cost of replacing worn out equipment is very low. Not until he begins to feel the heavy cost of replacement does he realize that he has been fooling himself. Then he wakes up to find that he has been doing business on money he put into the enterprise instead of money made in the business. In the meantime his competitors who have been trying to do business on profits made out of the business have been doing some heavy sweating. About the time the first mentioned fellow gets his business adjusted on a reasonable basis along comes another fool with money to spend on his ice cream education. Thus is life made interesting for the ice cream manufacturer.



WE ARE sure our readers will be interested in reading the many communications which appear in this issue. We wrote to a number of ice cream manufacturers, living in all parts of the country, asking their views relative to certain definite questions which we consider of vital interest to ice cream manufacturers. Some time ago a reader informed us that he was having trouble with the flavor of his ice cream. When the cows were turned out on grass the cream developed a peculiar flavor, in fact it developed a sour taste when made into ice cream. He reported that he has had this trouble each year when the grass is growing very rank and contains an excess amount of moisture. We passed this question on to a number of ice cream manufacturers and also the dairy experts at the various agricultural experiment stations. The replies are printed in this issue and should be of special value to the ice cream manufacturer who has experienced this trouble. Another question of interest is one which we put up to ice cream manufacturers relative to the tests they employ to determine the quality of gelatine used in their mix. These replies will also be found in this issue.

We want to thank the many readers who have responded to our questions and to assure them that their co-operation is highly appreciated. In this connection we cordially invite others to submit their problems and we will employ our best efforts to gather reliable information for them. We want to make The Ice Cream Review a clearing house for your problems. We feel that in this way we can make it of greatest value to the industry.



THE Publicity Committee of the National Dairy Exposition has adopted the following slogan for this year's event: "PROSPERITY FOLLOWS THE DAIRY COW. Be sure you attend the National Dairy Exposition, St. Paul—October 7-14—Minneapolis." Good!

AN EFFORT is being made to standardize equipment for dairy manufacturing plants with lower costs ultimately in view. At a meeting of the Illinois Butter Manufacturers Improvement Association, held in Chicago recently, Mr. S. J. Van Kuren, of J. G. Cherry Co., delivered a most interesting talk, in which he emphasized the need of standardizing much of the equipment on the market. A committee representing the International Milk Dealers' Association has been working with a committee representing the machinery manufacturers and real progress has been made in an attempt to standardize milk plant equipment and supplies.

Mr. Van Kuren emphasized the fact that manufacturers cannot reduce costs of production without laying up stocks. Under present conditions the manufacturers are building "to order" all the time and, of course, this means waste in the cost of production. The buyer suffers as a result. It looks as if ice cream manufacturers might well give attention to this question of standardization and arrange for a suitable committee to work with the manufacturers, who are willing and anxious to reduce costs.

A FEW years ago one Alfred W. McCann, a sensational New York City writer, contributed a series of articles for a local newspaper in which he attacked the creamery industry of the country. He posed as an authority on food products and when he put his O. K. on a particular brand of butter (incidentally the manufacturer carried an advertisement in the paper) nothing but good words followed for that particular brand. The brand that did not get his stamp of approval was likewise made to appear as dangerous to the public welfare. Be it said to the credit of the creamerymen of the country, very few became parties to this sort of a program and McCann eventually turned his attention to more fertile fields.

He has recently broken loose in the ice cream pasture and New York City ice cream manufacturers are getting a taste of his style. Our advice to them is to pay no attention whatever to him and he will soon run out of gas. Don't pay tribute and he will hunt greener pastures.

SOME retail dealers appreciate the possibility of greatly increasing the sale of ice cream in their locality by giving the right kind of service to the home trade. They are not satisfied with the sales over the counter or at the fountain; they encourage housewives to place their orders for ice cream, to be delivered at a certain hour, so that it will be in the right condition for serving at meal time. When the customer wants an order of ice cream delivered at 6:30 p. m., the delivery is made at that time and in good condition. The customer is made to feel that his patronage is appreciated and that he is not asking a favor when he asks the dealer to make the delivery.

Dealers in other food products are meeting this growing tendency on the part of city consumers to order the day's supplies, and they make delivery promptly and in good condition in order to hold and build up trade. They know that if they give the right kind of service the matter of price is a secondary consideration in the minds of their best customers.

With the sanitary containers now on the market the retail dealer of ice cream has opportunities to greatly increase the consumption of ice cream over what it has been in the past. The progressive ice cream manufacturer spreads the idea among his retailers and cooperates with them in every way possible to build up their trade. He backs up the retailer's effort to increase the consumption of ice cream in the home by efficient advertising, and by giving him the benefit of his experience in handling ice cream.

ANNOUNCEMENT is made on another page to the effect that the General Offices of the National Dairy Association have been temporarily moved to the Ryan Hotel, St. Paul, where Manager Skinner and his corps of assistants will hold forth until after the National Dairy Exposition. Committees representing the business interests of Minneapolis and St. Paul are laying plans for the greatest advertising campaign that ever preceded a show. Folks in the Northwest are going to know that the National Dairy Exposition is to be held in their midst and that it will abundantly exploit the great industry which it represents. Make your plans accordingly.

IT IS reported that one of the oldest underwriting firms in the country has decided to discontinue writing insurance on refined sugar in storage. Many fires of unexplained origin in sugar have given rise to the theory that refined sugar is subject to spontaneous combustion. We don't know whether there is a real danger in storing sugar in such quantities as the ordinary ice cream plant carries, but the theory is worth keeping in mind. Have any of our readers had occasion to suspect that the sugar supply was responsible for a fire of unexplained origin? If so, please write us.

ARRANGEMENTS for the big doings in Cleveland are going on apace. Committees are working like beavers to present the best program that has ever entertained and instructed ice cream manufacturers, and for the greatest display of ice cream machinery and supplies ever held under one roof. If you haven't made your plans to be in Cleveland October 16-21 don't put off your decision any longer. The best way to make sure to be there is to just make up your mind that nothing short of death is going to prevent.

A LARGE number of ice cream manufacturers have reported business conditions in their localities, and a summary of these reports for the different sections of the country will be found in this issue. Local business conditions are seriously interfering with the ice cream business in some parts of the country but reports generally are very encouraging. These reports have come to us since July 1st so our readers may accept them as representing conditions right now.

Ice Cream Means Ice Cream

By H. C. ASHBURN



THIS article is in response to one published in the July issue of Physical Culture Magazine, entitled, "What Do You Mean—Ice Cream?"

Perhaps it will be well to first state my qualifications in the way of knowing something about ice cream. I have been connected with the ice cream industry since I was eight years old, and for the past several years have been actively engaged in the manufacturing of ice cream. At the present time, I am superintendent of one of the largest ice cream plants in the state of Oklahoma.

In the first place, this scathing article makes the following statement: "No ice cream manufacturer tells the public how he makes his frozen dainty, or what is in it; the truth is he doesn't dare." This statement is too far-reaching and covers too much territory.

There was a time when most people believed as does Dr. Alfred W. McCann, the author of the article in question, and most people had the same conception of the ice cream industry as he does. That, however, was before the ice cream business became national in scope and was only carried on on a small scale, and when there were comparatively few local or state laws regulating its manufacture.

Dr. McCann expounds rather at length on the carpenter's glue that is used in place of gelatine, not making any exceptions, and thereby casting a false reflection on every ice cream manufacturer in the United States.

Dr. McCann also speaks of renovated butter. It is absurd to think that any reputable ice cream manufacturer would use low-grade butter for many reasons. One important tecnical reason is that it would increase the acidity of his mix to such an extent that it would be impossible to use it. Another reason is that it would give an "off" flavored product, but the last and biggest reason is that the ice cream industry as a whole is composed of intelligent business men who would no more give an impure product to the consumer than they would give it to their own children.

This article also states that the worst cow butter, unpasteurized may be used with commercial casein and river water. That is not the case. Practically every state in the Union has a law requiring the ice cream manufacturer to pasteurize his milk and it would be impractical to combine milk powder, water and butter and get a uniform product without pasteurizing the entire mix.

Speaking of casein—what could be more pure than casein? It is prepared under pasteurizing temperature, stored in a cool place and shipped in a sanitary container; it is also as nearly dry as it is possible to make it, thereby retarding bacterial growth.

Commercial casein, as you refer to it, is nothing but pure milk that has been pasteurized, minus the water.

The homogenizer, which seems to have the dislike of Dr. McCann is one of the greatest machines ever invented for the milk industry. The part it plays is to break up the fat globules and all other undissolved particles of serum or sugar solids, and distribute them uniformly throughout the mix, so that the ice cream mix is really a homogenous solution instead of an imperfect mixture, and has a much smoother texture and more velvety body.

This article also speaks of the poisonous flavors which the ice cream makers are afraid to advertise. As a matter of fact, the flavor does not constitute one six-hundredth part of the ice cream mix and could not harm a two-months child even if it were pure strychnine. Also most ice cream manufacturers use only pure extract in every gallon manufactured.

This article mentions the chemicals used in the form of "improvers." The base of all ripeners is rennet, which is obtained from the inner lining of a calf's stomach, which is an aid to digestion.

The improver is not in any way a chemical and its action on the ice cream mix is purely physical, merely causing the butterfat to harden, which is the same process that takes place when sweet cream is held in the ice box for a couple of days, so you can whip it. It just gives a more viscous body to the cream. The article in question, however, makes no mention of those plants which use no improver at all.

GELATINE IN ICE CREAM?

Yes, there's one one-hundred-and-fiftieth part of a gallon of pure food gelatine in each gallon of

A Pal for Your Palate — NATIONAL ICE CREAM — A Pal for Your Palate

and no other "Filler" whatsoever

FROZEN ONLY BY
NATIONAL CREAMERY AND PRODUCE CO.
LOS ANGELES, CALIFORNIA

Reproduction of a "National" Advertisement.

There is also no mention made of the plants that use pure milk and cream to bring up the liquid content of the ice cream. The author, Dr. McCann, seems able to think only of "river water," as a liquid. It is my personal belief that not one-tenth of one per cent of the ice cream plants use water in their ice cream that you would hesitate to drink out of a glass.

I have seen many ice cream plants in my lifetime and have made a few million gallons of ice cream myself, and I can truthfully say that I have never made a gallon that I would not eat myself. Also, I have never in my life seen or known of a manufacturer who uses river water in ice cream.

Does Mr. McCann know that all gelatine used in practically every state in the Union (if utilized in the manufacture of food products) must be labeled under the Pure Food Act, and must be free from every harmful element? Also that most ice cream factories request and obtain a chemical analysis of each and every shipment of gelatine.

Only a short time ago, our A. & M. College made an analysis of several samples of gelatine, shipped clear across the United States and the highest bacterial count that was found in the lot was 2,000 per gram. The article mentions the impurities to be found in gelatine. Average gelatine contains the following:

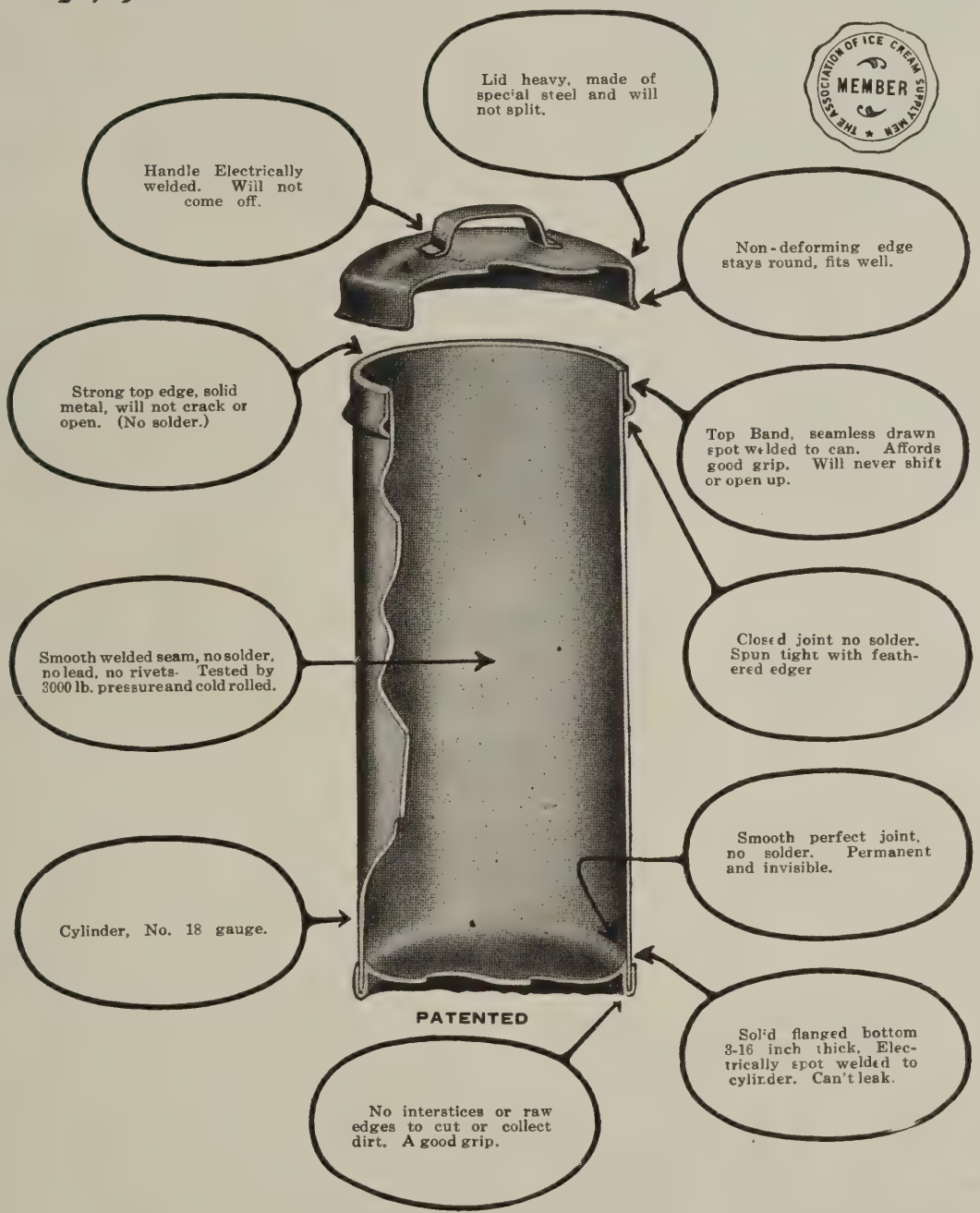
Copper	less than	30	parts per million
Lead	less than	10	parts per million
Zinc	less than	100	parts per million

(Concluded on page 10)

Electric Weld

RIVETLESS SOLDERLESS ICE CREAM CANS

should be judged on a basis of the ratio of cost to service. The can that makes the most trips for the least cost is cheapest. We have other important features. Welded Construction securing all the advantages and none of the disadvantages of seamless can.



Electric Weld Rivetless-Solderless ice cream cans are easily and cheaply retinned, for they are ALL STEEL and PURE STRAITS TIN and have no solder to remove.

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NATIONAL ASSOCIATION OF ICE CREAM MANUFACTURERS
INCORPORATED

CHARLES G. MORRIS, President
New Haven Dairy Co. New Haven, Conn.

Bulletin No. 55 From the Office of the Secretary.

N. LOEWENSTEIN, Secretary
155 North Clark Street Chicago, Illinois

"Some Aspects of Price Cutting"

The following is a portion of an address on the above entitled subject, delivered in Chicago on June 8, 1922, before a trade organization by Hon. Nelson B. Gaskill, Chairman, Federal Trade Commission:

"It is axiomatic that a selling price must include a margin over production cost sufficiently large to include a balance after deduction of all charges incurred but not properly included in production cost, if the sale is to result in a profit. A normal, profitable selling price, therefore, may range from the 'market' as its maximum, to 'production cost' as its minimum. If it is above the market it is not likely to induce a sale, and if it is below production cost it will not produce a profit.

"Competitive selling prices, therefore, which must range between market price and production cost if they are to be profitable, represent the desire of the seller to effect a sale within limits which he cannot transgress, and over but one of which can he exercise any lawful control.

"The proper object of business is and its necessary result must be, profit. It seems almost unnecessary to assert or to attempt to demonstrate this proposition, yet a clear perception of its meaning and application is essential to my thesis.

* * *

"Price cutting is, of course, price making. It is the expression of the extent or degree of the desire to sell. It may be directed against the market, in which event it is adverse to all competitors or it may be thrown forward against competitors in a particular locality or against a particular competitor. It may represent the seller's relation to conditions of supply and demand, it may express his individual preference for volume of sales, it may represent his efficiency and advantageous location as shown in his relatively lower cost. A selling price may represent any or all of these elements, but if it is to be profitable it must exceed the seller's individual cost, and if it is to be consistent with the fundamental principle of the competitive system, it cannot be less than the seller's own cost. Habitual selling below cost as a method of doing business is, in my judgment, an unfair method of competition.

"There are circumstances, of course, which justify its emergent use, just as there are conditions which justify the amputation of a limb. But these are outside the rule, not exceptions within it. The necessity for liquidation, for keeping an organization going through temporary stress, possibly during the introduction of a new industry in a competitive field, these are emergencies which justify an impairment of capital. But selling below cost is no more a part of the ordinary conduct of business under the competitive system than self-multilation is necessary to living.

* * *

"Cutting selling price below cost is impairment of the seller's capital and nothing less. It is pouring out of the reservoir more than is taken in. In economics as in physics, this means the emptying of the reservoir, the exhaustion of capital. It means absolutely inevitable bankruptcy to the one who practices it unless the deficiency can be offset by a more than equal gain elsewhere. There is one fact of which all competitors and the consumers can be absolutely certain. The habitual seller below cost who continues in business for any considerable period, is receiving from the consumer by other means more than enough to offset his losses. Or he will do so as soon as his practice has sufficiently suppressed competition and established what is equivalent to monopoly. When the consumer lears the simple fact that business cannot be conducted at a loss, he will awake to the startling realization that nothing which he buys at a price below its cost represents a saving. And he or she will also learn that a premium article is a most expensive piece of decoration.

* * *

"Two men conduct shoe stores in a certain town. In free and fair competition neither can habitually sell any line of shoes at less than the seller's cost. One buys out the other and conducts both stores as one establishment. Has he gained thereby any right which he did not have when operating but one store? Clearly not. What could be the course or origin of such a right? Buying the other store he succeeded only to the rights which its previous owner had and in the operation of botn stores, the single owner is subject to precisely the same limitations as when he owned but one store. He may not in either store sell any line at less than the cost of that line without violating tne principles of free and fair competition. By the same process of reasoning, he may not conduct one store at a loss and counterbalance those losses by gains from the other.

Now it is immaterial that this suppositious shoe dealer does business under two roofs. If he moves to more commodious quarters and closes both the old stores, no new economic or legal rights settle upon him while ne is moving, nor do any of his limitations go to the junkyard with his old store equipment. Still he may sell no line at less than cost, and tnough he nas departments in a store rather than branch stores, he may not run one department at a loss and compensate by gains in another because his legal and economic relationship has been in no way changed by his changes in form. It makes no difference that he may add a line of hats and subsequently a line of hosiery. If the proposition which I have stated is true as to the sale of a single line it is true as to the sale of as many lines as a seller can compass and the housing of the business has no effect in this connection.

"Here is the crux of the whole price cutting matter. The single line seller who sells below cost is quickly and simply removed from businss by the laws of mathematics and his creditors. But the field of business is harassed and frenzied by tne dealer who has the power to recoup losses sustained by selling one or more lines below cost by compensatory gains on the remainder of his business.

"The so called 'fighting brand' is the typical example. In a report on the tobacco industry a Commissioner of Corporations cited certain competitive practices which may be summarized as follows: The American Tobacco Company dominated the cigarette business in the early nineties, but its plug business was comparatively small. It set about securing a dominating position in this line also. As a weapon in this campaign it used one brand of plug tobacco, 'Battle Axe,' the retail price of which was cut from fifty to thirty cents a pound and the wholesale price of which, less internal revenue tax, was put at one time as low as seven cents. In territories where rival brands were favorites, men were sent through the country distributing samples; they presented a plug of 'Battle Axe' to every man they saw. During four years, 1895-1898, the company made a net loss on its plug business of $3,300,000. But it effectuated its purpose by obtaining and holding, during these years immediately following, a substantially monopolistic control of the plug tobacco market.

"But the practice has not been generally recognized for what it is nor has it been given the universal condemnation which it deserves. Its seeming advantages to those who are possessed of the power to use it, its seeming attractiveness to those who deal with them, have secured for the practice a condonation which has endured too long.

"No one abuse of competitive methods is in my opinion responsible for more effect on the part of those who suffer from it, to escape its effects by unlawful agreements than this practice of conducting some part of a business at a loss with a compensatory gain in the remainder and a profit in the whole. There is no escape for the competitor in the single line in which the loss is taken but an unlawful group action. And naturally he prefers his chances under the anti-trust laws to the certainty of bankruptcy.

* * *

"Because I believe that selling below cost is an unfair method of competition, I believe that a group agreement not to practice this method of doing business is a lawful agreement. It is, it seems to me, as much a matter of internal concern and action in a trade association as is misbranding or commercial bribery.

"In an address delivered elsewhere (Association of Cost Accountants of the Paper Industry, October 7, 1921) I advanced the proposition that each individual business unit should ascertain its own cost and fix its own selling price with due reference thereto. I urged upon trade associations the opportunity and the necessity for education in cost ac-

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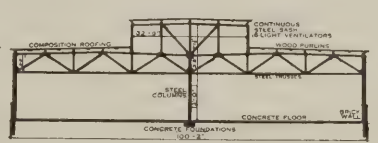
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WHEN SHIPPING ICE CREAM BY EX PRESS, NEVER USE A LARGER TUB THAN THE CAN REQUIRES.

counting methods among their members. That argument is a necessary element in the proposition which I am stating here. Unless cost is known, profit is unknown, and whether a selling price is below cost is a matter of guesswork. The business man who fixes his selling price without accurate knowledge of his production cost and without keeping above it, is on an industrial joy ride. He is not only in peril himself, but he is a constant source of danger to others.

"The starting point of all operations against selling below cost must be proper cost accounting by each individual. Common cost figures, group averages, normal costs and all averages or group allowances, play no part in this work. What is to be determined is the cost to the seller, not to someone else nor what cost would be to the seller if his conditions were changed. Education in accounting methods, the inspiration to use them and to work by the result shown, these are great opportunities for trade associations. But every suggestion which opens the way to the individual to adopt a standard, a normal, an average which does not reflect the individual's cost, is a deterrent to cost accounting and an inducement not to use it.

"No movement within an industry for the elimination of sales below cost can be conducted except in conjunction with and as a part of a campaign for the employment of a proper system of cost accounting. Nor can any movement to suppress sales below cost be put into operation except upon a cost accounting basis. It is easy to condemn selling below cost, it is not difficult to see wherein its evils lie nor is it particularly troublesome to perceive that it may be unlawful in habitual practice. But the proof of the charge is the relentless analysis of the actual cost of the operations preceding sale.

"The elimination of sales below cost by no means implies a stabilization of prices nor a uniformity of prices. It is when properly applied in no sense a restraint upon competition. Costs will vary and prices should vary as costs vary within market limitations. But the application of the principle 'no sales below cost' by each to his own business is simply the recognition and adoption of the fundamental principle of the competitive system.

"Nothing that I have said is really new or strange. If it seems so it is merely because we have forgotten much, or failed to apply what was once well recognized, to the changed conditions of today. Old almost as English law is the maxim that one must not use that which is his so as to injure another. Taking that rule out of its Latin verbiage and applying it to present'day conditions, one finds in it very clearly a recognition of the principle of the competitive system. One man may not conduct his own business so as to injure another. Selling below cost with compensatory gains in an allied line is the use of the seller's property in a way which clearly injures his competitor."

Bills were mailed June 24th to members who have not yet paid their dues. As Convention time is approaching you will of course wish to be in good standing, so please send check to cover. Just take your trusty pen in hand, make out a check and mail it at once. Then it will be off your mind for another year.

CHARLES G. MORRIS, President. N. LOEWENSTEIN, Secretary.



ICE CREAM MEANS ICE CREAM.

(Concluded from page 6)

Arsenic ..... less than 2.4 parts per million
Sulphur Dioxide ..... less than 350 parts per million

There is a disease known as aneurism of the aorta, which wastes away the lining of the main artery of the body. Gelatine is the only known agency that will restore and build up that wasted tissue. Gelatine also keeps the casein of the ice cream from coagulating in the human stomach and in that way, aids digestion. If a small amount of gelatine be added to baby's milk, it will be found to be more easily digested.

Out of inquiries made of over 200 ice cream plants, representing every state, there were only 4 using gum exclusively; 18 using gum in connection with gelatine and the other 178 plants used pure food gelatine exclusively.

The statement made that ice cream will stand the sun for an hour and not melt because it is solidified with glue is absurd. Gelatine does strengthen the cells of the frozen product but it is the proper aging of the mix at a low temeprature that gives ice cream its body.

Dr. McCann discusses the lowering of the butterfat standard from 14 to 8 per cent and states that this allows a greater portion of the mix to be river water. A little deeper study of this fallacy, for it is a fallacy that is shared by many, will show that excessive butterfat content is a detriment. The only part that fat plays is to furnish heat and energy to the body. Consequently when a dish of high butterfat content ice cream is eaten, you are defeating your own purpose, which is presumably that of cooling off. The body is fired with the excess fuel, represented by the fat in the ice cream and in a few minutes the body is warmer than before eating the ice cream. The more fat content in the ice cream, the higher the chemical heat in the product.

Also, ice cream to be properly balanced can contain a limited amount of total solids. When the fat content is increased, it is necessary to decrease the more valuable food element, serum solids. The serum solids are the bone and tissue, or body-building properties of the ice cream. Pure milk contains approximately 4 per cent fat and 9 per cent serum solids.

Milk is recognized as the one perfect food and the closer the ice cream makers can make their product to conform to the portions of milk, the more nearly perfect food they will have. Therefore, let us make a comparison of the products.

Take a 14 per cent butterfat content—13 per cent sugar and a total solid of 35 per cent mix. That leaves just 8 per cent for serum solids. The proportion there is 7 fat to 4 serum solids.

Now take a 10 per cent fat—13 per cent sugar and 35 per cent total solids mix. In this mix, we may use 12 per cent serum solids or 50 per cent more tissue and bone building material than in the 14 per cent fat mix. We are also reducing the fat content 4 per cent, which as stated above furnishes heat and energy to the body. This also brings the proportion down to 5 fat to 4 solids, which is getting close to the proportion of the perfect food, milk.

Consequently it is plain that the idea of an excessively high butterfat content in ice cream for a food is a fallacy. As a matter of fact an 8 per cent ice cream is more wholesome than a 14 per cent fat ice cream.

You state that Director James Foust, conducted a crusade against the chocolate coated bar, and that of numerous samples taken not one was found to contain any tallow or paraffine, and thereby Mr. Foust had knocked the paraffine out of the chocolate coated bar. May I ask how you can logically state that Mr. Foust had knocked the paraffin out of the bar when not a sample analyzed was found to contain any adulteration, and no evidence was found of any having ever been used?

In conclusion I merely want to ask what object would ice cream manufacturers have in view in putting out an unsanitary product when they may, by maintaining a high standard of quality, build up a larger volume of business, retain satisfied customers and by the increased business, make the ice cream industry a much more remunerative occupation.



A small cash investment and the services of a live young man in the ice cream business are what many proprietors are in need of. You can locate good opportunities through a Review Want Ad.

ECONOMY CABINETS



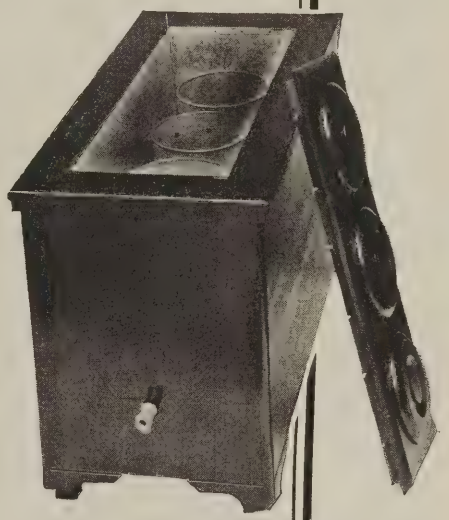
21-quart Brick Cabinet 2 Dozen Eskimo Pies

Economy Brick Cabinets

The best keeper of Brick Ice Cream or Eskimo Pie. Very heavily insulated and icing space on all four sides of brick container, thus giving perfect refrigeration to each pie or brick. Liner and brick container made of Armco Iron.

Economy Metal-lined Cabinets

Especially designed to keep bulk ice cream at its best quality with the least possible amount of ice. Strongly constructed, heavily insulated and lined with Armco Ingot Iron. Supplied with slip rings to keep can in place and convenient for re-icing. Finished in mahogany.



3 Comp. Metal-lined Cabinet

Economy Tub Cabinets

This separate compartment cabinet is especially designed for rural trade so that one compartment alone can be used without being compelled to ice the entire cabinet. The tubs in these cabinets are especially treated to prevent leakage. Finished in highly polished mahogany.

3 Comp. Tub Cabinet



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HOMER MFG. CO.

Homer City **PENNA.**

Eliminating the Grassy Flavor in Ice Cream

A Discussion of this Difficulty by Ice Cream Manufacturers and Experiment Stations



FLAVOR in ice cream has been very aptly called "The Silent Salesman," and there is no doubt about its being the greatest quality of ice cream. Excellent flavors can be purchased on the market. but when there is an original flavor in the cream, it is impossible to put in enough artificial flavor to counteract or "cover it up." Grassy flavor is one of these original flavors in cream, and a reader of The Ice Cream Review recently wrote in, saying:

"At this particular time of the year when cows are on the green grass after they have been closed in and fed dry feed the milk sometimes develops a very peculiar flavor; in fact, it tastes as if it is a little sour after it is made up into ice cream. We find this more particularly so when grass is growing very rank and fast and when the blades of grass are full of water or moisture. This difficulty does not arise every year, but some years we have a great deal of trouble along this line. We are unable to counteract this flavor with flavoring extracts and have a great deal of trouble explaining this condition to the trade."

We had our first experience in trying to "cover up" a flavor back on the farm when we were just small enough so that we didn't have to work. We used to go out and pick ourselves a dish of strawberries every forenoon during the season. It became too monotonous for us to put sugar on the berries every time, so we put salt on one morning. Needless to say, the flavor didn't suit us and we tried to "cover it up" with sugar. The result was we had to throw our strawberries away, and just missed further discomfort by being wise enough to keep still when Ma wondered why the sugar bowl was empty.

The thing we want to stress is to keep undesirable flavors out or eliminate them, if possible, and never try to counteract or cover them up.

Some ice cream manufacturers avoid the grassy flavor; one says "We use powdered milk during the early grass season and thus avoid the strong grass flavor;" and another says, "It doesn't cause us much worry here. We just explain it to our customers, and it is all right because everybody else has the same trouble." But most manufacturers are under circumstances that make it preferable for them not to use either of these practices, and a consensus of their methods of dealing with grassy flavor is given below:

Caused by Feed of Individual Cows.

The trouble which your subscriber has is quite common in most sections of the Middle West, particularly in the spring when the cows are first turned out on green pastures. If the flavor is not overly pronounced it is commonly called "grassy." If the flavor is more abnormal as is the case when the cows have access to and eat wild onion it is known as oniony or garlic. Oftentimes when the season is backward, due to dry or cold weather pasture weeds are as abundant as grass and the cow that has an extreme appetite for green shoots eats everything in sight, resulting in a more decided grassy flavor in the milk. This condition varies with individual animals; cows in the same herd with others, kept in the same pasture give normal milk. From this it would seem that the inclinations as to choice of grasses are different with different individuals. As the season advances and blue grass becomes more abundant the trouble ceases, thus indicating that the pasture weeds must have some influence on the flavor produced. It is not believed that the washiness or moisture content of the grass has much if any effect.

The writer had the following experience while operating a milk plant in Illinois: A patron brought in milk that had a very peculiar flavor. This was early in the spring, and due to cold, dry weather the pastures were short but the season was late and most farmers, having little or no feed left, depended entirely on pastures. We went to the farm for an inspection at milking time and found that eight out of thirteen cows showed the peculiar flavor. Five were normal. The cows, which were kept in a dry lot over night, were milked in the morning and the milk was found to be normal. The meadow pasture in which cows grazed during the day did not seem abnormal in its weed flora. It was therefore, evident that some particular kind of green growth which some of the animals consumed and others did not was responsible for the off flavor.

If the feed of a cow is to be altered the change should be made gradually. When the change is too sudden the physiological conditions surrounding the secretion of milk are disturbed and abnormal results occur. This well known principle of feeding is not always carefully observed and possibly has something to do with the grassy flavor so often noticed in the early spring. The continued feeding in the barn at first until grass is sufficiently abundant will aid in preventing grassy flavor.

When the defect is only slight, pasteurization will usually drive off the volatile taint; and the pasteurized milk and cream dealer will be free from the trouble that will bother the raw milk man. In case of stronger flavored milks and creams aeration must be resorted to. The method worked out by the United States Department of Agriculture Dairy Division on "Removal of Garlic Flavor from milk and cream" could be used. See page 60.

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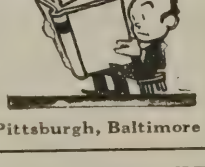
Cows Get in Hurry and Eat Everything.

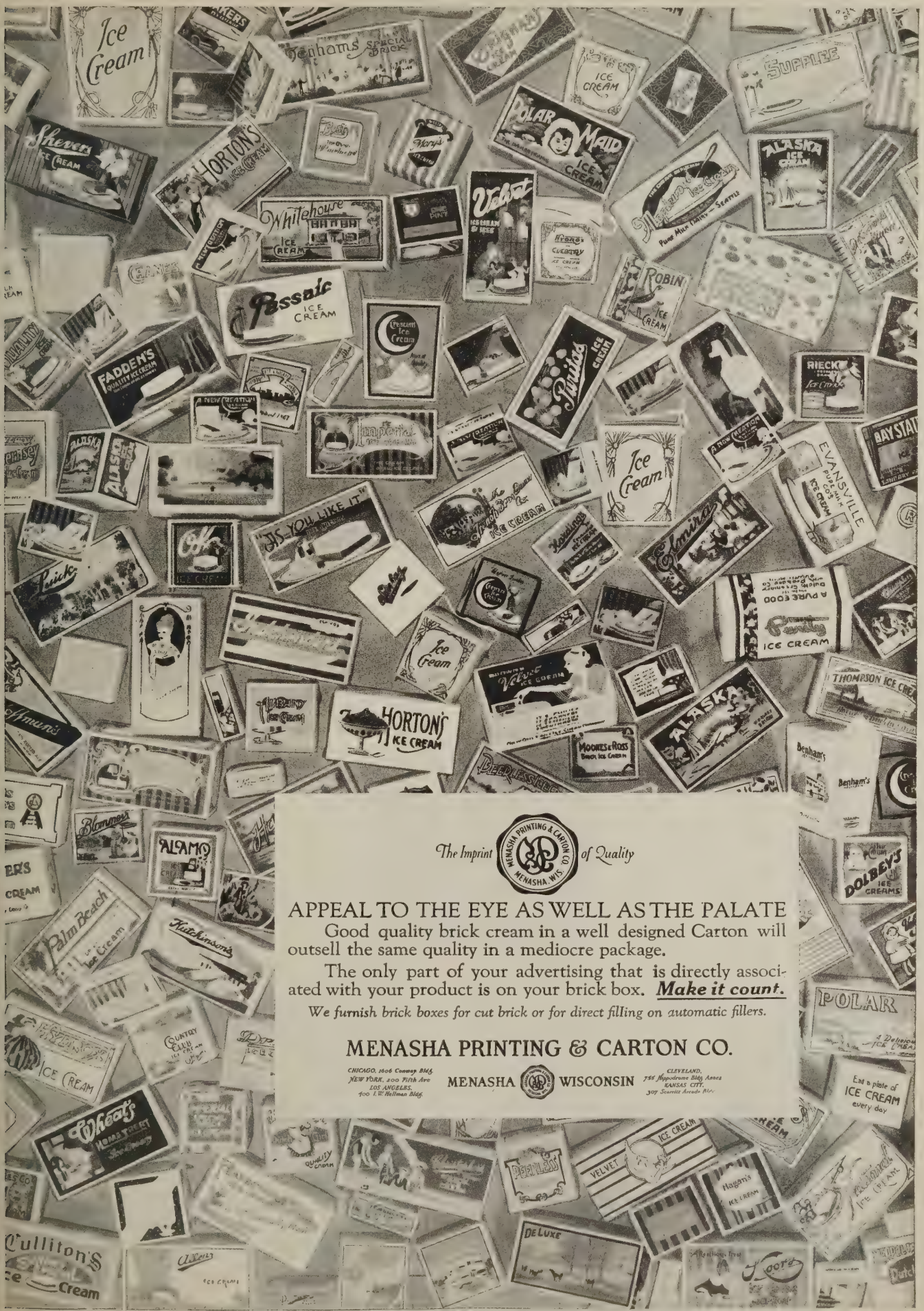
I am inclined to believe that the trouble referred to in your letter is rather of local origin. Inasmuch as these flavors have appeared shortly after the cows have been put on green pasture for the first time in the spring it is quite likely that the cows have consumed the weeds which give the flavor referred to. Cows that have been fed inside and during the early spring being fed on dry feed develop a wonderful appetite for grass and no doubt a good many weeds are consumed in their ravenous attempt to get their first fill of green grass. Cows, as a general rule, are rather particular individuals when it comes to pasture weeds but it stands to reason that when they are first turned on to green pasture they will eat everything as it comes, while a little later they will be more careful and pick the grass from around the weeds. Ordinarily the flavors that we have encountered are easily covered up in ice cream and I am inclined to believe that the trouble referred to is perhaps some onion flavor or the flavor of onion origin which is practically impossible to eliminate.

A couple of years ago we were buying milk from one of our patrons for making cottage cheese. About a month after we had been taking milk from this particular patron we noticed a peculiar flavor in the cheese. This flavor and odor was not noticed in the fresh milk at first but after the whey was drawn the flavor and odor was very apparent and it was necessary to throw the cheese away. At first we thought the difficulty was due to contamination in the factory but after giving everything very careful attention we decided that it must be in the milk. We took a trip to the farmer's place looked over everything very carefully and found his milk room, barn and cows, and everything in very good condition. He was feeding a small amount of hay, which we looked over and found nothing in it to indicate that the flavor was due to any weeds or anything of that nature in the hay. Then we went out to the pasture and found very fine field of grass but here and there was a Dog Fennel standing about a foot high. We looked around very carefully, however, but could find none of these weeds which had been bitten off to indicate that they had been eaten. We, however, suggested that hereafter the man wipe the flanks and udder of the cow with a damp cloth before milking and from that time on we had no further difficulty. This would indicate that the cows

(Concluded on page 64)

Read All About The
new scientific control for ice cream mixing. Our free **VISCO** booklet tells about this new preparation for helping the ice cream maker; what it will do and how to use it. Perfect, uniform ice cream, even under rush production, is easy. Learn the details.
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FANCY FORMS MAKE "SPECIAL DAY" ICE CREAM SERVING POPULAR.

Testing Gelatine

Methods in Use by Ice Cream Manufacturers, and Methods Recommended by Gelatine Manufacturers



ONE may visit a dozen ice cream manufacturing plants, and find as many different methods for testing gelatine for its purity and strength in use, if the gelatine is tested at all. Various tests are recommended by gelatine manufacturers and practical ice cream men who have written us on this subject. We quote them, as follows:

In testing gelatines for this purpose the most important factors to be considered are the viscosity of the gelatine solution and the strength of the jellies when they are set.

A viscosity test is a ratio reading showing the comparison of the rate of flow of a gelatine solution as compared with the rate of flow of water, both flowing through the same size orifice at the same temperature and in the same quantity. For a factory test make up a 15% solution of gelatine and take the time by stop-watch which 100 cc. requires to flow from 100 cc. pipette at 140 degrees Fahrenheit and compare this time with the flow of 100 cc. of water through the same pipette at the same temperature. The greater the ratio, the better the gelatine.

The setting power of gelatine can be determined by placing a 10% solution of gelatine in the ice box over night to permit thorough congealing and then compare the resulting jellies with the fingers for the strength test.

From a sanitary standpoint the numbers of bacteria should be determined on the dry gelatine together with the amount of amino acid present. These factors when considered jointly by any chemist will show which gelatine is made the most sanitary.

To permit several glasses of gelatine to stand on the table and then judge the keeping would not give you any line on the sanitation of the gelatine any more than it would if you attempted to compare several glasses of milk and cream for souring. This is due to the varying amounts of bacterial food in the different gelatines, just as there is a difference in the amount of bacterial food in milk and cream. The purity of a gelatine is hard to determine by a layman, and should be submitted to a reputable chemist and bacteriologist for his analysis for the reasons as above stated.

* * *

The method we use in testing gelatine is as follows:

Put one-eighth of an ounce of each sample of gelatine we wish to test into as many soda glasses, marking them, of course, in order to distinguish them. Into these glasses we put a tablespoon of cold water and stir the gelatine into it. To this we add 8 ounces of water heated to 160 degrees and stir until the gelatine is dissolved. We then place the samples in our cold room until the gelatine sets. We can get an idea of the strength of the different goods by testing with the tips of the fingers.

* * *

Supplementing our communication of the 22nd, will give you information on the way, according to our opinion, one sample of gelatine should be compared with and tested against another sample. In both of these letters we are assuming that the test will be more or less superficial, and that the party testing will not go into the chemical composition of the samples, but leave this entirely to the guarantee of the manufacturer. To go into the chemical side to determine the various impurities present would be too great a task, and we do not believe that you would even care to publish this information.

In making the test referred to in our previous letter, the sample of gelatine of known quality should be placed along side the sample to be tested. Equal weights of both samples being placed in clear water and by means of a double boiler heated to a temperature not to exceed 150° F. (We recommend six parts of water to one of gelatine for such a test). It will be necessary to hold this gelatine at this temperature for a few minutes until it has gone into solution. While hot, a comparative test for odor can be made. If this test is being made in hot weather, it would be best that the samples be placed in a cooler for a few hours to be positive that both are thoroughly chilled and jellied.

Jelly Strength. By simply testing the resistance to finger pressure, it can be easily determined which of the two samples has the greater jelly strength.

By holding these glasses of gelatine up to the light it can be readily determined which of the two has a superior color and clarity and which is freer from suspended matter an sediment.

There is one very important test which we somehow o other neglected to mention in our letter of the 22nd, an which we want to speak about, that is, decomposition. Gela tines in a jellied state should stand at room temperature an the action of the two samples watched closely. If either sam ple liquifies under five days, that particular sample is hig in bacteria and should be graded accordingly. A good gela tine will stand from five days to three weeks without liquify ing. This bacteria content or decomposition test is bein continually given more consideration and, in our opinion, i a most vital question. We see no excuse for any ice crea manufacturer introducing into his mix a surplus amount o bacteria. You even find an ice cream maker who says h doesn't care how many bacteria his gelatine contains be cause he pasteurizes and pasteurization kills bacteria. Thi is true to a certain extent, but not altogether.

We hope we have made ourselves clear and that the in formation as given you is what you want.

* * *

It is rather difficult for the ice cream manufacturers, o those not thoroughly acquainted with the various properties kinds, and qualities of gelatine to judge them correctly i small physical tests. At the same time, it has, and is bein done by a good many, and I suppose as time goes on th older buyers in the business will do more or less of it, an very properly so, where they employ chemists.

The first essential, of course, is the matter of determinin the strength of the product. This is best done by dissolvin one part of gelatine in eight parts of water, heating it to temperature of 160 degrees, and then allow it to jell in natural room temperature preferably over-night, putting i in a room where a temperature of 65 or 70 degrees prevails To set the gelatine in an ice box or cooler in a low tempera ture affects the setting properties in a way that they ar very apt to be misleading when you come to test them fo jelly strength.

In making a test of this kind, very accurate weights an measures must be used if a correct determination is to b made. Nothing short of delicate chemical scales will suffic for weighing the gelatine. An accurate measurement of th water must also be made.

After determining the relative strength, the clarificatio of the product should be given consideration. Determine i the product has been properly processed to eliminate an foreign substances in the shape of floating particles, or whic may show in the way of sediment in the bottom of the glasse (these glasses, by the way, should be what are known a Chemist's Beakers, of very nice, thin glass, without color)

The matter of odor is a very material factor, and to get correct idea of it, after the jelly strength has been ascer tained, the gelatine should be re-heated to a temperature o 160 degrees, and when at that heat, pour it out of the tum bler, when the arising steam carries a true indication of th odors that may be in the product. Where they are so pro nounced as to be objectionable, it is a very clear indicatio that the gelatine, itself, will carry more or less of an objec tionable taste, which can hardly be hidden by any amoun of syrups or flavors. Such objectionable odor and taste is a indication that the product is not as wholesome for foo purposes as it might be, and not as desirable or economica to use, for it costs additional money for flavors to offset poorly conditioned gelatine.

Whether a gelatine is neutral, alkaline, or acid, is a ma terial point.

Whether it is alkaline or acid can be determined by th use of litmus paper. A neutral gelatine is unquestionabl the most desirable. An excess of acid has been known t cause considerable trouble, when used in the making of ic cream, so that gelatine that is neutral or tending to alka linity would be the one, probably, more nearly meeting th needs of the ice cream manufacturer.

These are the cardinal points to be determined in makin physical tests of gelatine, and about all the ice cream ma can do, until he gets around to using the product in a prac tical way, which in the final analysis tells the real story o the properties contained in the different makes of gelatine

A gelatine may show to have good strength, and still i working it out in a practical way, its stabilizing qualities fo

NELSON (Patented) Ice Cream Cabinets

"CONFESSED THE BEST WHEN PUT TO TEST"



42 Quart Brick with Ice Rail
Patented Nov. 11, 1919 1321120

are constructed along scientific and practical lines to conserve ice and salt supplies and keep the ice cream in perfect condition until sold. The manufacturers have devoted thirty years of study and experiment toward the building of the best possible ice cream cabinets for the manufacturing trade. Each particular make of cabinet of the Nelson line is sold with a guarantee and on a plan of "You Must Be Satisfied."



Brick Cabinet
Also for Eskimo Pies



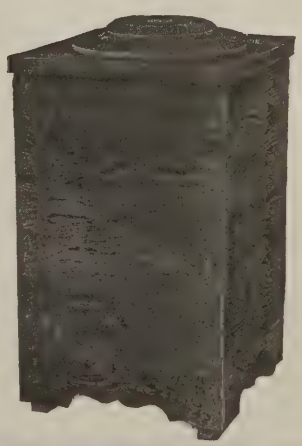
This Proposition Will Interest You

Any responsible ice cream manufacturer—particularly wholesale ice cream manufacturers and dealers — may order from 1 to 100 Nelson patented Ice Cream Cabinets, place them in practical use, and after 30 days, if not entirely satisfactory, return at our expense for freight, both ways.

Can any manufacturer offer a more liberal or fair proposition? You owe it to yourself to thoroughly investigate the price, merits and construction of the Nelson Patented Ice Cream Cabinets before making any further purchase.



Three Compartment Cabinet



C. NELSON MANUFACTURING COMPANY

2308 Division Street
St. Louis, Missouri

ice cream may not be so desirable as another one of possibly a little less jelly power, but of higher refinement, and carrying all the essential properties for the making of ice cream.

The uniformity and standardization of the product a man is going to buy should have material weight with him in determining his purchasing, because it isn't possible for him in practical working to vary the amount of gelatine used in each batch, if the gelatine isn't of perfect standardization not only in the individual barrel, but in every barrel he may use throughout the year.

The ice cream men are spending a great deal of time and money to standardize their solids and other properties in ice cream, but if their gelatine is not equally as accurate in all its measurements, their finished product cannot be uniform or consistent in its body and texture.

To make an accurate test in the practical working of gelatine, it should be used down to a point in the batch where it won't do the work, so as to determine the minimum quantity that will give satisfactory results in the finished ice cream. This will be found to vary considerably between the different makes, and is the only way to accurately determine the cost of the gelatine per gallon of ice cream.

* * *

Mix the gelatine in the proportion of fifty parts of cold water to one part of gelation. Allow to stand until the gelatine has taken up all the water it will, which it should do in an hour's time; then heat over a water bath, stirring until all of the gelatine is thoroughly dissolved.

Allow this to stand over night, and if the jelly is reasonably firm the next morning at room temperature, it is sufficiently strong for ice cream use.

If a comparative test is made of several gelatines in this manner, great care should be used in the weighing of the gelatine and the measuring of the water, in order that each test may contain exactly the same amount of gelatine and water. The firmest jelly under this test is naturally the strongest gelatine.

* * *

This is an incomplete test, in our opinion, because it does not bring out one of the qualities in the gelatine which we consider plays a very important part in its use in ice cream.

The practical test is to use the gelatine in the ice cream mix in the regular course of manufacture, allow the ice cream to stand in the hardening room for about a week, and then place in a cabinet and ice daily. At the end of a week in the cabinet, the amount of shrinkage and the condition of the ice cream as to smoothness may be determined.



E. O. HANSON NOW VANDER BIE ICE CREAM COMPANY MANAGER.

E. O. Hanson, until recently assistant manager of the Creamery Package Mfg. Company, Minneapolis, has resigned to become Sales Manager of the J. C. Vander Bie Company Inc., of St. Paul, one of the biggest ice cream concerns in the Northwest.

Mr. Hanson has established a wide acquaintance in the trade, not only through representing the creamery supply company, but also through his connection with the Minneapolis Dairy School as inspector in testing.

Executives of the Creamery Package Company express regret at losing Mr. Hanson's services, but feel confident that he will be successful in the new work he is undertaking, and their best wishes to that effect follow him.



MOORES AND ROSS COMPANY MOVES INTO NEW PLANT.

On July 1st Moores and Ross, distributors of sweet milk, cream and buttermilk, and manufacturers of butter and ice cream, moved into their new plant at Zanesville, Ohio. They will occupy their new factory, which has been building since last August.

The factory is entirely of brick and concrete, and has a capacity of about 200,000 gallons of ice cream a year. They are using Miller freezers and a Vilter Ice Machine of 30 tons capacity.

This plant is a branch of the Crane Ohio Ice Cream Company of Columbus.

SUCCESSFUL ICE CREAM MEN BOOST NATIONAL EXPOSITION.

Value to the Industry of Shows and Conventions Related by Men They Have Helped.

Two of the most successful ice cream manufacturer in the country have gone on record as to the great valu to the ice cream industry of shows and conventions, wit particular reference to the National Exposition bein promoted by The Association of Ice Cream Supply me and to be held in Cleveland in conjunction with the 22n annual convention of the National Association of Ic Cream Manufacturers, October 17th to 21st, inclusive.

One of these ice cream manufacturers, W. M. E Sire, general manager of the Imperial Ice Cream Com pany, of Clarksburg, W. Va., which has plants in man other cities in West Virginia and adjoining states, ha written to The Association of Ice Cream Supply Men:

"What we think of the value of the National Show is illustrated by our sending all of our managers to ever show for the last five years, excepting Portland.

"We had twenty-one men at Minneapolis last fall and will probably have thirty from our seventeen plant at Cleveland this year, and we will receive large divi dends from every cent of expense in sending these boy up there, too. We figure conventions mean a lot mor to us than we do to them by our attendance.

"Not only the managers go, but the heads of depart ments, such as the ice cream makers, mixers, even th accountant and purchasing agent, because of the ne methods brought out and new equipment and machiner to be seen, and not the least is the good derived fro meeting the manufacturers from other sections and talk ing over each other's problems.

"We have in our plants, our system and our methods many ideas secured at these various conventions.

"We have plants selling as low as 50,000 gallons o ice cream up to 500,000 gallons, and in my opinion thes conventions contribute much towards making 50,000 gal lon plants grow into the 500,000 class as they absorb en thusiasm and ambition at the national and various stat shows."

Another highly successful ice cream manufacture L. M. Hendler, head of the Hendler Creamery Company of Baltimore, Md., has sent the following letter to th Association:

"It would fill a book to write all the benefits I hav derived from attending the ice cream shows and con ventions. I absolutely attribute my entire success t the knowledge attained at these meetings. I still no only attend all of the National Supply Men's Shows, bu nearly every state convention that is within reachin distance and never do I leave one that I do not brin back a valuable little book filled with dollars.

"It goes without saying, of course, that the ice crea show is as important to us as the convention, but no that the two are being held together, a fellow shoul borrow money, if he had to, to be in Cleveland durin that time."

The great National Exposition is to be held in th new $6,000,000 Public Hall in Cleveland, opening th second day of the National Association of Ice Crea Manufacturers' three day convention, October 16th t 18th, inclusive, and continuing through the 21st of O tober.

All but a very small percentage of the display spac in the exposition was reserved by members within a fe days following the issuance of floor diagrams.

more "Carry-Home" sales



There is no denying that most of us have been overlooking an important phase of our business—that of attracting, developing and holding a bigger carry-home trade from our retailers. Bulk ice cream is the preference, we all know. It is, therefore, up to the industry to provide a more practical distribution method for bulk ice cream than the present unsatisfactory method. We must find a way to keep bulk ice cream in perfect condition from the retailer to the homes.

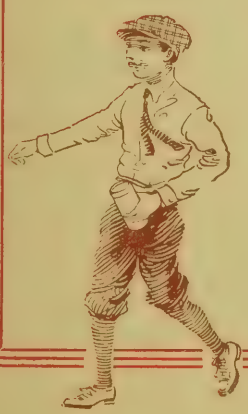
remarks made by an ice cream manufacturer before he knew about the "Sealright-Way"--

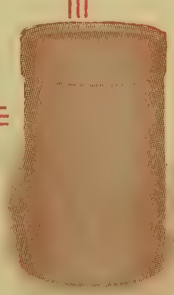


The "Sealright-Way"

IN 44 states, now, the packaging of Bulk Ice Cream, the "Sealright-Way", is the happy solution. It is practical, sanitary, efficient, economical and highly satisfactory. It has won enthusiastic cooperation from dealers and spontaneous favor from consumers. Wherever adopted and efficiently carried out by ice cream manufacturers and retailers, and properly brought to consumer attention, the "Sealright-Way" has not only increased "carry-home" sales, but has stabilized these sales. So favorably is the method regarded, that the idea of carrying ice cream home is now quite the "proper thing to do." Our Portfolio, the "Sealright-Way," covers the whole proposition pretty thoroughly.

Ask us about it.





Sealright Co. Inc., Fulton, N. Y.

Largest Manufacturers in the World of Cylindrical Liquid-Tight Paper Containers

ACHIEVEMENT

TAYLOR ICE CREAM CO.
BUFFALO N.Y.
June 17, 1922.

Mojonnier Bros. Co.,
739 W. Jackson Blvd.,
Chicago, Ill.

Gentlemen:

In answer to your enquiry of June 14, 1922, will say your ice cream packing machine is working very satisfactorily.

We are now filling quarts and pints, one and three layer bricks.

The layers are as even as the slab method and shrinkage considerable less.

Very truly yours,
TAYLOR ICE CREAM CO

HYDROX COMPANY
CHICAGO
June 15, 1922.

Mojonnier Brothers Company
739 W. Jackson Blvd.
Chicago, Ill.

Gentlemen.

Referring to your inquiry will say that the Mojonnier Ice Cream Packaging Machine is 100% perfect.

There are no criticisms of same whatever and no suggestions that we can make for its improvement.

We are more than satisfied with it in every way and believe it is a distinct step forward in the merchandising of good ice cream

Very truly yours,

LAWRENCE ICE CREAM CO.
MANUFACTURERS OF
Goldenrod



21ST STREET
LANCASTER ST
CANAL PORT AVE
AND PEORIA ST

TELEPHONES
CANAL 2948
CANAL 2949
CANAL 2950
CANAL 1171
CANAL 1826

CHICAGO

June 14, 1922.

Mojonnier Bros. Company,
739 W. Jackson Blvd.,
Chicago, Ill.

Gentlemen:- Attention Mr. J. J. Mojonnier.

We have been using your ice cream packaging machine, since July, 1921, and we have been making all of our brick ice cream by your method from that time. We feel that with the new liner, and the improvements that you have made upon your present machine that you have absolutely solved the problem of packaging ice cream directly into the carton. Our brick business is now greater than it ever has been, and is on the increase. We attribute this largely to the splendid package that we are enabled to put out with our machine. Every quart is a full quart. The bricks do not rattle in our package. The cream is of far better texture and more like bulk cream than our brick cream made by the old method. The lines on the three flavored bricks are always much better than we were ever able to make by hand.

We believe that one of the finest features of ice cream packaged in this way is that the cream is hermetically sealed upon all six sides in pure vegetable parchment from the time it leaves the freezer until it is opened in the consumer's home.

We would not think of ever going back to the old method of packaging ice cream.

We recommend your machine with great pleasure.

Very truly yours,
LAWRENCE ICE CREAM COMPANY,
By [signature]
President.

LBO:MS





NEW ORLEANS ICE CREAM CO
Velvet ICE CREAM
1520 to 1530 BARONNE STREET
NEW ORLEANS, LA. May 16, 1922.

The Purity Paper Vessels Company,
4 East Fayette Street,
Baltimore, Md.

Gentlemen.-

Replying to your letter of the 8th, we have been using Mojonnier Automatic Packaging Machine for the past six months. We believe it to be the best on the market at the present time and so would not be without it.

Mojonnier Brothers are making improvements on this machine from time to time and it would seem that the time is not far distant when this machine will be everything that can be asked for. We are packaging around three hundred gallons per day. The cartons are better filled, the flavor more even and in every respect the ice cream is much better when handled by their cutting, and wrapping. From our figures in slabs, then cutting, and wrapping. From our experience, we would not hesitate to recommend the Mojonnier machine to any one needing equipment of this character. We have been doing business with Mojonnier Brothers Company, who are men of the very highest business integrity, for several years and all our dealings have been most satisfactory. You can rely on any thing they tell you and they positively stand behind any piece of equipment that they manufacture.

Trusting this is the information that you desire, we are

Yours very truly,
NEW ORLEANS ICE CREAM COMPANY.
President.

M & G COMPANY
M & G ICE-CREAM
EXECUTIVE OFFICES ALLENTOWN, PA.

Tamaqua, Pa., June 18, 1922.

Mojonnier Bros. Co.,
739 West Jackson Blvd.,
Chicago, Ill.

Dear Sirs- Attention Mr. Timothy Mojonnier.

It gives me pleasure to recommend to other users of your machine its particular advantages and uniqueness. We have found that the packaging machine has been an advertising medium for us, and with the well-filled packages turned out by it, we have been able to get certain new trade which we probably could not have gotten had it not been for this sanitary package.

We find the machine easy to operate, and also unusual care or any great amount of repairs. Its finish or usefulness covers a long felt need in the matter of placing before the public a small, sanitary package at a reasonable cost. Besides, the package is not limited to the quart size only, but to any prices smaller than that, even down to one seventh of a quart.

We feel that during the dull season in particular that we will be able to hold our sales through its use better than heretofore.

Very truly yours,
M & G COMPANY
By [signature]
Manager.

EVG/msc.

See Our Exhibit at the
NATIONAL DAIRY EXPOSITION
St. Paul — Oct. 7-10 — Minneapolis
Booths 34-35

Also see our exhibit at the
NATIONAL
ICE CREAM EXPOSITION
Booths 67-68, October 17-21
Cleveland, Ohio

The letters reproduced above indicate the opinion of some leading ice cream manufacturers in NEW YORK, PENNSYLVANIA, ILLINOIS, and LOUISIANA, with regard to the

Mojonnier Ice Cream Packaging Machine



Pat. Dec. 17, 1918; Aug. 19, 1919.
Process and other patents pending.

Our new rotary sanitary valve and the new suspended agitators have received the enthusiastic endorsement of our customers.

The new parchment lined carton is a great improvement.

The brick of ice cream packed by the Packaging Machine can be unwrapped at the home just the same as under the old method.

The pure vegetable parchment wrapper hermetically seals the ice cream on all six sides.

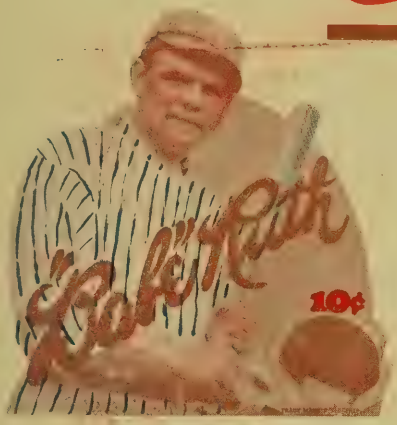
Orders now taken for fall and winter delivery. Model B capacity 900 quarts an hour $1750.00. Model A, capacity 1200 quarts per hour $2250.00.

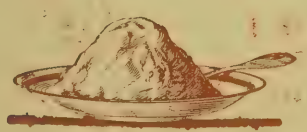
Our representative will be glad to call. Address nearest branch office.

Mojonnier Bros. Co.
MILK ENGINEERS
739 W. Jackson Boul. Chicago

SALES BRANCHES:
New York City, 490 Sanford Ave. Flushing
Atlanta, Ga. - 3 Benventure Avenue
Columbus, Ohio - 123 E. Frambes Street
St. Louis, Mo. - 4931 Margaretta Avenue
Seattle, Wash. - 513 Pioneer Building

Don't Cuss Combinations Get in One—







Here's the greatest combination for profit and business building the ice cream trade ever knew.

"Babe" Ruth

The Idol of Millions gives his name and fame to

Ice Cream

America's "Greatest Food Dessert" in its most delicious form

Chocolate Coated Ice Cream

BASE BALL

TRADE MARK REGISTERED

The Original Chocolate Coated Ice Cream Confection, made of two flavors, chocolate and vanilla, covered with bitter-sweet chocolate.

Tried, tested and perfected for ten years, by a successful confectioner, before offering to the ice cream manufacturer.

You pay no bonus; equipment is inexpensive.

We send our expert to teach you simplified manufacturing process.

Don't fool around with imitations when you can get the original, backed up by real local publicity and sales promotion which we furnish.

Get in the big game which has proved as steady reliable a repeater as baseball itself.

Write Right Now!

Elite Chocolate Coated Baseball Co.

EL PASO :: :: TEXAS

Put "Babe" Ruth To Work For You!

Here's our premium plan by which you can cash in on "Babe" Ruth's nation-wide popularity. Think what it will mean to offer free a "Babe" Ruth baseball with the Bambino King's autograph on the horsehide!

Chocolate Coated Baseballs are the only frozen confection which has the exclusive use of "Babe" Ruth's name and fame.

Babe Ruth Home Run Baseballs are fast becoming as famous as the Home Run King himself. Cash in on the fame of these two favorites of the baseball and confection world.

All you have to do is urge the kids to

SAVE THE WRAPPERS

THEY WILL DO THE REST

A Unanimous Declaration from Hundreds of Ice Cream Manufacturers

"Just The Thing We Need!"

MATOT EVER-KEEP PACKAGE CREAM FREEZER

Why?

Because—

Packaged cream of any selected flavor is instantly dispensed right from the coldest part of the freezer—no fumbling around for the flavor wanted.

The oldest cream is always dispensed first.

Zero temperature—no soft cream.

Keeps cream in perfect condition—a valuable asset for increasing the carry home trade.

Freezer accommodates packaged cream in any form—bricks, eskimo pies, cylindrical packages in quarts, pints, etc. Where necessary special size containers are made.

Cream container proper consists of a centrally located receptacle surrounded by ice on all four sides, top and bottom, and is arranged to provide individual compartments for cream of various flavors.

We guarantee these Ever-Keep Freezers if iced properly once in 24 to 36 hours to keep cream in most perfect shape.

Ever-Keep Freezers are carried in stock in 32, 40, 48, 56, 60 and 70 quart capacity.



Patented Jan. 24, 1922



A full line of non-equaled ice cream cabinets, corkboard insulation, metal lined, Everlasting Redwood exteriors carried in stock in all sizes. Stock finish is golden oak. Can be furnished in mahogany, white enameled or any other finish desired.

Write for our catalogue and net prices.

D. A. MATOT

Manufacturer

MAIN OFFICE and FACTORY:
1538-1546 MONTANA ST.

Chicago, Ill.

"PROSPERITY" TRAINLOAD SHIPMENT OF CHOCOLATE CONTAINING OVER A MILLION POUNDS.

The best evidence of the present state of business, is the fact that the Stollwerck Chocolate Company from their large plant at Stamford, Conn., have made shipment on July first of a trainload of 30 cars of chocolate to their various customers throughout the States.

They are justly proud of calling this the "Chocolate Prosperity Train," and as far as we know this is the first trainload shipment of Chocolate made at any time in the history of the chocolate industry.

This trainload leaving the factory at Stamford, Conn., made a fine showing, the New Haven Railroad co-operating with the company in giving them all new cars, and on each car was a banner giving the name of the customer to whom the carload was being shipped.

This train is moving over the Pennsylvania Railroad during daylight, so as to give the benefit of this unusual sight of a trainload of chocolate being shipped, to as many people as possible, the train moving through the principal eastern and western cities.

The following well known firms are participating in this train movement, each one of them receiving a full car of Chocolate:

The Reinhart & Newton Company, Cincinnati, O.
Brux Candy Company, Newark, Ohio.
Sauerston & Brown, Cincinnati, Ohio.
The Dolly Varden Chocolate Company, Cincinnati, O.
A. R. Walker Candy Corp., Muskegon, Michigan.
C. S. Ball Candy Company, Dayton, Ohio.
Crystal Ice Cream Company, Portland, Oregon.
True Blue Biscuit Company, Portland, Oregon.
American Candy Company, Milwaukee, Wisconsin.
Griggs Cooper & Company, St. Paul, Minnesota.
Minnehaha Candy Company, Sioux Falls, South Dakota.
Johnson Biscuit Company, Sioux City, Iowa.
Brecht Candy Company, Denver, Colorado.
The W. T. Rawleigh Company, Freeport, Illinois.
The Savage Candy Company, Denver, Colorado.
Walter T. Hall & Company, Ottumwa, Iowa.
Sioux Candy Company, Sioux City, Iowa.
P. S. Hessler Merc. Company, Denver, Colorado.
The W. C. Nevin Candy Company, Denver, Colorado.
Gurley Candy Company, Minneapolis, Minnesota.
The Bonita Company, Fond du Lac, Wisconsin.
The Jos. B. Funke Company, La Crosse, Wisconsin.
O. P. Baur, Confectionery Company, Denver, Colorado.
United Bakers Supply Company, St. Louis, Missouri.
McCollum Brothers, Galesburg, Illinois.
Douglas Candy Company, St. Joseph, Missouri.
The Gardner & Gould Company, Burlington, Iowa.
The Brandt Company, Cleveland, Ohio.

PUYALLUP ICE CREAM CO. HAS NEW SOURCE OF RAW MATERIAL.

The Buckley Products Company, Buckley, Wash., is now in full operation. The plant is receiving several thousand pounds of milk daily which is prepared and shipped to Puyallup, to the Puyallup Ice Cream Company. Mr. Robb, proprietor of the Puyallup Ice Cream Co., is also proprietor of the new company. George Etsell, of Bellingham, Wash., is local manager of the plant. Both men are experienced in their business.

The building and machinery of the Buckley Products Company represents an expenditure of about $20,000, and is thoroughly modern in every way. The building for the plant was constructed by the Buckley Improvement Company. It is equipped for the manufacture of butter and with a refrigeration and ice plant, the ice being used both to pack ice cream and for commercial distribution.

KOKOREKA

The ORIGINAL
and BEST

VEGETABLE BUTTER

FOR

THINNING
CHOCOLATE
COATINGS

Write for Free Sample

India Refining Company
McKean & Swanson Sts.
PHILADELPHIA

CHICAGO
222 N. Wabash Ave.

SAN FRANCISCO
203 California Street

ELPAM

(*Imitation Maple Flavor*)

A [Specialty Flavor made by a Specialty House for a Specialty Ice Cream.

It cannot be frozen out.

Free Sample to flavor ten gallons frozen cream sent on request.

G. W. Wardrop Co., Inc.
450 BROADWAY BOSTON, MASS.

California and Southwestern States Ice Cream Mfrs' Ass'n

Proceedings of Seventh Annual Convention, Held in Stockton, California

(Concluded from June issue)

NEW IDEAS AND PRACTICES IN THE ICE CREAM INDUSTRY.

By Mr. F. E. Miller.

Mr. Miller: Ladies and gentlemen, I enjoyed Prof. Turnbow's paper. You recall last year he gave us some very interesting things that will be of material help to our industry and particularly I enjoyed the fact that the convention discussed his paper because he has had some papers here that were interesting but some way or another our meeting did not mix it like it has today and I think you will agree that we are having a very fine meeting today and one that is very helpful.

The subject I have, "New Ideas and New Practices in the Ice Cream Industry," is something that is interesting to us because if we are to advance and grow we must continue to go after these things. Some of them involve the chemistry of our product and some of them involve the new mixes. We are all striving for bigger and better things and we must advance mechanically and learn more about the chemistry. I have in mind the subject of vitimines and that is to me a large subject, and I hope some day we will have that on the program. If we are to put our product on as a food product we have to know more about these vitimines. I wish we could have the benefit of Prof. Turnbow to tell us more about vitimines, and whether when we pasteurize our mix whether we kill these little vitimines. If we tell the mother to feed her children ice cream, that it is a food product, if they find that any of these vitimines are killed through pasteurization, it would be well for us to do it some other way, because to my mind, that is one of the things that will make our business grow. I have most of my remarks on paper. Some say the silent partner is responsible for this paper, but I leave it to you.

Often I visualize the ice cream business through the same mental glasses by which I view the progress of electricity and the conquest of the air. Great as we may consider their development, all are yet in their infancy.

The ice cream man cannot help being carried away with enthusiasm when he takes time to consider the almost limitless possibilities of our business. We have as yet hardly scratched the surface of our opportunities. True we have made some progress along mechanical lines, but as to essentials, are they not much the same as they were, say ten years ago? Sometimes I am lead to peer into the future of our business and I see ideal conditions. One thought generates others and forces comparison between such ideals and the system that now prevails.

You may well ask for the details of such a happy future as I mention.

Truly we have not made rapid or radical advance. I read recently that in the time of Nero artificial refrigeration was produced with ice and salt; so it is today. At our last national convention at Minneapolis the statement was made that the last five years have seen the greatest progress and usefulness of our business. The remark referred to certain improvements in delivery trucks and cabinets. Too often we do follow the rule of thumb methods and show a positive cowardice toward the adoption of new ideas and new mechanical appliances. While we are not in the horse-car period of our development it must be admitted that we are not on a par in progress with the latest motor car that can fly a hundred miles an hour.

I do not believe I am visionary in giving it as my belief that in the not very distant future ice cream will be produced much more efficiently and economically than by our present freezer methods. My enthusiasm impels me to say so. New methods will come because they will be demanded by the growth of our business and for increased economy in production. The world's chemists will doubtless astonish us before long by innovations of which we have no idea at this time. It is impossible for any branch of industry to stand still in these epochial times.

Let's be explicit. Our brine freezers are larger than they were ten years ago, but has there been any othr sign of advance? And is not the same true of most all of the branches of our business?

We have but two things to sell, ice cream and service. Speaking broadly the service costs almost as much as the raw material. Does not such a condition call for strenuous effort to bring about a change? What other

The small ice cream maker grins, and the large manufacturer chuckles. They both use *VISCO* in their mix. Read about this latest application of science to your industry.
Send for Booklet. Cherry-Bassett-Winner Co., 1918 Market St., Phila.

PURE VANILLA EXTRACT

ATLANTIC IMPORTING CO.
617-623 Eleventh Ave., New York City
B4



TYPE B
Foot-Power Filler

Sealright—a Practical Filling Machine for the Round Container



The Sealright Filler, with the Sealright Containers, forms the finest combination on the market for speedy and thoroughly satisfactory work. The machine is compact and fits in anywhere. It automatically packs bulk ice cream in one or or more flavors without the necessity of the cream being touched by hands. Bulk cream in packages is what the people want. Be a leader in your community and win popular favor by supplying bulk cream in the Sealright Package.

Sealright Containers

appeal to the ice cream buyer, for their carrying and keeping qualities, and because they do away with the mussy, unsatisfactory method of unwrapping and slicing the usual brick. And more important still, they protect the dealer against loss by measuring the cream accurately—four quarts from every gallon, instead of the shortage that always results where bulging paper pails are used.

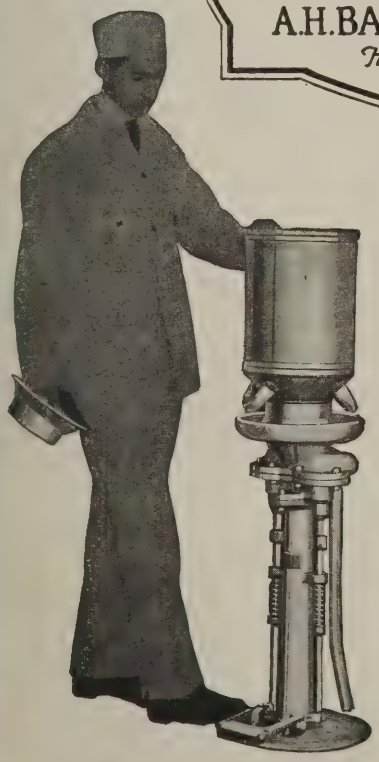
BARBER

IF you want to keep closely in touch with the latest developments in equipment and supplies for your business, you have only to keep your name on the Barber mailing list. As large distributors, we keep fully informed on new machinery and improvements brought out by the various manufacturers, and the things which are practical and worth-while are quickly passed along to our customers. This, with our Chicago and St. Paul locations, and our excellent shipping facilities, is a great convenience and valuable to the dairy industry throughout the Middle West.

A.H.BARBER CREAMERY SUPPLY CO.

Home office: **300 W.Austin Ave., *Chicago***

TWIN CITY OFFICE: 2490 UNIVERSITY-AVE., ST. PAUL



Danforth Jet Rinser and Sterilizer

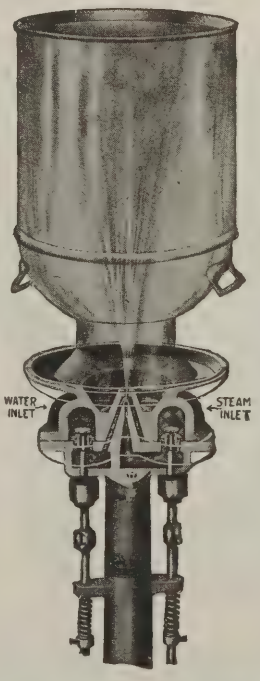
A can steamer, to be satisfactory, must be fast—thorough—and convenient in operation.

The Danforth steam jet is located directly beneath the orifice. The action of the jet breaks the water into a fine spray and greatly accelerates its speed. The water is heated by the steam as it passes through the ejector.

Note the convenient operation of the valves directing the water and steam. A flexible foot tread, simply by moving the ball of the foot one inch to the right, shifts from water spray to live steam. The rinsing is instantly followed by sterilizing. Nothing could be speedier or more convenient. The hands of the operator are left free to hold the can.

It is low enough in price to make it practical for the smallest plant—large enough in capacity to meet the needs of the plant handling 300 cans per day. A thoroughly practical and dependable piece of equipment at a moderate cost.

Price, painted gray, $45; galvanized, $50



IT IS EASIER TO GIVE ADVICE THAN TO LEND A HAND.

business shows such a record? I am enthusiastic enough to say that before another five years has passed we shall laugh with incredulity at the expensive, wasteful, amateurish methods we use today.

Already the light has broken in with the refrigerator truck. While not filling all the long-felt want this form of delivery truck is a step ahead and will certainly be perfected in the near future. We are also at work on the refrigerator cabinet. Both are prime necessities if we are to popularize ice cream as it deserves. At every stage of the business we must regard our trade as one that is in its infancy and that calls for all possible initiative and research.

It must have occurred to many of you, as it has to me, that we are yet following a very primitive, expensive method in the preparation of ice cream bricks, and in the packaging of our product. To get my idea before you, let me draw a comparison. But a few years ago the milk man distributed his product from cans on his wagon direct into the pitcher of the housewife. Compared to the complete sanitary system of distributing milk today, and with which you are all familiar, the old method is seen to be not only repulsive, but unreliable.

Why not similar progress in the handling of ice cream? Our present method of preparing brick is cumbersome and wasteful. We have now machines that eliminate three or four operations and prepare a three-layer brick direct from the freezer into the original carton. This machine will fill a long felt want and will complete a link in the sanitary manufacture of ice cream.

This same method of packaging could be followed in the ice cream now sold in bulk to dealers. Instead of spooning out ice crea min a grocery store from a cabinet which might have a dusty sack of potatoes or a bundle of corn brooms alongside of it, how much more sanitary, and attractive to the customer, to have the ice cream already packaged and sealed without possibility of dust and flies. Such a method would do much to popularize ice cream as a food and would commend it to the grocer with greater force than the lower method of spooning from a can.

These last remarks of mine have a direct bearing on another angle of our business which is calling for the closest attention. I refer to the manner in which our very moderate profits are decreased because of the large amount of responsibility we take off the dealer's shoulders. As it is, we not only sell him our product at a close margin, but we guarantee him against all loss, we keep the goods in perfect condition for him and it has become customary for him to expect us to supply him with expensive signs, to decorate his store and to create trade by generous advertising. If these things are to be done, we must, for our own protection take advantage of every device for lessening the cost of production, and we must make concerted effort to increase the volume of business.

It will be admitted that there is much yet to add to our knowledge of the chemistry of milk and cream. More recently we have heard much of the value and virtues fo vitimines in milk. Yet no one has been able to give us a definition of vitimines or to tell us what they are. If they possess the valuable qualities attributed to them we ought to use this knowledge in creating new interest in our product.

With a great part of the world ice cream is still a luxury. It is our duty to convince that it is primarily a food, a health and body builder. When we have done that the ice cream man will be in the same category as the baker and the butcher, and that is where he belongs.

But while the chemists and scientists and mechanicians are struggling with the problems of ice cream making and service so far as they can, let us look at some of the other angles of our game. Let us look into the heart of our business organization and see if we are doing everything possible to promote personal efficiency in every member of our business family. This I regard as essential to success. A satisfied, harmonious organization with every unit working toward a common purpose and feeling that a definite part of the responsibility of the business rests on each one is a big asset. Such condition promotes economy, stimulates good service, makes for good will wih customers and adds to profits. Without in any way making a sacrifice to discipline, I make every employee feel that I am interested in them beyond the mere need of service thy shall render for so much pay. I believe in maintaining a democratic bond, but not an autocratic one, between employer and employees.

I am a firm believer in co-operation among men in the same line of business. The exchange of experience that is made possible at conventions is very valuable and instructive. We should not only have a state, but also sectional organizations within the state for the protection and development of business. The highways of California have tied us together and have made possible service to hundreds of smaller markets hitherto inaccessible for our product beyond a limited time. From each other we can gather information as to transportation that will be of marked value. We should regard it as a duty to attend our conventions and to co-operate in every way possible. The coming changes in our business will make co-operation more necessary than ever. We should be able to obtain information as to milk supplies from all parts of the state if we organize along intelligent lines. I can see how many benefits that will

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"BrownPansy"
"White Rose"

Three Styles of tub covers, each designed for a specific requirement and tested to give maximum service.

Write us for prices and details

ST. LOUIS AWNING & TENT CO.
ST. LOUIS, MISSOURI

YOU MAY KNOW EXACTLY WHAT IT WILL COST



Imperial Ice Cream Co., Ashland, Ky. *Inset*—Pasteurizing Room, J. C. Kreusch Co., Anderson, Ind.

You do not need to guess at what it will cost to build a new plant or remodel; you don't need to take any chances on piling up unexpected construction expenses or be put to unforeseen trouble incident to financing; you don't need to be disappointed when the work is completed.

You may know exactly what the capacity will be and what your total investment will be — whether you contemplate a new plant or the remodeling of your present one.

McCormick Architectural and Engineering Service

has taken the guesswork out of plant capacities and construction costs. It lays the proposed plant before you in all its detail to be examined as intimately as you would an office desk. It gives you the opportunity of studying the inter-relations of every department, and construction not started until you are thoroughly satisfied with its appearance, type of construction and convinced of its efficiency and cost.

McCORMICK SERVICE plants are planned and built according to your requirements. Wastes are eliminated, production speeded up and costs reduced.

Why take chances or speculate on the success of your plant investment when such accurate and complete information is available? Just write us that you are interested. You will not be obligating yourself in any way.

THE McCORMICK COMPANY, Inc.

PITTSBURG
Century Bldg.

Architects and Engineers for the Dairy and Ice Cream Industry

NEW YORK
41 Park Row

Construction Executed by Your Own Local Contractors Under the Direction of Our Own Superintendents

follow co-operation among us and I counsel the closest of relationship among the members of the trade. This would help to maintain the ethics of our industry, an obligation that is very necessary. This feature of our industry is that which closely reaches the public and dominates the degree of respect with which our business is regarded. In all our advertising there should be that note that will inspire confidence in our business and anything apart from this is disastrous.

I feel more than ever the basic truth of my opening remarks that we have not as yet broken ground for the great strides that our industry is destined to make in the near future. People are not eating half as much ice cream as they should, or as they would if they but knew its real value. This statement perhaps sounds commonplace, but it is not. I am confident that the future progress of our product may be compared to that of the auto vehicle. And what has done it for the auto? Persistent improving and persistent advertising. The same elements will win for us and in the same measure.

So far I have confined my remarks to what might be called the physical aspects of our business. But work as hard as we will, we must also think.

Henry Ford says, "My advice to business men is to read a lot, think a lot, work a lot." The habit of analysis—to get under the surface of things, gives a man a tremendous advantage over his competitor, who does not do likewise.

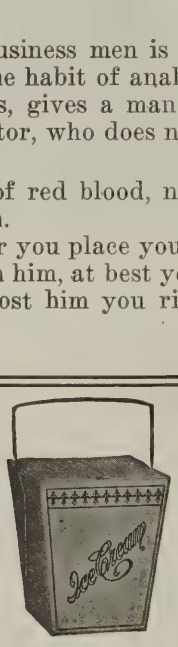
The industry to-day calls for men of red blood, not of white livers, men of grit, not grouch.

If you seek to injure your competitor you place yourself below him, if you take revenge upon him, at best you simply even up matters, but if you boost him you rise above him.

Boxes for packing

ESKIMO PIES

AND OTHER CHOCOLATE COATED ICE CREAM, CARRIED IN STOCK.



Ice Cream Boxes of "Distinction"

OUR SPECIALTY



BRICK BOXES
in all styles
Plain or Paraffined

PAILS
SENATE—EASY CLOSING
JACK FROST
Tape and wire handles

THIS
"CHICAGO" CAN LINER
has many features you should investigate

Send for Samples and Prices

Ferguson-Lander Mfg. Co.
1733-1737 W. Austin Avenue CHICAGO

Although a super-optimist, I am impelled to say, from a long experience, that there is no royal road to success in the ice cream business,—the elevator to success is no running; you should take the stairs. Often we will ascend three or four steps and slip back one. But that is real progress, real cause for encouragement.

There is a point of contact between us, or there should be, other than that of ice cream manufacturers. I take it that the purpose and virtue of organization includes the incubation and nurturing of a man-to-man, a fraternal bond which suggests that the success of one is cause for mutual congratulation and the injury to one is the concern of all. The development in our business during the past few years and the tremendous opportunities now unfolding, invest in us a responsibility to the public which is growing daily.

As individuals, as well as through our organization we must do everything to establish public confidence in our business, and we must do nothing to shake it.

If the practices and principles which I have attempted to bring before you are put into practice I know of nothing that can keep you from building the ladder on which you rise, "From the lowly earth to the vaulted skies."

The President: Does anyone have any questions to ask Mr. Miller, or is there any discussion on the subject?

If there is no discussion on Mr. Miller's paper, Prof. Turnbow would like to know the pleasure of the manufacturers on how they would like the names on the scores of the ice cream, or do they want to keep it secret or make them public? He wants to know now so he can prepare. I think that is usually announced at the close of the round table this afternoon.

Prof. Turnbow: The result will be ready by one o'clock, and at that time I would like to know which way it is to be put on. The cards are to be posted above each container. Will I put the name or the number on the score? It is just so I can follow out the wish of the association.

The President: We will talk it over a little among ourselves and give you the instructions on that in the early afternoon.

Prof. Turnbow: All right, I will appreciate that.

The President: We will decide after we have talked it over a little.

At the close of the morning session, all members and visitors will go to the roof garden on the second floor where they want to take a group picture there so that our publicity committee can give proper publicity. Mr. Kugler wants this information.

The President: The next number on our program this morning is "Color in Ice Cream; Its Limitations and Abuse," by Mr. E. W. Morrison.

* * *

"COLOR IN ICE CREAM; ITS LIMITATIONS AND ABUSE."

By E. W. Morrison.

Mr. Morrison: Ladies and Gentlemen: When we look at the ice cream score card adopted by the University of California, we see at the head of the list, appearance and palatability, with the word appearance followed in parenthesis by the word "color," meaning that they are practically synonomous. Hence I consider the subject now to be discussed an important one.

Coloring is only a small step in the process of manufacturing ice cream. For this reason, importance of color in ice cream is apt to be underestimated. Ingredients, composition, methods of processing and standardi-

(Continued on page 78)

LET THESE
GOLDEN STATE PRODUCTS

Protect Your Cream Supply



USE
THESE



The ideal combination for an ice cream mix — homogenize with these and watch your sales grow.

Fresh stocks at New York — Chicago — Boston — Omaha — New Orleans — Jacksonville — Atlanta — San Francisco — Los Angeles.

Send for Special FREE Bulletin — "Remade Milk and Cream With Pure Milk Fat and an Improved Method of Emulsifying" by A. O. Dahlberg, our Manufacturing Specialist.



CALIFORNIA CENTRAL CREAMER

175 FRANKLIN STREET, NEW YORK

SAN FRANCISCO CHICAGO LOS ANGELES

Getting People to Use More Ice Cream at Home

By C. W. ESMOND, of The Frederick C. Mathews Co., Before Ohio Ice Cream Manufacturer's Assn.

There is no doubt but that we can all agree with the manufacturer, who made this remark to me a short time ago. He said: "It pleases me immensely to see people patronizing the soda fountain and eating sodas, sundaes and cones. As I see this, there also flashes into my mind the vision of my freezers running full time and a steady stream of deliveries leaving my factory. but if there is anything I like better, it is to see men, women and children coming into the store and buying it in pints and quarts to take home. This is the class of business that runs into gallonage for me. Money spent in this way by the consumer buys much more ice cream than if spent the other way. Yet it doesn't lessen the fountain trade, for the more people eat the more they want. Beyond that, is the vital fact that this demand continues in bad weather as well as in good. It maintains the output when I most want the business. It stabilizes the demand more evenly throughout the year, and by helping me to make ends meet in the cold months, conserves and increases very greatly my profits for the whole year. In it lies the greatest future development ofthe ice cream business."



C. W. ESMOND.

Agreeing, as I believe we all do with the sentiments of this manufacturer, let us visit a few stores in various parts of the United States and Canada, that are exceptionally successful in selling ice cream for people to use at home.



Take my friend, Ainsworth, for instance. He runs a little corner store in a city of 60,000 people in the northwest. It is one of those handy places where people drop in to get what they forgot to order from down town, but no customer ever gets out of that store without Ainsworth suggesting ice cream to her in such an attractive way, that she seldom resists the temptation to buy. He talks about it, tells people about it at every opportunity and gets a volume of sale that is the largest of any store in the city. Salesmanship, suggestion, or whatever you like to call it, is the secret. He is enthusiastic and he talks because he realizes ice cream to be the most profitable line he can push—no capital tied up in stock—stock turning every day.

Now, for a change we will call on Vic Krummenacker of St. Louis. He does not think that there is anything remarkable about anything he has done. But, just the same, in his little corner drug store way out in the suburbs, he sells more bricks than probably any other store in St. Louis. Every parcel that goes out of his store carries in it a piece of advertising matter, suggesting bricks. The effect of this is intensified by his talking about it at every opportunity to customers who come into the store. He keeps it in front of them perpetually, and backs up his aggressive selling by giving a dependable delivery service and high quality goods.



A different type is King, of Hamilton, Ontario. His unique way of getting people to use more ice cream at home and to get people to talk about him is by giving the housewife new ideas about how to serve ice cream at home. Mrs. Jones, for instance, comes in this afternoon to get a quart or two for an afternoon tea she is having. When she has decided on the quantity and kind she wants, King asks her if she wouldn't like to serve it as a sundae or a parfait. This always appeals to her and she wants to know how to do it. He tells her and sells her some fruit or a syrup to serve with it.

Then he begins to have telephone calls like the following: "I had some of your ice cream at Mrs. Jones' tea the other afternoon, most beautifully served. I am going to have a tea tomorrow afternoon and I would like to have you supply the cream and tell me how to serve it." These calls come from a great many different parts of the city, and usually from people King has never seen or heard of before. In this way the helpful suggestions he gives are both making people use a great deal more ice cream and constantly getting him acquainted with new people he has never met before.

Smith of Salt Lake City has a little corner grocery. This is a store of convenience for the neighborhood. He sells a large volume of quarts and pints by getting it to the people regularly at a certain time every day. He has two boys who work with him after school. These boys start out with a wagon and a packer full of bricks and go from door to door. The housewives buy the bricks, wrap them up in newspaper, so that they will keep till supper time, and the boys very quickly get rid of their stock of bricks. The housewives have gotten so they can depend on getting ice cream at a certain time every day, and they make it their regular dessert three or four times a week. Being able to depend on it in this way, gets them out of the habit of making desserts, and it has immensely increased his sales in his own neighborhood.

Another exceptional ice cream merchant is J. A. Far-

Wood's Gelatine

Guaranteed Food Products

Gelatine
India Gum
Kreamine
Fairy Cream Powder
Yum Yum (Ice Cream Flavor)
A-XXXX Vanilla
Grinders of Cocoa

The Most Complete Line on the Market

Write for Price List

W. B. Wood Mfg. Company

Manufacturing Chemists

ST. LOUIS, MO.

rell, of Cincinnati. His sales of ice cream in the winter, for instance, average around 500 gallons per month, as

Charging a fair price is one of his basic policies. compared with sales of 1,000 to 1,200 gallons per month in July and August.

Charging a fair price is one of his basic policies. When other people were charging 60 cents for quart bricks last spring, he reduced his price to 50 cents. But the method paid him, because he got people talking about him, and his volume of sales increased immensely. He believes in moderate profits and quick turn over. If you once go into his store you are his friend forever. He has a cheery word for everybody and a genial Irish way, that compels you to like him. Before you know it, he is talking ice cream to you and is showing an ice cream brick that you likely buy before you get away from the store.

He will take a loss any time in order to make a friend. For instance, a society in his neighborhood that purchased ice cream for a social evening from somebody else, ran short during the evening and needed an additional 18 gallons. They phoned Mr. Farrell in their emergency, and he got a truck and got the ice cream to them in less than twenty minutes. Another time a church organization, which bought their cream from another source, had some left over. They came to him and asked him if he could use the surplus. He promptly and pleasantly took the cream off their hands, though he realized he could not make a profit on it. But he did make a profit in a big way on the friendship he secured by doing this. It is never too much trouble for him to make a friend.

It is also a vital policy with him to constantly give the people something to talk about. One afternoon and evening he gave away about sixty dollars worth of ice cream in the form of sandwiches, at a nearby theatre. He says it looked foolish to give so much ice cream away, but that in less than a week he recovered this amount and more from the increased sale of sandwiches. For making sandwiches he cuts a quart brick in seven portions and serves the portions between chocolate wafers with a candied filling, at a price of 10 cents. This illustrates his policy of giving good value to the customer.

He is not merely content with reminding people of ice cream when they come into the store. He has a mailing list of approximately 4,000 homes and he writes letters and mails circulars to these homes regularly. He sells an immense number of magazines and newspapers, 3,000 copies weekly of one publication alone. During the winter, especially, he rubber stamps every publication that he sells, with a message about ice cream or some attractive specialty, that will tempt the appetite of every person who reads the paper or magazine. In the case of the Saturday Evening Post, for instance, he not only stamps the outside, but also stamps some of the inside pages. This gives him a tremendous mailing list at small cost. He delivers to homes, the customer paying for the cost of delivery, the nominal charge of 10 cents, which goes to the boy who brings the ice cream.

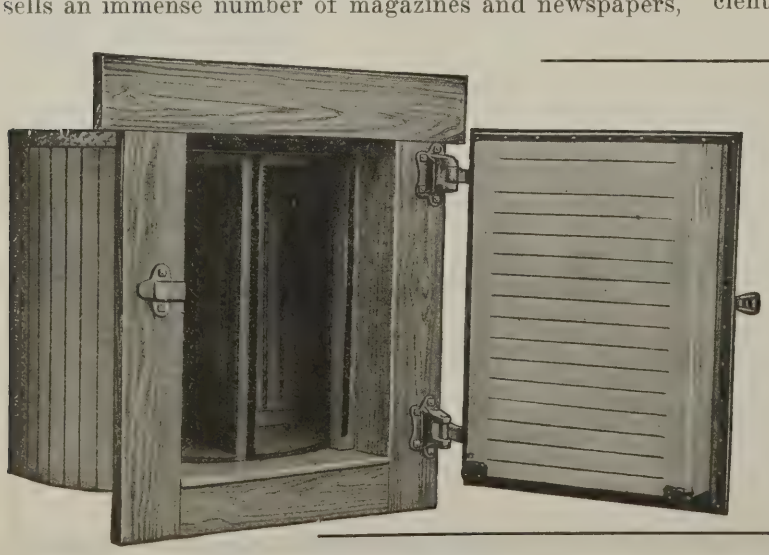
I have tried to give you a little word picture of these various dealers, believing that we may learn something of value from their methods. There are not a great many of this type to be found. These aggressive and enthusiastic business getters for ice cream are unfortunately very rare. But their example suggests some things of great value.

The first thought is that we industriously develop other dealers of this type. The second is that we apply certain of their methods in our selling program as manufacturers. How are we going to do this?

To develop aggressive dealers, how can we do better than to set them an example of enthusiastic, aggressive salesmanship ourselves, a salesmanship that reaches through them to the consumer in their own community right around their store, and demonstrate to the dealer in a direct way the possibilities and the profits of selling ice cream. Can we expect them to be keen, enthusiastic, and aggressive, if we ourselves go no further than to deliver ice cream to their store, put up a few signs, and talk to them in general terms about the profits that come from a large volume of quart and pint sales?

We cannot inspire our own hired salesmen to do their best work, unless we ourselves get out on the firing line from time to time and encourage them by our example. If we can't get results, except by example, with our own salesmen, who have only our own product to push, how can we expect results from dealers, who not only handle ice cream, but scores of other things, so many that ice cream is merely one detail of the business?

From seeing the results habitually secured by manufacturers in different cities, the conviction grows with me that the most effective way to get large increases in the sales of quarts and pints, is to consider each dealer as a salesman, representing us to the public, and to help him by example and by effective advertising matter that reaches the people he is interested in, to be a more efficient and enthusiastic salesman of our product. Every



JAMISON'S
"NOEQUAL" REVOLVING DOOR

is making can-passing easier in Ice Cream Plants and Creameries everywhere.

It passes Ice Cream and Milk Cans back and forth without loss of temperature—and requires but one person to operate when fitted with unloading device.

Standard 5-Gallon sizes in stock.

Send for Catalog No. 10 and Prices

Jamison Cold Storage Door Co.
Formerly
Jones Cold Store Door Co.
HAGERSTOWN MARYLAND, U. S. A.

Performance Counts

ZERO

Ask the Drivers

GUARANTEED



Patented

400 gallon on 3-ton International

One of DOLBEY'S fleet of nine GROTHE REFRIGERATOR BODIES

Dolbey had a test made on one of his GROTHE REFRIGERATOR BODIES that works daily on a regular route. When the body was loaded and iced at 7 A. M. it was two above zero. A reading was taken every hour and at the end of the day it showed an average Temperature of one below zero for the day. This is the reproduction of a statement made by Mr. Dolbey at a recent dinner of the New England Dealers Association. Statements like these speak louder than anything the JOHN J. GROTHE CO., INC., could say.

Order Now — let the GROTHE REFRIGERATOR BODY show you what real service is.

The lightness of the GROTHE REFRIGERATOR BODIES makes possible light chassis, low tonnage and low delivery costs.

Below is a partial list of satisfied GROTHE REFRIGERATOR BODY users.

Jersey Ice Cream Co.	Lawrence, Mass.
Kayworth & Turner	Lawrence, Mass.
Malden Ice Cream Co.	Malden, Mass.
Ernst L. Haines, Inc.	Lynn, Mass.
Cameron Ice Cream Co.	Lowell, Mass.
Coon Ice Cream Co.	Haverhill, Mass.
Turner Center Company	Charlestown, Mass.
Mass. Baking Company	Holyoke, Mass.
Indessi Company	Springfield, Mass.
Legein Ice Cream Co.	Springfield, Mass.
Boston Ice Cream Co.	Roxbury, Mass.
Frank E. Boyd	Everett, Mass.
Bushway Ice Cream Co.	Somerville, Mass.
Mansion House I. C. Co.	Cambridge, Mass.
Libby Ice Cream Co.	Somerville, Mass.
Louis Saunders	Gloucester, Mass.
Maryland Ice Cream Co.	Baltimore, Md.
Syracuse Ice Cream Co.	Syracuse, N. Y.
Hall Ice Cream Co.	Glens Falls, N. Y.
Meyer Ice Cream Co.	Bethlehem, Pa.
H. W. Walker Co.	Somerset, Pa.
Ideal Ice Cream Co.	Clinton, Mass.
Peckham-Davis	Fall River, Mass.
Olympia Ice Cream Co.	Newburyport, Mass.
Made-Rite Ice Cream Co.	New Bedford, Mass.
Hooker Bros.	Holbrook, Mass.
Lyndonville Creamery	Watertown, Mass.
Dolbey Ice Cream Co.	Providence, R. I.
Main Ice Cream Co.	Providence, R. I.
What Cheer Ice Cream Co.	Pawtucket, R. I.
Cooperative Ice Cream Co.	Pawtucket, R. I.
Wadham Ice Cream Co.	Bridgeport, Conn.
Neilson Ice Cream Co.	Port Chester, N. Y.
Jersey Ice Cream Co.	Schenectady, N. Y.
Easton Sanitary Milk Co.	Easton, Pa.
Fries Ice Cream Co.	Reading, Pa.
Tech Food Products Co.	Pittsburgh, Pa.
Netherland Ice Cream Co.	Syracuse, N. Y.
Lockwood Ice Cream Co.	Utica, N. Y.
Oak Knoll Farm Co.	Woonsocket, R. I.
Penn-Cress Ice Cream Co.	Cresson, Pa.
Crockery City Ice Cream Co.,	East Liverpool, Ohio

Get into our satisfied customers' list. We are about to establish a branch in the Middle States.

Manufactured and sold exclusively by

JOHN J. GROTHE COMPANY, Inc.

EVERETT AND UNION STREETS

Established 1860 WOBURN, MASSACHUSETTS Incorporated 1919

61 years of faithful service to the public

THE ASSOCIATION OF ICE CREAM SUPPLY MEN ★ MEMBER

time we help him to sell more ice cream to the Mrs. Jones', Browns and Smiths around his store, we have not only increased our volume of sales by that amount, but we have also built some co-operation and salesmanship into our dealer, and demonstrated to him the possibility of making more money by putting thought and energy into the selling of ice cream, than he had ever dreamed was possible.

We have seen this plan of intensive work produce remarkable results in scores of localities in the past three years, and those results are encouraging numerous manufacturers to extend it on an increasing scale to dealers in every part of their territory.

They send to the consumers a list of whom has been supplied them by their dealers, attractive literature that makes the whole family hungry for ice cream, shows its food value, gives them ideas how to serve it in new and attractive ways, and above all stimulates and encourages the dealer himself, because it is reaching the people whom he has named and they talk to him about it. It is bringing orders into his store, so that he is encouraged to be active and aggressive himself, and sell many more orders by personal salesmanship.

Building up the individual sales of various dealers is, I believe, generally recognized as a far better method of increasing business, than that of going out and trying to get dealers away from the other fellow.

To make a 10-gallon-a-day dealer where there was a 5-gallon-a-day dealer before, almost cuts in two the cost of delivery, the cost of icing, the overhead on cabinets and similar expense.

It is increasingly evident that the successful manufacturer of ice cream is like the successful farmer, the man who cultivates every acre of his farm intensively to secure the best possible yield. Each dealer and his community are like a small field on the manufacturer's farms. A manufacturer not long ago remarked this to me: "My dealers are worth on the average about $75 per year, a piece, that is, my net profits on my year's business average about $75 per dealer. But if every dealer were working his territory, as it would pay him to work it, vigorously, intensively and aggressively, he would be worth to me not $75 but $100, or probably $125 or $150 per year, and he would at the same time be securing much greater proportional profits for himself.

I, therefore, feel that the very core of my problem is to develop my individual dealers, as merchants of ice cream, so that they reach a high standard of merchandising, and my business will prosper just in proportion as I help them develop."

Is not this, gentlemen, the real problem of getting people to use more ice cream at home? Is it not the problem of getting more and more of our dealers to be Farrells and Smiths and Kings and Krunnenackers? If it is, what are we doing about it?



SUPPLY SALESMEN WORKING FOR NATIONAL ASSOCIATION OF ICE CREAM MANUFACTURERS.

Members of the Salesman's Club of The Association of Ice Cream Supply Men have added to the description and analysis of their respective goods, always in the very nature of good salesmanship clear-cut in a salesman's mind, a number of equally clear-cut and significant "selling points" of the National Association of Ice Cream Manufacturers, and are making these points known throughout the country.

A recent bulletin of the Salesmen's Club summed up these "belling points" this way:

"It is due to the National Association that ice cream manufacturers anywhere and everywhere today are able to take profits from their businesses.

"The National Association absolutely saved the ice cream industry from suspension during the war.

"For years the National Association has come to the assistance of individual manufacturers menaced by discriminatory and unfair legislation.

"The National Association has saved the industry hundreds of thousands of dollars in express rates, and is constantly protecting the industry against unfair advances.

"The National Association has helped ferret out the cause of sandy ice cream. It has been responsible for sensible—as against fanatic—state butterfat standards.

"It issues bulletins of information for ice cream men.

"It will some day have an industrial laboratory working.

"Its president says to other ice cream manufacturers: 'The National Association of Ice Cream Manufacturers has literally saved your industry at least once. It has smoothed the way for it many other times. It holds the possibility of service just as reat during the coming year and the many years ahead. A member at its annual convention alone cannot fail to pick up information worth in dollars and cents many times the cost of membership. Big manufacturers and little manufacturers alike are profiting from its activities. It is the vehicle of general progress in our industry.' "

McLAREN'S Real Cake (DOUBLE RING) CONES

Nationally Known As A Quality Product

NOW PRICED EXTREMELY LOW

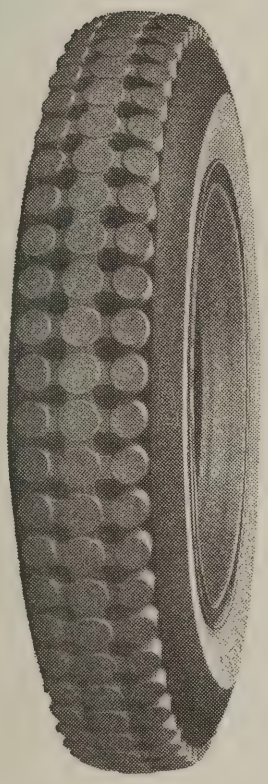
McLAREN PRODUCTS COMPANY

DAYTON OHIO

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PNEUMATIC TRUCK TIRES

Supplied as Optional Equipment by the Following Prominent Truck Manufacturers:



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Autocar Company, The
Ardmore, Pa.
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Detroit, Mich.
Acme Motor Truck Co.
Cadillac, Mich.
Armleder Co., O.
Cincinnati, Ohio
Atterbury Motor Car Co.
Buffalo, N. Y.
American Commercial Car Co.
Detroit, Mich.
Brockway Motor Truck Company
Courtland, N. Y.
Champion Motors Corp.
Philadelphia, Pa.
Commercial Truck Co.
Philadelphia, Pa.
Collier Motor Truck Co.
Bellevue, Ohio
Denby Motor Truck Co.
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Dorris Motor Car Co.
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Dart Truck & Tractor Co.
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Day Elders Motor Corp.
Newark, N. J.
Eagle Motor Truck Corp.
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Fremont Motors Corp.
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Oakland, Calif.
Gramm-Bernstein Motor Truck Co.
Lima, Ohio
Giant Truck Corp.
Chicago Heights, Ill.
Garford Motor Truck Co.
Lima, Ohio
Huffman Bros. Motor Co.
Elkhart, Ind.
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Marion, Ind.
International Motor Co.
New York, N. Y.
Kalamazoo Motors Corp.
Kalamazoo, Mich.
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Kimball Motor Truck Co.
Los Angeles, Calif.
Kissel Motor Car Co.
Hartford, Wis.
Kentucky Wagon Mfg. Co.
Louisville, Ky.
Luedinghaus Quality Motor Trucks
St. Louis, Mo.
Larrabee-Deyo Motor Truck Co.
Binghamton, N. Y.
Menominee Motor Truck Co.
Clintonville, Wis.
Noble Motor Truck Corp.
Kendallville, Ind.
Oklahoma Auto Mfg. Co.
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Parker Motor Truck Co.
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Pittsburgh Truck Mfg. Co.
Pittsburgh, Pa.
Packard Motor Car Co.
Detroit, Mich.
Penn Motors Corp.
Philadelphia, Pa.
Rainier Motor Corp.
New York, N. Y.
Rowe Motor Manufacturing Co.
Lancaster, Pa.
Royal Motor Truck Co. of N. Y.
New York, N. Y.
Sterling Motor Truck Co.
Milwaukee, Wis.
Seagrave Company, The
Columbus, Ohio
Southern Truck & Car Corp.
Greensboro, N. C.
Service Motor Truck Co.
Wabash, Ind.
Triangle Motor Truck Co.
St. Johns, Mich.
Traylor Engineering & Mfg. Co.
Cornwells Heights, Pa.
Texas Motor Car Asso.
Fort Worth, Texas
Titan Truck Co.
Milwaukee, Wis.
Transport Truck Co.
Mt. Pleasant, Mich.
United Motors Co.
Grand Rapids, Mich.
United States Motor Truck Co.
Cincinnati, Ohio
Wilson Company, J. C.
Detroit, Mich.
Winther Motor Truck Co.
Kenosha, Wis.
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Canastota, N. Y.
White Company, The
Cleveland, Ohio
Walker-Johnson Truck Co.
Woburn, Mass.

FEDERAL PNEUMATIC TRUCK TIRES are of "truck tire" construction throughout, scientifically built to meet the exacting conditions of truck service. Prospective buyers of trucks should therefore consider the advantage and economy of specifying FEDERAL for their tire equipment.

The Federal Rubber Co. of Illinois
Cudahy, Wisconsin

National Association of Ice Cream Manufacturers

Extracts from Report of Proceedings of the Twenty-first Annual Convention Held in the Hotel Radisson, Minneapolis, Minn., October 10, 1921

THE printed report or proceedings of the National Association convention was mailed out to the members on the 15th of May. Several of the addresses delivered at this convention have already been published in The Ice Cream Review. Those have not been previously published and other reports are printed on the following pages.

The Secretary's report shows a net gain in active membership of 70, the active membership on October 21st, 1922, being 572. Seven new associate members were secured during the years 1920-1921, over and above the number lost, making the total associate membership 108. The total state association membership on October 21st, 1921, was 29.

From a general report of the Secretary is reprinted the following:

General Report.

During the period covered by this report ten bulletins were sent out, as well as a number of circular letters.

These bulletins and letters covered a wide range of subjects.

Bulletin No. 37 directed attention to a new income tax ruling dealing with the valuation of inventories, as well as notice of the discontinuance of food licenses under the Food Administration, and also gave a review of general business conditions as reported by the Federal Reserve Board. With this bulletin was also enclosed copy of the constitution and by-laws revised to October 14, 1920.

Bulletin No. 38 referred to our Uniform Cost Accounting System, again urging upon members the desirability of adopting the system.

Bulletin No. 39 referred to the application of the American Railway Express Co. for change in estimated weight on Ice Cream shipments, calling special attention to the denial of the request of the carriers for an advance on returned empties; is also made mention of the rescinding of the double tagging rule.

Bulletin No. 40 referred to the new income tax regulations covering the proper classification of traveling expenses, the tax on dues to commercial organizations, and the filing of income tax returns. It also called attention to the fact that binders for bulletins could be secured through the Secretary's office, and gave further information in regard to double tagging.

Bulletin No. 41 referred to some Treasury decisions, setting forth the proper method of valuing inventories under the revenue law.

Bulletin No. 42 referred to the work of the Committee Research Laboratory, quoting a communication from Chairman A. B. Gardiner of that Committee asking members to present their views and suggestions with regard to the Laboratory. National Dairy Council leaflets were also sent with this bulletin, and mention was made of the new membership certificates issued by the Association.

Bulletin No. 43 dealt with the work of the War Finance Corporation in granting loans to finance the export of condensed milk and other milk products; it also gave information as to the Federal Reserve Board's review of business conditions.

Bulletin No. 44 referred to developments in the express classification matter, to Department of Agriculture publication, and to reprint from the Journal of Dairy Science, this reprint being copy of an address delivered by Dr. O. E. Williams of the Dairy Division, U. S. Department of Agriculture, entitled "Proportioning the Ingredients for Ice Cream and other frozen Products (the Balance Method)."

Bulletin No. 45 made further reference to the attitude of the National Association regarding the use of foreign fats as substitutes for milk fats in Ice Cream, asking that members report any instances of this nature coming to their notice.

Bulletin No. 46 referred to new income tax rulings on depreciation and refund of taxes erroneously collected, also setting forth the activities of the Association's Committee on Tax Revision. With this bulletin was also enclosed a copy of membership list revised to April 1, 1921.

The Secretary's office also addressed the franked envelopes for Dr. O. E. Williams of the Department of Agriculture, in order that he might send to our members copies of the Department's publication entitled "Sandy Crystals in Ice Cream; Their Separation and Identification."

These various bulletins prompted a large number of inquires for additional information on many of the subjects referred to. The volume of correspondence has increased tremendously during the past year and has covered a great variety of matter. The increased correspondence, however, is particularly gratifying, indicat-

Manufacturers of Complete Line of Steel and Metal Products



No. B-85
Patent Applied For

Of Vital necessity
are good

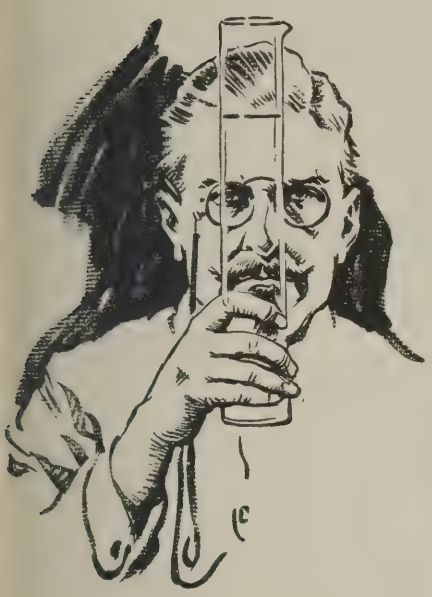
TUB HANDLES

When considering the knocks and rough usage subjected to them in daily use. Hence the necessity of selecting a tub handle that will stand all sorts of abuse and be sure to provide a a handy and positive grip.

Beehler Tub Handles

Are made of special steel of a toughness that defies destruction

Beehler Steel Products Company
St. Louis, Mo.



ATLANTIC
—*the super-clarified*
GELATINE

FOR more than two years we have been constantly at work in our laboratories striving to develop a process which would mean greater purity, greater clarity, for Atlantic Gelatine. And now our months of ceaseless efforts and experiments have resulted in a super-clarified gelatine so pure—so clear—that you will admit these features the moment you see Atlantic in solution.

Atlantic Fears No Pure-Food Legislation

But super-clarity, even with our special process, would have been impossible were it not for the fact that the raw materials used in Atlantic are finer than those used in the making of most gelatine. That is why Atlantic Gelatine passes the pure-food requirements of any state in the Union —even Pennsylvania and North Dakota.

Not only is the superior quality of this super-clarified gelatine to your advantage, but likewise is there a greater economy in the use of Atlantic. Grade for grade, it costs less than others and does more.

Make Us Prove Its Merits

Send for a barrel of Atlantic Gelatine today. Use five, ten, or even fifteen pounds. If, after a fair test, you decide that Atlantic isn't your gelatine, send back the unused portion and we will pay freight both ways.

That's how sure we feel when we make the statement that Atlantic—the super-clarified gelatine — is a better gelatine and will save you money.

ATLANTIC GELATINE COMPANY
Woburn, Mass.

Branches

New York City
Room 1081, Woolworth Bldg.

Baltimore
1012 Union Trust Bldg.

Chicago
Suite 510, 118 N. LaSalle St.

San Francisco
Room 240 Hansford Block, 268 Market St.

ing, as it does, that fact that the members were appreciative of the service the Secretary's office was endeavoring to render.

A review of the correspondence in our files indicate that between twelve and fifteen thousand letters were written during the past year, this being in addition to circular letters, requests for payment of dues, etc., etc. Many of the communications received from members referred to matters that necessitated a great deal of detail work in obtaining the desired information.

A persistent campaign for increased membership was kept up during the year, as a result of which ninety-six new active members have been obtained.

* * *

President Martin read his address as follows:

Our Association has reached its majority with the calling of this convention—this being the twenty-first gathering we have had of this kind.

While our years, therefore, have long since entitled us to put aside our toddling clothes, we are nevertheless, in the sense of our achievements, still in our infancy.

The last five years have marked our greatest progress, development and usefulness. The immediate future, I believe, will bring vastly greater possibilities to our industry than is indicated for any other industry with which I am familiar.

But, while we have much to hope for, we must not overlook the fact that too many of us are inclined to use rule of thumb methods. We sometimes seem to find it difficult to grasp new ideas and enter upon new undertakings with the vision and confidence that spells success.

For example, I might be accused of being a visionary if I were to express the belief that Ice Cream will some day in the not far future be produced much more efficiently than by the present freezer method; and that this new method will, among other advantages, give us a far better control of overruns. But I don't hesitate to predict that just such improvements in our methods of manufacture are coming much sooner than most of us realize.

And what is more, I am confident that even as great as the volume of our business has become, we have done little more than scratch the field of our possibilities. Better selling methods, better advertising and a sounder and more thorough analysis of our markets and of the measures of desirability of our products will, I believe, bring us far greater returns than we have ever before thought possible.

While other industries are still staggering and stumbling through their adjustment period—blinded by the light of the new order of things into which time has brought them—our business is "up and doing," and is little the worse for the experience common to all business activities during the past few years.

But let us not deceive ourselves. Most of this happy situation has not been due so much to any particular foresight on our part as to the fact that making a perishable article as we do, the manufacture of which does not require or permit of our carrying very large stocks of raw materials, we have not been caught with stocks which have fallen in value since our purchase. The importance and advantage of quick and frequent turnovers is especially demonstrated in our business.

Another blessing that we are enjoying is the comparative freedom from wage scale readjustments. The chances are that this factor will give us very little concern. Wages, as I see it, will never be brought down to pre-war conditions. And I much prefer not to see such decrease, as well paid employees—which as a rule means better satisfied and more efficient employees—are an absolute essential to our continued development.

A work to which, I believe, we can profitably turn our best attention is to do everything in our power to free ourselves from the burden of excessive and exorbitant express rates that nearly all of us are compelled to pay.

In this connection, I would recommend to my successor that our Secretary be instructed and authorized to make an immediate survey among our members and ascertain facts and figures as to the losses they have sustained in their shipping business.

Upon the compiling of this report I would suggest that instead of being presented to the Interstate Commerce Commission that the matter be taken up directly with the Express Company by a strong committee from our Association. I believe that we can hope for prompt and fair adjustment if the facts are presented in this way. Express officials are human. They are alive to the fact that if they would preserve and increase the business they do with us, they must make it possible for us to deal with them advantageously.

This friendly feeling on the part of the Express Company was, indeed, well demonstrated in the Glacifer Case, in which an examiner of the Interstate Commerce Commission rendered its report favoring the Glacifer Company, and requiring the Express Company to advance our rates an additional 40%.

In this connection, I wish to call your attention to the value of your Association in such matters as this Glacifer Case. Had it not been for our strong organi-



CONDENSED MILK MACHINERY

The Better Kind

We teach you to make condensed milk

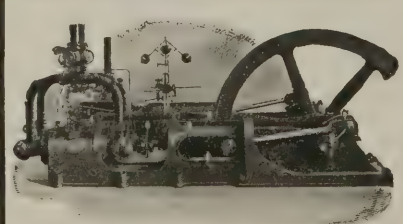
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The Vilter Manufacturing Co.

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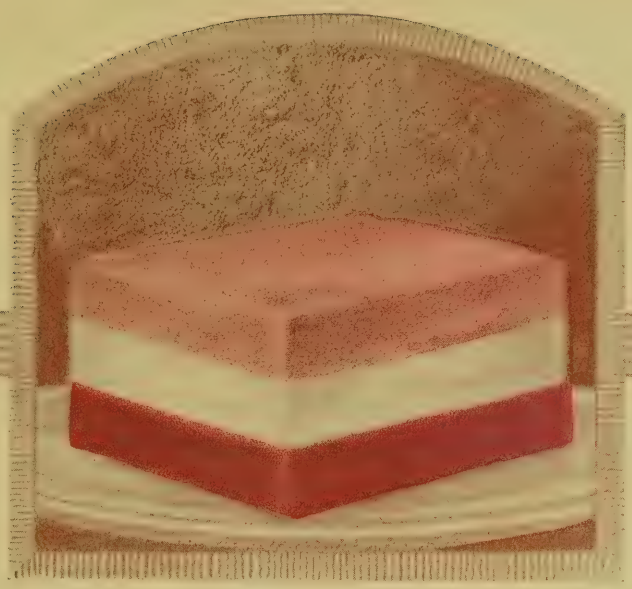
Horizontal Refrigerating Machine.

Ice Making and Refrigerating Machinery.

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IF INTERESTED WRITE FOR BULLETINS

PLEASE MENTION THE ICE CREAM REVIEW WHEN WRITING TO ADVERTISERS



Worth Trying

YOU can not know how well B-F Vanilla and minor flavors will satisfy you nor understand why so many ice cream makers insist on B-F flavors until you have tried them. Send us a trial order. Give B-F flavors a thorough test. If you are not satisfied, that our products are better, that they help you produce a better flavored ice cream, we don't expect to have your business.

The growth of our business, the present number of ice cream manufacturers continuously and regularly depending on B-F flavors is, we believe, the answer as to the wisdom of our quality insistence. Don't you honestly believe it is worth knowing more about us?

The Boerner-Fry Company

Manufacturers of High Grade Extracts

Iowa City, Iowa

"U. S. GEL"



— WORLD'S LARGEST INDIVIDUAL GELATINE FACTORY —

UNITED STATES GELATINE CO.

MILWAUKEE, WIS.

U.S. Gelatine is produced in the World's Largest Gelatine Factory, which means Uniformity, Purity, Strength at the Right Price. Stock used in the manufacture assures a bright, clean, odorless Gelatine. Its use means a smooth, high quality and superior texture Ice Cream.

— LET US SEND YOU SAMPLES AND QUOTE ON YOUR REQUIREMENTS —

Eline's Dutch Process Cocoa

Specially prepared for Ice Cream. Rich in flavor. Dark in color. Free from specks and dust; and gives the cream that rich chocolate color that appeals to every lover of ice cream.

MEMBER

THE ASSOCIATION OF ICE CREAM SUPPLY MEN

Eline's

MILWAUKEE, WISCONSIN



PROSPERITY FOLLOWS THE DAIRY COW



1922
NATIONAL DAIRY EXPOSITION

A TRIP to this inspiring Exposition will give you both profit and pleasure. PROFIT — in learning the new factory methods — in seeing the latest dairy machinery — in getting fresh ideas and the national viewpoint. PLEASURE — in taking a week from business and meeting the leaders of your industry.

Conventions and meetings will afford you a chance to meet leading milk dealers, creamerymen and experts in all dairy lines and to learn their ideas and methods.

The exhibit of prize-winning butter and cheese will be well worth your careful inspection. The Dairy Division of the U. S. Department of Agriculture will have a new exhibit of great interest and value.

The machinery exhibit will be larger than ever before, with all the improvements and latest appliances for better factory equipment.

Every department will be full of practical information for you in your business.

It's YOUR Exposition —Why Not Use It?

Plan Now To Attend The

National Dairy Exposition

St. Paul—October 7 to 14—Minneapolis



zation, this additional burden would have been imposed on us.

The credit for handling this case is due Mr. E. B. Lewis of New York, who went to Washington in person and arranged with Davies & Jones, Attorneys, to file our protest. As a result of this protest, the Commission overruled the report of the Examiner and gave a ruling in our favor.

This concrete case should prove to every member that his Association is a real insurance agency for the protection of his business. None of you would so neglect your business as to discontinue your fire liability or other insurance. Would it not be just as foolish to deny one's self the kind of business insurance afforded by our Association?

This brings to my mind the increased importance of our Secretary's duties, which has been brought about by the decided growth of our Association, and which growth, I predict, has only started. We must be prepared to be more aggressive in securing additional membership and in rendering more and better service to our members. Our affairs should be conducted along rigid business lines, but just as elastic and capable of expansion as in any other well organized business. For such additional service from our Secretary's office, we must expect to pay a salary in keeping with his duties and efforts.

The reports of our Secretary and Treasurer, reviewing the year's work, are pleasing, indeed, to the officers. The increased membership and the financial condition of our Association should be especially pleasing to our members. I want to emphasize the absolute necessity of our continuing our efforts to secure new members. Our continued growth means increased strength and the benefits that accrue from membership in the Association will be infinitely greater. I consider that every member owes it to his Association to interest himself to the extent of securing at least one new member this coming year. Our members and associate members, it must be admitted, have little credit due them for any such activities during the past year.

Those whose names appear on the honor roll for securing new members are as follows:

C. A. Odom, credited with having secured two new members.

W. W. Campbell, credited with having securing one new member.

Your Secretary, credited with having secured eight new members.

The balance of our new members were secured through the Secretary's office.

To these must be added the eleven new members secured by your President.

I feel that in this, as well as in other ways, we should take a greater interest in our Association. It was no task for your President to secure these new members; in fact, he found it a pleasure to secure the few that he did.

Our total membership, both active and associate, September 10th, was 704. Let us resolve to set our goal this coming year at 1000 members enrolled and in good standing for our 1922 Convention. This should be easily accomplished with at least 2000 prospects to work on.

I am sure it will be of interest to our members to know that we have lost but four members the past year due to the increase made in our Annual dues .

I am deeply indebted to the officers and members for the support that I have received from them, and we

FLAVOR
WITH B.B.B. VANILLA

Store in your Refrigerating Room. Weeks later you will find Ice Cream with the same pleasing Vanilla Flavor.

SMOOTH—MELLOW

Always the Same and yet

ONE OUNCE

BBB VANILLA EXTRACT

(ARTIFICIAL)

Flavors 10 Gallons

ICE CREAM

at a cost of

Less Than 4/10c Per Gallon

Do You Want To Improve on Your Present Flavoring?

Do You Want To Cut Down on Flavoring Costs? Then Try

——B. B. B.——

STRICTLY ONE OUNCE GOODS

Genuine Mexican Vanilla Bean scientifically fortified so as to impart to your Ice Cream that refined subtle flavor and aroma of Genuine Aged-in-Wood Vanilla Extract and give desired strength.

JUST WHAT YOU WANT ISN'T IT?

Give B. B. B. a trial and learn why so many are using it exclusively

Blanke-Baer Extract & Preserving Co.
3224-34 South Kings Highway
ST. LOUIS, MO.

Blanke-Baer Extract & Preserving Co.
St. Louis, Mo.

Ship at once....Gals. B. B. B. Vanilla Extract. We have been looking for just such a Vanilla Extract as here described.

PRICES.

	Per Gallon
In Barrels	$5.00
Half Barrels	5.25
10 Gallons	5.50
Single Gallons	6.00

Name .....

Address .....

Date .....

are all indebted to the Chairman and members of Committees for their efforts and labors in our interest.

Your President made a trip to California at the invitation of the California Ice Cream Manufacturers' Association to assist them, in so far as he could, in the weight law before their Legislature in Sacramento. Officials of the California Association should be given due recognition for the elaborate preparatory work that was in a measure responsible for the law not being placed on the Statute books of their State. Had this law been enacted, it might have reflected against our industry in many other states.

This is just another illustration of what the Association can do for our industry, and proves the old saying that "Trouble brings men together."

Let me here bring to your attention a matter that may further affect our industry. We must fight any attempt on the part of our members or any Ice Cream Manufacturers to use in any way substitute fats in Ice Cream. It came to my attention the early part of the year that an attempt had been made on the part of some manufacturers to use substitute fats and I feel that our Association should fight this to the bitter end.

We should use every effort along sanitary lines. "Sanitation" should be our watchword. Guard against contamination. Every Ice Cream manufacturer should surround his product with every possible safeguard, because Ice Cream is the favorite food of children and we cannot be too particular about making it safe as well as "good."

You will notice by your program that the subjects listed do not call for discussion, but I desire to impress upon you that great good is derived from full discussions; and to further impress upon you that this meeting is held for your pleasure, good and enlightenment. If good is not derived by you, I will say it is your misfortune. I earnestly hope that all subjects on our program will be fully discussed and the good in them brought out.

* * *

Address of Welcome by Mr. Holmers, Assistant State Dairy and Food Commissioner of the State of Minnesota.

I wish to extend to you all on behalf of Mr. Heen a most hearty welcome, and we sincerely hope that your stay here will be a pleasant and profitable one.

As Inspector it has been my duty to see that sanitary conditions are observed in all places where food is manufactured or offered for sale, and that all the requirements of the law are complied with, but it has also been the policy and aim of the Department to give help and assistance to all who may need such aid, as far as we can.

It is necessary in the production of a finished product of high quality that the utmost care as to cleanliness and sanitary conditions be observed at all times. The plant should be kept scrupulously clean and no waste matter should be allowed to accumulate. A good cement floor with proper drainage is necessary and should be well cleaned every day. A clean, well-kept factory will go a long way toward favorably impressing a prospective customer visting the plant.

As soon as returned ice cream cans should be washed thoroughly and well steamed and allowed to dry; cans that are badly rusted should not be used until retinned.

It is a regretable fact that so many cans are returned in an unclean condition, and we are doing all we can to remedy this situation. I would suggest that every ice cream manufacturer send out printed pamphlets quoting the law with respect to the cleaning and prompt return of the cans. I believe the co-operation of all the ice cream manufactuerers on this point will go far toward remedying this condition.

In order to produce ice cream of a high quality the ice cream maker must have good raw material. It is necessary to have the proper equipment and clean sanitary conditions, but if the raw material is poor or of an inferior quality, the finished ice cream must also be of an inferior quality. Cream that has developed an acidity noticeable to the taste should not be used for ice cream; cream that is off flavor will impart to the finished ice cream the same flavor, and it is useless to try to cover it up with vanilla or other flavors.

Many of our ice cream factories are using sweet butter at times when it is difficult to secure enough sweet cream to fill their orders, converting the butter into cream through an emulsifier. In converting butter into cream for ice cream care should be taken that only good butter be used as any off flavors that butter may contain will be noticeable more or less in the ice cream. I believe that sweet cream, properly pasteurized, will always make the best ice cream.

It is not my intention to go into the details of ice cream making as you will no doubt have these questions discussed by other speakers at this convention, but I would like to state that it should be the aim of every ice cream manufacturer to make a product with as low bacteria content as possible. This is accomplished only by the proper pasteurization of the cream or the mix before freezing.

The Iowa State College, Ames, Iowa, in their bulletin No. 186, "Bacteriological Study of the Method of



ICE Cream advertising is put across most effectively to the largest number of people by the dominant outdoor medium — colorful 24-sheet Posters.

Leading ice cream manufacturers advertise by Nordhem Posters because the reputation of "ice cream advertising de luxe," which Nordhem Posters bear, is founded upon definite selling achievements.

NORDHEM SYNDICATE SERVICE

Advertising and Selling Service for Ice Cream Manufacturers

8 West 40th Street NEW YORK

BUY A PFAUDLERETTE!

(pronounced FAWD-LER-ETTE)



Actual Photograph—Pfaudlerette Ice Cream Batch Mixer, Aging Tank, Milk (or cream) Pasteurizer, Cream Ripener, Neutralizer or Buttermilk Tank. Built of open-hearth steel, lined throughout with Pfaudler Glass Enamel,—equipped with 2" Pfaudler Flush Valve, three-piece copper-tinned cover, fitted with refrigerator clamps, standard patented Spray Coil (1½" inlet) equipped with strainer attachment, Impeller Agitator, (with tight and loose pulleys)—motor drive, if desired, at extra cost, Angle Stem Thermometer (recording thermometer at extra cost), vacuum and pressure gauge, pop valve, Sarco steam trap, standard legs (outlets 8" from floor.) Capacity range 125 to 300 gallons.*

*For ice cream mixing and pasteurization of milk or cream, a conical copper-tinned cover is furnished which reduces the cost of the unit.

MR. Small or Medium-sized Ice Cream Maker---here is a small glass lined batch mixer or aging tank, which will give your plant all the "class" of the largest concerns in America. If your complete capacity ranges from 125 to 300 gallons of product daily, you can use the Pfaudlerette as an aging tank—if your mixing capacity is 125 to 300 gallons, you can use it as a batch mixer.

The use of the vacuumized jacket for insulation is an inexpensive way of holding aging temperatures and is rapidly becoming very popular. This, and other features, are discussed in our new booklet "Pfaudlerette." Mail the coupon today for a copy!

The PFAUDLER CO.

The World's Largest Makers of Glass Lined Steel Equipment

ROCHESTER, N. Y.

NEW YORK CHICAGO SAN FRANCISCO
LONDON SYDNEY

Pfaudler

.....1922

The Pfaudler Co.,
Rochester, N. Y.

Gentlemen:—Send me without obligation, your booklet "Pfaudlerette."

.....

.....

I. C. R. 7-22 .....

DON'T JUMP FROM FRYING PANS INTO FIRES—CONSULT OUR ADVERTISERS.

Pasteurizing and Homogenizing the Mix," gives some very interesting facts in regard to controlling the bacterial count of ice cream. The experiments show that the mix can be successfully pasteurized, homogenized or viscolized with very low bacterial content as the result.

We have some manufacturers in this state who are preparing an ice cream mix for shipment, with all the ingredients standardized, with the exception of the vanilla flavor, and ready to freeze. This no doubt will be an aid to the small manufacturer who may be lacking in the proper equipment for preparing the mix, especially in regard to homogenizing or viscolizing; many small manufacturers feel that their business will not warrant the installation of much expensive equipment. There may be many manufacturers located in territory where it is difficult to get a large enough supply of sweet cream to fill their ice cream orders. In such cases it would probably be to their advantage to have the mix shipped to them, ready to freeze. We also hear a good deal about the ice cream mix being dried into a powder, ready for shipment to the ice cream factory, where, with the proper addition of water to dissolve the powder, it is ready to freeze into ice cream. We are surely living in an age of progress and invention. In the last few years greater importance has been laid on the total solids content of ice cream. I know some manufacturers who are preparing their mix with a total solids content of 37 to 38% and are making a very fine and smooth ice cream.

All ice cream sold in this state must have 12% of fat, except fruit and nut ice cream, which may contain 10% of fat. The Minnesota law defines ice cream as follows: Ice cream is a frozen product made from cream and sugar with or without a natural flavoring and containing not less than 12% by weight of butterfat. Fruit ice cream is defined as a frozen product made from cream, sugar and sound, clean, mature fruits and containing not less that 10% by weight of butterfat; and nut ice cream is a frozen product made from cream, sugar and non-rancid nuts and containing not less than 10% by weight of butterfat.

While the state law regulates the minimum fat content in ice cream, the amount or per cent of the balance of the total solids content is optional with the ice cream manufacturer. During the time when sugar was scarce, substitutes were used, but at the present time, when sugar is plenty, there is no need for substitutes, and as sugar is a valuable solid in ice cream, there should be no cutting down on the sugar content. The formulae of many ice cream makers call for 14% of sugar, and the skim solids in many formulae are 10 to 11%, with .5% for gelatine solids.

I want to thank you all for your kind attention, and we wish you a hearty welcome to our state and our city —the Twin Cities. We hope that you will enjoy your visit and we shall be glad to have your National Convention meet here again.

President Martin: We are indeed thankful to Mr. Holmers for the message he has brought us; it is very pleasing to know that the state of Minnesota, through its Food Department, is giving so much support to the ice cream manufacturers. That is the kind of co-operation we should have from all our state departments.

The meeting adjourned at twelve o'clock.

Afternoon Session.

President Martin: As you know, we made a rearrangement of our program to have the meeting this afternoon and one of the numbers is that of "Increasing Ice Cream Sales in Winter," by W. M. B. Sine, of Clarksburg, West Virginia, President, West Virginia Association of Ice Cream Manufacturers. Mr. Sine is not present and much to my surprise your Secretary here arranged with my daughter, Miss Jacquelin Martin, to read this paper for Mr. Sine. Miss Jacquelin, will you come forward?

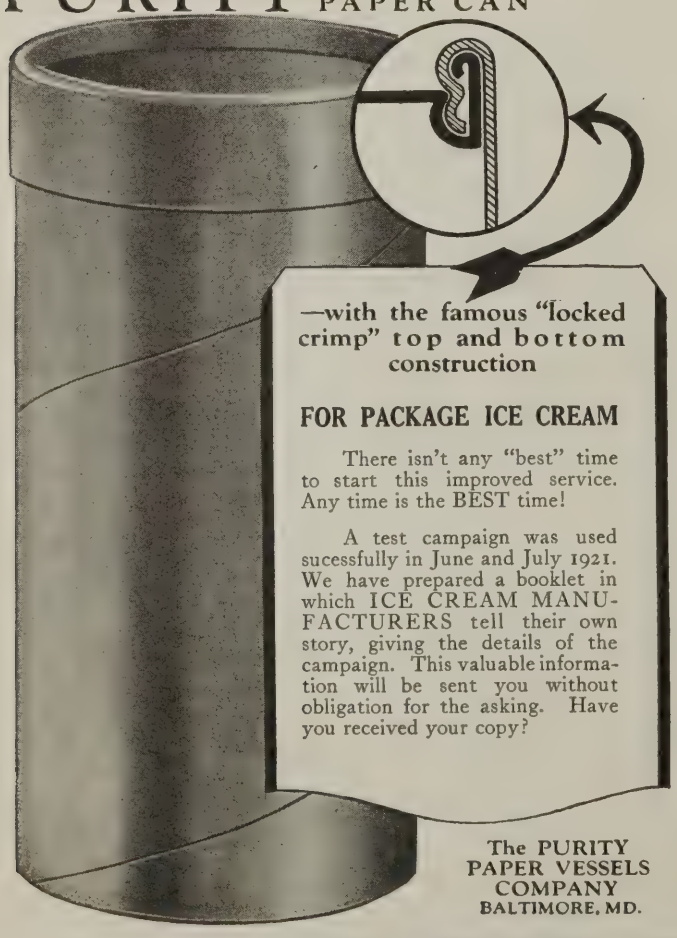
Miss Martin read Mr. Sine's paper as follows:

Increasing Ice Cream Sales in Winter is the biggest problem in the ice cream business today. This subject, I think, is on the program with the idea of starting an argument, for just like all the rest of you, I "see red" during the winter months, but in my opinion, winter sales can be increased. The trouble is we think we are licked before we start. We think it can't be done and, consequently, it is not. The whole trouble is that we have been in the habit of pinching down on the service and getting grouchy when frost came, really selling ice cream in the winter time under protest. In other words, we were bears instead of bulls and trying to sell our ice cream short. The candy man doesn't let down when warm weather comes. He works harder. So does everybody else engaged in alleged seasonable business.

Now, from what I can observe there is no reluctance on the part of the public to eat ice cream every day in the year if it is offered to them. Every formal dinner, even if served on the coldest winter night, includes ice cream, every hotel continually includes it in its menu and when your wife or my wife plans a dinner party the weather has nothing at all to do with what she serves for dessert.

Just sitting back and saying "it can't be done," doesn't seem just right and so with the idea of trying

PURITY THE ORIGINAL PAPER CAN



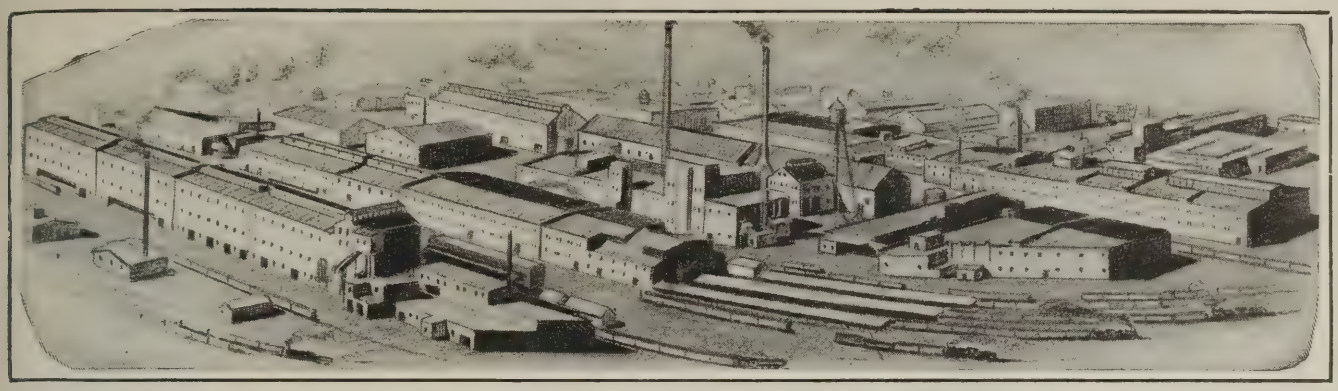
—with the famous "locked crimp" top and bottom construction

FOR PACKAGE ICE CREAM

There isn't any "best" time to start this improved service. Any time is the BEST time!

A test campaign was used sucessfully in June and July 1921. We have prepared a booklet in which ICE CREAM MANUFACTURERS tell their own story, giving the details of the campaign. This valuable information will be sent you without obligation for the asking. Have you received your copy?

The PURITY PAPER VESSELS COMPANY
BALTIMORE, MD.



Where "UCOPCO" is made

There Are Reasons Why This Plant Has Been Operating to Capacity for the Past *Five* Months

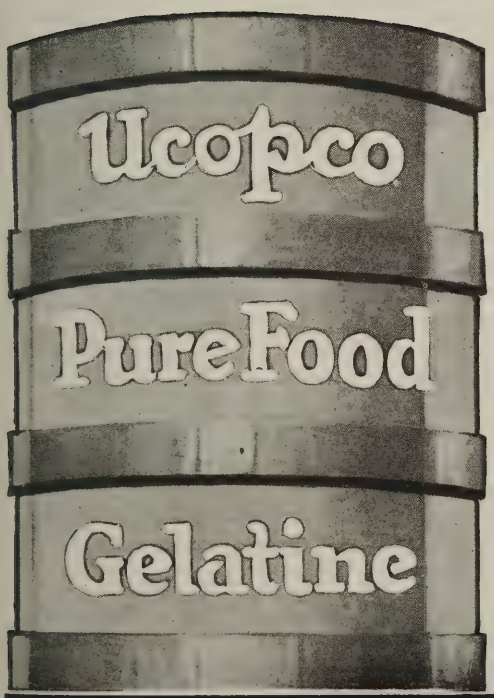
WHEN any plant finds it necessary to run to utmost capacity during a period of depression, it proves conclusively that its product must rank far above the average.

During the past ***five*** months our mammoth plant has been running night and day and immediately shipping its entire production.

Salesmanship must be given credit for its part in creating this unusual success. But salesmanship alone could not produce this phenomenal condition.

The product must be right.

Let us show you why UCOPCO Gelatine is so tremendously popular.



The United Chemical & Organic Products Co.

4200 S. Marshfield Ave. Chicago, Ill. — New Orleans — 401 E. 45th Street New York, N. Y.

"UCOPCO Comes Sealed in Red Drums"

Ucopco Pure Food Gelatine

PROSPERITY FOLLOWS THE DAIRY COW. Be sure you attend the National Dairy Exposition—St. Paul-Minneapolis, Oct. 7-14.

an experiment at one of our branches three years ago, we decided to distribute some of the advertising appropriation for that particular plant over the lean months, as we found the hot weather gave enough momentum in the summer to carry sales along without the additional acceleration that advertising furnished. We started that advertising with the waning of the season and kept increasing gradually until spring business started, when we let down. We made our product just a little richer, gave just a little bit better service, saw to it that the stock in dealers' hands did not get old, coarse and grainy or flavorless, as ice cream will get when kept too long. We also make special flavors to add variety and tempt the jaded appetite. We asked dealers to suggest flavors for the week; showed them that we were interested in them.

To call attention to these specials, we used window streamers and window displays, even in the coldest weather of the year at the expense of being considered weak-minded. We also had a series of direct-to-the-consumer advertising in the form of announcements, in which was suggested new flavors and novelties in which ice cream could be served in the home, hot sauces, recipes, etc. Our order clerks scoured the papers for notices of lodge, church, and other affairs.

When we took stock at the beginning of the summer season, we found that we had kept more of our organization together than in the previous years; the milk producers were in a sweeter frame of mind, and, best of all, dealers were in line and more enthusiastic.

The following year we tried it out on a second plant, let up on advertising a little at the first plant, but not on the service, and we carried two of our plants through without red figures. Last year, with the help of the weather man, five of our plants increased their sales sufficiently to overcome the usual red figures.

This fall we have started the campaign on a more elaborate scale.

Per cent average for the winter months before and since going after winter sales were as follows:

	1917-18	1918-19	1919-20	1920-21
October	.04	.04	.08	.09
November	.02	.02	.05	.06
December	.02	.02	.03	.05
January	.01	.02	.03	.05
February	.02	.02	.03	.05
March	.04	.04	.05	.07

I want to stress a little bit the effect of winter advertising on our dealers. They quickly realized that we were out to do something and after awhile they took hold, too, and did their part. Instead of getting listless and indifferent in their service, the winter months found many of them on their toes and when spring came we had team work and accelerated our summer business.

And another by-product of our advertising which we had not foreseen has been the effect on our own employees. The growing business keyed them up, too. They had to live up to the advertising and instead of the rather perfunctory service which they had heretofore given during winter months, we obtained very enthusiastic work and thereby we kept our organization together through what we commonly called the dull season.

We haven't been niggardly about spending money, but we haven't been wasteful. Big newspaper advertisements cost money but big advertisements have the habit of starting people to think and what we wanted was to get them to think about our ice cream. We also made every possile effort to have these advertisements kick out of the page. Outside of the big city dailies the general run of advertising is often pretty plain stuff and we figured that clean type, good pictures and a general air of smartness was worth all it cost.

We are very well satisfied with the results, and hereafter I believe we shall stop bothering about the weather man and go about our business of thinking up ways to make the consumer hungry for ice cream. At the same time we shan't overlook the very important think of making it possible for him to get it when he has the notion. Thereby we shall help along the general cause of increased business in winter months as well as help ourselves and so far as I have observed this is what we are in business to do.

I haven't preached a doctrine I don't follow. I haven't preached at all in fact—and this talk is in no sense the imparting of any secret of success—I've tried to tell, in my own way, that ice cream sales can be increased in winter and the proof is the fact that we've done it and expect to keep on doing it.

* * *

President Martin: We are certainly thankful to Mr. Sine for his interesting paper and also to Miss Martin for reading it.

The next on the program is "A New Era in the Packing of Brick Ice Cream," by Mr. Timothy Mojonnier, of Chicago.

Mr. Mojonnier's paper was published in the October issue of The Ice Cream Review.

Mr. C. E. Rogers, Detroit, Mich., followed with an address on the subject, "Packaged Ice Cream," which was also published in the October issue.

(Concluded on page 94)

2,048,000 Dishes of Mapleine Ice Cream

Produced by One Plant in 1921

51,200 gallons of Mapleine Ice Cream were sold by a Pennsylvania plant last season—2,048,000 dishes. And according to their Superintendent Mapleine Ice Cream sales exceeded the combined sale of strawberry, chocolate and cherry.



Mapleine

Introduce Mapleine Ice Cream to your trade and it will become one of your best selling flavors because the consuming public knows Mapleine and likes it.

Mapleine is one of the most profitable flavors, too, for 16c to 20c flavors 10 gallons Mapleine Ice Cream.

Order Mapleine of your supply man or send us $3.00 for a quart trial bottle.

CRESCENT MANUFACTURING CO.

Seattle, Washington

The following is a partial list of the clients we are now serving

Alfred Pure Ice Cream Co.
Alta Vista Creamery Co.
Amsterdam Ice Cream Co.
Benham Ice Cream Co.
Berkshire Ice Cream Co.
Best Ice Cream Co.
George K. Brown Co.
Brown Ice Cream Co.
Buttercup Ice Cream Co.
Campbell Ice Cream Factory
The Carry Ice Cream Co.
The C. G. Carlson Ice Cream Co.
Carpenter Ice Cream Co.
Cascade Creamery Co.
Cline Ice Cream Co., Athens, O. Charleston, Hinton, W. Va.
The Crane - Ohio Ice Cream Co., Columbus, Sabina, Lancaster, Zanesville, O.
C. A. Connor Ice Cream Co.
The Crystal Ice & Storage Co.
Detroit Creamery Co.
Dolbey Ice Cream Co.
Donofrio Confectionery Co.
Erie County Milk Asso.
Galliker Ice Cream Co.
Gloria Ice Cream Co.
Harding Cream Co. Omaha, Des Moines
Hazelwood Company
Hendler Creamery Co.
Hines Ice Cream Co.
The Hutchinson Company
Hydrox Company
Imperial Ice Cream Co. Parkersburg, Clarksburg, Fairmont, Grafton, Wheeling, Huntington, W. Va., Ashland, Ky., Cumberland, Hagerstown, Md. Staunton, Harrisonburg, Winchester, Va. Steubenville, O.
International Ice Cream Co.
W. H. Irvin Ice Cream Co.
Ives Ice Cream Co.
Missouri Valley Creamery Co.
The Montauk Ice Cream Co.
Montei Ice Cream Co.
Geo. C. Mansfield Co.
National Ice Cream Co., San Francisco, Cal.
National Ice Cream Co., Louisville, Ky.
H. L. Neuman Co.
The New Haven Dairy Co., Waterbury, Meriden, Hartford, New Britain, New Haven, Conn.
New Orleans Ice Cream Co.
The Noaker Ice Cream Co.
Page Dairy Co.
Piper Ice Cream Co.
Purity Ice Cream Co.
Rieck-McJunkin Dairy Co., Pittsburgh, Charleroi, Butler, McKeesport, New Castle, Pa.
Rochester Ice Cream Co.
J. D. Roszell
Royal Ice Cream Co.
Seattle Ice Cream Co.
Sidebottom Pure Ice Cream Co.
Steffen-Bretch Ice Cream Co.
Supplee - Wills - Jones Milk Co.
Smith and Clark Co.
Terry Dairy Co.
Trojan Ice Cream Co.
Waldorf Ice Cream Co.
Wheats Ice Cream Co.
Yellowstone Creamery Co.
Youngstown Sanitary Milk Co.



Imperial
ICE CREAM

TWELVE years ago, when advertising relations with Barker, Duff and Morris were begun. *Imperial Ice Cream* was known in a single town—Parkersburg, W. Va. Today, seventeen thriving plants, located in six States serve thousands of people to whom "Imperial" is a household word. The advertising connection, begun twelve years ago, has never been interrupted even for a single day. Last month, following the successful opening of a new plant, the President wrote, "I want to take this occasion to compliment you on the thorough manner in which you put it over. I say 'you' because I give your organization credit with the planning, scheming and pep that was needed to bring our loyal and enthusiastic bunch into form."

We create a new campaign each year and every day we gain a little broader knowledge of the business of advertising Ice Cream. If you desire specialized, experienced service which will cover every feature of tried forms of advertising write today and let us give you fuller details or have one of our representatives come to see you.

Barker Duff & Morris

Ice Cream Advertising Headquarters
323 FOURTH AVENUE, PITTSBURGH, PA

A Study of Enzymes and Albumin in Milk Pasteurized in Steam Jacketed Enameled Vats

By MAX DONAUER, Chemical Engineer, Research Laboratories, Elyria Enameled Products Co., Elyria, Ohio.

Tinned copper has been in general use as a partition or heating wall in building milk equipment for a long time. It is generally understood by milk plant operators that hot water is the proper heating medium to use. Experience has taught that steam will scorch milk and cause the solids to burn to the metal. This is true because heat passes rapidly through copper.



MAX DONAUER.

Enameled steel is a more recent development in material for building milk equipment. It is not generally understood that, when used as a heating medium in connection with enameled steel, steam does not harm milk. This is true because heat passes slowly through steel and because the enameled surface acts as a further heat restraining medium.

The rate of heat transmission through enameled steel is about three times slower than through tinned copper. Therefore, it is necessary to maintain a higher temperature in the heating jacket in order to obtain the same results. For example, the heating surface in a tinned copper coil vat is nearly the same as that of the enameled pasteurizer. They heat in about the same time although the temperature in the jacket of the enameled vat is much higher.

It is a very simple matter to determine whether or not milk is injured by pasteurizing with steam in an enameled vat. The experiments described below may be repeated in any milk plant laboratory, as they are standard recognized methods of determining the point in question and hinge entirely on the presence or absence of enzymes and the amount of albumin determined analytically.

Enzymes are widely distributed in products of both plant and animal life. They possess the property of converting foods into simpler soluble substances which can be assimilated by the stomach and in this way play an important part in the maintenance of animal life. Saliva contains an enzyme which will dissolve starches, while pepsin contains products which break up albuminous material. Milk contains several types of enzymes, the more important being (1) galactase, (2) lipase, (3) catalase, (4) oxidase, (5) peroxidase. Because of the part they play in digestion it is very essential they should not be destroyed.

Milk enzymes are destroyed when exposed to high temperature even for short periods of time. Catalase and lipase are destroyed at 158 degrees F., peroxidase at 170 degrees F. Galatase is weakened between 160 degrees F. and 170 degrees F. but is not entirely destroyed at 200 degrees F. Heating milk to temperatures higher than 160 degrees F. also coagulates the soluble albumin. These facts have brought up the question whether pasteurizing milk in an enameled pasteurizer using a steam jacket might effect the constituents in any way (even though the usual conditions of heating to 145 degrees F. and holding were maintained) owing to the high temperature of the steam used as the heating medium.

In order to investigate this problem a series of tests were made comparing:

1. Fresh milk as received from the farm.

2. The same milk pasteurized in the regular way in a steam jacketed enameled pasteurizer. The milk was heated to 145 degrees F. and held 30 minutes, then run over an open cooler and bottled. Steam at 5 pounds pressure was used.

3. Milk heated in the laboratory to 200 degrees F. and held 30 minutes. The milk used in one series of tests had an acidity of 0.126 per cent and in another series 0.134 per cent.

Several of the standard methods of testing for enzymes were used.

1. **Guiac test.** Milk treated with guiac tincture and a drop of hydrogen peroxide gives a blue color or a blue ring if enzymes are present.

2. **Guiacol test.** Milk treated with a solution of guicol and a drop of hydrogen peroxide will turn distinctly orange. In the absence of enzymes no color change takes place.

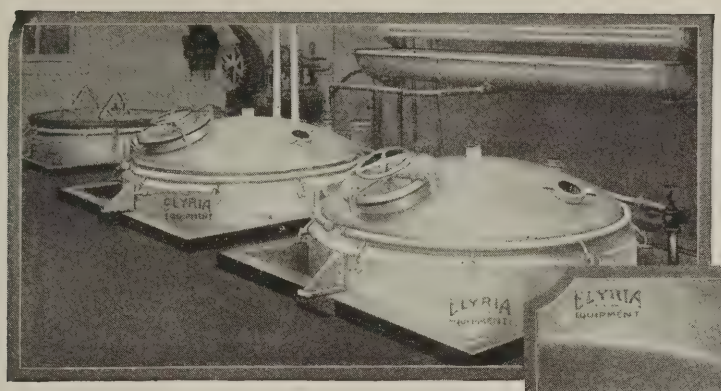
3. **Paraphenylene Diamine test.** Milk treated with dilute hydrogen peroxide and a fresh solution of paraphenylene diamine turns deep blue in the presence of enzymes but remains perfectly white if they have been destroyed

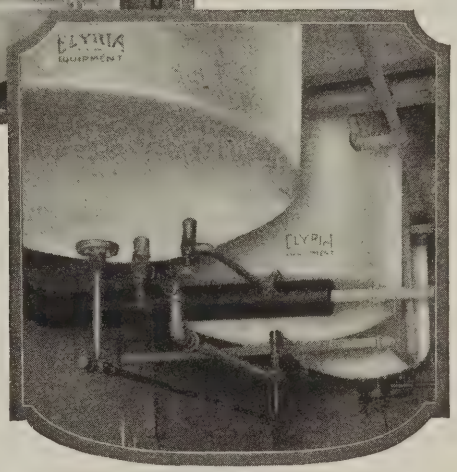
The guiac and guiacol tests are especially sensitive towards the oxydases while the paraphenylene test is more indicative of catalase and galactase.

All three of these tests when applied to the milk gave positive indications for both the raw milk and the milk pasteurized with steam in the enameled pasteurizer, while in the case of the milk heated to 200 degrees F. the tests were entirely ngative. Thes results indicate that enzymes present in raw milk are not affected by pasteurization in enameled pasteurizers. Raw milk, which responds to the above tests for enzymes, will respond to the same tests after being pasteurized in enameled vats.

A study was also made of the albumin in the various samples indicated above. The casein in (1) the raw milk, (2) the milk pasteurized in an enameled pasteurizer, (3) the milk heated to 200 degrees F. and held 30 minutes was coagulated with magnesium sulphate and filtered off. The amount of soluble albumin in the clear solutions remaining was determined by separating out the albumin with tannin, filtering off and determining the albumin content.

The raw milk had a soluble albumin content of 0.58 per cent; the milk pasteurized in the enameled pasteurizer contained 0.56 per cent; and the milk heated to 200 degrees F. for 30 minutes contained 0.18 per cent, showing that albumin is largely coagulated if temperatures as high as 200 degrees F. are reached. These results indicate that pasteurizing milk in an enameled pasteurizer does not alter the content of soluble albumin or interfere with the enzymes, but leaves them as they are found in raw milk.





This photograph shows the 500-gallon Elyria Glass Enameled Steel Pasteurizer and the two 1000-gallon Aging Tanks used by the Fort Smith Ice Cream Company of Fort Smith, Arkansas. Notice the arrangement to save floor space and head room.

Here's the Proof!

Elyria Enameled Products Co.,
Elyria, Ohio

Dear Sirs:

"A four year trial of one 500 gallon Ice Cream Pasteurizer and two 1000 gallon aging tanks has proven to us the advantage of using Elyria Equipment in the manufacture of our cream. We find that these tanks are in as good condition today as when installed. They are easily cleaned and tend to improve the sanitation of the product.

"In conclusion we wish to say that we are more than satisfied with the results obtained and feel that they are directly responsible for materially reducing our overhead expense and giving us a more uniform and better flavored cream."

Forth Smith Ice Cream Company

"They are directly responsible for materially reducing overhead expense"

—FORT SMITH ICE CREAM COMPANY

SOME equipment cuts production costs; some raises quality of product—Elyria Tanks do both! While all Glass Enameled Steel Equipment has some common characteristics, Elyria has pioneered in developing *original* qualities in design and construction which save time, labor and space; increase production, maintain sanitation and improve flavor of product.

Free Booklet tells the Story

This interesting booklet contains pictures of Elyria Storage and Aging Tanks, Mixers and Pasteurizers in use; tells about Elyria enamel — the highest grade in the world; explains Elyria developments of design and construction—built-in quality—not laid on. It helps show what "Processes, not just Equipment" means.

In your own plant, an Elyria engineer can demonstrate Elyria Equipment — show how it can be applied to your business with profitable results — prove that Elyria service means something. Use the coupon.

ELYRIA ENAMELED PRODUCTS COMPANY
ELYRIA, OHIO

New York Chicago San Francisco Pittsburgh Boston
Los Angeles Indianapolis Minneapolis St. Louis
Canadian Milk Products, Limited, Toronto, Ont.



Elyria Enameled Products Co.,
Elyria, Ohio.

Send me your booklet on Elyria Glass Enameled Storage Tanks, Pasteurizers and other equipment for the Ice Cream plant.

.....

.....

I.C.R. .....

PROSPERITY FOLLOWS THE DAIRY COW. Be sure you attend the National Dairy Exposition—St. Paul-Minneapolis, Oct. 7-14.

Powers and Privileges of Trade Associations

THE questions arising out of the activities of trade associations are of such complex legal character that it has been deemed wise to publish the whole correspondence between the Department of Commerce and the Department of Justice upon this subject, which is as follows:

DEPARTMENT OF COMMERCE,
Office of the Secretary, Washington.

February 3,1922.

My dear Mr. Attorney General:

The situation regarding the activities of legitimate trade associations is more disturbing now than at any time since we first discussed the matter, and since Mr. Lamb was advised by Colonel Goff and Mr. Fowler that it was your desire that I present an informal, inter-departmental inquiry regarding the present status of the law relating to legitimate trade associations and the extent that they may engage in legitimate co-operative activities, I have made a further survey of the matter, and the questions hereinafter presented seem to me to be vital to trade associations based on present information secured through recent investigation.

It may not be out of place to call your attention to the organic act which created the Department of Commerce, which imposed upon the Department the duty "to foster, promote, and develop the foreign and domestic commerce, the mining, manufacturing, shipping, and fishery industries, and the transportation facilities of the United States." In obeying the commands of the statute, it seemed to me that the Department should employ all available legal means to get into the closest possible touch with industry in all its forms and secure the best information possible regarding the needs and necessities of trade and commerce. If the Department has to help, aid, and assist industry, it must, of course, be conversant with the facts and conditions influencing the carrying on of trade. The existence of a large number of trade associations being well known prompted me to make inquiry regarding their forms of organization and the functions they were performing to ascertain whether or not they could be utilized as a means for securing trade information that would properly aid the Department in performing its duties. My inquiry into the affairs of trade associations was not with the idea of creating a new scheme for carrying on business, but solely for the purpose of ascertaining whether or not they could properly be utilized in furnishing information that would not only be helpful to the Department and to the commercial world but to the public generally, always keeping in mind that whatever activities were carried on by such associations, they should of necessity be within the terms of existing law. In the course of my inquiry, I discovered that certain trade associations were involved in litigation which questioned the legality of their performances, and, by reason of the litigation, there was much doubt and confusion regarding the legal limits within which trade associations could properly operate. This situation seemed to call for conferences with your Department, which you have graciously afforded, and although no definite determination has heretofore been reached regarding the policy to be pursued, I realize the difficulties that confront you in attempting to reach realize the difficulties that confront you inattempting to reach a proper conclusion, and while a public announcement from you would have been most helpful to all, I most heartily acquiesce in your suggestion that the matter be presented as an informal, interdepartmental inquiry for my guidance in performing the duties imposed upon me by the organic act creating this Department.

So much has been said in the various conferences, coupled with lapse of time, in order to obviate excusable failures in memory as to the matters that have heretofore been discussed and to make clear the position and views of this Department, I desire to offer some preliminary observations regarding trade associations before asking the specific questions heretofore set forth in various informal memoranda and upon which I desire the informal expression of your views.

Commercial progress in industry has always been measured by the advance in knowledge of those engaged in industry. It is impossible for men to acquire or secure all possible knowledge at one time. Its acquisition is a growth resulting from continuous, intelligent inquiry. The knowledge of an industry that is necessary and essential to its success must embrace all facts and circumstances that will in any way influence that industry. These facts and circumstances must include economic conditions as well as scientific facts to the extent that science is called into play in its operation and all commercial conditions that make for efficient production, merchandising, and distribution. No one will dispute the foregoing statements; they are fundamental and necessary to the life of trade and commerce.

The difficulty seems to lie in the determination of the means and methods that may be adopted to secure this necessary information. Little, if any, trouble is experienced in securing the admission that an individual may secure knowledge of these facts by any means that would not constitute an individual crime, and that he may use the information in such manner as his best judgment may tell him will bring him the greatest benefit.

But when two individuals engaged in the same line of industry undertake to provide a means for securing facts necessary and essential to the economic and efficient conduct of their respective organizations, this form of endeavor seems to at once assume an aspect of difficulty, that, in my judgment, is in no way justified by a proper consideration of the underlying necessitities therefore.

The individual sets up some form of instrumentality to secure the information without which, in the management of his business, he would be groping in the dark. His competitor across the street does the same thing, and each, securing his information in his own way, uses it as he sees fit, and the action of either one has not offended the majesty of the law. Yet, if the two seek to join the instrumentality each has used for information purposes and the same information is received through one instrumentality and the information given to each and it is used in the same way that it was before, it is suggested that the collective activity in the use of the consolidated instrumentality should not be permitted because of the greater ease and facility thereby afforded for the two individuals to make improper use of the information acquired. In other words, the objection does not go to the instrumentality, but to the abuse of the information that may be secured through the collective means.

The principle is the same whether two or two hundred join together in securing the information.

No form of legislation has ever yet been devised, nor has man, with all of his genius for invention, even been

No Order
TOO SMALL

No Order
TOO LARGE

Plain and Sweetened Condensed.
Separated Sweet Cream.
Homogenized Sweet Cream.
Butter Churned from Sweet Cream.

Twenty-Four Hour Service

Perry Milk Products Co. **Perry, Iowa**

SODA MENUS

Effective Advertising For Ice Cream Manufacturers

OUR menus are popular among ice cream manufacturers who give them to druggists and confectioners with the manufacturer's trade-mark or advertising slogan printed on them. This is a sure and inexpensive means of advertising the ice cream manufacturer as the menus come to the attention of the customers of the retailer.

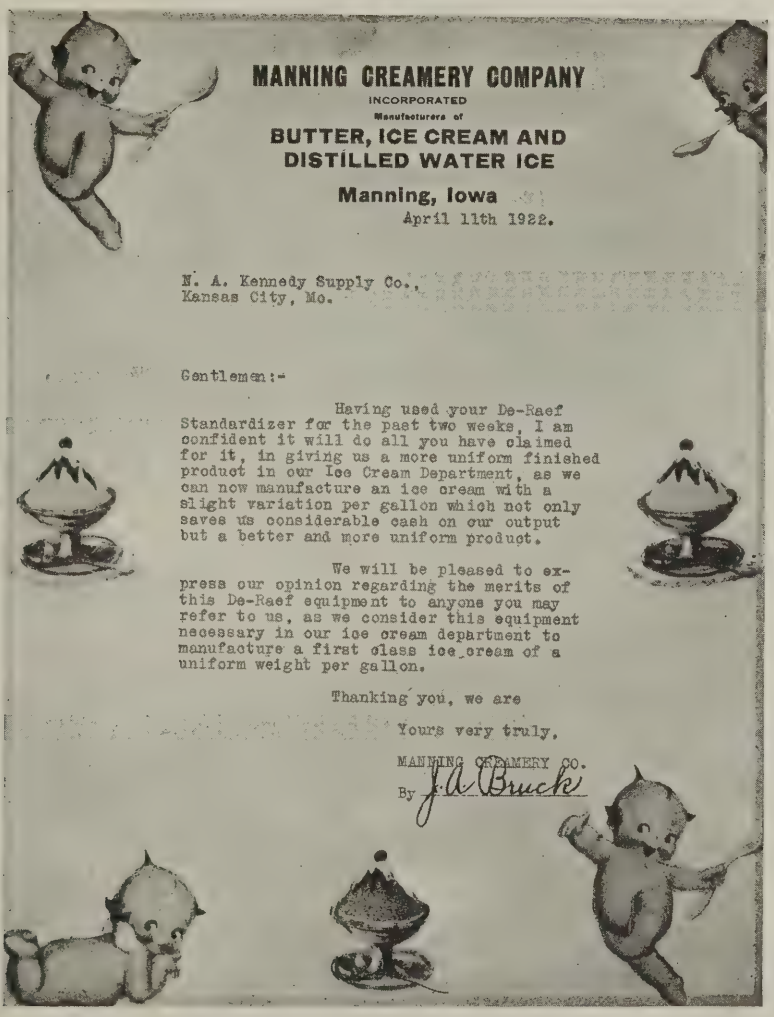
These menus are **especially** for the Soda Fountain. They are not hotel menus nor restaurant menus, but are printed and embossed in colors on the highest grade of stock and reproduced from original drawings for the use of Soda Fountains exclusively.

Samples Free on Request.

THE ALLIS PRESS **Kansas City, Mo.**

DeRaef Weight Standardizer

Registered U. S. Patent Office



MANNING CREAMERY COMPANY
INCORPORATED
Manufacturers of
BUTTER, ICE CREAM AND
DISTILLED WATER ICE
Manning, Iowa

April 11th 1922.

N. A. Kennedy Supply Co.,
Kansas City, Mo.

Gentlemen:-

Having used your De-Raef Standardizer for the past two weeks, I am confident it will do all you have claimed for it, in giving us a more uniform finished product in our Ice Cream Department, as we can now manufacture an ice cream with a slight variation per gallon which not only saves us considerable cash on our output but a better and more uniform product.

We will be pleased to express our opinion regarding the merits of this De-Raef equipment to anyone you may refer to us, as we consider this equipment necessary in our ice cream department to manufacture a first class ice cream of a uniform weight per gallon.

Thanking you, we are

Yours very truly,

MANNING CREAMERY CO.
By J. A. Bruck

National Distributor

N. A. KENNEDY SUPPLY CO.

KANSAS CITY - MISSOURI

able to devise a rule or regulation that would prevent men from committing crimes if they are so minded. The best that can be done is to forbid the doing of certain acts or to command the doing of others, prescribing proper punishments in the case of the commission on the one hand and the commission on the other; and when legislation takes that form, rules and regulations and administrative constructions which have for their objective the making of the prohibited thing more difficult will always include within their terms the law-abiding citizen as well as the prospective criminal.

We have had criminals since the beginning of time, and human nature can not be changed by legislation. The criminally inclined represent a small minority, and it may be said in a general way that, excepting offenses against persons and property, most of the criminal statutes regulating trade and commerce and forbidding acts that seem against sound public policy have been made necessary for the control of the minority. None of these statutes, however, has undertaken to prevent the doing of a thing that would result in benefit to the public, but the restriction has been against the doing of the thing in an unlawful way. These statutes have not condemned lawful institutions or instrumentalities for the carrying on of commerce merely because someone might possibly abuse their use. The laws have condemned the abuse, and punishments have been prescribed for those who may be found guilty of the abuse. Therefore, the fact that the minority may be known to violate given laws does not establish a principle that the primary means, lawful in itself, which they have adopted for the purpose of performing the unlawful acts, should be entirely abolished and its use forbidden by law-abiding citizens. Each unlawful use of the means is merely an individual case of the violation of a law.

Trade associations have been in existence for many years. The great majority are legitimate, both in form of organization and in activity. The minority, while lawfully organized under articles expressing lawful purposes, may engage in activities that are evidence of purpose contrary to and outside of the declared purposes in the articles of organization.

Again, a trade association may have lawful form of organization and the activities of its officers may be clearly within the purposes declared in the association charter, and yet members of the organization may, by unlawful confederation, use the information lawfully secured for unlawful purposes. It may, therefore, thruthfully be said that the line dividing the good association and the bad, the proper activity from the improper one, and the lawful activities of the officers of an association from the unlawful acts of the membership, can not be determined, in every instance, with singular ease. It is my belief, however, that it is more easy to determine the forms of organizations and activities that are generally recognized as good than to determine in advance those that may be bad, because, in the latter instance, the peculiar facts relating to each association the subject of inquiry may determine whether the organization or its members are operating in violation of law.

It is with much earnestness that I claim there is propriety, generally speaking, in trade associations. Their lawful field of endeavor is large, and their activities work for promotion and advancement of the public welfare and for progressive economic organization. In making this statement, I am not unmindful of the fact that the impression exists with a small minority that individual prohibited acts may be accomplished by organization under the disguise of a trade association. However, to make my position clear regarding the trade associations the existence of which I advocate, I desire to say that I have always taken the view that no body of men could combine in the form of a trade organization and do any act or thing forbidden by law if they were undertaken by them outside of a trade organization. The character of trade organization, the existence of which should be preserved, is one that carries lawful purposes only in its articles of association; its activities must be in harmony with its declared purposes. The articles of association, with their lawful, declared purposes, must not be used as a mask to hide unlawful purposes. In other words, the organization can not be used to conceal or disguise any contract, combination, conspiracy, agreement, or understanding, secret or otherwise, on the part of the officers of the organization or on the part of the membership or any part thereof to engage in activities in restraint of trade or otherwise in violation of the anti-trust laws.

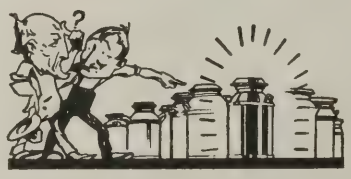
There has been much information collected by legitimate trade associations in which the general public has no interest whatsoever, yet information of this class has always been freely offered to the daily and the trade press, as well as to any governmental agency that might desire the information as a matter of statistical record. On the other hand, certain statistical data are collected by trade organizations that would be of vast value to the public generally if published in practical, available form.

Many of the trade associations securing and disseminating the statistical data mentioned have restricted the same to its membership, while others have undertaken to give the same to the public through the daily and trade press concurrently with its members. The trade associations of the latter class are in the minority.

Information lawfully secured regarding trade and economic conditions made public for the information of everyone can not be harmful. Information secured solely for the benefit of members and of a character that puts the membership, by reason of the information, in a position of advantage as compared with the public without such information can not be sanctioned by sound public policy. The act of securing the information and the use of it by the member of a particular organization may be perfectly lawful in itself, but it is my belief that good morals and a sense of fair dealing require the giving of the information secured in this collective manner to the public generally, to the end that all persons engaged in commercial transactions involving the information in question will be on an even footing.

The activities of trade associations that have received the greatest criticism involve the collection of statistics relating to volume of production, capacity to produce by districts of production, wages, consumption of products in domestic and foreign trade, distribution thereof including volume of distribution by districts, together with figures as to stocks on hand, wholesale and retail, by districts, coupled with information as to price, either in the form of individual reports of each member distributed to every other member or the individual prices reported to the association and by the latter compiled and averaged by districts for certain specified periods.

If information regarding production, capacity, and distribution by districts, with average prices for grades, brands, sizes, styles, or qualities sold in the respective districts for specified periods of time could be given to the public at the same time that such information is available to the members of an association, in my judgment, great public good would result. With this information available, everyone dealing in the products of a given industry, whether buyer or seller would have the same information regarding conditions and in dealing with one another, would have knowledge of the



"A POINTER FOR YOU"

A pleasing package that "sticks out like a sore thumb" above competition is the best advertisement that can be written for a food product. Derycoted tubs and cans are pleasing packages which pointedly proclaim the personality of your product and play up the sanitary condition under which it is made.

Derycote
PAINT YOUR PERSONALITY ON YOUR PACKAGES

is a brilliant elastic colored enamel made especially for Dairy and Ice Cream service.

Handling or transportation will not cause it to chip or crack. Hot or cold water, salt, ice, brine, washing powders, etc., will not dim its lustre or impair its protective qualities. Made in 24 colors, as well as black and white or in your standard shade if our regular colors don't suit. Write for our color card and ask for a sample.

THE ASSOCIATION OF ICE CREAM SUPPLY MEN MEMBER

The National Paint and Varnish Company
CLEVELAND, OHIO, U. S. A.



The "Perfection" Imprint on Your

Ice Cream Cartons, Can Liners and Butter Cartons

is your assurance that the Buying Public is going to get the correct impression of the quality of goods that you have put in your package. INSIST on the best, it COSTS NO MORE

Write for Booklet

CHICAGO CARTON COMPANY

4433 Ogden Ave., Chicago

NEW YORK, 516 5th Avenue
CINCINNATI, Gwynne Bldg.

CHICAGO CARTON COMPANY

DALLAS, 601 Elm Street
DENVER, 1526 Blake Street
SALT LAKE CITY, 355 Pierpont Ave

same facts upon which to form their judgments as to the proper course to pursue.

A majority of the associations collecting data of the nature indicated have distributed same only to members of the association, while others have undertaken to give the information to the public through the daily and trade papers. Publication of the information by these associations in the daily press has not been general, and its availability to the public has been largely through the medium of trade papers, and through the daily press to the extent that the latter may have been utilized. When published through trade papers this information should be released to members only after such publication.

It should be borne in mind that the criticism aimed at this form of activity has not involved the instrumentality for securing it or the subject matter of the information, but has been directed to the use or possible use that might be made of the information and the fact that no means existed for distributing the information to the public at the same time that it was received by the members of the association. These observations likewise apply to the criticisms directed to the furnishing of average price of given commodities according to grade, size, brand, or quality by districts for specified periods of time, based on past and closed transactions.

With these observations, which have been extended at greater length than I intended, I desire the informal expression of your views as to the following activities on the part of trade associations and their members wherein neither the form of the association nor the activity, which appear perfectly fair and lawful on the surface, is used to hide or conceal some contract, combination, conspiracy, agreement, or understanding, secret or otherwise, on the part of the association, the membership, or any part thereof to actually restrain or otherwise violate the Sherman Act:

1. May a trade association provide for its members a standard or uniform system of cost accounting and recommend its use, provided that the costs so arrived at by the uniform method are not furnished by the members to each other or by the members to the association and by the latter to the individual members?

2. May a trade association advocate and provide for uniformity in the use of trade phrases and trade names by its respective members for the purpose of ending confusion in trade expressions and for harmony of construction as to the meaning of trade phrases, names, and terms?

3. May a trade association, in cooperation with its members, advocate and provide for the standardization of quality and grades of product of such members, to the end that the buying public may know what it is to receive when a particular grade or quality is specified; and may such association, after standardizing quality and grade, provide standard form of contract for the purpose of correctly designating the standards of quality and grades of product; and may it standardize technical and scientific terms, its processes in production, and its machinery, and may the association cooperate with its members in determining means for the elimination of wasteful proceses in production and distribution and for the raising of ethical standards in trade for the prevention of dishonest practices?

4. May a trade association collect credit information as to the financial responsibility, business reputation, and standing of those using the products of the industry; and may the association furnish such information to individual member upon request therefor, provided such information is not used by the association or the members for the purpose of unlawfully establishing so-called "blacklists."

5. May a trade association arrange for the handling of the insurance of its members, including fire, industrial, indemnity, or group insurance. In other words, can the members of an industry, through the agency of a trade association, arrange for or place all of the insurance of the members?

6. May a trade association, in cooperation with its members engage in cooperative advertising for the promotion of trade of the members of that association engaged in the particular industry; and may the association engage in such form of promotion by furnishing trade labels, designs, and trade-marks for the use of its individual members?

7. May a trade association, for and in behalf of its members, engage in the promotion of welfare work in the plants or organizations of its members, which welfare work includes sick benefits and unemployment insurance for employees, uniform arrangements for appreticeship in trade education, the prevention of accident, and the establishment of an employment department or bureau for cooperation with employees?

8. May a trade association, in cooperation with its members and acting for and in behalf of its members, handle all legislative questions that may effect the particular industry, regarding factories, trades, tariff, taxes, transportation, employers' liability and workmen's compensation, as well as the handling of rate litigation and railroad transportation questions?

9. May a trade association, in cooperation with its members and acting for and in their behalf undertake the promotion of closer relations between the particular industry and the federal and the state departments of government which may have administration of laws affecting the particular industry in any form?

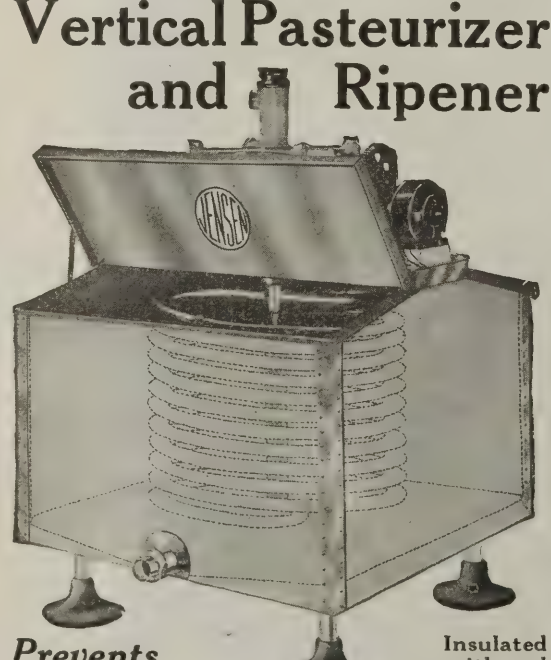
(10)-A. May a trade association collect statistics from each member showing his volume of production, his capacity to produce, the wages paid, the consumption of his product in domestic or foreign trade, and his distribution thereof, specifying the volume of distribution by districts, together with his stock, wholesale or retail?

B. And may such trade association, on receipt of the individual report of each member, compile the information in each report into a consolidated statement whch shows the total volume of production of the membership, its capacity to produce by districts of production, which, in some instances, include a state or less area, the wages by districts of production, the consumption in foreign or domestic trade by districts, the volume of distribution by districts, and the stocks on hand, wholesale and retail, by districts?

C. And if, after compiling the information as aforesaid, the information received from the members as well as the combined information is not given by the association to any other person, may it then file the combined statement with the Secretary of Commerce for distribution by him to the members of the association through the public press or otherwise and to the public generally and to all persons who may be in any way interested in the product of the industry, it being understood that the individual reports for the members should cover either weekly, monthly, quarterly or longer periods as may be deemed desirable by the members, and, when a period is adopted, the report for each member shall cover that period, and the combined report shall be for that period?

(11)-A. May a trade association, at the time it collects the production and distribution statistics above outlined, at the same time have their members report the prices they have received for the products they have sold during the period taken, specifying the volume of each grade, brand,

Vertical Pasteurizer and Ripener



Prevents FOAM!

Insulated with real corkboard

Vertical Coil revolves from bottom up and works up and out all air and gases.

STUFFING BOXES ENTIRELY ELIMINATED.

Jensen Creamery Machinery Company

Builders of "Equipment of Practical Efficiency"

BLOOMFIELD, N. J. OAKLAND, CALIF.

Southern Representative: BLANKE MFG. & SUPPLY CO., St. Louis, Mo.

WARNER-JENKINSON CO. RED TRADE MARK SEAL ST. LOUIS

The Flavor Sells Your Ice-Cream

Here are 4 Types of Vanilla Flavoring that will sell your product

GIANT VANILLA COMPOUND
is all that the name implies.

MAMMOTH VANILLA COMPOUND
Different to Giant but equally strong.

VANILLA AND TONKA
Moderately priced. Hundreds of ice-cream makers swear by it.

STRAIGHT VANILLA BEAN EXTRACTS
Mexican, Bourbon, All Bean and Suva.
Contain 1 lb. of beans in a gallon of extract.

Inquire about our contract prices.

—o□o—

RED SEAL COLORS

Prices for 1922 are materially reduced. Our pure certified colors excell in strength and brilliancy.
Powder, Liquid or Paste.

—o□o—

RED SEAL RIPENER

Helps age the mix. Improves your ice-cream.

WARNER-JENKINSON CO.
ST. LOUIS

size, style, or quality, as the case may be, and the price received for the volume so sold in each of the respective districts where the product is sold?

B. And may the association, without making known to any person the individual price reports of any member, consolidate all of the reports into one, and show the average price received for the total volume of each, grade, brand, size, style, or quality, as the case may be, distributed in each district covered by the distribution statistics for the period covered by each individual report?

C. And may the association, after making such compilation, send the compiled report as to average price, as aforesaid, to the Secretary of Commerce, to be by him distributed to the public and to any or all persons who may be interested in the particular industry making the reports?

In order to avoid repeating this question in connection with each one of the activities outlined in the eleven preceding questions, may trade associations engage in any or all of the activities named without violating the law, provided the organization and the activity engaged in are not for the purpose of hiding or concealing some agreement, contract, etc., to actually restrain trade or otherwise violate the anti-trust laws?

As stated in the beginning, I do not ask you to express your views in a form opinion, but it is my hope that you may see your way clear to give me the advice that will enable me to adopt the proper administrative action in undertaking the duties imposed upon the Secretary of Commerce by the organic act creating the Department. It is unnecessary for me to say that the general, unsettled condition regarding the proper provinces of trade associations justifies as early a reply to these inquiries as your other numerous official duties will permit.

Yours Faithfully,
HERBERT HOOVER,
Secretary of Commerce.

OFFICE OF THE ATTORNEY GENERAL.
Washington, D. C., February 8, 1922.

My dear Mr. Secretary:

Your communication of the 3rd instant relating to the practices in which trade associations may lawfully engage was received. I recognize the force of your able discussion of the subject, and after careful consideration of the several activities which you suggest can be exercised lawfully, I beg to say:

With reference to the first paragraph, there is no apparent objection to a standard system of cost accounting, but I think associations should be warned to guard against uniform cost as to any item of expense. For illustration, a strong effort has been made by some lumber associations to take as a basis for estimating costs of production a uniform charge for stumpage. Of course the cost of the timber in the tree to the different manufacturers who own their timber in the woods greatly varies; and as to each it should be charged at its actual cost. It is as clearly a violation of the law to agree upon the cost of an item that constitutes a substantial part of the total cost price when its cost actually varies, as to agree upon the sales price, because the sales price is substantially affected by such agreement. It has been ascertained that the members of one association go so far as to fix a uniform cost price, leaving to each member to determine what per cent profit he will add, thus eliminating entirely competition in so far as affected by the cost of production.

Furthermore, I have serious doubts about the advisability of the latter part of the sixth paragraph. I can see no objection to cooperative advertising designed to extend the markets of the particular article produced or handled by the members of an association, but when the several producers or dealers use uniform trade labels, designs and trademarks it seems to me the inevitable result would be a uniformity of price. Where two competing articles are advertised in precisely the same way and bear exactly the same label or trademark, it certainly would be difficult for one to be sold at a higher price than the other, although its quality may be superior. In a way this is illustrated in the cement industry. There a standard of quality has been adopted. That is, it is necessary for all cement to comply with a certain standard, but in practice no manufacturer undertakes to make, or at least no one advertises that he does make, a grade of cement superior to that standard. The result is that there is no competition in the sale of cement so far as quality is concerned. It seems to me therefore that it would be well to eliminate the latter clause in paragraph six, to wit, "and may the association engage in such form of promotion by furnishing trade labels, designs and trade-marks for the use of its individual members?"

I can now see nothing illegal in the exercise of the other activities mentioned, **provided always** that whatever is done is not used as a scheme or device to curtail production or enhance prices, and does not have the effect of supressing competition. It is impossible to determine in advance just what the effect of a plan when put into actual operation may be. This is especially true with reference to trade associations, whose members are vitally interested in advancing or, as they term it, stabilizing prices, and who through the medium of the associations are brought into personal contact with each other. Therefore the expression of the view that the things enumerated by you, with the exceptions stated, may be done lawfully is only tenative; and if in the actual practice of any of them it shall develop that competition is suppressed or prices are materially enhanced, this Department must treat such a practice as it treats any other one which is violative of the Anti-Trust Act.

Yours sincerely,
H. M. DAUGHERTY,
Attorney General.

DEPARTMENT OF COMMERCE,
Office of the Secretary.
Washington, February 9, 1922.

My dear Mr. Attorney General:

I have your letter of the eighth instant, in reply to my letter to you of February 3, 1922, in which I made informal inquiry as to the legality of certain activities of trade associations enumerated in eleven questions. It is very pleasing to me to note that our views regarding these matters are in such close harmony.

Your observations regarding the last clause in question (6) in my letter are wholly sound, based on the language of that clause. It was not, however, my idea that each constituent member of a trade association would use a community trade-mark on his product, i. e., the same trade-mark that was used by every other member of the association, and, therefore, the last clause in that question was unhappily worded. The question really relates to trade promotion through cooperative advertising, in which certain trade slogans are used, such as, "Made in Grand Rapids," which was adopted by the furniture manufacturers at that furniture center. Generally, activities covered in question (6) are

INSULATION
for
COLD TEMPERATURES

NO JOB IS TOO SMALL

Proper insulation, properly installed, will result in financial savings even in the smallest ice cream plants. The savings in the smaller plants may, however, not justify the use of the most expensive forms of insulation.

One of these will meet ALL of the Requirements of YOUR plant:

WATERPROOF LITH
LINOFELT — FIBROFELT
MINERAL WOOL

Complete Information on Request

UNION FIBRE CO., INC.
WINONA, MINN.



Let this masterpiece of Mathews Color-illustration join your staff of ice cream salesmen

FREDERICK C. MATHEWS COMPANY

"SERVANTS TO THE DAIRY INDUSTRY"

P. O. BOX 834 DETROIT, MICH.

THE ASSOCIATION OF ICE CREAM SUPPLY MEN
MEMBER



Ten days from now this Mathews "Brick and Violets" could be on its way to make money for *you.*

YOU KNOW what a "sensation" this illustration has been! It is but one of scores in our possession which could be set to work for you. Our printing establishment is "humping" day and night which enables us to give the manufacturer who makes a sudden decision to get busy almost *immediate shipments.* Lucky for you—if you signal quickly!

Frederick C. Mathews Company

"Servants to the Dairy Industry"

MEMBER — THE ASSOCIATION OF ICE CREAM SUPPLY MEN

P. O. BOX 834 DETROIT, MICH.

This insert was produced complete by the Frederick C. Mathews Company, Detroit, Michigan

conducted by a trade association in a given local community. An organization at Chicago advertises for its entire membership, which includes every line of commercial endeavor in Chicago, that the City is the great central market. It is cooperative advertising of this class that tends to promote trade extension in given lines or collected lines of industry. Certain of the trade associations, however, do devise trade-marks, not for use by all members, but for individual members. It is a well-known fact that when some manufacturer or producer is fortunate enough to select a trade-mark that appeals to the public, it becomes a great aid in selling his commodity and, as a result, it is well advertised until it becomes a household word. Other producers or manufacturers of the same kind of an article, in order to take advantage of this situation, will devise a trade-name or trade-mark as near to that of the successful competitor as he thinks he can go and still escape suit under the trade-mark or unfair competition laws. The activities of a trade association regarding trade-marks to which I referred in my letter of the third relate to the straightening out of instances of unfair competition or infringement as between the members by undertaking to design trade-marks for the individual members of the association making the same product that would absolutely prevent confusion on the part of the public as to the producer or manufacturer of the given article and, at the same time, remove all claim of infringement or unfair competition. In other words, the trade-mark activity referred to was that of making the trade-marks of each individual member distinctive instead of common. You may, therefore, consider the part of my question (6) referred to in your letter as eliminated from the question, and that the question was really intended to cover the matters stated herein. With this explanation, I feel sure you will agree with me that our views on the matters presented are in complete accord.

Yours faithfully,
HERBERT HOOVER,
Secretary of Commerce.

JACK RABBITS
ELWIN F. WEIL, Secretary
514 New York Life Bldg.,
Kansas City Missouri



MENASHA PRINTING AND CARTON CO. MOVES.

The Ice Cream Review:

This will request that you change our address for sending The Ice Cream Review from 307 Scarritt Arcade to Westover Building, Kansas City, Mo., same to be effective August 1st.



We are interested readers of your paper and gain from it a great many facts that help us in our own business. You will be interested, also, in knowing that we have quite a number of replies to our advertisements in which your paper is mentioned.

Ice cream weather is here, 98°. Hurrah!

Yours very truly,
MENASHA PRINTING & CARTON CO.



Well, **VISCO** saved my reputation today. This hot weather cleaned us out of frozen goods, but we made up some new in a few hours, using **VISCO.** Turned out my regular quality stuff! No worries for me this summer—thanks to **VISCO!** Get free **VISCO** booklet which explains this new preparation.

CHERRY-BASSETT-WINNER CO., 1918 Market St., PHILADELPHIA

Three in One!

The Manning Batch Mixer is a complete unit,—heater, holder and cooler in one machine. It heats quickly to 140 or 145 degrees with a minimum amount of steam, holds absolute temperature, and cools quickly to 40 degrees with the smallest amount of ice or salt. Because of perfect insulation the Manning is well adapted for long time holding.

The low first cost, economical upkeep and great efficiency of the Manning mean a sure saving to you in dollars and cents.

MANNING EQUIPMENT

MANNING MANUFACTURING COMPANY
Rutland, Vermont U. S. A.



The First Cost,—
Low as it is,—
Is Practically the Last!

Removal of Garlic Flavor from Milk and Cream

By S. Henry Ayers, Bacteriologist, and W. T. Johnson, Jr., Scientific Assistant, Dairy Division

IT IS a well-known fact that when cows eat wild onion or garlic within four hours before milking there is imparted to their milk a very disagreeable flavor and odor. This flavor is not only unpleasant but it lowers the commercial value of the milk. Any method, therefore, which will remove this flavor and odor should be of interest to dairymen.

The Experimental Milk.

In all our experiments milk with a strong onion flavor was used. The milk was prepared by feeding a cow with three-fourths of a pound of wild onion or garlic 20 minutes before milking, and we believe that the milk so obtained has as strong a flavor, probably stronger, than any commercial milk so tainted.

Description of Process.

Briefly stated, the process which we have used for removing onion or garlic flavor from milk consists in blowing air through milk which is heated to at least 145 degrees F. The apparatus used in our work is shown in figure 1. It consists of a round, open-top tin tank, A, of about 4 gallons capacity, surrounded by a

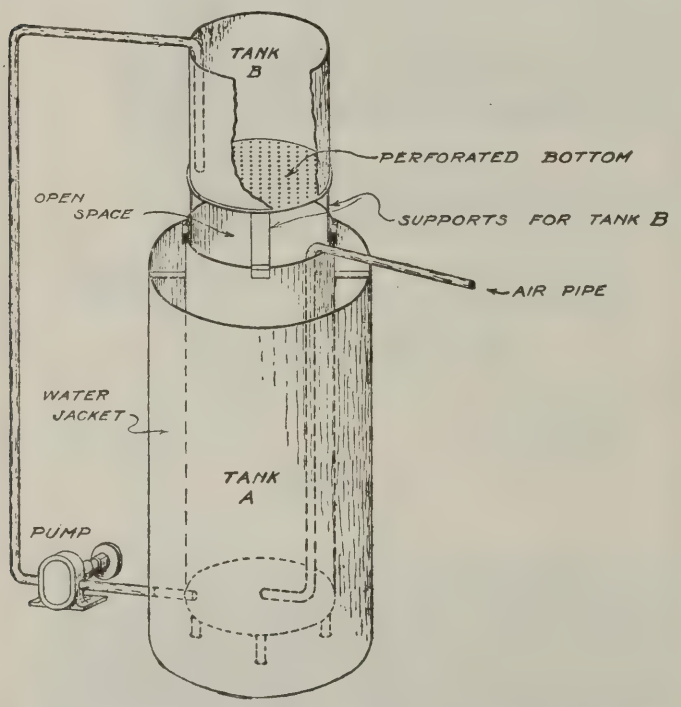


Fig. 1.—Apparatus for removing wild onion or garlic flavor from milk or cream.

water jacket. Supported above tank A is a second tank, B. Tank B has a perforated bottom, the holes being about one thirty-second of an inch in diameter, placed at a distance of about one-half inch apart. This tank stands about 3 inches above tank A, and is supported by four legs. There is left, therefore, an open space between the two tanks through which the air escapes after its passage through the milk. An air pipe extends to within one-half inch of the bottom of tank A. A pump is also provided with connections to both tanks.

The method for removing onion or garlic flavors is as follows: Milk is placed in tank A and heated to 145 degrees F. by means of hot water in the water jacket. During the heating the milk is agitated by mechanical means. It is possible that a slight agitation by air would act as well as a mechanical stirrer, but if such agitation is too violent it may churn the fat in the cold milk. When the temperature has reached 145 degrees F. air under pressure is blown into the milk through the air pipe, which extends nearly to the bottom of tank A. This air causes a violent agitation of the milk. When the air is turned on, the milk pump is started and milk is pumped from tank A to tank B, from which it flows through the perforated bottom and returns to tank A in fine streams after the manner of rain. The pumping is continued throughout the blowing process. The principal object of tank B is to cause milk to drop into tank A in such manner as to destroy the layer of foam which forms on the milk which is being treated with air in the lower tank. This method of allowing the milk to fall in fine streams also aids in aeration and therefore helps in the removal of the onion or garlic flavor.

Air was obtained from the laboratory pressure air line, and about one-fifth of a cubic foot of air per gallon of milk per minute was used.

Process most Satisfactory at 145 Degrees F.

In developing this process a large number of experiments were performed, using various temperatures. It was found that some of the onion or garlic flavor could be removed by blowing cold milk, but it was impossible to remove it entirely in any length of time which would be practical for commercial use. In one experiment milk with a strong onion flavor was blown for two hours at a temperature ranging from 50 to 68 degrees F. and the flavor was not removed. The temperature was then raised to 145 degrees F. and after five minutes blowing the onion flavor was entirely removed. It was also found that when cold milk is violently agitated by air the fat churns, and when the milk is subsequently heated, followed by cooling and bottling, as in pasteurization, a thin layer of butterfat forms on the surface of the bottled milk. When milk was blown at temperatures from 70 to 100 degrees F. a layer of melted fat formed in some cases during the blowing process. This was never observed when the temperature of the milk during blowing was 140 degrees F. or above.

Table 1.—Time required to remove onion or garlic flavor from milk and 30 per cent cream at various temperatures.

Experiment.	Temperature.	Original onion flavor.	Onion flavor after blowing for period of—			
			10 minutes.	15 minutes.	20 minutes.	30 minutes.
	°F.					
1, milk[1]	145	Strong	Strong			Medium
2, milk[1]	145	do				Faint
3, milk	145	do	Medium		Faint	Very faint
4, milk	160	do	Very faint	Very faint	Absent	
5, milk	145	do		Faint		Absent
6, cream	140	do				Medium
7, cream	150	do		Medium		Very faint
8, cream	145	do				do
9, cream	160	do	Faint		Faint	do

Experiment.	Temperature.	Original onion flavor.	Onion flavor after blowing for period of—				
			40 minutes.	45 minutes.	50 minutes.	60 minutes.	75 minutes.
	°F.						
1, milk[1]	145	Strong	Very faint				
2, milk[1]	145	do	Faint		Faint	Absent	
3, milk	145	do	Absent				
4, milk	160	do					
5, milk	145	do					
6, cream	140	do		Medium		Very faint	Absent.
7, cream	150	do		Absent			
8, cream	145	do		do			
9, cream	160	do	Absent				

[1] Upper tank with perforated bottom not used.

(Continued on page 62)



To meet the nation-wide demand for Swift's Quality Gelatines

In less than two years, superior quality has won for Swift's Gelatins an enviable place on the market. The demand is nation-wide; it can not be met with one branch, or two, or three.

Today, Swift & Company is making shipments from *twelve* different points!

Stocks in 12 cities now.

New York, Chicago, Cleveland, Cincinnati, Philadelphia, Minneapolis, St. Louis, Baltimore, Atlanta, Buffalo, Portland, and San Francisco — the nearest of these cities is your source of supply when you buy Swift & Company's Quality Gelatins.

It is probable that more of our warehouses will have to be supplied in the very near future.

Superior quality makes demand

Swift & Company's Gelatins are distinguished by purity, freedom from taste and odor, good strength, unusual clarity and dependable uniformity. They merit the same confidence that the other products of this company hold.

The prices are most reasonable.

Whether you use gelatine in large or small quantities you are invited to write for samples and quotations on our different grades. Or, upon request, one of our representatives will call. Address Dept. 6 B.

Swift & Company
Chicago

THE ASSOCIATION OF ICE CREAM SUPPLY MEN · MEMBER

Results of Experiments at Various Temperatures.

Since the best results were obtained when the milk was treated at temperatures above 140 degrees F., the results of a few experiments on milk and cream which show the length of time required to remove the onion or garlic flavor have been tabulated in Table 1. In experiments Nos. 1 and 2 the milk was blown without the use of the upper tank B, while in experiments Nos. 3 and 5, at the same temperature, tank B was used. The same volume of air, about one-fifth of a cubic foot per gallon per minute, was used in these experiments. It will be seen, however, that the onion flavor was removed more quickly in experiments 3 and 5 when tank B was used. It is probable that the milk falling from tank B in fine streams breaks up the layer of foam on the milk in tank A and therefore aids in the escape of the onion flavor, which is volatile. The milk also is probably aerated when falling in this manner.

Experiment No. 4 shows that the onion flavor in milk is removed more quickly when the milk is heated to 160 degrees F. There is produced, however, at this temperature a cooked taste and the cream line is reduced to a greater extent than when the milk is heated and blown at 145 degrees F. When milk was blown at 145 degrees F. the experiments showed that there was about a 50 per cent reduction in the cream line. The effect on the cream line will vary with the amount of agitation of the milk and the length of the blowing period.

It is seen from the table that the onion or garlic flavor was removed entirely from milk at the temperatures given in from 30 to 60 minutes. It is evident, of course, that the length of the blowing period will depend upon the strength of the flavor in the milk. In one experiment not shown in Table 1 the flavor was removed by five minutes blowing. In this case, however, the onion or garlic flavor was not strong in the milk before treatment.

Removing the Flavor from Cream.

In order to remove the flavor from cream it was found that in general a slightly longer blowing period was required than in the case of milk. The results of four experiments with 30 per cent cream are shown in Table 1. Here again the results show that the onion or garlic flavor may be removed more quickly at 160 degrees F. than at 140 or 145 degrees F. It would probably be possible to use 160 degrees F. when the cream is to be used for butter making, but for direct consumption the cooked taste produced by long heating at 160 degrees F. is undesirable.

Evaporation.

When milk or cream is treated by this process it was found that there is a loss by evaporation which amounts to 2 or 3 per cent. Therefore it is advisable to use the minimum amount of air which will remove the onion or garlic flavor.

Commercial Use of the Process.

The application of this process on a commercial scale would be simple, as an ordinary tank could be used with another tank with a perforated bottom supported above it. The size of the air blower necessary to supply air will depend upon the amount of milk to be blown and the depth of the milk, since air has to be forced to the bottom of the tank. It is desirable that the air be filtered and washed before its passage into the milk, in order to remove dust.

Any of the manufacturers of air blowers will determine the size necessary when supplied with the proper data; that is to say, the amount of air pressure which the blower must provide.

The experiments indicate that onion or garlic flavor may be removed on a commercial scale from milk and cream by the simple process which has been described. It is believed that the milk or cream for direct consumption should be heated and blown at 145 degrees F. in order to obtain the best results, but the temperature used and the method of application of the process will depend upon the particular needs of the creamery operator.

TEXAS LONGHORNS

President—J. R. KRAMER, Creamery Package Mfg. Co., Dallas, Texas.

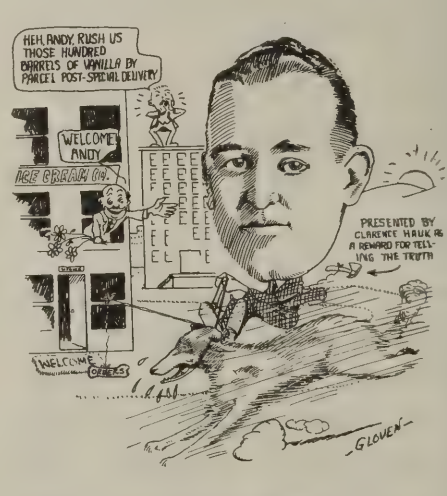
Secretary—J. B. HUFF, Prall-Huff Co., Fort Worth, Texas.



Dear Review:—Your letter asking my opinion of general conditions at present and prospects for the future of the ice cream industry in my territory caught up with me in the wilds of Oklahoma after a long and breathless chase.

You know every Wolf Hound has to be a good runner, but they have some rum-runners down this way that have the world beat for speed. A pack of them had chased me unsuccessfully through three counties and I was about ready to give up the chase when they spied Clarence Hauk drinking a glass of milk. This diverted their attention for a moment, and gave me an opportunity to escape. I had only begun to breathe more freely when the postman caught up with me and handed me your letter.

As soon as I opened it I lost my breath again on account of that first line. I wish you wouldn't write such startling first lines and send them to a fellow unexpectedly. "We want to draw on you—." It's almost as bad as "Please Remit," but anyhow, after I got my breath for the second time, I decided to slip you an earful of glad tidings about the way the ice cream season is starting off down here.

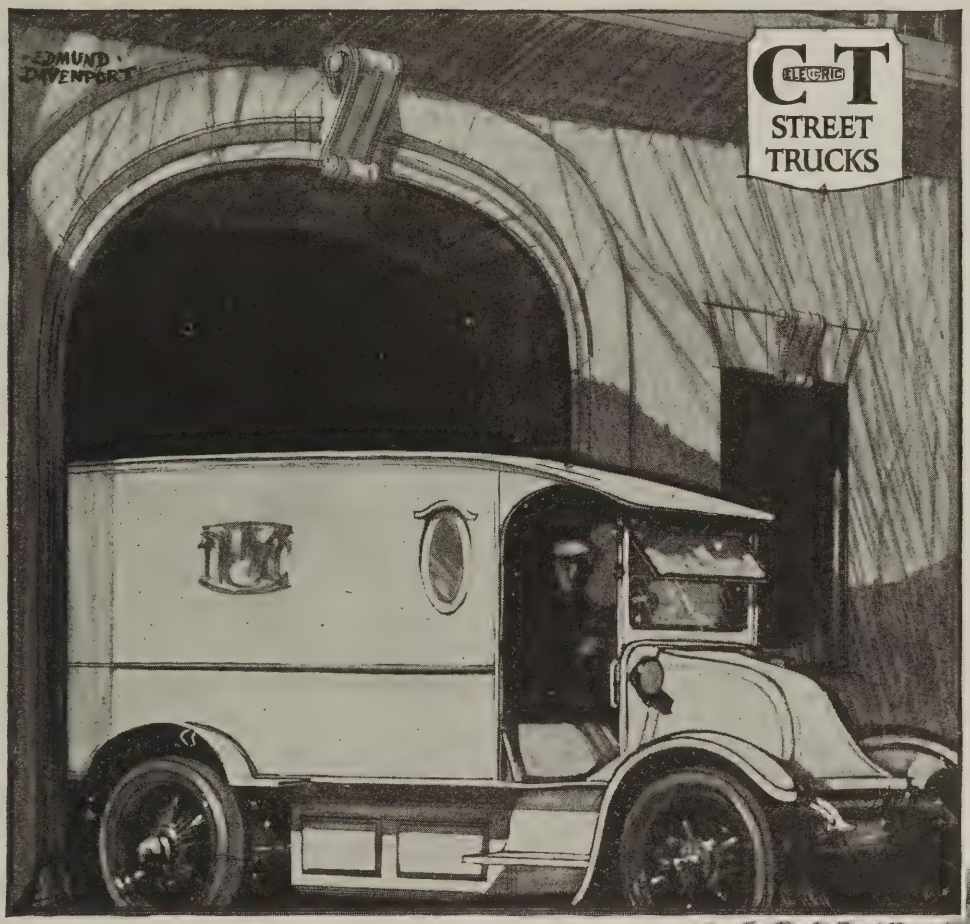


A few months ago a salesman traveling in this country could hear the same sad story from Miami, Fla. to El Paso. Tex. He never walked into an ice cream manufacturer's office without expecting to hear a long, lingering tale of woe, and was seldom, if ever, disappointed.

I'm telling you, Mr. Olsen, (and you know one Swede wouldn't lie to another) that things are decidedly different now. Every ice cream man I call on now days has a grin on his face like a hungry tom cat turned loose in a bird store. He slips you the glad hand and wants to know if you will send him some vanilla right away by aeroplane—says the railroads can't bring it fast enough lately.

All kidding aside, I believe I can say with the approbation of every Wolf Hound, White Cap and Dixie Flyer that it's going to be a whale of a year for the ice cream industry if things keep on as they are now and the weather-man sticks with us.

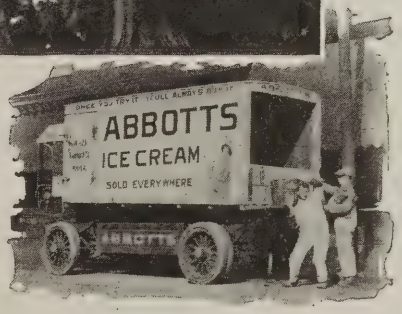
Tri-fraternally yours,
"2a" Anderson.



FROM every angle of electric truck haulage and delivery, the C-T truck is a *saving* investment.

For a truck manufactured throughout in our own plant, according to the highest standards of design and construction as C-T is, the price is exceedingly low because efficient quantity production makes it so.

Thus quality, always obtained at a high price, is brought within the reach of the ice cream manufacturer or dealer who has only a modest sum to spend.



One of Abbott's C-T Ice Cream Trucks, 5-ton capacity

Records of C-T users show that this quality, rightly priced, returns large savings in low operating cost year after year.

That is why the careful buyer, demanding a full return from every dollar invested, buys C-T Electrics.

There is one sure way to determine whether C-T Electric Trucks will return you a profitable saving on your present delivery costs. Give us the opportunity to make a business-like investigation. It will cost you nothing but a small amount of your time. *Write us today.*

All capacities, Bantam (½-ton) to 5-tons.

Commercial Truck Company *Philadelphia*

C-T ELECTRIC STREET TRUCKS

ELIMINATING THE GRASSY FLAVOR IN ICE CREAM.

(Concluded from page 12)

going through the pasture would knock the pollen from the plant onto the udder and during the milking process this pollen fell into the milk bucket, thus giving the flavor.

* * *

Start With the Farmer.

The trouble that your reader is having is a more or less common one, and one which in a case of a large business is very difficult or impossible to overcome. It is very well known that when cows are put from dry feed on to pasture, the milk takes on a more or less pasture or grassy flavor. It is usually noticed that this flavor is very much more pronounced in the milk from some patrons than others. I remember very well when a youngster at home, that nearly every year when our cows first went out to pasture, the cream which was served on the daily dish of oatmeal had such a pronounced flavor as to make it almost impossible for me to eat it. As your subscriber suggests, it is very strong and approaching sourness.

While I know of no experimental data to bear this out, I have always attributed the difference in the flavor of the milk when the cows are put on grass, to the fact that in some pastures cows get hold of some noxious weed which causes the flavor with which your subscriber is having trouble. I do not believe that ordinary pasture grass while it may impart a so-called grassy flavor to the milk, will impart enough flavor to be bothersome. If this were the case it would be almost impossible to use any milk from cows when put out to pasture.

The only practical way that I know of to overcome this trouble is to start at the farm and leave the cows on grass only for a few hours a day, particularly to start with; taking them in sometime before milking and feeding some hay if necessary. It is well understood that certain feeds fed just before or during milking, will impart their flavor to the milk while if fed some time before milking the flavor will not come thru into the milk. Unfortunately no data is available as yet to indicate how brief a time can elapse between the feeding of such a feed and milking time and not have the flavor of the feed appear in the milk. It is probable that this would vary a great deal with different cows.

Thus, it can be seen that the creamery or station receiving the milk or cream from the farmer is the one that must locate the farmer or farmers that deliver the cream or milk with the objectionable flavor and then work with the farmer or farmers to correct it. It is very probable that your subscriber does not buy his cream direct from the farmer and is, therefore, decidedly up against it unless he can get the people from whom he does buy his cream to take the necessary action. It is quite probable that the trouble will be found in the milk or cream of only perhaps two patrons in fifty or a hundred.

* * *

Take Extra Precautions in Warm Weather.

Regarding grass and acid flavor in milk when cows first go to pasture, will say that I have often noted a peculiar "feedy" or "grassy" flavor which I suppose is what your inquirer refers to. As to the sour flavor mentioned, I think it real in some cases, and not so in others. Sometimes this peculiar grassy flavor also gives a peculiar sour taste, even in perfectly sweet milk. In other cases I believe the sour flavor is due to acid developments, since with the warmer days which come on or about the time the cows go to pasture, many producers do not take the necessary added precautions to prevent bacterial growth in milk with the increased acid.

I have made no particular studies as to how to overcome this flavor but I doubt if it can be successfully prevented unless the cows be taken off of pasture several hours before milking which would not be practical on most farms.

* * *

Grade Cream Carefully.

I expect your correspondent has reference to the peculiar flavor that usually develops in the milk when the cows are changed from dry feed to grass. I know of no way in which this can be overcome and for ice cream purposes I would suggest that the cream is graded very carefully and that such cream will not be used. You will at times note that cream containing only about .2% of acidity may have a peculiar sour odor and flavor. This difficulty is often noticed during the early summer. I think you will find this due to the fact that some of the cream mixed in with it contained a higher degree of acidity. It had just reached the turning point, although the whole lot of cream after it is all mixed will test comparatively low in acidity. There is no method by which this flavor can be destroyed. The only thing is to be careful in grading the cream used for ice cream making.

* * *

Permit Volatilization of Odors.

At this particular time of the year when the cows are placed on green grass after having been housed for a period of time and fed dry feed the milk does develop this peculiar flavor as described in your letter. It is commonly termed "a grass flavor," which is primarily due to the condition of the grass at this season, especially so if a heavy rain fall is experienced in the spring. This undesirable flavor is transmitted from the milk into the cream upon separation and in turn develops in the butter or ice cream, depending upon the product manufactured. As your letter states this is particularly true when the grass is growing very rank or fast and when the blades contain much water or moisture. We have experienced the same trouble when our cattle are placed on blue grass.

As a means of overcoming this serious defect I would recommend a thorough pasteurization of all milk if the product is sold in the form of whole milk and the pasteurization of all cream if the product is to be utilized in the manufacture of creamery butter and the pasteurization of the ice cream mix if the milk or cream is to be manufactured into ice cream. If such can be arranged the doors of the pasteurizer should remain open during the pasteurization process which will facilitate the volatilization of these undesirable flavors. I am confident that this will assist greatly in analyzing this problem.

* * *

Eliminate by Proper Pasteurization and Cooling.

About the only complaints that we ever have on our butter is in the spring when feed is changing from hay to grass. We get complaints from customers that we have written to in reference to this every year, and their complaint is, "you are using too much color," when the fact of the matter is we haven't used any color for several weeks prior to the time of their writing, and we have gotten so we wrote our customers before they have an opportunity to write us so that when a consumer complains of the color they can simply tell them it's nature's color and it's impossible for us to bleach it out.

Now, this is leading up to an answer to your question. The same conditions and processes of nature that causes the extremely high color in the fresh grass causes the taste in cream, which is assumed by some to be sour. It is an acid in the grass and does produce a sour flavor, even though a chemical analysis will disclose no acidity whatever. On account of the cool weather the grass grew very rank and the cattle were unable to keep it closely cropped and this rank growth of course contained more of this acid and produced an even higher color than normal and, unless carefully handled, a correspondingly higher degree of acidity.

Now I am glad to say that we have two men working for us, who are students, and they are glad to work with me on this subject. We try by different degrees of pasteurization and cooling to overcome this, and I think we do to a certain extent. I could go on elaborating for a long time, but I could not tell you any more than I have already told you, as I think this covers the entire subject. Now don't quote me as an authority on this; this is the conclusion that I have come to from actual experience.

* * *

In regard to the flavor of ice cream at this time of the year, I will frankly admit that I do not know what causes it, but believe that it is due to a bacterial infection which has its natural habitat on the green grass.

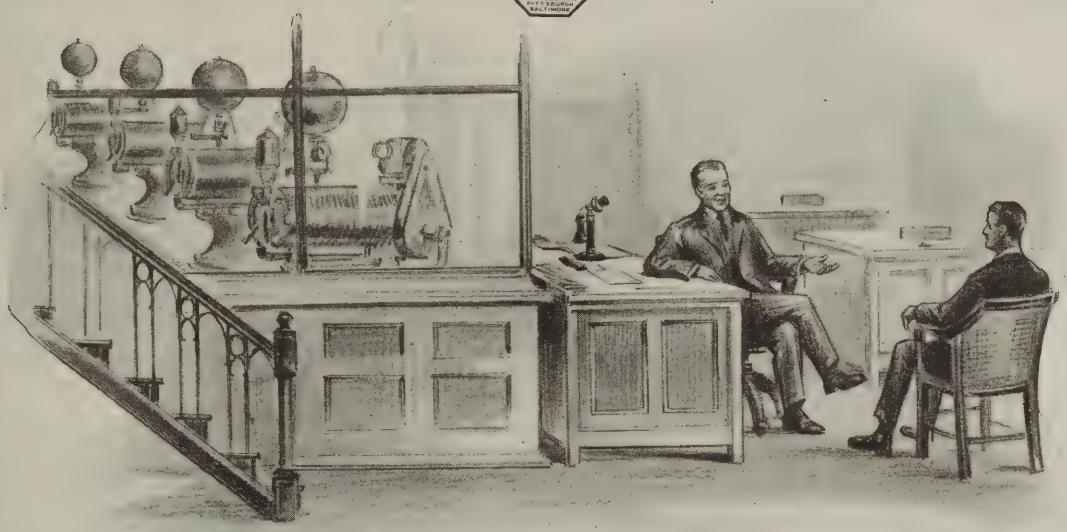
This is a similar case to the rag weed flavor of milk. It was formerly believed that milk with a rag weed flavor was due to the cow eating rag weeds, but we have proven that the rag weed flavor is due to a bacterial infection which gets on the cow from the rag weed and in that way finds its way into the milk pail. If the milk is cooled quickly after it has been drawn so that it will prohibit the growth, the undesirable flavor will be lessened.

* * *

Take Cows Off Grass Four Hours Before Milking.

I have never had such difficulty except in the early spring when the cows are first turned on pasture, and especially if there is some rye pasture being used. It seems that spring rye will give sort of an acid flavor to milk and cream, and this is somewhat undesirable. There are also certain grasses which will tend to do this. As far as I know the only remedy is to prevent the cows getting such material within four hours before milking. In other words, if the cows are turned on

THE C-B-W CALENDAR



To New Ice Cream Companies

who are just starting in the business

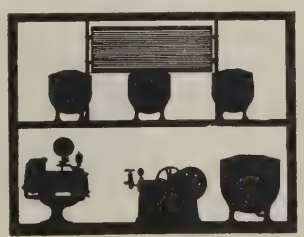
"Fifteen years ago, boy, we were just where you are—just holding our breath, you might say, not knowing whether we were going at things quite right or not, and placing considerable dependence upon the advice and instructions of others.

"We had some narrow escapes, learning this ice cream business. Some employees were found undependable. It would have been better to not have heard some of the advice we followed; and some of the worthless machinery we put in wasted as much money for us as you've needed to start in the game now.

"Let me say right here though, that machinery houses in general, by their progressiveness, have pulled the industry along, advancing it years beyond where it would have been otherwise.

"Our progress has been very much helped by the machinery house with whom we have been dealing for the past ten years. I might say, boy, that here is a vital point to your success. Get to dealing with a dependable equipment house. They'll help you surprisingly. Whereas, if you buy here, there, and everywhere, you're going to have lots of trouble, a crop of adjustments and unsatisfactory service all the time.

"We always get quality equipment from CHERRY-BASSETT-WINNER COMPANY. Knowing that we will get best quality stuff saves a lot of worry for us and then whenever we add a new machine to our plant, we get intelligent service and the benefit of their salesman's experience. You know travelling around as they do, these fellows accumulate a lot of up-to-the-minute knowledge which can be of much value to all of us, especially a beginner like you.



"Why don't you get in touch with this house? I'm sure you stand a good chance to gain much and a slim chance of losing anything. Look their catalog over anyway."

Cherry-Bassett-Winner Company

PHILADELPHIA

BALTIMORE PITTSBURGH NEW YORK

ACCURATE AND INSTANTANEOUS TESTING OF OVERRUN IS THE RESULT OF A GOOD TESTER.

the pasture directly after milking and taken in three or four hours previous to the next milking, you will reduce this difficulty to a minimum.

* * *

Make Feeding Change Gradually.

The peculiar flavor which your subscriber observes in milk at this time of the year is no doubt due to the tender, rapidly growing pasture. This observation is quite a common experience.

As far as I know, the only way to prevent this flavor is to allow the pasture to become more mature, and in making a change from dry feed to pasture, the change should be made gradually.

To eliminate this flavor after the milk has once been produced is quite difficult. In this connection, the aeration of the hot milk after it is pasteurized may be of some benefit, although it will not remove this flavor entirely.

* * *

Effect Intensified by Alcoholic Flavors.

I do not think that there is much doubt about this case. The fact that this flavor in the cream and milk develops intermittently indicates that it is from a weed source. There are a number of weeds that come up with the young grass and that are very apt to have an acid and probably coagulating effect on the milk or cream. This effect is probably intensified by the addition of the flavoring substances, which contain alcohol. The alcohol would not lessen the effect of the flavor but would probably extract it and maybe intensify it as well. It is probably not practical to endeavor to eradicate this weed but close pasturing might help the matter somewhat.

* * *

Grade Milk and Cream.

We have your inquiry of June 3rd, and read carefully the question which you asked. We are not authority on this question but will say we have noticed this peculiar flavor some, but it has never given us any trouble with our customers. Of course we have many off flavors in the spring, such as onions, garlic, rye, pastures and weeds and also a pronounced grassy flavor.

The flavor which is so pronounced is noticeable in the butter, so it must be incorporated in the fat rather than in the milk serum. We always try to eliminate any off flavors by grading out such milk and cream and placing it in the second grade butter, as that is more practical than to use such flavored milk or cream and then try to cover same with some added flavor or substance.

* * *

Feed Right After Milking.

The method of overcoming this difficulty is to have the cows consume this feed long enough in advance of the milking period so that the odors will pass from tissues of the body through the excretory channels before milking time. The time requirement is usually considered to be eight to ten hours before the milking period. This means that if the cows are fed these green crops shortly after one milking period, the odors will have escaped before the subsequent milking period and the objectionable flavors in the milk will be lessened or entirely eliminated.



FIRM RE-ORGANIZES TO MAKE PNEUMATIC WATER SYSTEMS.

With the recent filing at Lansing of articles of association, the Grand Rapids Manufacturing Company, capitalized at $25,000, manufacturers of patented pneumatic pump and tank equipment for farms and suburban homes, as well as several other appliances, becomes one of Grand Rapids' new industries.

Officers of the corporation are: President, B. A. Yarrington; vice-president and secretary, H. V. Walsh; treasurer, R. H. Yarrington; sales manager, W. G. Finch.

The Grand Rapids Manufacturing Company was formerly a co-partnership with B. A. Yarrington and H. V. Walsh as proprietors, and for the last four years has been building special machinery and doing experimental work.

Two years ago the concern began developing water pumps and about one years ago brought out what is known as the Artesian Pure Water System, a pneumatic pump which can be installed in wells of any depth and will lift water any reasonable height under pressure.

Demand from modern farmers and increased number of suburban homes has created a demand for pressure water systems. The company already has a wide distribution, many orders coming from the east.

Mr. Finch who invented the Finch Weibach, a liquid weighing machine, resigned from the William G. Finch company, Inc., some time ago and purchased an interest in the Grand Rapids Manufacturing Company.

B. A. Yarrington, president of the company and a well known draftsman and designer, has resided in Grand Rapids for several years. H. V. Walsh, vice-president and secretary, was formerly with the Oliver Machinery company.

Other devices developed by the company include a scale for weighing and recording liquids which pass through a pipe line. Ice cream, dairy and creamery equipment, including milk pasteurizers and tubular coolers are also products of the company.

The company has plans for a one story brick daylight factory in the southeastern part of the city. As all of the real estate transactions necessary have not been closed the location is being withheld at present.



AERO ICE CREAM ADVERTISING SIGN.

Noakers, Canton, O., ice cream manufacturers put across one of the most successful advertising stunts in the history of the concern recently through the medium of the areo advertising sign, the invention of a Canton man, and the first sign of this type to make its appearance in this country.

L. J. Bletzer, advertising manager, succeeded in tying up the rights for the Noaker Company exclusive for a specified time and now their signs dot the highways for 50 miles around Canton.

This wind mill type of sign is mounted on an all structural steel tripod and revolves on Timken bearings. There are four wings with advertising matter on each of the eight sides. The weight is suspended and the



slightest motion of the wind propells the sign, which is bound to attract the attention of the passerby. The display advertising type is of such prominence that it is discernable for several hundred yards.

The whole tower revolves as do each of the individual wings. Each of the display signs are five by ten feet and give the advertiser aproximately 400 square feet of advertising space.

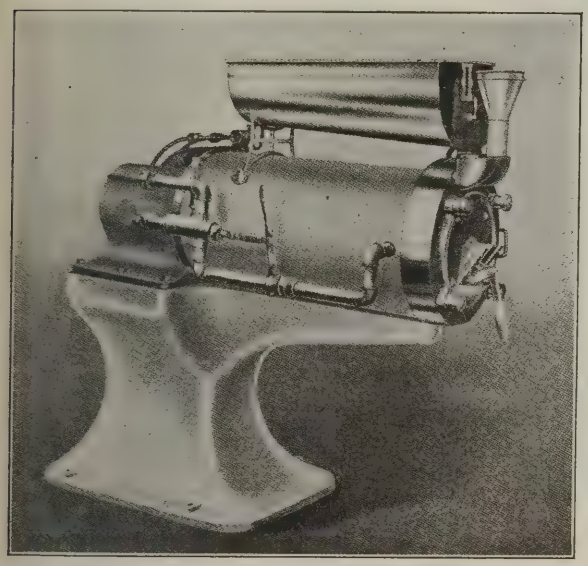
Bletzer says it is the greatest trade puller he has yet used to exploit the firm's merchandise and is using 50 of them at the present time.

Now Only $700

40 Quart Capacity

U. S. Heavy Duty Freezers

Equipped with Hinged Cylinder Cover, the famous U.S. Vertical Discharge Mechanism, Special Government Bronze Bearings, Batch Tank with Ground in Taper Cream Valve, Detachable Nickle Plated Fruit Hopper, and our Efficient Tripple By-Pass Piston Brine Control Valve.



They are built on the bolted together unit principle of assembly (all parts being interchangeable) and are easily converted to motor drive if desired, in the user's place of business. There is no iron or other corrosive metal to wear or come in contact with the cream inside the freezing cylinder. The front end of dasher is held in alignment by a removable bearing and support which are independent of the cover. The shafts and gears are of extra heavy construction and are made of the finest materials, accurately machined. The brine jacket and passages are readily accessible for inspection and cleaning and there are no soldered joints to open up and leak.

The Whipping Device is of the most improved double dasher type, developed to give the finest velvety texture to the finished ice cream and to secure the desired overrun without fail. It is easy to remove, clean and re-assemble. There are three separate splashless openings,—one for cream, one for fruit and a third for use as a peep hole.

25 Used and Rebuilt Freezers of Other Makes

Bargain Prices **$200 and Up** ***Ready for Use***

These were replaced by U. S. Heavy Duty Freezers and taken in trade by us as part payment. All have been thoroughly overhauled (some at factory where built) and have not been used since. Every one is therefore in good condition ready for service. These rebuilt freezers include motor and belt driven machines of the following makes:—Miller, Miller-Tyson, Tyson, Progress, Emery Thompson, Cherry and Fort Atkinson.

Write us for details, telling what size you need
We can fill all rush order from stock.
If you cannot pay cash we can help you with our easy payment plan.

Representatives and Distributors in All Parts of the United States and Canada
May we not arrange to have one call on you?

U. S. FREEZER & MACHINE CORPORATION

Union Avenue and Frost Street **Brooklyn, N. Y.**

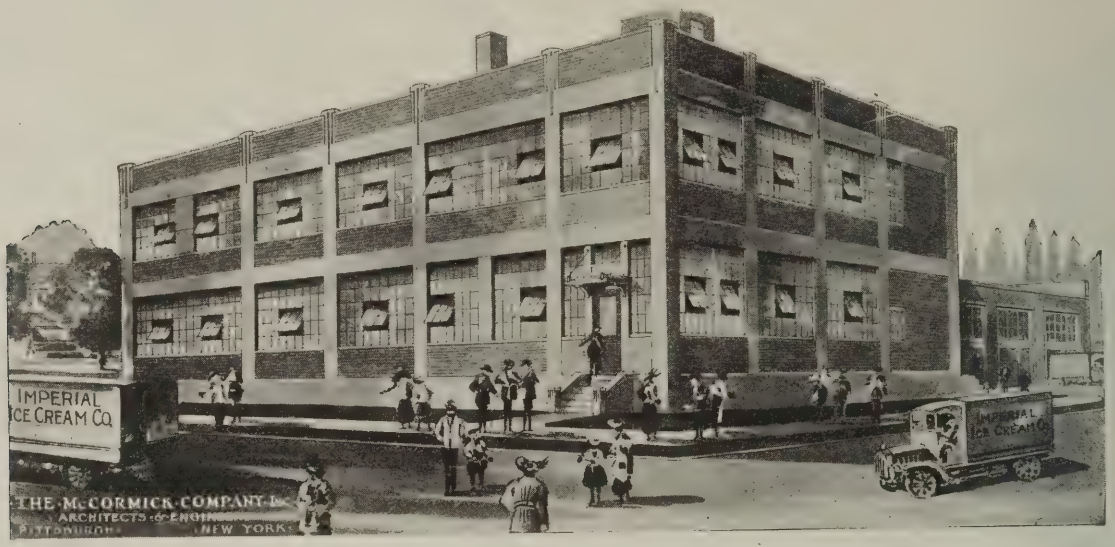
Feast on Ice Cream at Imperial Plant Opening

By B. W. Newell, Barker, Duff & Morris

IT IS the ardent and consuming wish of all small girls and boys that once in their lives they be allowed to eat as much ice cream as they can conveniently hold. And, on Wednesday, May 24th, the Imperial Ice Cream Company—in opening their new plant at Huntington—played the part of good fairy in making that wish come true.

It was a great day for the children from the moment the parade of gaily decorated trucks left the factory until the last morsel of ice cream was consumed by a youngster with bulging eyes whose anxious query was, "Will there be another party tomorrow?" Men stationed on the big yellow packing trucks threw away more than ten thousand Imperial Alaskas and the line of march was one continuous stream of ice cream-eating men, women and children. As the burden of one truck was disposed of, another was unloaded and at six o'clock cars and automobiles—one continuous concourse of expectant humanity. The crowd was so great that no less than six policemen and a force of nearly twenty-five guides were required to handle them. Ice cream was there and the crowd came to get it. Ropes were torn down, attendants thrust aside and order generally disregarded in the mad rush of shouting, clamouring and struggling youngsters. In all, however, the party was, according to officials of the company, one of the most orderly and systematic affairs ever held. From the first moment the doors were thrown open until the last tired but happy visitor departed homeward, the plant was thronged with a continuous stream of interested and complimentary guests.

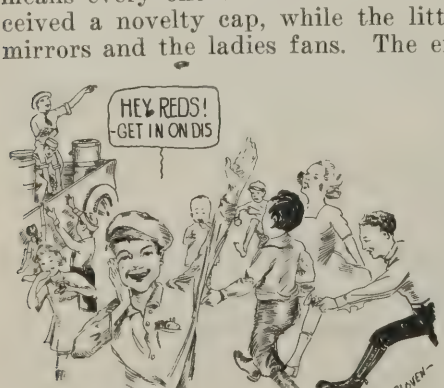
A serving table was laid out for the youngsters in a nearby field, while the grown-ups were served in the large garage in the rear of the plant. Hundreds of the



Latest Addition to Imperial Ice Cream Company's Chain of Plants.

in the evening officials of the company estimated that more than fifty thousand portions of ice cream had been consumed. In addition to chocolate and vanilla, there was a generous supply of fresh strawberry ice cream, cherry nut, banana custard and a variety of other delicious flavors. One little youngster, a chocolate cone in one hand and a vanilla in the other, eagerly sought a guide to find him an additional plate of strawberry.

Every youngster who was given ice cream—and that means every one within ten miles of the city—also received a novelty cap, while the little girls were given mirrors and the ladies fans. The enormous size of the crowd and the eagerness with which it pressed forward to view the plant and receive their treat was all that prevented each visitor from receiving personal attention.



The doors of the plant were thrown open as soon as the return of the parade, but long before the hour announced, throngs had gathered about the plant eagerly clamouring for admission. They came on foot, in street children were seen to eat six to a dozen cones or plates of ice cream, while many of the elders kept them company, so warm was the afternon, and so delicious and cooling the refreshment served.

On Tuesday afternoon, May 23rd, Mr. O. E. Cullums, local manager for the Imperial Company, played host to the Ice Cream dealers of Huntington and vicinity, at a reception held in the new plant. More than one hundred and fifty dealers with wives and families attended the reception and, following a trip through the building, were served a buffet luncheon and presented with attractive souvenirs of the event.

The Huntington opening was attended by the following directors of the company, who rode in the street parade and who took a prominent part in the public reception: A. G. Sine, George W. Strong, C. T. Hiteshew, J. H. Randolph and T. J. Swager. Mr. W. M. B. Sine, general manager of the Imperial Company, was absent due to illness.

The new Huntington branch is one of the most modern in the chain of seventeen plants located in West Virginia, Virgiania, Maryland, Kentucky, Pennsylvania and Ohio. Engineering work on the new structure was handled by McCormick and Company of Pittsburgh and New York, while the general contracting was done by the C. W. McNulty Company. The general equipment and facilities of the new plant represent the last word in efficiency and sanitation, while the general layout o



"That's the Ice Cream"

HUDSON FLAVORED Ice Cream is remembered. People like it and want more of it. They look for it and often will go out of their way to get it. There's something so distinctly pleasing about its flavor that folks just naturally prefer ice cream that's Hudson Flavored. Moreover, Hudson's Flavors are dependable; spring, summer, autumn, winter, the quality is always uniform. Consequently, folks stick to Hudson Flavored Ice Cream and that's one of the chief reasons why so many ice cream manufacturers have been using Hudson's Flavors regularly and continuously for the past thirty-four years.

Some ice cream makers prefer our Extract—others, our CONCENTRATED. In most cases it is more economical to order CONCENTRATED. We'll be glad to send either on approval.

HUDSON'S FAMOUS ICE CREAM FLAVOR VANILLA AND TONKA BLEND No. 52 SPECIAL

$5.00 per Gallon . . . . . in Barrels
$5.50 per Gallon . . . . . in Kegs

HUDSON'S CONCENTRATED VANILLA AND TONKA BLEND No. 52 SPECIAL

Six times stronger than extract.
$25.00 per Gallon. Special prices in quantities.

SATISFACTION ABSOLUTELY GUARANTEED

The Hudson Manufacturing Company

[INCORPORATED]

GABE S. WEGENER, President — ESTABLISHED 1888

Vanilla Products

119-121 North Union Ave. — CHICAGO, U. S. A.

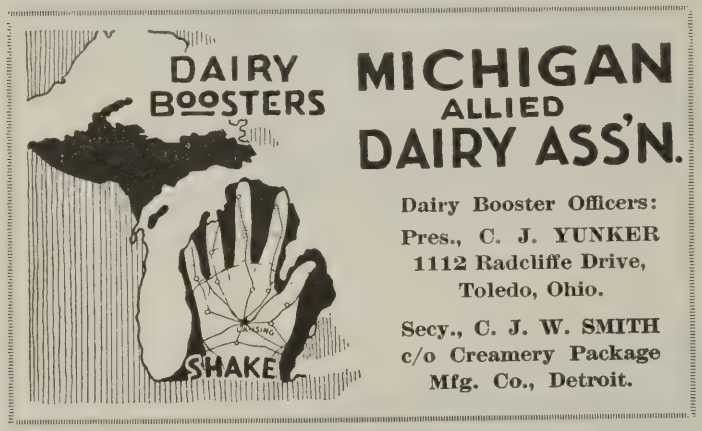
Branches at Dallas, Texas—Los Angeles, California

THE ASSOCIATION OF ICE CREAM SUPPLY MEN MEMBER

A GOOD CABINET AT A GOOD "STOP" IS A GOOD INVESTMENT.

the buildings and the plant location make for continuous and rapid handling of materials, with good shipping and trucking facilities.

Headquarters of the Imperial Ice Cream Company are in Clarksburg, W. Va., from which point the administrative affairs of the company are handled. Operations extend over a wide range of territory and embrace the activities of hundreds of workers. Active and consistent sales promotion work, supplemented by continuous advertising have played a prominent part in the Imperial success.



MICHIGAN
ALLIED
DAIRY ASS'N.

Dairy Booster Officers:
Pres., C. J. YUNKER
1112 Radcliffe Drive,
Toledo, Ohio.

Secy., C. J. W. SMITH
c/o Creamery Package
Mfg. Co., Detroit.

New Storage Plant at Columbus, Ohio.

The announcement that the incorporation papers of the Tecumseh Cold Storage Company had gone to Columbus was made recently. The authorized capital will be $300,000. Option has been taken on property on Tecumseh Street and the Cloverleaf railroad.

W. P. Rosevear, formerly with the Continental Sugar Company, together with Alex Arnold, Sam Kohn, R. S. Cone and John Schoepfle, Elyria, are named as incorporators.

The plant will have 1,500,000 cubic feet of space, according to preliminary plans.

* * *

The Wells-Chief Creamery Company, Crestline, Ohio, is considering building a new plant. They have purchased a 1 and one-half ton truck to add to their equipment.

* * *

Wm. Isaly of the Isaly Dairy Company, Mansfield, O., will make a trip to Switzerland and other European countries.

* * *

Chas. Beardsley, formerly manager of the Wells Creamery Co., Crestline, O., has moved his family to Delphos, O., and is now manager for the Wells Creamery Company there.

* * *

C. F. Linkhart, formerly with the Mansfield Pure Milk Company, Mansfield Ohio, is now interested in the Muldoon Dairy Company at Ft. Wayne, Ind.

* * *

City Dairy Company of Toledo Has Been Sold.

The City Dairy Company, which has been in the hands of receivers since December 15, 1921, was sold at auction Monday to C. C. Martin of Luckey, O., for $35,000. The only other bidder was Thomas Ammerx of Milan, Michigan.

* * *

The Buckeye Dairy Company, Galion Ohio, is now open for business. Mr. Weeks says they are doing nice business so far.

Scott & Fenner, Williard, Ohio, have now been running their ice cream plant for some time, they are a new firm.

* * *

The Findlay Dairy Company, Findlay, Ohio, have enlarged their offices and made other improvements in their plant, and report that they are doing a nice business. Mr. Gill, their ice cream maker, is putting out some nice ice cream and fancy creams and ices. The town is taking to his goods very readily.

Collins' Ice Cream Company at La Porte, Ind., is doing a nice business and have made some imyprovements in the plant.

R. A. Kerr, Urbana, Illinois, has installed a new Emery Thompson freezer, a York 4-ton refrigeration machine, a new cold storage room with 1000 gallon capacity, also a Creasey ice crusher. Everything is driven by electric motors. Mr. Kerr now has a splendid plant, and is doing a fine business.

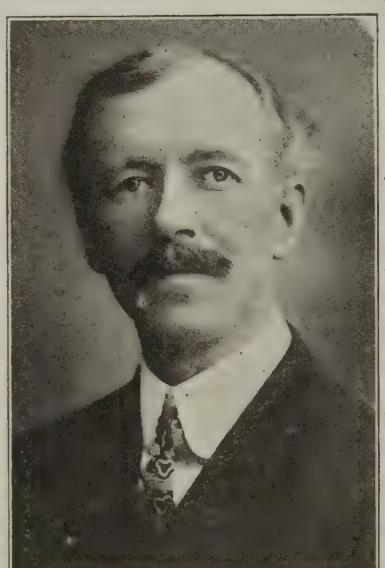
* * *

The Heckler Company, Napoleon, Ohio, have moved into their new building, a cement block structure, 50 by 100 feet. They are manufacturers of ice cream and soft drinks. They do a large business, and with their new facilities they expect to double it. This plant is now one of the best on the west side of the state. Many new improvements have been made, and more will be made as circumstances justify. C. J. YUNKER.

⚜

ROBERT T. HUGHES, LONG ILL, IS DEAD.

Robert T. Hughes, president of the Hughes Gelatine company, Detroit, Mich., died May 20th in Grace hospital. He had been ill for four months. Mr. Hughes, who was in his fifty-ninth year, was a native of Detroit.



ROBERT T. HUGHES.

Mr. Hughes's parents, came to the United States from Wales in 1849, settling in Detroit shortly after their arrival. Robert was , born August 21, 1863.

At the age of 14 circumstances made it necessary for him to earn his own living. After working for a while for George R. Angels, he took a position in the laboratory of the Farrand-Williams Drug company. He remained there 10 years and then became representative of a New York glue concern. He held this post until 1902 when he organized the Fisher - Hughes Gelatine Company.

Five years later this company had to suspend operations and Mr. Hughes found himself facing the necessity of starting over again. In 1908, with only limited capital, he formed the Hughes Gelatine company, which he built up into a most successful enterprise.

He is survived by his widow, Mrs. Grace M. Hughes; a son, Lloyd L. Hughes, 82 Hazelwood Avenue, and a nephew, Albert J. Hughes.



Are You Going To Run Your Plant This Winter--Or Shut Down

Place "Northwestern" bar cabinets in full view of the public, and watch the daily sales increase to thousands. It means dollars in your pocket to faithfully protect and stimulate the sales of Ice Cream Bars.

Preserve the excellence and deliciousness of this new, nationally popular confection by serving them frozen solid—the way they are intended to be.

This remarkable device, (it sets right on the counter), has three times the refrigeration of the best cabinet made, and a few pennies worth of ice and salt a day will keep a temperature around zero for 24 hours. The saving in ice; the extra sales; the resales; the satisfaction; the time saved; the sanitary handling; pays the initial cost in no time.

A Freezer—Display Cabinet—Cold Storage—Dispensing Medium—ALL IN ONE.

A small fraction of a second only is required to bring one of the bars from the inside of the dispenser at the bottom, (the coldest point), to the outside. A simple turn of the handle slides one of the bars instantly through hanging trap door. The action is so quick that there is practically no chance for warm air to enter. The entire contents, 36 bars, can be emptied in less than a minute, should this speed be necessary. No covers to lift off. This is the main reason of the ice economy.

QUICKLY FILLED

Three dozen ice cream bars can be placed in the cabinet in less time than it takes to tell. Two removable magazines permit you to fill them at the place of your reserve stock. These magazines are also a prevention of any salt or ice coming in contact with the bars.

The entire cabinet is built of heavy galvanized steel; wood; cork; iron and brass. The delivery mechanism is made of rust resisting metal. The ice receptable is surrounded completely with full 2 inches of cork board. The cabinet has been put to the most extreme tests and in every case has made ice cream bars 100% salable.

Dimensions — Height 27 inches. Width 14 inches. Depth 14 inches. Weight, crated for shipment, 85 pounds.

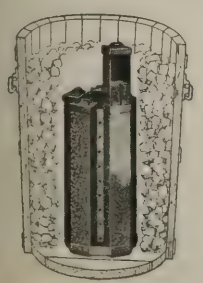


Price, $37.50

SPECIAL PRICES TO ICE CREAM MANUFACTURERS

SECTIONAL STORAGE CONTAINER

Holds 100 Ice Cream Bars. Made to Fit in the Regular 5 Gal. Ice Cream Tub.



A necessary device to prevent your ice cream bars from becoming soft. A perfect storing place for bars in shipment or held as a reserve supply. Absolutely necessary for the manufacturer for delivery and shipment of ice cream bars. This device used in conjunction with the "Bar Freezer" eliminates all trouble and loss heretofore encountered.

Price **$12.00**

Special Price to Manufacturers.

Cabinets are furnished in pure white laquer; plain or lettered as wanted. Let us show you proofs that these devices increase sales 100 to 500%, and HOLD THE TRADE.

The Northwestern Corporation

Box D, MORRIS, ILL.

OPERATION MADE EASIER AND MORE ECONOMICAL BY SUPERIOR TANK EQUIPMENT.



PROF. BAER'S INQUIRY DEPARTMENT

Dear Sir: We are figuring on discontinuing the use of sweetened condensed and using 8% evaporated milk and milk powder. Our aim is to have about 12 to 13% fat and 22 to 23% solids not fat.

Any information as to the betterment of the quality of the following batches, will be greatly appreciated.

Enclosed find two different ice cream batches. Kindly suggest any changes you would make.

M. C. CO.

Reply: I have analyzed your two batches of ice cream. You will find the analysis given below in Table No. 1 and Table No. 2.

Table No. 1.

Ingredients	Fat	Serum Sol.	Total Sol.
415.0 lbs. 17% cream	70.55	32.61	103.16
75.0 lbs. skimmilk condensed	.....	20.25	50.25
35.0 lbs. sugar	.....	.....	33.25
3.0 lbs. gelatine	.....	.....	2.75
25.0 lbs. water	.....	.....	.....
2.0 lbs. vanilla	.....	.....	.30
30.0 lbs skimmilk powder	.....	28.50	28.50
585.0 lbs.	70.55	81.36	218.21
Per cent	12.06	13.9	37.3
Per cent sugar	11.0		

Table No. 2.

Ingredients	Fat	Serum Sol.	Total Sol.
336.0 lbs. 16% cream	53.76	25.10	78.86
90.0 lbs. 7% condensed	6.30	17.10	23.40
60.0 lbs. sugar	.....	.....	57.00
30.0 lbs. skimmilk powder	.....	28.50	28.50
3.5 lbs. gelatine	.....	.....	3.32
25.0 lbs. water	.....	.....	.....
2.0 lbs. vanilla	.....	.....	.30
546.5 lbs.	60.06	70.70	191.38
Per cents	11.00	13.6	35.0
Per cent sugar	11.0		

You will note that the first table tests about 12% and the second about 11% butterfat. You will also notice that your formula contains a high per cent of milk serum solids. In the first formula you have 26% total milk solids and the second about 24.5%. I imagine that the second formula makes a more satisfactory ice cream than the first one.

If you are going to use 12 to 13% butterfat it will not be necessary to use over 9% milk serum solids for a satisfactory ice cream. If you will increase the per cent of sugar in order to make the total solids around 34%. A good many factories are now using 13% to 14% sugar while you are using only 11% in both of these formulas.

You could materially reduce the cost of your ice cream mix by increasing your sugar content by 2% and reducing the serum solids 3% or 4%. You can easily do this by using less sweetened condensed or evaporated milk or milk powder.

* * *

Dear Sir: I now ask you for further information, this time, with reference to the use of glucose in the manufacture of ice cream. Is it to be recommended; if so, in what quantities or proportions, and what per cent of solids does it contain? C. C. T.

Reply:—You probably recall that during the war common syrup or glucose was used as a sweetener of ice cream. This was done, however, because it was impossible to obtain a sufficient amount of sugar.

In my opinion, glucose is very much inferior to sugar and will not produce the flavor in ice cream that pure sugar will. The solids content of glucose varies from 60 to 80 per cent having an average of about 70 per cent. If I were to use glucose in any way to replace some of the sugar I would not try to replace more than one-fourth of the sugar, but you must also realize that glucose is not as sweet pound for pound as sugar. One pound of sugar being equal to nearly two pounds of glucose as a sweetener.

* * *

Dear Sir: I wanted to make ice cream of milk and cream. My wish is to make a good wholesome cream that the public would like, so would like for you to put in the formula what you think would make the best cream. O. R. L.

Reply:—I have your letter at hand with more specific directions as to what you desire in the way of an ice cream mix. From the data given in your letter I still am not able to figure out just exactly what you want. The regular commercial ice cream in Oklahoma requires 10 per cent butterfat and 32.5 per cent total solids. This is law in Oklahoma and ice cream must not come below these requirements.

A good commercial formula for you would be to use for ten gallons of ice cream; 7 pounds of sugar; one-fourth pound of a good grade of gelatine and 42 pounds of milk and cream. In order to get at the butterfat content, however, I would have to know what your cream would test for butterfat and what your milk would test for fat in order to tell you just how much milk and cream to use.

You can easily understand the amount of fat in milk and cream will vary with the ratio of the cream and milk. If you will tell me about what your cream tests and your milk tests, I can give you a better idea of how much of each to use.

* * *

Dear Sir: I wish you would kindly give me the following formulas, for making orange emulsion, lemon emulsion and chocolate ice cream flavoring using chocolate liquor and cocoa. My trade want their chocolate ice cream to be very dark, in fact, they prefer it to be about the shade of the coating on chocolate creams. Can you assist me in obtaining the desired color?

Can you tell me how to mix dry colors to make a liquid color to be used in coloring ice cream? A. R. S.

Reply:—I have your recent letter with request for some information on the making of orange and lemon emulsion and a flavoring for chocolate ice cream.

You can secure the right kind of chocolate, which will enable you to get a dark color to the chocolate ice cream. Many ice cream factories use a caramel color to increase the shade.

You could undoubtedly hear from the supply house relative to the matter of the overrun tester. I suggest that you can find the names of at least three concerns manufacturing these emulsions, in the advertisements in The Ice Cream Review.

* * *

Dear Sir: I am glad to know I have improved my mix. While some say it is a good commercial ice cream we aim to make it better than a commercial ice cream. We supply mostly hotels and private trade, therefore, I suppose, by adding a can more cream to mix No. 2 it would improve it still more. F. S.

Reply:—I suggest that if you want your product to be much better than a regular commercial ice cream that all you will have to do will be to add more cream

Retinning Ice Cream Cans

SPECIAL DEPARTMENT

Old Cans Made New at Low Cost

And we do know how to fix up your otherwise hopelessly rusty old cans so they will be tight and bright and good as new. ***It is not expensive*** and ***pays you a dividend.*** A can retinned by us has a thicker coat of Pure Block Tin than when new.

We do refinishing of old ice cream cans in a special department of our plant which devotes its entire time throughout the year to doing this one thing and doing it well.

Sample Can Retinned Free

Send us a sample can NOW. We will repair and retin it without charge and return it promptly, so you can see the quality of our work. Write us when you ship it, so we will know whose it is, and we will do the rest.

OAKES & BURGER COMPANY

Established 1873 **CATTARAUGUS, N. Y.**

and increase the butterfat content which will also increase the solids content.

I would not attempt to make ice cream test higher than about 16 per cent butterfat and I shall be very glad to analyze another mix for you if you think that I can assist you further.

* * *

Dear Sir: We would like to use two formulas one of fourteen and one of eighteen percent butterfat. Using raw sweet cream, have a Disc Continuous Freezer. Kindly work us out a formula so that we may use the above percentage of butterfat, also using sugar, gelatine vegetable gum and sweetened condensed milk. M. C. Co.

Reply:—With the suggestions in your letter I am suggesting below in Table No. 1 and No. 2 ice cream mixes testing 14 per cent and 18 per cent butterfat from the ingredients mentioned in your letter.

Table No. 1.

100 lb. Mix—14% Fat.

Ingredients	Fat	Serum Sol.	Total Sol.
9.0 lbs. sugar	.....	.....	8.55
.5 lbs. gelatine and gum	.....	.....	.47
10.0 lbs. sweet condensed	.....	2.70	6.70
42.0 lbs. 30% cream	12.60	2.61	15.21
38.5 lbs. 4% milk	1.54	3.30	4.84
100.0 lbs.	14.14	8.61	35.77
Per cent sugar	13.0		

Table No. 2.

100 lb. Mix—18% Fat.

Ingredients	Fat	Serum Sol.	Total Sol.
6.6 lbs. sugar	.....	.....	9.12
.5 lbs. gelatine and gum	.....	.....	.47
6.0 lbs. sweet condensed	.....	1.62	4.02
56.0 lbs 30% cream	16.80	3.50	20.30
27.9 lbs. 4% milk	1.10	2.39	3.49
100.0 lbs.	17.90	7.51	37.40

If these two formulas do not seem to meet with your requirements I shall be very glad to go over this matter again if you will give me additional information.

Dear Sir: Below are three formulas and would appreciate having you check these over, and make any suggestions which you consider would be an improvement.

No. 1.

Sweetened Condensed—Milk Powder—Butter.

Ingredients	Fat	Sugar	M.S.N.F	Gel.
900 lbs.	8%	12%	14%	.05
8 lbs. gelatine	....	....	....	8
270 lbs. sweetened condensed	....	108.0	72.9	...
85 lbs. butter	72.0	....	....	...
53 lbs. milk powder	....	....	53.1	...
484 lbs. water	....	....	....	...
900 lbs.	72.0	108.0	126.0	8

No. 2.

Skim Condensed—Concentrated.

Ingredients	Fat	Sugar	M.S.N.F	Gel.
900 lbs.	8%	12%	14%	.05
8 lbs. gelatine	....	....	....	8
85 lbs. butter	72.0	....	....	...
270 lbs. skim condensed	....	....	72.9	...
98 lbs. concentrated skim 6-1 54%	....	....	53.1	...
108 lbs. sugar	....	108.0	....	...
331 lbs. water	....	....	....	...
900 lbs.	72.0	108.0	126.0	8

No. 3.

Ingredients	Fat	Sugar	M.S.N.F	Gel.
900 lbs.	8%	12%	14%	.05
8 lbs. gelatine	....	....	....	8
85 lbs. butter	72.0	....	....	...
233 lbs. concentrated 6-1 54%	....	....	126.0	...
108 lbs. sugar	....	108.0	....	...
464 lbs. water	....	....	....	...
900 lbs.	72.0	108.0	126.0	8

PROSPERITY FOLLOWS THE DAIRY COW. Be sure you attend the National Dairy Exposition—St. Paul-Minneapolis, Oct. 7-14.

You will note that concentrated skim is used in two of the formulas. I have calculated this on the basis of 54 per cent total solids, as it is condensed 6 to 1. Is this the correct percentage? In using concentrated do you think there is danger of sandy ice cream, due to the high condensation? G. J. M.

Reply:—I find that all three of these formulas ought to make up a good product. You will note, however, that you are using 14 per cent milk solids not fat in all three formulas. I am a little in doubt whether you can get away with such a large percentage of serum solids without serious results.

If I was in your place and making ice cream I would cut the serum solids to 12 per cent as that would still give you the 20 per cent total milk solids which, in my opinion, is plenty of solids. Should you do this it might be advisable to replace the serum solids with a little extra sugar. You could very easily use 13 per cent to 14 per cent sugar in an 8 per cent butterfat ice cream.

I do not know whether you have had any trouble with sandy ice cream or not but my advice has been for several years not to use more than 12 to 12.5 per cent milk serum solids if sandiness is to be avoided.

I am not familiar with the concentrated skimmilk which you are using in two of your formulas. I am of the opinion, however, that a concentrated product containing 54 per cent solids would very easily cause "sandy" ice cream, especially, if this concentrated product was held for any length of time after being manufactured.



TRUCKS FOR THE DAIRY INDUSTRY.

The handling of materials in the dairy plant is always a big problem. How to keep costs down to the minimum is always an important item. Bulletin C-6 just published by the Nutting Truck Co., Faribault, Minn., is available to any reader of this publication free of charge. Tell the Nutting people that you want a copy.

PERSONALS.

There are a lot of good fellows who are not in the ice cream business in spite of the fact that there are so many in it. "Birds of a feather flock together," and down in Corsicana, Texas, we know of a couple of mighty good fellows, one in the ice cream business and one in the music business, When B. H. Frick, general manager of the Frick Ice Cream Company, learned that his good friend, J. T. Newsom, president of the Southwestern Music Company and president of the Corsicana Advertising Club, contemplated a trip to Milwaukee, he right away insisted upon his making us a call. Mr. Newsom attended the big convention of the Associated Advertising Clubs of the World, and found time to come and see us in our new home. We enjoyed his company and we wish he were in the ice cream business. Thanks, Friend Frick, and when you can send another live wire to see us be sure to do it. We like the way those Texas fellows boost for their state, their town and their friends.

MOTHER GOOSE CALLED UPON TO ADVERTISE ICE CREAM.

"Baa, baa, black sheep,
Have you any cream?"
"Yes sir, New State—
Have a dish supreme."

The spirit of Mother Goose was a busy shade recently in the vicinity of Oklahoma City, Oklahoma, furnishing inspiration to some 5000 rhymsters who sought to parodize her original compositions. The reason for it all was that the New State Ice Cream Company of that city saw fit to stage a contest in which they offered prizes for the best parodies on Mother Goose rhymes which furnished a boost for New State Ice Cream. The composers themselves ranged from college professors to shop girls and from staid business men to tiny children. From all over the southwest, entries came with every mail, until the judges found themselves in the midst of a giant sheaf of neat sheets of paper each bearing a light, airy verse about the latest innovation in ice cream.

Prizes awarded as follows: First, $100; second, $50; third, $25; fourth, $25; fifth to fourteenth, each $10; fifteenth to twenty-fourth, each, $5; twenty-fifth to fiftieth, each $2; and twenty-five other awards of a dozen Polar B'ars each.

Here is a stunt for advertising ice cream that is so unusual as to deserve special commendation. As a means of popularizing the product of this company, no better method could have been originated. 5000 people will now feel that they have a personal interest in this company, and in all probability more than again as many have had the company and product brought to their attention in such a way as to make a relatively lasting impression.

This is just one of many similar clever methods of advertising their product that this company has adopted. Their remarkably rapid growth furnishes proof of the fact that it pays to advertise ice cream.

LONG BEACH FIRM TO MANUFACTURE ICE CREAM.

The Consumers Milk Company, a new dairy concern, which is to operate in Southern California, and which will operate independent of any association or other organization, will establish an ice cream plant of 3,000 gallon capacity per day in Long Beach in the immediate future. The main dairy plant of the company will be located in Los Angeles, with an 8,000 gallon capacity.

The company will handle certified, guaranteed raw and pasteurized milk as well as a long line of other dairy products. The ice cream plant to be erected in Long Beach will start out with a 1,500 gallon capacity per day, but the installation of machinery and equipment will be arranged to take care of 3,000 gallons as soon as the business of the company justifies increased production.

The company has contracted for a supply of milk from approximately 2,000 cows to be delivered as soon as operations of the company are under way.

Officers of the company are:

President, O. R. Lee, Norwegian and Danish dairy expert, formerly manager Centralia Creamery company and Columbia Products company; vice president, C. H. Osborne, now manager Ford Farms, also manager Gate City Creamery company of San Bernardino, Calif.; secretary-treasurer, Homer Lawten, identified with the Alexandria hotel, Los Angeles; directors, Wm. Grissom and W. H. Rapson.—Long Beach Telegram.

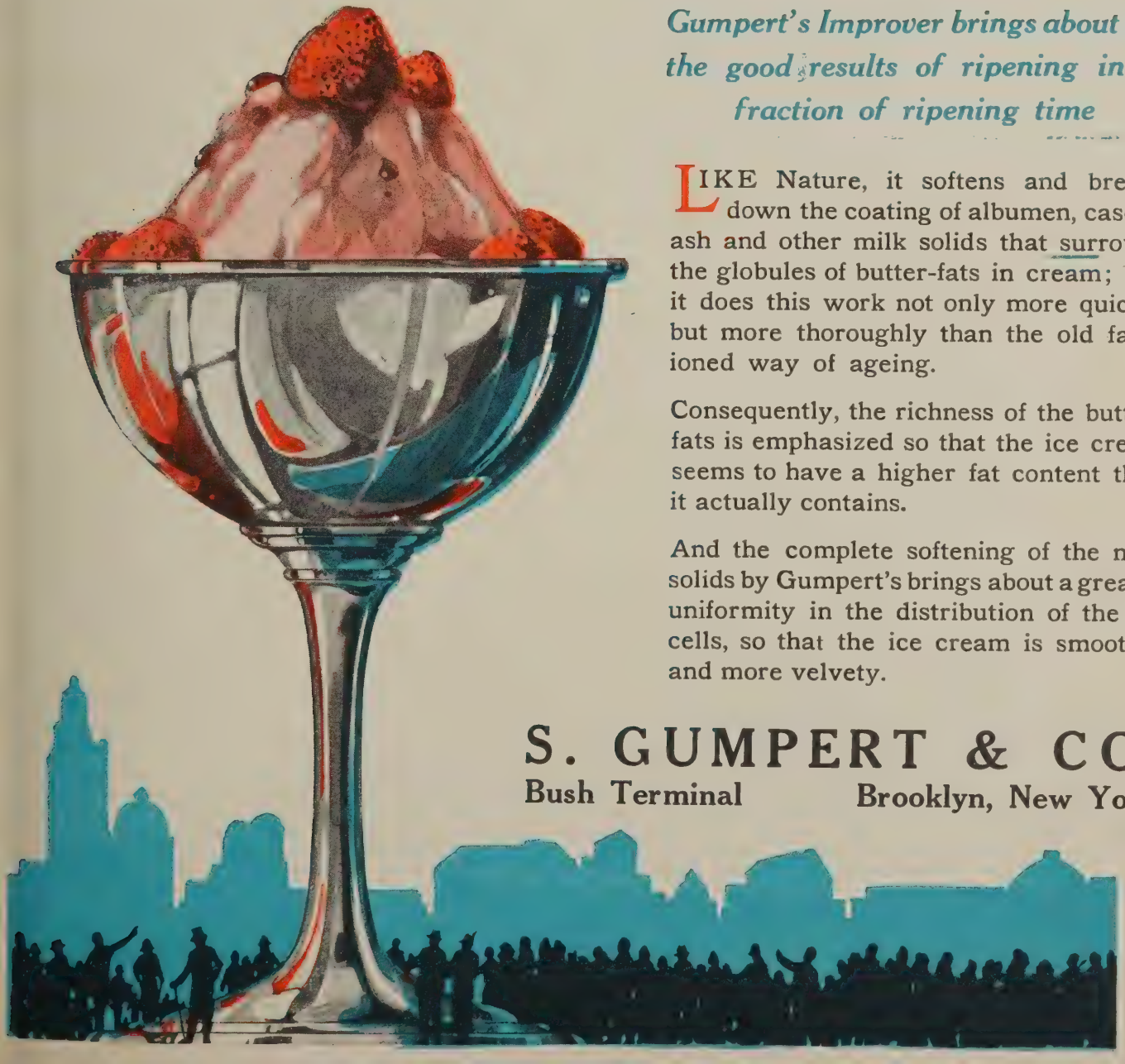
Gumpert's Ice Cream Improver



The better the ice cream you make the more you'll sell!

It has been proven time and again that the amount of ice cream eaten by a community can be doubled or even trebled in a few years.

Take the instances in which newcomers enter the ice cream field and build up a big business. How does it affect the original ice cream manufacturers in the community? In almost every case, their business ***increases!*** It seems that ice cream, when it is really good, proves the old, old saying, ***"The more you eat, the more you want."***



Gumpert's Improver brings about all the good results of ripening in a fraction of ripening time

LIKE Nature, it softens and breaks down the coating of albumen, casein, ash and other milk solids that surround the globules of butter-fats in cream; but it does this work not only more quickly but more thoroughly than the old fashioned way of ageing.

Consequently, the richness of the butter-fats is emphasized so that the ice cream seems to have a higher fat content than it actually contains.

And the complete softening of the milk solids by Gumpert's brings about a greater uniformity in the distribution of the air cells, so that the ice cream is smoother and more velvety.

S. GUMPERT & CO.
Bush Terminal Brooklyn, New York

Just Three Weeks—

THREE weeks from the day it was made, and after repeated repacking, we again opened a five-gallon can of orange water ice that had been made with TEXTOR. The product was perfect—exactly the same as when it first came out of the hardening room—smooth, firm, even and uniform, without a sign of icy particles or separation.

Wouldn't you like to make water ices that would stand such a test?

You can do it with TEXTOR, and you turn out a product which, from the top to the very last scraping at the bottom of the can, has a wonderfully smooth texture, a perfectly uniform distribution of flavor and color—and a water ice that will keep as perfectly as ice cream.

Now you can conscientiously urge dealers to handle water ices and sherbets. TEXTOR-made water ices and sherbets will dip one hundred per cent. There is practically no shrinkage.

We want you to try TEXTOR in your own plant, absolutely at our expense, and here is our offer: We will ship you a 60 lb. drum of TEXTOR. Use 10 pounds, enough to make 350 gallons of water ice or sherbet, and if you do not turn out water ices that are the finest you ever ate, return the TEXTOR, and we'll call the deal square.



DAIRYING AND THE FEDERAL RESERVE BANK.

Creamerymen, cheesemen, ice cream manufacturers, milk dealers, in fact everyone connected with the dairy industry will recognize the deep significance of the compliment paid to dairying in the May 31st report of the Seventh Federal Reserve Bank. Whatever is good for the industry as a whole is reflected in the benefits which come to those who are dependent upon it. A brief survey of the report follows:

Despite the retarding effects of the coal strike, the general business situation is improving. Production in the basic industries has increased and improvement is reflected in manufacturers unfilled orders, while unemployment shows a marked decrease. The reduction of loans to member banks by the Federal Reserve Bank in the agricultural sections reflects the improved prices to the farmer and indicates the economical basis on which he is working. Dairy products show increased output and steady prices.

While bank loans in agricultural sections have been considerably reduced, owing to increased prices of farm products and distribution of War Finance funds, bankers in some localities state they will need accommodation to assist them in financing the growth of this years crop. **In those sections where dairying is a large factor,** however, reports indicate that the country banks will be able to finance the farmer, since the steady income from dairy products will provide for current expenses.

While there was a slight decrease in the total savings deposits and average accounts in the District, two of the states, Wisconsin and Michigan, leaders in dairying, showed an increase in the amount of savings deposits. The country banks particularly show an increase in savings deposits.

The above statements are not theories, but facts as brought out by the banks which are members of the Seventh Federal Reserve district. They prove anew the importance of the dairy farmer to the upbuilding and stabilizing of a community.

The monthly cream check takes care of current expenses. It gives the farmer an active bank account which is reflected in local prosperity. It is the official government reports, such as this from the Federal Reserve Bank that demonstrate the importance and the dependability of dairying.

The Dairy Division of the Bureau of Animal Husbandry of the U. S. Department of Agriculture has prepared figures based on census statistics which tell the complete story of the dairy cow. These figures will be graphically presented at the National Dairy Exposition at St. Paul—Minneapolis October 7-14, the mecca of everyone interested in the progress and development of the third largest industry of this country. Special low railroad rates have been arranged for and the hotel accommodations will be ample and everything will be done for the comfort and entertainment of its visitors to make the exposition a memorable one.



THANKS.

We were very much elated over the kind words the M-B Ise Kream Company of Waco, Texas, sent up from the South to us, when they said—

"The ICE CREAM REVIEW is read by every up-to-date ice cream manufacturer in the United States and advertisers will certainly make no mistake by introducing their product through your medium."

"Throw Away Your Brick 'Slabs'"

Quicker Brick Making at every Ice Cream Maker's Elbow

The old costly way was to fill, carry or truck the "slabs" to the hardening room (often the full length of the building) as many times as there were colors — opening and closing refrigerator doors, losing refrigeration — after hardening remove from the hardening room, strip, cut into bricks, wrap carton and pack—in all six to eight operations.

Rogers AUTOMATIC ICE CREAM BRICK MAKER

brings brick making right up to the Freezer's "elbow." No time wasted in hundreds of idle movements and steps. Rogers' Brick Maker saves the "fussing," lugging, leg work, etc., and does it at a fraction of the costs.

The saving in refrigeration over the old method of "keeping the doors swinging" will alone pay for the machine in a year's time.

Greater competition in the Ice Cream field makes a greater need of economy.

Put a Roger's Automatic Ice Cream Brick Maker on your pay roll and turn some of your old pay checks into dividend checks.

JOHN W. LADD COMPANY

"National Approved Ladd *Distributors Specialties"*

DETROIT **CLEVELAND**

The Price is

$1500.00

(F. O. B. Detroit)

Write today for illustrated circular or ask to have the nearest jobber call.

Machines ready for Immediate Shipment

CALIFORNIA AND SOUTHWESTERN STATES ICE CREAM MANUFACTURERS' ASSOCIATION.

(Continued from page 26)

zation offer problems of more or less magnified importance comparatively speaking, which demand attention to the extent that color is often forgotten or carelessly used. Nevertheless, color has much significance in ice cream as in other things.

A moment's reflection will show us the significance of color in every-day life. Try to think, if you will, of anything in nature, any scene of any landscape, or, in our every-day life, of any article of food, any home, any room, or anything in which color is not present and playing an important part. The spring season of the year is colorful—and who can say that the flush of color that comes with this season is not responsible in some measure, for the refreshing qualities of the season. Then how about color in clothes and complexion in connection with personal appearance? It would, indeed, be a drab existence if we were all of the same color or colorless in regard to clothes and complexion. When it comes to complexion, it seems that in this day and age a good deal of importance is being centered upon artificial color. You will readily agree that the latter type of artificial coloring has limitations and that much could be said about its abuse. In discussing the type of coloring that has to do with ice cream, I hope that I may be able to point out or remind you of some of its limitations and abuses as easily.

In this short discussion of color in general I have attempted to bring out the fact that color is so extensive that it must be of importance—to everything. Local color does not mean that color is confined to any area or any object, or group of objects. Color is universal. Color is omnipresant, hence it must be important wherever it may be. It must be important in ice cream as well as in other things.

The purpose of the use of certified colors in ice cream is, as I see it, to make the product more attractive in appearance, to give it a greater aesthetic appeal; to arouse and stimulate the appetite through the eye; to make ice cream more tempting and pleasing and more magnetic in its appeal to the consumer. To enhance its palatability since appearance has its effect on the palate. And all this to increase the demand and hence the salability of ice cream.

The natural color of ice cream, as well as of other products, is often dull and not particularly attractive. As in other products, ice cream manufacturers have made use of artificial certified colors to touch up and bring out the characteristic colors of the various kinds of creams. Your vanilla ice cream, for instance, without a slight amount of color added would turn out a pure white and not that creamy color one would expect of a product of cream and milk. Where would your various flavored creams be if we were to depend on fruits and extracts to bring out characteristic colors? Hence, it is obviously a good thing—a right and just thing that pure, harmless, certified colors should be used to put the finishing touch on ice cream, giving it the appealing, characteristic colors which it demands.

But this is as far as we go. After these uses have been made of certified color—color still has other uses or rather I should say misuses. Here limitations and abuse of color in ice cream set in which I will discuss presently.

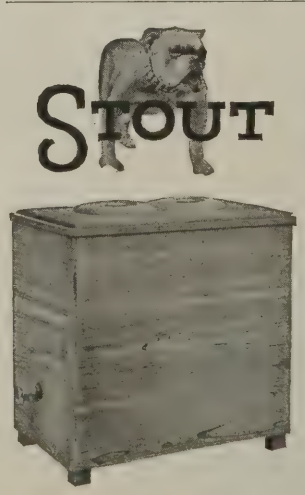
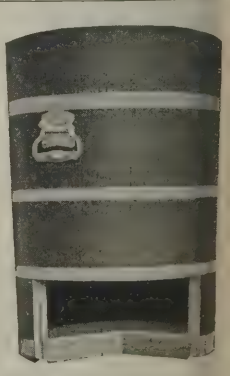
There are three main classes of colors, that is:

1. Mineral or metallic colors.
2. Vegetable colors.
3. Coal tar dyes.

Coal tar dyes are by far the most efficient and useful. There are endless numbers of coal tar dyes, many harmless, some harmful, and still others unproven as to toxicity. The food manufacturer is limited by law to the use of seven of the coal tar dyes. All other coal tar colors and mineral and vegetable colors are prohibited. I have mentioned these other colors because they have been and still are being used. There are cases in which a manufacturer will intentionally use the most convenient color or unintentionally be using a color that should not be used. Perhaps you have heard of people who think that Rex Beach is a pleasure resort. It is a lack of observation which causes that. But, I dare say there are cases where observation is lacking on the part of the ice cream manufacturer, not concerning such an example as Rex Beach, but concerning the colors he is using in his ice cream. There are thousands of so-called food colors. Insoluble metallic colors are all dangerous. Cheap varieties of coal tar colors, in the manufacture of which salts of arsenic or similar salts have been used, are obviously dangerous. Therefore, it is up to every manufacturer to know the colors he uses, the class of color it is whether or not it is a coal tar color as it should be; whether it is certified or not and whether or not it conforms to all other regulations. It is because of the vast

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KEYSTONE BRAND Pineapple Specialties

Summer with its wonderful demand for ice creams is the logical KEYSTONE time—our specialization on ice cream fruits proves that.

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You'll wonder why you haven't joined the Keystone ranks long ago.

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GRAPE PINEAPPLE
RASPBERRY PINEAPPLE
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MENTHE PINEAPPLE (green)
LEMON PINEAPPLE
CRUSHED PINEAPPLE

TUTTI FRUTTI

We have them in any style, kind or size package you want.

DEPT. I-C-2

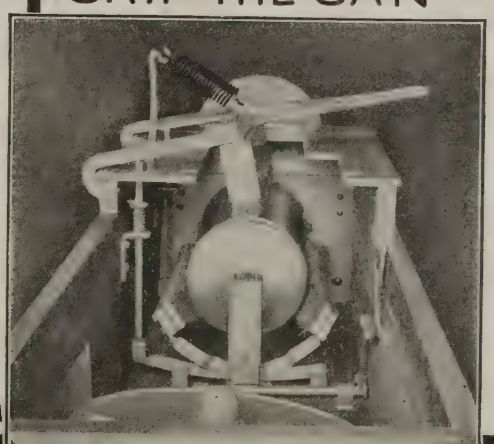
KEYSTONE FRUIT PRODUCTS CO.
CINCINNATI, OHIO

MANNING Can Washers

GOUPIL, Ltd., of Sherbrooke, Quebec, Canadian Ice Cream Manufacturers, are using the Manning and find it satisfactory in every way. "The feature we like best," they write us, "is the quick washing of every part of the can without the operator putting his hand in the water."

SEE how the Manning Can Washer brushes grip the can. Every corner, inside and out, is cleaned quickly and throughly. The Manning saves extra labor and pays for itself within a short time. It is easy to operate and there is practically no expense for upkeep. The first cost is the lowest of any good can washer on the market.

GRIP THE CAN



Manning Manufacturing Company
Rutland, Vermont.

MANNING EQUIPMENT

QUALITY PAYS BEST AND ENDURES LONGEST—MAKE QUALITY YOUR MARK.

numbers of so-called food colors that limitations as to what colors may be used are set by law.

From the seven colors any desired color or shade thereof can be produced. All patents on the preparation of these colors have expired, making them available to every manufacturer. They are proven harmless; they are saluble in water and powerful coloring agents, an ounce of any of these colors being sufficient to color 2000 pounds of confections. Hence, they are ideal for all kinds of food coloring. With the purpose of restricting food colors to those whose harmlessness and desirability are proven beyond a doubt and for the purpose of making federal inspection and control of food colors simple and efficient colors used in foods have been limited to the above seven dyes.

These seven dyes are then not permitted for use in foods unless they are certified. By certification is meant a statement that the manufacturer has conformed to all government regulation as to purity and mode of manufacture of the dye and under government inspection.

And now coming to the limitations and abuse of color. It is my object in discussing this topic to emphasize the fact that there are limitations and abuses of color. to command attention to this problem of coloring, and to create sentiment on the part of this association of ice cream manufacturers decrying any existing misuse of color and any possible future misuse.

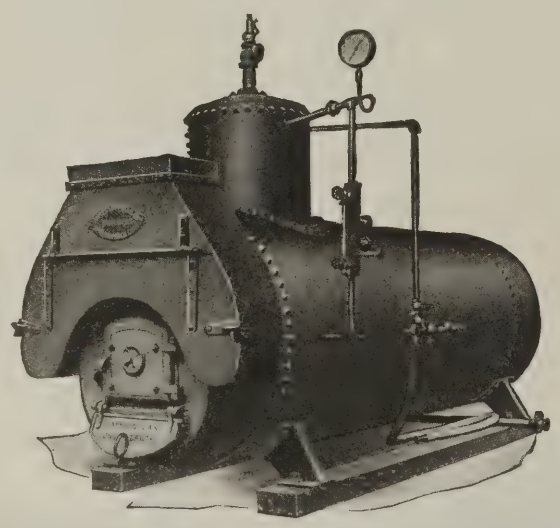
Some abuses of color are purely technical and are plainly illustrated by cases where too much color is used. It is policy to use color lightly, to a point where suspicion will not be called. A highly colored product conveys an impression of artificial color and to many people the impression that the product is artificial and adulterated throughout. For example a dark brilliant red strawberry ice cream. Mr. Dreyer mentioned the effect of hardening ice cream darkening the color and this factor should certainly be considered. Then, colors must be mixed carefully, with the addition of sugar or glycerine to the solution of color to prevent congealing and streaking of the color in the frozen cream. Certain colors, like green, purple and blue, should be discouraged because they are purely for coloring purposes and certainly do not suggest any natural flavor. Too much color and wrong shades of any particular color are common technical misuses of color.

Technical misuses and the use of inferior colors, non-certified colors, or colors not permitted by the food and drugs act are not by any means the only forms of abuse of color. In fact limitations and abuse of color only begin at the stage in ice cream as well as in other food products. The notorious form of abuse of color comes after these, even though pure certified colors be used. I am referring to the cloaking of inferior grades with attractive colors; I mean deception as to quality by means of the use of color. Here is a good example. Perhaps none of us have had this kind of an experience, but this has happened. Watermelons, in sections of the country and in seasons when drawing big prices, have been sold after being injected with a solution of red color giving the melon, which was poor in quality and appearance, or even green as grass, a luscious, ripe appearance. Generally, though, the consumer knows when he has been fooled and keeps the dealer or product in mind. Then there is the use of yellow color to imitate the presence of eggs in pastry. Perhaps the color is just as nice as the color produced by the yolk of eggs, but the only yolk present is, as the native of Sweden would say, another yoke ban on the public. There, undoubtedly, still exisits the manufacturer who thinks it is a joke on the public if he can make people think that certain pastry is rich in eggs when in reality it is rich in nothing but a little evil ingenuity and coal tar dye—yellow shade.

I have mentioned these forms of abuse of color in other industries for comparison but be sure that there are cases in which certain ice cream manufacturers may make use of similar tactics. I won't go into much detail but simply score one of the most common abuses of color made by ice cream manufacturers.

I have reference to highly colored creams. The psychology of such a practice is this: Imparting to cheap or even inferior products, intense and striking colors, nowise resembling their pure, uncolored prototypes, has a tendency to mislead the public, creating a desire for the highly colored article that pleases the eye. A product made of much better materials and better put together may not be quite so attractive except to those who know which is best by taste and test.

I particularly want to rap the practice of making French vanilla out of plain vanilla and egg yolkes a la coal tar dye. Some of us undoubtedly know of cases where such highly colored cream has been sold as French vanilla. Fraud vanilla, not French vanilla, is what it is. In some cases they come right out and sell the highly colored vanilla as French vanilla and in other cases it is simply implied that it is French vanilla, hoping to mislead the public just a little. But let me say that the manufacturer using such tactics is, figurative speaking, fishing for whale with trout tackle. The whale in the metaphor represents a big business with lasting satisfaction of the trade. It takes a sturdy tackle to land the whale. Quality throughout, including quality and



Before buying a boiler do not fail to investigate the superior merits of the famous

Leffel Scotch Marine Boilers

built in a variety of sizes from 6 H. P. to 100 H. P., and to meet all requirements of the different State Boiler Laws. This boiler meets in fullest measure and most economical and satisfactory manner every requirement of the trade.

This Company also builds Vertical Boilers in sizes of 2 H. P. and larger.

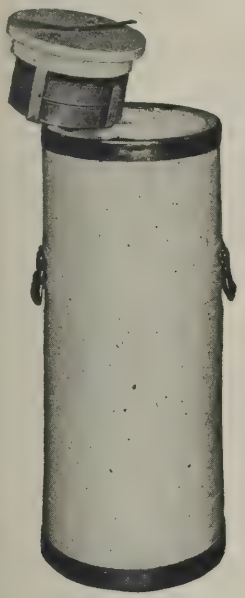
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The James Leffel & Company

Box 328. SPRINGFIELD, OHIO

Try the Glacifer Dry Packer

20-Qt. Bulk
18 hrs. preservation
(also made for 36 hrs.)



(Patented)
Price, - $12
Lots of 25 or more, $10

Some of the largest Ice Cream Manufacturers in the country are using the Glacifer. It saves money for both them and their customers. It costs nothing to try it. It fits well into your distribution system for shipping, catering or extra storage for your dealers.

WHY DON'T YOU TRY IT?

A 20-qt. Glacifer, either bulk or brick, will be sent on 30 days trial. At the end of that time, pay for it if you like it, otherwise return it.

A Postal Will Bring a Circular or a Sample

You will settle the question quickest with a sample tried under your own conditions, in your own plant and with your own customers.

20-Qt. Brick
18 hrs. preservation
No *cave* necessary



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Price, - $12

THE GLACIFER CO.

491 Main Street **Cambridge, Mass.**

P. S. Please note new address. More room necessary, so we moved June 1st.

FRANKLIN GRANULATED SUGAR

Made Specially For The Manufacturers of Ice Cream

FRANKLIN SUGAR REFINING CO. KEYSTONE B PHILADELPHIA

You have probably used many grades and kinds of sugar, invert syrup, glucose, etc., so you know the importance of using just the right thing to get the results you are after.

It is

Keystone B

which enhances the flavor of vanilla particularly, and enriches the color of ice cream, producing that creamy effect so much desired, and the price is lower than granulated.

***The* Franklin Sugar Refining Company**
PHILADELPHIA
"A Franklin Cane Sugar for every use"

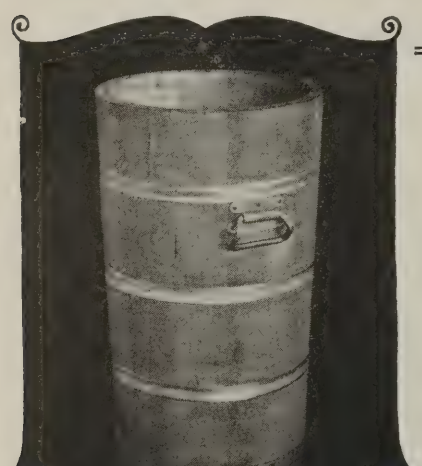
care in the use of colors means good tackle with which to go after the whale in the ice cream business.

There are many limitations and abuses of color. Hence, it is essential to the constructive program of the ice cream industry, in which we are all interested, to have every manufacturer study and know the colors he uses. Then to use them correctly; characteristic natural colors in every brand of ice cream in our state would do much toward convincing the public that ice cream everywhere is a genuine, honest-to-goodness food product and not an artificial or adulterated product which glaring, over-colored varieties might imply. Let everyone see to the certified colors he uses—correct them to the greatest extent possible and thereby put the standard of our product one notch higher.

The President: Any questions to ask Mr. Morrison? Any discussion on this subject?

Mr. Dreyer: I thought I would like to state this, that in the coloring of ice cream, especially vanilla ice cream, it looks better with a little tinge of yellow, and as an organization we probably could set a color standard similar to the way the acid test is made, a slight color within a glass tube. We had a yellowish colored paper within a glass tube and send it around to the different manufacturers and they could color by this standard set by the organization. I think that would help matters along and I think that could be done.

The President: Those are the matters that could be considered and investigated by the standards committee. That would be the proper way to approach that subject I should think. Any further questions? If not we will take up the next subject on the morning's program, "The Future of Brick or Package Ice Cream," by K. L. Carver.



A New Packing Tub

Built of Douglas Fir, a Pacific Coast shipbuilding timber; selected for its ability to withstand salt water and "stormy" handling.
A dove-tailed, double bottom 2 inches thick; armoured with a 12 gauge, galvanized iron band.
Using the expert knowledge gained from the manufacture of tubs since 1849, the Menasha Tub combines every quality calculated to give it Stamina and Carrying ability.

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CHICAGO CINCINNATI NEW YORK ST. LOUIS
FOUNDED 1849

(Mr. Carver's address was published in the May, 1922, issue).

The President: This is an interesting as well as a practical subject. There should be some question and discussion on it. You have an opportunity for any questions or discussion. The hour is getting late but we will take a few minutes, if there are any questions to ask?

If not, the next subject on our forenoon's program is by Mr. Seba.

DOES OVERRUN INFLUENCE QUALITY IN ICE CREAM?

By Mr. J. H. Seba.

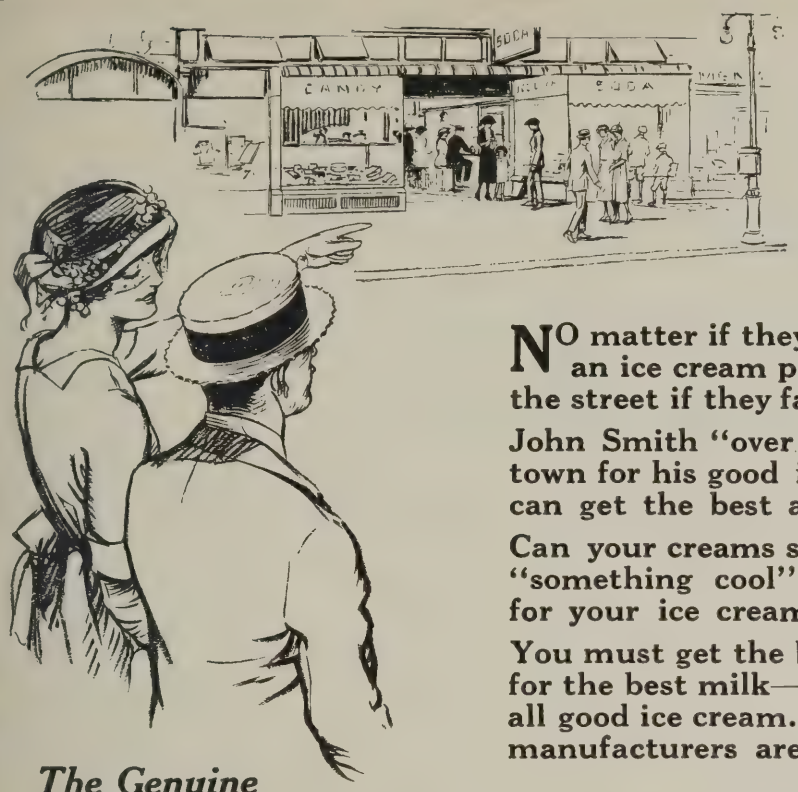
Mr. J. H. Seba: In connection with Mr. Carver's speech, which speaks of the possibilities of package ice cream, I would like to give you a little idea on it. The raisin people are just letting a contract for cartons which will provide sufficient packages of raisins for every other individual in the United States. You can therefore see the possibilities. At Mr. Carver's request to speak I will read my paper for you.

The tendency of manufacturers during the past few years has been toward an increasing yield in ice cream. This may be attributed to three sources, namely, increase in the cost of materials during the war, our greater knowledge of mixing and freezing processes and the rapid and extensive dissemination of this knowledge.

The various raw products used to make the finished ice cream were rising in price almost daily; the result was that the cost per gallon of mix was constantly tending upward while the selling price of ice cream did not increase in proportion. It was to be expected that the manufacturer would make an effort to sustain his customary margin of profit and the most effective way to accomplish this end was through increased yield.

Our knowledge of mixing and freezing processes has been much advanced in recent years. Our mixes and mix ripening methods have undergone radical changes. In the mixes we appreciate the fact that the building up with serum solids not fat instead of sugar and butterfat permits the use of a low sugar content which is more favorable to a high yield than a high percentage of sugar. The vacuum pan process of making mixes also has proved efficacious in producing higher average yields. The homogenizer is, too, an indispensable machine to the manufacturer who desires a high yield. Ripening time or the development of viscosity in the mix after pasteurization, has been reduced to a few hours instead of days. This has been brought about by the ripening enzymes, pure cultures and the direct addition of edible lactic acid.

The methods of freezing have been subjected to essential changes within the last few years and new means of production are constantly sought by the progressive manufacturer. The speed of the internal mechanism of the freezer has in some instances been increased 25 per cent above the manufacturer's rating. To obtain a uniformly high yield it has been found necessary to create a large surface area of the volume of mix in the freezer. This has put the vertical freezing machine practically out of the running for ordinary commercial work. Low temperature brine has not become popular until quite recently and brine pressure has been given practically no attention. Whipping the mix in the freezer while the brine circulation has been shut off is still a comparatively new mode of procedure in some plants. Overrun testers, several types of which now appear on the market, facilitate the increase of yield where the manufacturer has to rely upon more or less unskilled and inexperienced help. The use of carbon dioxide gas has



Let's Go over There

NO matter if they are standing right in front of an ice cream parlor—people will always cross the street if they favor the cream across the way.

John Smith "over there" is known all over the town for his good ice cream. People know they can get the best at his store.

Can your creams stand that test or are they just "something cool"? Do people cross the street for your ice cream?

You must get the best milk for good ice cream—for the best milk—pure and fresh—is the basis of all good ice cream. That is why careful ice cream manufacturers are placing their milk orders for

The Genuine

MERRELL-SOULE POWDERED SKIMMED MILK

MERRELL-SOULE SALES CORPORATION, Syracuse, N. Y.

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The World's Best Food Gelatine

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"Price is a relative term—quality always a concrete fact."

POINTS NOW ACKNOWLEDGED BY LEADING CONSUMERS WHO ANALYZE AND KNOW GELATINE.

1. **Extraordinary Uniformity of Delft Gelatine**
   Goods standardized packed and sealed at the works, delivered to you in perfect condition in original sanitary barrels of special construction.
2. **Highest Strength and Purity**
   Not only meets the requirements of State and National Pure Food Laws, but is even purer than any of them demand.
3. **Absolute Freedom From Liquifying and Harmful Bacteria**

No tariff changes will curtail supplies, nor affect present reasonable prices.

THE ASSOCIATION OF ICE CREAM SUPPLY MANUFACTURERS — MEMBER

Harold A. Sinclair

OUR ADVERTISERS AIM TO GIVE THE UTMOST SERVICE ALWAYS.

also come to the assistance of the over-run specialist and it is now possible to obtain almost any degree of excessive yield desired.

In times past new ideas or new ways of doing things passed very slowly from one person to another but now additions to our common stock of knowledge are rapidly and widely disseminated. The chief channels through which this knowledge is spread are the government experiment stations, trade associations and ice cream trade publications. Also, a knowledge of new schemes in the hands of an aggressive individual is soon put to use. Hence the increasing tendency of late to sell the retail dealer and consumer a large percentage of nature's free gift, air.

The increased yield resulting from these methods while they apparently seem highly desirable from a financial standpoint have drawbacks as well. Taking for example a mix which has 33 per cent total solids (10 per cent milk fat, 10 per cent serum solids not fat, 13 per cent sugar). A gallon of mix of this composition weighs approximately 9.04 pounds. One hundred per cent yield on this mix would give two gallons of ice cream weighing 4.52 pounds and 50 per cent by volume of air. This is all the "swell" that a 33 per cent total solid mix will stand and still produce a piece of goods which is palatable and has stability under average dispensing conditions. Increasing the yield to 110 per cent on a gallon of the above mix reduces the weight of one gallon of finished goods to 4.30 pounds. One hundred and twenty-two cubic inches out of a possible 231 are air. From the standpoint of food value, when the value of one pound of milk fat equals 4040 calories, a pound of serum solids and a pound of sugar 1820 each, the high yielding ice cream is less valuable by 150 calories per gallon. The consumer under these conditions looses in nourishing qualities the equivalent of a level teaspoonful of sugar on every dish of ice cream consumed.

Considered from the palatability angle the inflated ice cream has less flavor and aroma per given amount of flavoring material added. It does not give as great apparent coldness to the palate and leaves less indication of substance when melted. Slightly higher gelatine content will be required for stabilizing purposes and this produces a somewhat sticky body and gives a disagreeable gelatine after taste to the cream as it grows older.

A cream containing 50 per cent air will require the transfer of more heat units to bring it to a solid state than will a gallon containing 55 per cent air, but this advantage is quickly vitiated when it comes to packing and shipping. A gallon of ice cream with a high air content has not absorbed as many heat units, hence it will not have as many to give up before getting soft when placed under unfavorable conditions. It has less resistance to heat shock and this deficiency will have to be supplied by additional salt and ice. Having once become soft it cannot again be hardened to make a palatable product. It is not unusual for the ice cream salesman to have customers tell him that a certain brand of ice cream requires more salt and ice and more packing than, perhaps, some competitive brand of similar composition.

Again the dealer finds that he can get more cones, dishes of cream or cartons per gallon from another brand of cream which does not represent an excessively high yield. He has less shrinkage per packer. While from a superficial observation there is a direct and decided financial gain in excessive yield the manufacturer who pursues this policy has few and flimsy arguments with which to go after new business and his customers are bound to him only by a very slender thread of good will or because another and better grade of ice cream is not available to him.

Some manufacturers maintain a percentage of overrun sufficiently high to enable them to cut prices against their competitors. Such a situation is lamentable because the men who create it undermine the foundation of sound business principles and only until such a time as their trade has been shown a better piece of goods produced in accordance with the policy of a full value for every dollar, can they hope to retain their yearly gallonage. (Applause).

The President: We have with us this morning, Mr. Fitch, field secretary of the California Manufacturers' Association. I wish Mr. Fitch would arise and let me introduce him. Mr. Fitch, field secretary of the Manufacturers' Association. We would be glad to hear a word from you, Mr. Fitch, if you have a word to say.

Mr. Fitch: If I will not be imposing upon your time?

The President: No, we are through with our program, just a minute, though?

Mr. Fitch: I will make it just a minute.

Mr. President, Mr. Secretary, members of the California and Southwestern States Ice Cream Manufacturers' Association, it gives me much pleasure to bring with me today the greetings of the board of directors of the California Manufacturers' Association, and trust that your deliberations here today will result in much good to your very worthy organization.

I just want to speak a word of the merits of organization. I feel very like the man in the selling business who was visiting the little city of Petaluma—a traveling salesman selling his line of goods—and he happened to meet an organization man, a man who was the repre-



READY! Pineapple—New Crop

—fruit of first quality for all purposes of ice cream manufacture, and prices pleasingly reduced now that the new crop is available.

Here, at your service, is the most complete line to be found. Write for samples and prices for quick action at present attractive figures.

Crushed Pineapple Unsweetened: Solid packed; free from all eyes and cores; packed in No. 10 cans, No. 2½ cans and No. 2 cans.

Crushed Sweetened Pineapple: Solid packed in all size containers.

Genuine Dependable ***Orange Pineapple (Crushed)***

Pineapple Wedges: Small Pineapple Pieces, 1400 to a gallon.

Red, Maraschino Flavor.
Orange, Orange Flavor.
Pineapple Extract—True Fruit.
White, Natural Pineapple Flavor.
Pineapple Juice in No. 10 cans.
Glace Pineapple Pieces, Fingers and Debris.

The Cincinnati Extract Works, 423-424 W. FOURTH STREET **Cincinnati, Ohio**

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The days are past when business men follow methods or choose materials merely because custom has in the past decreed their use.

Today men judge only by the measure of performance or results.

It is these new standards of performance which have made the use of

Wyandotte Sanitary Cleaner and Cleanser

so almost universal throughout the ice cream industry.

And this result is only logical when you realize how efficient, dependable and uniform is the work of this economical cleaner; how easily it cleans; how harmless it is to hands and metal; how fresh, sweet, and wholesomely sanitary it leaves everything it cleans; and how many uses it has in the ice cream plant.

Indian in Circle



in Every Package.

Your investment in this quality cleaner is protected by an unconditional guarantee of efficient performance and economical cost.

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Be sure you attend the
National Dairy Exposition
St. Paul - Oct. 7-14 - Minneapolis

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"Atlas" Century Color

will give your Ice Cream that beautiful New York Shade

which cannot be otherwise obtained.

BBLS. per Gal.	KEGS per Gal.	6 GALS. per Gal.	1 Gal.
$2.00	$2.50	$2.75	$3.00

Before placing your next order, let us send you a trial quantity

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PROSPERITY FOLLOWS THE DAIRY COW. Be sure you attend the National Dairy Exposition—St. Paul-Minneapolis, Oct. 7-14.

sentative like myself of a statewide organization. He said, "What line are you carrying, old man," a very natural question of a salesman to exchange the various felicitations of the day and of their various lines. "Why," he turned to the other man, "I am selling organization." The salesman looked at him for a minute and said, "I do not quite get that, will you explain the line you are selling?" "I am selling organization." He scratched his head for a moment and said, "I don't quite understand," so the man turned around and told him he was selling co-ordination of efforts. He was trying to bring certain lines of business throughout the state to recognize the need of standing together, fighting together for the principles of righteousness and justice in business. He gave him a few minute's talk and the man turned around and said. "I have sold lots of things in my life. I never knew it was necessary to sell organization."

There is just a little lesson in that to show you how necessary it is for the business interests, regardless of the activity, to stand together for those principles of business to make for good salesmanship and profit.

The meetings you have had here should result in a good deal of good for you. It establishes a cleaner relationship between the different members of your profession, it promotes the exchange of your ideas, and you should leave your convention feeling you have gained some good from it.

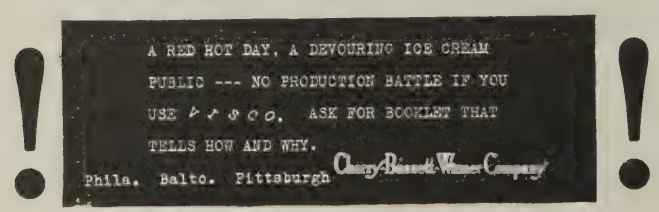
The State Association of Manufacturers is indeed very grateful for the splendid co-operation that has been extended to it by the members of the ice cream manufacturer's profession. It is one of 151 different lines of manufacturing activities that is now represented in the state-wide organization. The growth of this movement has been almost phenomenal. It is hard to believe that within two and a half years the California Manufacturers' Association has grown to be the fifth largest state association. We have memberships in 162 cities and towns in the state of California and the record that the State Association of Manufacturers made at the last state legislature is one that will not soon be forgotten by certain interests in the state of California who heretofore have very largely controlled our political destiny. It has resulted in a realization on the part of the business interests of the state of Calfiornia of the absolute necessity of co-ordination of effort in collaborating together in that we might protect the industries in our state government. As you probably know the state of California has been considered for years to be one of the most difficult states for manufacturers or business men to do business in, that the politicians had too close control; but today I believe that control has been broken up very largely. As long as we have a balance sheet; as long as one class is not permitted to control the policies of our state government, whether they be municipal or state, is a very serious problem, and when we organize the united industries of our state in our state-wide organization, it results in a balance sheet.

It might interest you to know in passing that the state legislature last year, or rather at the beginning of this year, that there were 73 industrial bills of an aggregate of 2,022, were introduced at our state legislature. That is, 500 more bills than any other state in the union had to contend with. Of the 73 bills, the State Association of Manufacturers in convention at Santa Barbara last February, near the first session of the legislature, decided to most vigorously oppose 68 out of the 73. That is, we determined that 68 of the 73 were partciularly dangerous to the future growth and expansion of industry in the state of California. It might interest you to know that we successfully killed outright, or in committee, 65 out of 68. It is perhaps the best legislative record that has ever been made by any one organization in the state of California.

Mr. Dryden: That included two bills that affected our industry.

Mr. Fitch: It was a complete surprise to the legislature to find that the business men of the state of California had organized to defend their interests. We established a lobby at Sacramento to which some 54 organizations contributed funds to their support, of which the California and Southwestern States Ice Cream Manufacturers' Association was one. I might explain that the work at Sacramento was conducted under the name of the California Industrial Council. The California Industrial Council is composed of 47 organizations of manufacturers in California,—that is, class organization such as your own organization, such as the Bottlers' Association, such as the Canners' League, etc., etc., and the bureau at Sacramento was known as the California Industrial Council, and it was fathered and looked out for by the State Association of Manufacturers.

There is just one thing I would like to mention in connection with the work at Sacramento, that is this: That in talking to the different legislators there were very much impressed—and I also say impressed with those of our staff who represented our organization at that city—with the fact that it was the first time in the history of the state of California that the manufacturers throughout the state had supplied sufficient data relative to the problems of industry. That is, had gathered statistics and facts relative to the different problems in the different types of industry so that when these bills came up for hearing it enabled the particular legislators whom we have elected to represent us to more intelligently study and analize our problems. Heretofore it has been left entirely to the State Federation of Labor to supply the legislators with the conditions regarding labor problems and the status of conditions in the different kinds of industry. I can best illustrate the point by the Synthetic Beverage bill in connection with the use of artificial flavoring. It was introduced by a Miss Barton, one of the two women elected at the state



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A Letter recently received reads in part:

"The effect of **ALLEN'S ONE PIECE SANITARY CAN LINERS** in our Ice Cream Cans is magical.

Suggestive of Health, Purity and Prosperity, which combined with our own Sanitary Methods of Manufacture insure our product to be Superior to all others.

Our Slogan hereafter will be **A LINER IN EVERY CAN.**"



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PONTIAC, ILLINOIS

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Recognition of Gelatine

EACH day gelatine is receiving wider recognition for its pure food value. Dieticians readily admit that it is an aid to digestion; and housewives are using it more widely in the kitchen.

Used in the ice cream mix it serves not only as a stabilizer, but it makes the ice cream of finer texture and grain; and it aids in the digestion because it keeps the solids in the mix from separating and forming curds in the stomach.

Essex Gelatine is pure and tasteless. It is the result of twenty years of manufacturing experience and is used today by the leading ice cream manufacturers from the Atlantic to the Pacific. Shipments can be made from warehouses in Boston, New York, Philadelphia, Chicago, St. Louis and San Francisco.

Essex Gelatine Company

Manufacturers

40 No. Market Street
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Boston, New York, Philadelphia, Chicago, St. Louis, San Francisco

MEMBER

Member of the Association of Ice Cream Supply Men

legislature of last year. Miss Barton felt she should return to the city of her birth having introduced some legislaion regardless of whether it was constructive or legislation regardless of whether it was constructive or prevent the use of a picture of fruits on a bottle of soft drinks or soda—for instance, it would kill orange ade unless orange ade actually contained some percentage of orange juice.

The members of the committee were absolutely uninformed as to the effects on the bottling industry. Prior to the meeting of the committee on this bill we made it our business to gather as many of the facts and statistics relative to the effect of this bill as we could; then we visited personally each legislator who composed that committee and tried to explain to him the effects of this bill. I remember Senator Scott, of San Francisco, told me after talking to me twenty or twenty-five minutes, he said, "Mr. Fitch, it is the first time I have ever known of any organized efforts to acquaint us with the facts of a particular piece of legislation." Heretofore you have left it to the State Federation of Labor to supply us with the facts and I want to thank you for the information you have given me and I will give it very careful consideration." The same effect resulted from each one of the members of the committee and with the result that the bill was killed in about fifteen minutes after the committee met.

I merely mention this to show what can be accomplished through organization, if you make the organization effective.

I want to say in closing that in the next two years you are going to find that the organized business interests of the manufacturers of the state of California are going to have much to do and to say with regard to the election of the representatives at the state legislature during the next two years. I would like to have the privilege provided that there are no press representatives in the room—the reason I make that statement is that I have something in my pocket I would like to read to you—confidentially—and I wish you would accept it as confidential. I would hate to see it get into the press, that is the reason I want to ask that quesion.

Mr. Dryden: I am familiar with this and I believe it should be read at our round table this afternoon because it is regarding our program before the legislature next year and outlines fully the policy of the California Manufacturers' Association, of which our organization is connected.

Mr. Fitch: Thank you very much. (Applause).

The President: Let me state further that if possible the various committees complete their work as soon as possible. Those committees are supposed to be prepared to make their reports this afternoon. We have run over our time a little, but the afternoon is not going to be very crowded and while they are supposed to come before the round table conference, we will be a little indulgent and if any of the committees have not had time to complete their work, please utilize all the time available and get them in as early as you can, but we we do want them before the round table closes. These reports should all be read either at the beginning or before we adjourn the round table which was supposed to close at 4:30. I think your committees know the composition of its own members. If not, inquire at the desk and you will get the information desired.

Are there any further announcements that need be made before we adjourn?

Mr. Wilson: Will you kindly announce the banquet tonight at 7 o'clock?

The President: The association itself is giving the banquet tonight—the same banquet hall as last night. Don't forget that you get your tickets from the com-

mittee in charge of the banquet, anyone of whom will accommodate you with regard to tickets—Mr. Alfred, Mr. Ball and Mr. O'Brien. Either one of these gentlemen. The tickets are $3.00.

The program calls for the announcement at the banquet of the results of the scoring of the ice cream and the medals will be awarded there. The prize winners and the medals, and the announcement of the election of the directors and officers will be announced at the banquet tonight.

I want to call your attention again to the fact that Mr. Kugler is all prepared that when we adjourn we proceed immediately to the roof garden where he has everything ready for taking the photograph of the entire delegation. It will only take a moment.

The supply men at great expense entertained us last night. Some of the supply men have exhibits at the dairy show and I think out of courtesy to these supply men we should all attend the dairy show sometime before we leave Stockton.

As I said, the afternoon is not very full and there will be an opportunity at different times in the afternoon and during the round table for further announcements.

On motion duly made and seconded, at 1:00 P. M., the session adjourned to meet again at the call of the president.

* * *

THIRD SESSION—December 6, 1921.
3:30 o'Clock P. M.

Meeting called to order by the president at 3:30 P. M.

The President: Before taking up the first order of business I want to read a telegram which came in during the morning from the East:

New Haven, Conn., Dec. 5, 1921.

President S. A. W. Carver,
Hotel Stockton, Stockton, Calif.

Congratulations and best wishes for success from the National to the convention of California and Southwestern States Ice Cream Manufacturers. May your deliberations and your efforts prove successful in bettering your membership in many ways and in helping to solve the problems which beset east and west alike.

CHARLES G. MORRIS, President.

The President: The first order of the afternoon's business is reports of committees. I do not know what committees are ready—the standing committees, probably none of them are ready to report. The judges will not be ready to report on the scoring for an hour or two, but will be ready before we are through our sessions, and that report will have to be put off until then. In view of that we will pass on to our this afternoon's business, which is the Round Table Conference.

* * *

Round Table Conference.

The President stated that the purpose of the "Round Table Conference" was to discuss any matters of interest that had not been brought before the convention during the other sessions.

Several matters of importance were discussed and the auditing committee reported that the statement of the financial condition was found to be correct, there being a cash balance of over two thousand dollars on hand.

While waiting for the report of the scoring committee, nominations for directors were made and while the tellers were counting the ballots the scores for the first three highest ice cream exhibits were read.

* * *

The President: It is suggested, and very properly, that we by vote express our appreciation of the committee of Prof. Turnbow, Mr. Alfred and the other members of the committee for the services they have rendered this

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Ice Cream Can Truck



Durable!

THIS rugged ice cream can truck will give you **years of service.** The frame is built like a steel bridge, of structural angle steel, strongly riveted and specially braced at the corners to withstand shocks. And it is rust-proof—entirely galvanized.

Easy Rolling. Ball bearing, swivel casters. Main wheels 8¼ inches high, with wide, smoothly machined flat face to save floors. Cold rolled steel axle, heavy axle boxes and collars.

The top can't sag. Rail around top, optional, holds all covers and keeps them with cans. Four wooden bars at the bottom fully protect cans from denting.

Keep your cans on wheels with these strong, light-running, durable Nutting Trucks. You can now buy them at the following

Reduced Prices

30 inch size, without top rail...$46.00
30 inch size, with rail.....$52.00
36 inch size, without top rail...$52.00
36 inch size, with rail.....$59.00

All prices F. O. B. Faribault

Ask your Jobber or order direct from this ad

NUTTING TRUCK CO.
1143 Division St. FARIBAULT, MINN.
Floor Truck Specialists since 1891

Jobbers—Sell our complete line of dairy trucks. We can make you an interesting offer. Write today.

association in the matter of the time they have devoted in the service of this scoring contest. All in favor signify by the usual sign?

The vote was unanimous.

Mr. Miller: Up in Seattle several members requested me to state that they would be glad to come to our convention next year and join with us, and I am offering that as a suggestion. They have a very live organization in the Pacific Northwest, and they said, if we agreed, they would come if we would have the meeting either in Oakland or San Francisco, and I would like to give it to you. For this meeting they are willing to come and visit us in a body and I think they would make it their meeting—not to join the association, but that they wish to come down here and have a joint meeting, next year.

The President: Might we not safely leave that to our incoming board who will handle the arrangements for our next year's convention. As the time approaches they can arrange that meeting. That would look good to me.

Mr. Miller: I am perfectly willing.

The President: You have heard that expression from the Pacific Association ,that seems to be a matter of friendship extended to us that we cannot overlook, and I hope our new board will bear that in mind and take proper action to reciprocate and see if they can arrange a joint meeting. I suggest that the Secretary get in touch with the people of the Pacific Northwest on this matter.

At this time the tells had completed their count and the following were declared elected as the new Board of Directors:

R. J. Dryden, Oakland; C. J. Alfred, Los Angeles; H. R. Peacock, Bakersfield; L. W. Wilson, Fresno; S. A. W. Carver, Los Angeles; John Alsop, Phoenix, Ariz.; I. J. Trainor, Sacramento; L. J. Christopher, Los Angeles; F. H. Ames, San Francisco; E. W. Chism, Reno, Nev.; Geo. Platt, Los Angeles.

On motion duly seconded the meeting was declared adjourned and the new Board of Directors gathered for a five-minute executive session to elect new officers and to dispose of whatever business might come before it.

* * *

Executive Session.

The newly elected directors held a meeting immediately after the adjournment of the main session and elected the following officers: L. W. Wilson, Fresno, president; C. J. Alfred, Los Angeles, vice president; R. J. Dryden, Oakland, secretary-treasurer.

Social Session.

At exactly 8 P. M. the doors were opened and the large gathering surged into the banquet hall for the "social session" of the convention.

Mr. Dudley Dorman acted as master of ceremonies and introduced the newly elected president, Mr. L. W. Wilson, who expressed his appreciation for the honor which had been bestowed upon him. He voiced the hope that an active selling campaign could be inaugurated which would benefit the industry as a whole.

Mr. L. J. Christopher was next introduced as the first president of the association when it was organized to assist in entertaining the National Ice Cream Manufacturers' convention held in Los Angeles.

Mr. S. A. W. Carver, retiring president, spoke of the valuable assistance given the association by the supply men and dwelt on the early history and growth of the association from 12 members to 172 at the present time.

A reading, "The Dago Man at a Base Ball Game," was most interestingly rendered by Miss Alfred.

Vice President C. J. Alfred was introduced, after which Mr. Fitch, field secretary, California Manufacturers' Association, spoke about the industrial growth of the state.

Mr. Jacobson spoke in behalf of the supply men, and Sam H. Green spoke for the California Dairy Council, urging "quality of product." Mr. Green also made the presentation of the medals to the winners of the ice cream contest. Among others who were introduced were Mrs. F. E. Miller, Jay Kugler, C. O. Swanberg and L. J. Christopher, who told of meeting Marshal Foch and he reported the great general as saying, "it was not fighting, but co-operation that won the great war."

All present very much appreciated the high class entertainment rendered by the Hiram Claire troupe, who were playing in the Columbia Theater.

The gathering formally broke up about midnight and California's greatest convention was a matter of history.

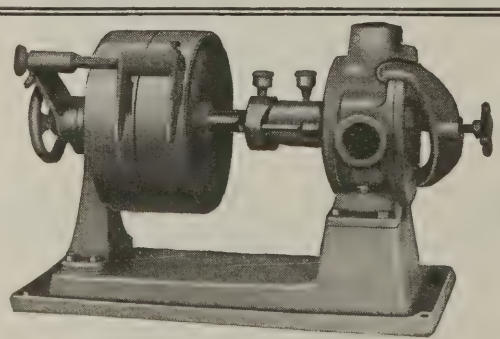
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SWEET BUTTER
this season, get a sample tub and prices from
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220 W. Pratt St. BALTIMORE, MD.

Custards *Flavors*

Maraschino Cherry Custard
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"Acme" Custards	An exact reproduction of the EGG or CHERRY.
Egg or Cherry	Contains all of Nature's delicate FLAVORS and BLENDED COLORS. A delicious Ice Cream of quality distinction. Working sample for 40-qt. freeze, 36 cents.
Bisque Ice Cream	An imitation of the real Walnut or Shelbark with a nutty flavor. Served to social and banquets as a special. Working sample for 40-qt. freeze, 60 cents.
Perfecto *(Trade-Mark)*	A tested smoother of special value in the making of smoothe and tough Ice Cream. Never fails to give satisfaction.
Concretes	Orange and Lemon Concretes are made from the finest fruits that grow in Northern Sicily.
Extracts *(Non-Alcoholic)*	36 different kinds of fruit extracts. Special blends of Vanilla.
Colors	Certified colors of all shades, highly concentrated.

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You can buy cream or sweet butter in the spring of the year and hold it until you need it. You can keep your surplus product in admirable shape until disposed of. You can regulate the temperature for freezing, cooling or hardening to the best temperature to get the most efficient results.

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Putting Selling Among Professions

Members of Salesmen's Club Interested In Betterment of Their Calling

IS salesmanship a profession?

The first profession recognized by society was that of the clergy, centuries ago. Next came the profession of the law. It is only within comparatively recent generations that medicine reached entire recognition as a profession. Dentistry acquired a similar distinction only during the last century. Architecture, teaching—there are those even now who hesitate to regard these vocations as true professions.

Is salesmanship in this present generation going to enter the scanty number of professions also?

This is a question that has interested many salesmen in recent years. Through the last confidential bulletin of their Salesmen's Club, more than 500 sales representatives of member companies of The Association of Ice Cream Supply Men have focussed their attention on this same thought. By permission of the Club some extracts from this last bulletin, significant along these lines and of equal interest to ice cream manufacturers, are repeated here:

"Every salesman on the road, no matter what he sells, is helping write the commercial and economic history of the world. Now salesmen sufficiently realize this. The machinery of the world's business is so vast today that the biggest salesman ever born could not be more than a tiny cog. But although it is vast the world's machinery for doing business—for making goods and selling them, in other words—is also delicate and almost incomprehensibly complex.

"George E. Roberts, an economist, told the Export Managers Club in New York recently something along this line. It applies in greater or lesser degree to every salesman everywhere, no matter what his goods nor who his buyers.

"Russia,' he said, 'was one of the great tea drinking countries of the world; India was one of the great ten producers. The war stopped Russia from tea drinking, and India couldn't sell her tea. India is a great cotton wearing country, but if she couldn't sell her tea, she couldn't buy cotton, so the mills of Manchester shut down. If England's mills were not running, our Southern farmers could not sell their cotton, and they, in turn, shut down on buying. What is true of tea and cotton is true in a greater or lesser degree of the hundreds and thousands of things that make up our daily life. The Australian market for shoes affects the mill towns of New England, and the fashion in stockings in Argentina is reflected in the payroll of a Philadelphia worker.'

What one salesman does concerns a hundred thousand other men. Perhaps it seems to affect them infinitesimally, but the salesman must never forget that it does concern them just the same, and that a true knowledge of economic facts and a true conception of the duty of a salesman to play fair, react each day on the lives of countless unseen men and women."

To many a salesman active and successful today, who began his work around the first of the century, these other extracts from the same bulletin must be particularly interesting.

"Newspaper paragraphers ask every day, 'Where is the old-fashioned girl who wore so-and-so-and-so-and-so,' and 'What has become of the old-fashioned man who did this-and-that-and-the-other-thing?'

"That is the newspaper humorists' way of saying, 'A good old custom has departed. A type that once was known to everyone is now no more. Let's write a finis to a chapter of our manners and development.'

"Twenty-three years ago a man named William J. Kountz, Jr., wrote some advertising-and-selling skits, or essays on life as it was lived those days—'Billy Baxter's Letters.' They described a certain phase of commercial and selling life of twenty three years ago as uniquely and as vividly as the 'Dere Mable' letters of four years ago described the life of a recruit in the great war.

"For his own racy style Kountz' Billy Baxter' letters are alone worth reading. A small idea may be gained from the following sentence describing the author's departure late one night from a characteristic salesman's evening of conviviality: 'I guess the wind must have been against me, as I was tacking.'

" 'Billy Baxter's' days are gone. There was a day when 600,000 copies of Kountz's essays were in circulation in the country in a few months. They were contemporary classics, true to life.

"What has become of the 'Billy Baxters'?—The answer is: Consider the development of Salesmanship!

"Do you realize the great competitive changes, and the great changes in procedure and habits that American salesmanship has undergone in the last generation? Do you realize that every day today is seeing the salesman's work brought nearer and nearer to a professional status?

"Do you realize that, more and more, salesmanship is a study—analysis—the demonstrating of quality—that salesmanship is a serious science."

At present low prices for retinning Ice Cream Cans you can make a very decided savings over the purchase of new cans.

Take advantage of this service, have your rusty cans retinned instead of junking them and buying new cans.

Our price for retinning a five gallon Ice Cream Can is seventy-five cents and ten cents for Covers—about one third the cost of a new can.

Use your old crates in shipping us your rusty cans. Just mark your tags—

MANITOWOC PLATING WORKS
MANITOWOC, WIS.

We will do a most satisfactory job and get your cans back to you promptly.

PURE — HIGH GRADE
GELATINE
AND
Quick Action Ice Cream Powder
Special Double Strength Ice Cream Powder
Pure Powdered Gum
Ripener Powder
QUALITY — UNIFORMITY — SERVICE
St. Louis Gelatine Company
St. Louis Missouri

COAT ESKIMO PIE

WITH

ALASKA CHOCOLATE COATING

A High Grade Milk Chocolate READY TO USE

Prepared especially for Coating Eskimo Pie and any other Ice Cream Delicacies

If you want to build up a lasting trade use ***this*** Chocolate Coating.

It eats right, Looks Better, Dips Easy, ***Coats*** more Bricks, costs less when quality is considered.—Contains ***more*** milk Solids, and more ***Pure Cocoa Butter***.

Made only by

Ambrosia
REG. U.S. PAT. OFF.
CHOCOLATE CO.

331-333-335-337 Fifth Street - - MILWAUKEE, WIS.

Write or Wire for a SAMPLE CASE of 110 Lbs.

DO YOU SELL

CARAMALA ICE CREAM

The Favor Compelling Flavor

PRICES Per Gal.	
1 gallon	$7.00
5 gallons	6.75
10 gallons	6.50
25 gallons	6.25
50 gallons	6.00

Use 4 oz. to 10 Gallon Freezer
Use 3 oz. with Nut Meat to 10 Gallon Freezer

CARAMALA ICE CREAM is always the smoothest and most firm, in comparison with any other made from the same stock mix and handled under identical conditions.

Sample cheerfully sent on request

REX EXTRACT COMPANY

257 Pacific Street Brooklyn, New York

Order direct or through any of the following well-known firms:

J. G. CHERRY CO.	Cedar Rapids, Ia.
MEYER DAIRY EQUIPMENT CO.	St. Louis, Mo.
BEATRICE CREAMERY CO.	Denver, Colo.
ENTERPRISE DAIRY & CRY. SUP. CO.	Cincinnati, O.
CENTRAL OHIO SUPPLY CO.	Columbus, O.
DAIRYMEN'S MFG. & SUP. CO.	St. Louis, Mo.
BLANKE MFG. & SUP. CO.	St. Louis, Mo.
E. B. GALLAGHER & CO.	Detroit, Mich.
HAZELWOOD CO., LTD.	Spokane, Wash.
RICHARDSON & HOLLAND, Inc.	Seattle, Wash.
MANNING MFG. CO.	Rutland, Vt.
W. L. KNORR CO.	Pittsburgh, Pa.
CHERRY-BASSETT-WINNER CO.	Baltimore, Md.
CHERRY-BASSETT-WINNER CO.	Philadelphia, Pa.
FERRIS-NOETH-STERN CO.	Baltimore, Md.
N. A. KENNEDY SUPPLY CO.	Kansas City, Mo.
CHERRY-BASSETT-WINNER CO.	Pittsburgh, Pa.



The "STAY-ON" is made right by men who know how, and have studied the requirements of the Ice Cream manufacturer and shipper.

Thats why the "Stay-On" today is the biggest seller, and enjoys the widest distribution.

Get the information from your jobbers' salesman or address below.

Canvas Products Corporation
BOX 66
FOND DU LAC, WIS.

NATIONAL ASSOCIATION OF ICE CREAM MANUFACTURERS.

(Continued from page 46)

October 11, 1922,—Morning Session.

The meeting convened at 10:20 a. m., President Martin, presiding.

President Martin: Dr. Van Norman, President of the National Dairy Congress, will address us.

* * *

WORLD'S DAIRY CONGRESS.

By Dr. H. E. Van Norman.

Mr. President and Members of the National Association of Ice Cream Manufacturers: This gathering of yours is an illustration of one of the remarkable things that have been going on in the dairy industry for the years that I have known it. I remember when the ice cream man considered that he was in a secret business and the effort was to keep everything connected with it a secret. Today we have progressed to the period when not only is that not true, but you gather and discuss your most intimate problems, while possibly your bitterest competitor is sitting just back of you or in front of you. That illustrates the change that has been going on in the dairy industry.

I remember when the milk dealers first met. I was temporary secretary for half an hour when the International Milk Dealers' Association was formed and they adopted the plan of having one dealer from each town so that they wouldn't give away their trade secrets to their competitor. Today they have thrown their doors open to any man who is an honorable member of the profession and he is entitled to become a member of the Association. That same thing is true of all branches of business, I think. We have discovered that after we have told all we know to our competitor, and after he has told us all he knows, the ultimate place that any concern occupies in the industry is based primarily on the brains and ability within that particular institution and not on some unholy advantage which one concern has over the other.

Now we have come to the point where we are not satisfied to gather nationally, but the question is, "Shall we gather internationally?" The suggestion for an international gathering came to us from a South American country. Representatives of the different branches of the industry gathered together and decided that an international gathering of all the interests built on the cow and her products would be worth while, and Congress has authorized the President of the United States to issue an invitation to the world to gather in the United States in 1923 for an exchange of knowledge.

Europe gave us our four breeds of dairy cattle. She gave us the separator, and the homogenizer; she gave us the cow test association; she gave us a lot of our fundamental knowledge of the feeding of cattle, of the handling of dairy products. America accepted all these and has gone ahead and developed not only these things, but also the great manufacturing organizations and other business organizations, and the art of creating business. I think that is peculiarly an American institution. We have developed the great city milk distributing industry. Hoover said in no city of Europe do the common people get such milk as they do in America. In no cities of the world do people get ice cream as in America. And now science has shown us that in milk products we have something which every growing child needs and it is becoming a national problem to teach the



Regular Standard Style
With Double Bottom

TITAN
Ice Cream Packing Tubs

GUARANTEED
to withstand severe conditions to which tubs are subjected

Staves 1 3/16 in. thick, Tongued and Grooved.
Heavy 1⅛ in. Galvanized 18 Gauge Hoops,
2½ in. Hoop at the Bottom.

Inside Diameter Top	Inside Diameter Bottom	Inside Depth	PRICES
15 in.	13 in.	26 in.	F.O.B. St. Louis, Mo. " Topeka, Kan. " Memphis, Tenn. " Dallas, Tex.

Special Size Tubs Made To Order
Also Ice Cream Cabinet Tubs

PRICES ON APPLICATION

MEYER DAIRY EQUIPMENT CO.
3rd and Vine Sts. **St. Louis, U. S. A.**

growing child how to consume the amount of dairy products which it ought to have for its own welfare.

An examination of 52,000 school children in the city of Los Angeles showed that the children who drink milk are farther along in school for their age than the children who don't drink milk, so much so that the former children complete the eighth grade of the grammar school two and a fraction years younger than the non-milk drinking children.

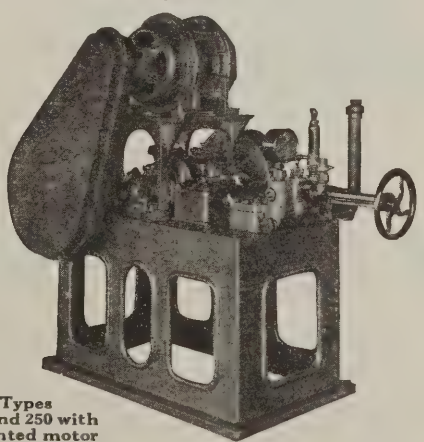
The week's campaign carried on in the neighboring state of Wisconsin showed an increased consumption of milk, butter, cheese and ice cream of from twenty-two to thirty-two per cent as a result of educating the people as to the relation of these products to the health of the community.

A merchant prince of China said, "If you will establish an agricultural department and teach our department dairying and agriculture, I will finance it." And a representative of that school was at the University of California a few months ago to find a dairy instructor to take over to teach the people of China how to produce dairy products, because the thoughful minds of China are recognizing the need of milk products in their diet. In Hongkong, China, they are manufacturing ice cream out of sweet butter and cream imported from New Zealand and into China, and are using American machinery. In Tokio, Japan, they are distributing milk that has been bottled and pasteurized with American machinery. London, England, is putting in the largest milk plant in the world, all American made machinery.

Now I speak of these things to show you the international position into which this country is getting, not only in politics, not only in finance, but in the dairy industry as well.

(Continued on next page)

The Gaulin Homogenizer
Is Preferred by Ice Cream Makers



Types 100 and 250 with mounted motor

ICE cream manufacturers who take the trouble to investigate, invariably prefer the Gaulin Homogenizer. It is constructed of as excellent materials and with the same painstaking care as is the finest automobile.

This is one reason why the product homogenized is unexcelled in quality and why the machine gives good service for many years.

Write for free booklet "The Story of the Homogenizer."

Manufactured by
MANTON-GAULIN MFG. CO., 11 Elkins St., Boston
Distributed by

The Creamery Package Mfg. Company
General Offices: 61-67 W. Kinzie St., Chicago

See Other Advertisement for Lists of Sales Branches

Now, then, the same is true of dairy products. When America has a surplus or New Zealand has a surplus, or the world has a surplus of dairy products, the price goes down. When the world has a shortage of dairy products the price goes up. When we created a new demand for condensed milk by the war, not only did the price of condensed milk go up, but all other dairy products went up, and when that increased demand suddenly stopped and the condensed milk was thrown back on our country and other countries, the price of condensed milk went down, but the price of all other dairy products went down, too. In other words, the ice cream industry is intimately related to butter, cheese and milk, and the industry of America is intimately related to the industry of all other countries of the world.

The ambassador from Argentina has said that he doesn't care whether the farmers of Argentina raise steers or cows, but he does care whether the children drink more milk and eat more butter and ice cream. Therefore, he is putting into Spanish some of our American literature on the relation of dairy products to human welfare and sending it down to his country in order that his people may learn to eat more dairy products.

I should like to impress upon you some of the possibilities of this Dairy Congress. Supposing we can bring to this country one or two big men from China, an Indian prince or two, people from France, Germany, Switzerland and Spain and all these different countries. It is no particular news for your paper when Bill Brown comes up here from Texas to see your ice cream plant, but when some of these famous people from Europe come over here to learn how to produce dairy products for their children, that is news for the Associated Press. If we can have a string of visitors coming here to study our plant and we can use them for the publicity whi we can get for the dairy industry, is it not possible th we can give the American press a little better appreci tion of the importance of the dairy industry to the w fare of our cities? One of the troubles th we are up against is the fact that these city edito don't have time nor take time to learn the relation our business to their business and sometimes they sta off on fool campaigns which some of us resent. Wh they need is education. Now they may not listen you when you live in their town, but when a man w come from way around the world to find what y are doing in your town, the editor may sit up and wa to know why he comes over here.

Now some of you may be afraid that they will lea much more from us than we will learn from them. am not a bit afraid of that, any more than you a afraid, when you come to this convention, that you w tell somebody more about your business than you lea from him about his business. The spirit of progress t day is give of what you have and get in return from t other fellow what he has that will help you; and that just as true locally and nationally as it is international

Now in order to make this Congress possible, it w suggested that we find a committee of a hundred m who would put in a thousand dollars each, and the U versity of California has given me leave of absence promote it. I have $64,000. The second man I met t morning handed me his acceptance and check for part. I didn't have time to go out and call on all you, so I picked out about ten of the most publ spirited men I could learn of in the industry and vited them to act on this committee, and the same in t butter business, and the Jersey and Holstein busine These men are invited to meet to-morrow evening a quarter to six at the St. Paul Athletic Club to form organization to take charge of the plans for this Worl Dairy Congress, and there will be proposed at that me ing a plan by which the President of your Associat shall become a member of the Board of Directors of t organization which will handle this Dairy Congress.

Therefore, I will close my remarks by inviting fi your Association, as such, to become a member of t World's Dairy Congress organization and make its c tribution to the support of the work, and then to inv each and every one of you (if you are not in the th sand dollar class maybe you are in the seven hund and fifty or the five hundred or the two hundred a fifty dollar class) to make your contribution to the s port of this enterprise and put your name in the lite ture which will go around the world in connection w it. Why? Not because you are going to export cream—no, but because if this Congress fulfills its p pose, if it helps the farmer to have healthier cows better cows, if it helps to get better raw material, i helps you in some of your problems, it helps the wh industry and each of you gets your share of that g eral prosperity that results from a worldwide move. Y will never be able to look in your ledger and put y finger on that fourth line and say, "That is the divid that came from the World's Dairy Congress." It w be like the Babcock test, and yet you couldn't do b ness without the Babcock test, and so on with all th other results of scientific research. They help us m than we are conscious of. The belief of the leaders the industry is that an International Dairy Congr held in this country in 1923 at the same time and pl as the National Dairy Show, bringing to us the best t each country has, getting in return what we have, wil

INFERIOR TO NONE

A HIGHLY CONCENTRATED VANILLA

Made of Mexican Beans and Fortified

Will Not Freeze or Cook Out.

THE IDEAL FLAVOR FOR CONFECTIONERY OR ICE CREAM

VAN-MUL

3 drams (10 cents) Flavors 100 lbs. Candy; ¼-oz. (5c) Flavors a 5½ Gal. mix of Ice Cream.

Can be made into an extract by adding warm water—1 pound making 2 gallons.

Price—Per Pound

1 pound Bottles	$5.00
5 pound Bottles	4.50
6-5 pound Bottles	4.25
Special Contract Price	Order Now

Guaranteed to please or money back

Downey-Turnquist & Co.

Soda Water Flavors True Extracts

537 No. Dearborn Street Chicago, Ill.

The name "STERLING"

for our equipment was wisely chosen by the pioneers of our organization, as today it is

"STERLING" in design and construction.
"STERLING" in efficient operation.
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"STERLING" users are legion—and they give voice to their extreme satisfaction of the equipment. Ask a "STERLING" user, then communicate with our nearest representative.

UNITED IRON WORKS, Inc.
KANSAS CITY, MISSOURI

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214 Washington Ave., St. Louis, Mo.
719 Wainwright Bldg., St. Louis, Mo.
203 Swope St., Greenfield, Ind.
3407 West 66th Pl., Chicago, Ill.
415 No. Howard St., Baltimore, Md.
513 United Bank Bldg., Sioux City, Iowa
810 Spitzer Bldg., Toledo, Ohio
402 Andrews Bldg., Dallas, Tex.
612 Mayo Bldg., Tulsa, Okla.
1994 Grand River Ave., Detroit, Mich.
113 Fifth Ave., North, Nashville, Tenn.





A Valuable Impression

A pleasing impression upon customers is of value. You can create one and at the same time save your goods from damage by spreading sheets of **TANGLEFOOT** in your show windows, especially over Sunday.

TANGLEFOOT will then be at work for you and will not only catch the flies, but attract the attention of people who pass your store to your efforts to keep your stock clean and fresh, and create in them a desire to use **TANGLEFOOT** themselves. This means extra sales to you. For 1922 **TANGLEFOOT** has been reduced 60 cents per case. This will allow you to sell at the old price, two double sheets for 5 cents, and make a profit of 50 per cent.

Remember **TANGLEFOOT** *catches the germ as well as the fly, and that poisons, traps or powders cannot do it.*

"SLIGHT NOT WHAT'S NEAR THROUGH AIMING AT THE FAR."—EURIPIDES.

Speed Up
Your Brick Cutting Dept. with a "New Era"

Cuts standard ice cream slabs from molds into quarts, pints or any size desired, as fast as the operator can release the ice cream from the molds.

Can be adjusted to cut slices for Chocolate Coated Ice Cream Bars.

Absolutely Uniform

and unfailingly accurate is the "New Era" Ice Cream Brick Cutter. It's simplicity, speed and accuracy.

Reduces Costs

Our circulars tell all about this simple, practical machine. Get one.

Write us or our nearest representatives for circular and prices.

Cherry-Bassett-Winner Co., Baltimore, Md. Philadelphia, Pa. Pittsburg, Pa.
Wright-Ziegler Co., Boston, Mass.
J. W. Ladd Company, Cleveland, Ohio. Detroit, Mich.
Meyer Dairy Equipment Co., St. Louis, Mo.
A. H. Barber Co., Chicago, Ill., Minneapolis, Minn.
Davis-Watkins Dairymen's Mfg. Co., Denver, Col. San Francisco, Ca.
G. Lessenhop & Sons, Lincoln, Nebr.
J. G. Cherry Company, Cedar Rapids, Iowa.

The New Era Company
146 Merritt St. Oshkosh, Wis.



of benefit to every man who has a dollar invested in an branch of the dairy business. I thank you.

President Martin: I think we all appreciate th message Mr. Van Norman has brought us.

The next on our program is an address, by Dr. E. Williams, Washington, D. C., Dairy Manufacturin Specialist, U. S. Department of Agriculture.

"Progress in Studying Causes of Sandy Ice Cream, By Dr. O. E. Williams.

The subject assigned to me, "Progress in Studyin Causes of Sandy Ice Cream," was assigned by Mr. Lo wenstein about the middle of July or August. I r gretted at the time he didn't ask us to talk on some the work we have done lately in the laboratories, stud ing the effects of the proportion of the ingredients Ice Cream, something you manufacturers would be f more interested in than you are in sandy Ice Cream, b cause I believe most of you at the present time ha your minds fairly well made up as to what really co stitutes sandy ice cream and how to avoid it.

Most of this work that I have written up was do about two years ago and we followed that up by so very technical work which is still under progress an which we hope to have available later.

I will read to you a brief of the results that we ha obtained in a practical way in the laboratory on t causes for sandy ice cream.

Sandy ice cream has given the ice cream manufa turers and dealers a great deal of trouble in recent year and the growth of the industry may have been retarde considerably by this difficulty. For the benefit of tho who may not be familiar with sandy ice cream, I wi first explain the nature of it in a general way.

Ice cream is called sandy when it has something in that resembles, to the sense of touch, very fine sa (hence the name), and which does not dissolve readi in the mouth. The kind and degree of sandiness varie At times the sandy particles are coarse, and not ve numerous; at other times they are exceedingly fine a numerous. The latter type is the kind of sandiness th is ordinarily met with, but both the large and small pa ticles cause the ice cream to be objectionable. When t particles exist in small numbers, they may not be ve troublesome; on the other hand, when they exist large quantities, the ice cream becomes decidedly u marketable. Some manufacturers claim to have had hu dreds of gallons of ice cream turn sandy before it has le the factory, but sandiness is usually found to occur much smaller quantities of ice cream after it is delivere to the dealers.

The irregularity in the size of the particles and in t occurrence of the trouble has been mystifying not onl to the manufacturers but to many other men as well. T quote the words of two large progressive manufacturer who have been in the business for a long time, one r cently said: "For a while we thought sandiness w probably due to the fact that the cream was held in t hardening room for a longer period, but upon closer i vestigation we discovered that that was not the cau as samples that were held only a few days would tu sandy during the winter months, or between October and April 1. I am just as far from having a definit solution as I ever was. It seems to come and go like ghost in the night."

The other one said, "We got the professors from t colleges and took them into our own laboratories, an they took samples of our goods, and took them into the laboratories. We had eight weeks of that sandy cond

tion, and it went just as it came, and we were no wiser after it left than we were before. We changed no conditions whatever."

Since the sandiness occurred without any apparent change in the kind and quality of the ingredients used, or change in the conditions of manufacturing, it has naturally been a puzzling matter. The origin of sandy ice cream, therefore, has been almost as bewildering to the manufacturer of ice cream as the causes of fishy flavors in butter have been to the creameryman.

The first time our attention was called to this difficulty was about eight years ago. That was a very bad case and as we did not hear of any similiar experience no investigations of an extended nature were made. Then about five years later, we heard of several other cases of sandiness; consequently a preliminary investigation was started. This also consisted of superficial experiments. We soon found it necessary, however, to make a fundamental study of both the character and the causes of the so-called sand, and as we shall see, the results of this investigation have so far been positive as to identity and partially positive in regard to the causes.

Identification.

Now the first question is, what is this sandy material? The answer is, milk sugar, or as it is technically called, lactose. This fact has been definitely proven and explained by Mr. H. F. Zoller and myself in a recent article entitled, "Sandy Crystals in Ice Cream, Their Separation and Identification," which appeared originally in the last number (August 15) of the Journal of Agricultural Research. A separate of this article from the Journal has been sent to all of the members of the National Association of Ice Cream Manufacturers, so I presume most of you are already informed about the identity of this sandy material.

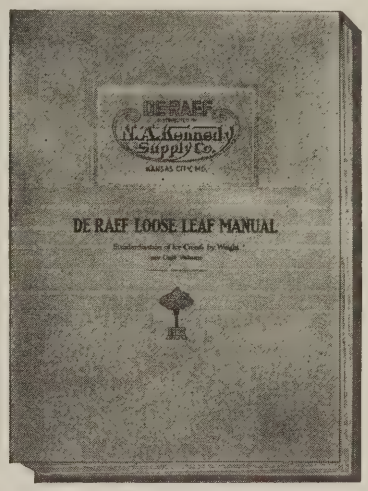
In case you have not received a separate of this article, you will find a copy of it printed in the September number of the Ice Cream Trade Journal, and the October number of the Creamery and Milk Plant Monthly, and perhaps also in some of the other trade journals.

Causes of Sandy Ice Cream.

The next question is, what causes the lactose crystals to appear in ice cream? This question is not easy to answer definitely because there are many conditions on which it may depend. For instance, the amount of lactose in the mix; the amount of water present; the form in which the lactose exists, the presence of other solids; the temperature and its changes; and the time of holding, are all important conditions. There are also various theoretical factors that it may be necessary to take into consideration in determining the real cause of sandiness in ice cream.

So far, no one has secured sufficient data to show conclusively the significance of certain factors such as the rate of freezing and the protein content on the crystallization of lactose in ice cream, or to tell what the physical constants of ice cream mixes of varying compositions are. In fact, the only work that can be taken into consideration, relative to the determination of physical constants, and bearing on the manufacture of ice cream, is that of Mr. S. C. Hudson. His results are published in the Journal of American Chemical Society, volume 26, 1904, and volume 30, 1908. This work includes the determination of the freezing points, and the rate of crystallization, etc., of pure lactose solutions. Work is now being done on the freezing points of different ice cream mixes in two of our laboratories, and

DE-RAEF LOOSE LEAF MANUAL
FOR THE PRACTICAL
ICE CREAM MANUFACTURER
The only manual of its kind published to date devoted exclusively for the Ice Cream Factory



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Written in Plain, Intelligent Language for the Practical Ice Cream Factory Manager and Ice Cream Maker from Several Years of Practical Experience Visiting Plants Throughout the States in the Middle West.

De Raef Loose Leaf Manual, circular sent on application to the Ice Cream Department.

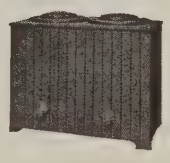
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Schroeder Perfection Cabinets

—Successful users throughout the country are now enjoying real cabinet satisfaction



It is not too late to join these satisfied users.

"Insulation is the thing"

JOHN SCHROEDER LUMBER CO.
"A Dozen Cabinets or a Dozen Carloads"
WALNUT ST. MILWAUKEE, WIS.

the results will soon be available. The fundamental causes of sandy ice cream can not be discussed, therefore, until we know more about these underlying principles.

From studying the conditions in a general way, however, we have found three major conditions to which sandy ice cream may frequently be attributed; namely, first, sandy condensed and evaporated milk; second, excessive lactose in the mixes; and third, fluctuation of temperatures in the hardening rooms and cabinets.

In explaining these three general causes, it will be best to use the following outline of the general conditions studied:

1. The character of the milk products used in the manufacture of ice cream.

2. The composition of ice cream mixes and the methods of compounding.

3. The treatment of the mixes prior to freezing.

4. The degree and rate of freezing and hardening in the ice cream.

5. The temperature at which the ice cream is held while being marketed.

6. The length of time the ice cream is held.

General Condition No. 1.

In the use of materials containing lactose crystals we find the easiest and simplest way to produce sandy ice cream. It is well known that condensed and evaporated milk are commonly used and that both of these products are often sandy. The sand or crystallized lactose found in condensed milk is about one-tenth as soluble as cane sugar, hence when milk of this character is used there is danger of the crystals of lactose not being completely dissolved, and if they are not completely dissolved a sandy ice cream is formed.

General Condition No. 2.

In the composition of the mix there is another very common source of sandiness—the excessive use of milk solids not fat. Most of us know that in a large number of factories there is very little attention given to standardizing, and that the methods of calculating and assembling the ingredients are often crude. This, of course, is one reason why a great deal of variation occurs in the texture and composition of ice cream. It is also a reason for ice cream becoming sandy. According to the results we obtained last winter, we found that ice cream subject to exposure, as most ice cream is during the process of marketing, should not exceed 5.85 per cent of lactose calculated on the entire mix. This is equivalent to about 11 per cent milk solids not fat. Naturally, therefore, in all cases where milk solids not fat are carelessly substituted for a considerable part of the fat there is likelihood of getting too much lactose in the mix, which under certain conditions may result in a sandy ice cream. The conditions favorable to this result are explained later. In many cases an unusual amount of lactose is secured by taking the sand from the bottom of a can or barrel of sandy condensed or evaporated milk; the result of this is bound to be a sandy ice cream. Under the best conditions it is possible to use 12 per cent of milk solids not fat, but greater quantities are sure to bring trouble. If there is any doubt about sandy ice cream being produced in this way, just try to keep ice cream containing say 13 per cent of milk solids not fat for a week or ten days in any ordinary ice cream cabinet, and see what happens.

General Condition No. 3.

Under the third heading, treatment of the mix prior to freezing, there is a condition that is very important, namely, pasteurization. As stated before, in utilizing sandy condensed and evaporated milk the ice cream will be sandy if the crystallized lactose is not all dissolved. This danger we find can be overcome if the ice cream mix is pasteurized to 145 degrees F., held and kept slowly agitated for 25 minutes.

General Condition No. 4.

The fourth condition, that is, the degree and rate of freezing and hardening the ice cream is something we know very little about. We have not had facilities in the Dairy Division to properly study the effect of rapid freezing and hardening on a large scale, but we have made a few experiments on a small scale and find that the rapid freezing of mixes having a high lactose content hastens the formation of lactose crystals.

General Condition No. 5.

The temperature at which the ice cream is held after it is once hardened is undoubtedly one cause of much of our sandy ice cream. In our preliminary experiments we soon found that heat shocking, or the raising and lowering of the temperature, was conducive to the crystallization of the lactose in ice cream. This is the condition that commonly occurs in ice cream cabinets and

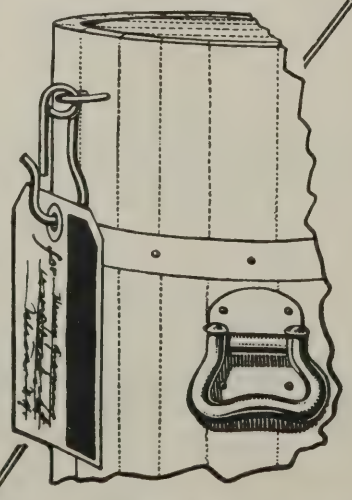
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Per Pint

1 pint	$7.00
5 pints	6.75
10 pints	6.50
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in some hardening rooms where the refrigeration is very irregular.

The following experiment will illustrate the effect of temperature variations:

Effect of Variation in Storage Temperature, Upon Three Ice Creams with Varying Lactose Content.

Composition of Ice Cream.

Mix No.	Fat per ct.	Milk solids Sucrose per ct.	Milk solids not fats per ct.	Gelatine per ct.	Total solids per ct.	Water per ct.
1	14	14	6	½	34½	65½
2	8	14	12	½	34½	65½
3	4	14	16	½	34½	65½

Degree of Sandiness Observed Under Different Temperature Variations.

Mix No.	Per cent of lactose in mix	Method of storing for four days: Hardening room 0°—5°F.	Cabinet (normal) 6°—10°F.	Cabinet (abnormal) 6°—17°F.
1	3.33	None	None	Slight
2	6.65	None	Trace	Bad
3	8.85	Trace	Considerable	Very bad

The milk solids not fat in the above experiment were obtained from a good quality of evaporated milk. The ice cream was held in the same cabinet in duplicate quantities, one set of cans being taken out each day and the ice cream being allowed to warm up to 17 degrees F., prior to repacking with ice and salt. This experiment was made several times, with the same results each time. Whenever the temperature fluctuated the lactose crystals formed, and increased in quantity and size with the percentage of lactose in the mix. This experiment also substantiates what was said about the composition of the ice cream mix.

General Condition No. 6.

Holding ice cream a long time, especially when subject to wide changes in temperature, has proven to be favorable to the formation of sandy ice cream. The time required to produce sand will vary with the concentration of the lactose in the mix and with the amount of changing in the temperature, or of heat shocking. This is illustrated by the large number of instances where the dealers who handle the least ice cream are usually the first to complain of having it sandy.

Dr. Williams gave the following explanation of the charts mentioned in his paper.

The top one is the composition of the ice cream mixes that were used in these experiments. This experiment was repeated several times for the benefit of demonstrators or the people that happened to be visiting in Washington, and while the terms are only relative, I am absolutely certain you can duplicate the results very easily, and I might say that very good condensed milk was used in this case. You will notice the variation in the three mixes expressed in milk solids not fat. They vary from approximately 6%. These two mixes, No. 2 and 3, have additional milk solids not fat added to them, to substitute for the fat that has been taken out of the mix.

Now in those cases you will find carried down here the percentage of lactose shown approximately. These ice creams were only exposed for four days. Ordinarily we get it in a week or ten days if you give it favorable conditions for development.

Some people say that you cannot get a sand developed from ice cream that has not added to it additional milk solids not fat.

Here are three samples exposed—one kept in the hardening room in practically ideal conditions, you might say, the others in normal cabinet conditions and abnormal cabinet conditions. One set of cans was taken out each day and allowed to warm up to 17 degrees F. We got in our normal ice cream a slight indication of sandiness. I had that occurring last summer. I made up samples to demonstrate to some new chemists that came into our department the effects of different percentages of ice cream on the desirability. We had a sample of this ice cream in the cabinet that was about three days old; the mix had been held for about five days and we had a distinct sandiness occurring in that normal ice cream.

Now in No. 2, you will find about the normal amount of milk solids not fat that is commonly used. We find that in the cabinet developing just a trace. These mixes were made, as I recall now, with a temperature of about zero. That is a little too cold for ideal conditions of freezing. We got traces in that case. Probably if the temperature had been higher, we might not have gotten that, but at any rate in these two samples it showed up very nicely, a trace in the one that hadn't been taken out and exposed to heat shocking and bad in the one that was exposed.

Now the other one was an extreme case. This was made up primarily for an experiment in connection with utilization of saccharin to show whether or not saccharin could be the entire sucrose, or cane sugar in the milk could be used by the use of saccharin. We tried to make a product testing 18% milk solids not fat so as to give it body. We found that if you make it one day the next day it would be beautiful but the fourth day it would be so sandy that there would be no doubt about it being unmarketable, so I reduced it to 16%, and in keeping i

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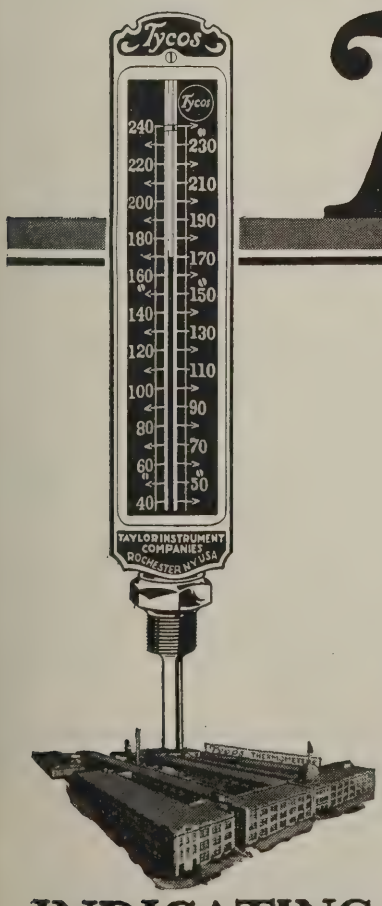
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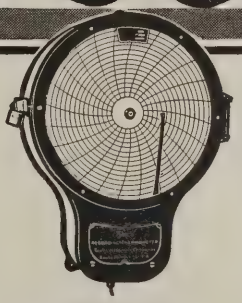
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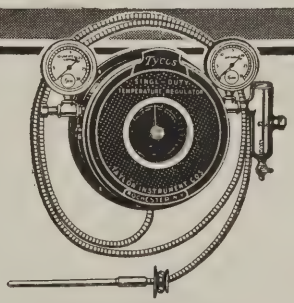
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only four days we found that there was trace here even in the hardening room. Some people say you can't get it there. I believe with ideal temperatures, even if you are using high percentages, that you could get by with it if necessary and if it was disposed of rapidly. We got very considerable under the ordinary cabinet condition. With this other sample, Mr. Young and his directors in their ice cream factory were having considerable difficulty and there was no doubt in their mind as to its being very bad, so I marked it that way, but you see the fact there of not only the variation of temperature but in the variation in the percentage of lactose which rather verifies what I said before on the second topic in regard to the mix, that you have to keep within a certain range of milk solids not fat to avoid that difficulty.

I want to call your attention to anther photograph here. If you have not already seen it illustrated in the separate journals that were sent to you, you can see it here. The crystals are sort of a tomahawk shape and they are very irritating to the membranes of the mouth. Some contend that the sand might originate from the sucrose present, but that is not true. These lactose crystals were multiplied 315 times. They were not taken from ice cream but from whey, where the crystals are more ideal in their conformation. You can examine this after the meeting.

I will be very glad to answer any questions as far as I am able.

* * *

President Martin: Dr. Williams nas brought a wonderful subject here; we are all interested vitally and I would like to see it very thoroughly discussed.

Mr. Allen D. Cunningham: I would like to ask Dr. Williams if he has made any experiments in concentrating the milk; if he has found that after he has gone over a certain amount of concentration the crystals show up in his ice cream.

Dr. Williams: You mean in concentrating the ice cream mix?

Mr. Allen D. Cunningham: We find that we have trouble usually when we run too high on concentration of milk. We have a little crystallization when we hold it too long in our hardening room, it is more of the crystallization of the water, a separation of the different products in it, but the sharp crystals come out more when we use too high concentration. We have it in two and seven-tenths.

Dr. Williams: Several manufacturers called my attention to the fact that they have been unable to use the five to one concentration of plain condensed skim, primarily due to the crystallization of the lactose in holding that for ice cream purposes, and, of course, the heavier the concentration is, the greater the crystals are bound to be because there is less water there to dissolve those crystals. As a matter of fact, I suppose the lactose exists in condensed milk in the crystalline form only we are not able to detect it. The small crystals will become large if they are given proper conditions under which to grow. In regard to concentration two to one, I have never had that difficulty. We usually make ours around three to one. I find that is very satisfactory. Of course, the way you handle your condensed in the pan may have something to do with it. Those are some phases of it which I have not been able to study very thoroughly but I don't think you ought to be troubled with two to one concentration in condensed milk in ice cream.

Mr. Allan D. Cunningham: Two and seven-tenths.

Dr. Williams: That is practically three to one; that

is what we use most of the time and we haven't had any trouble. I haven't had an opportunity to study the factory conditions, only had reports here and there and the observations I have made in Washington factories which are, as a rule, typical of most plants. They were troubled with condensed milk which was condensed five to one and four to one, so they had to reduce that to three to one.

Mr. Peale: In your remarks you referred to evaporated milk and condensed milk. Is this condition not possible with powdered milk.

Dr. Williams: Yes, I have used several grades of powdered milk making it up into condensed milk beforehand and I think I can duplicate those results with powdered milk the same as with condensed milk.

Member: I would like to ask Dr. Williams if they have studied the effect of the action of protective colloids such as gelatine, etc. Do they stop the precipitation at all?

Dr. Williams: We are not exactly prepared to answer that now. We are doing some work along these lines, have done considerable already, but the results have been conflicting. Milk solids not fat are natural colloids, and protein solids are a colloidal substance and act as a protective colloid, but the influence of these we are not able to determine so far. We can recognize the fact that colloids have a protective action but how much we don't know definitely.

Mr. John T. Cunningham: Dr. Williams, would you assume that the condition of the milk (I am assuming that the milk solids have all to do with what we are talking about now) before it is concentrated, that is as to its acidity, had a lot to do with this precipitation of lactose?

Dr. Williams: That has a bearing on the question just asked. You realize that milk varies in composition at different periods of the year. The casein may vary as much as one per cent. Realizing that, I wrote several of the men whom I thought had had trouble with sandy ice cream and some reported that they had more of it occurring in the winter months than they had in the summer months; but on the other hand, there is this condition arising there that interferes with drawing a conclusion, that is, that your ice cream doesn't turn over as rapidly in the winter months, and we do not know whether it is a condition of the milk or a condition of the handling.

Mr. John T. Cunningham: I appreciate the difference between October and April and so do all the ice cream manufacturers, but could you tell us anything about the condition of the raw milk before it is concentrated? Would its acidity have a great deal to do with the precipitation of this lactose that we are speaking about now? Do you know anything about that?

Dr. Williams: My personal opinion is that it would have, but I could not cite any specific data on that. It only seems possible that if the milk varies, when you concentrate you intensify that variation, which would be noticeable when it appears in the ice cream.

Mr. Luick: We found at our creamery, when the milk in the spring of the year showed excessive acidity, it immediately began to precipitate the sugared milk or lactose and on making tests and eliminating that high acidity we immediately lost this precipitation of crystals.

I would say to anybody having trouble with sandy ice cream to just reduce milk solids to not more than say twelve per cent, and don't concentrate your condensed milk, whether you are making it by pan or with the concentrator, to much more than two and three quarts

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The bottom of every ice cream tub displays a splendid fight to retain its position, but — once a single stave has conspired against it — once a single stave begins to mutiny and pull away from the heart of the tub — the bottom — then everything goes and goes like the "Wonderful One Hoss Shah."

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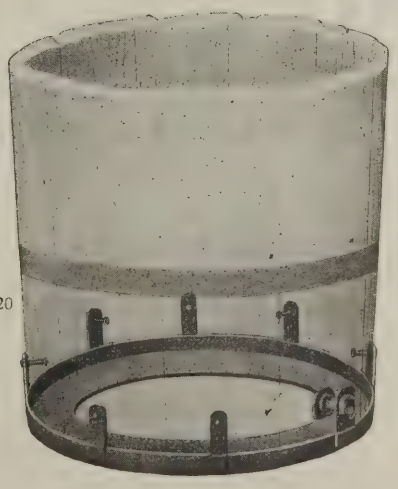
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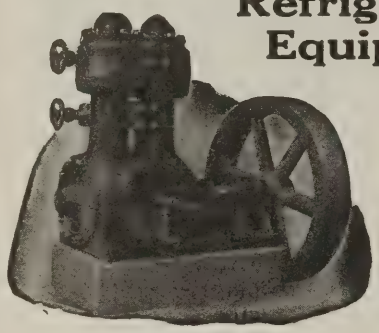
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to one. Stay close under three to one and I don't think you will have a particle of trouble.

We had considerable trouble with sandy ice cream a year ago and after giving the matter considerable study and thought, not from the scientific standpoint but from the practical standpoint, we found if we held our concentrated milk down to three to one or under and were careful on the platform not to accept any milk that was a little high in acidity, we had no trouble.

Mr. Allan Cunningham: I would like to ask Dr. Williams if twenty-seven per cent total solids or over twenty-five per cent in your concentrated milk would be too much? That is about three to one concentration. We found that we had trouble after we went over twenty-five per cent total solids.

Dr. Williams: As I tried to bring out in that chart, you may get sandy ice cream from just normal ice cream; it may be due to the method of handling the ice cream. You cannot keep ice cream under varying conditions because you have constant changes going on that do not re-establish themselves. They go so far and bring another heat shock and you continually add to that trouble; if you keep it for a couple of weeks you get into serious difficulty with ice cream that only contains a normal amount of lactose and I wouldn't say that the difficulty could be attributed entirely to the condensed milk. I think if you use condensed milk that has been properly made and contains twenty-seven per cent total solids, you ought not to have any difficulty at all.

Mr. John T. Cunningham: Would the active superheating of condensed milk have any bearing on that question?

Dr. Williams: I haven't studied that but I visited several factories that use nothing but superheated condensed milk and heavy solids, and they have yet to find any sandy ice cream. However, they have ideal conditions for keeping it, so I suppose it hasn't had an opportunity to develop.

Mr. John T. Cunningham: We did have a lot of trouble with sandy ice cream a while ago. I think, gentlemen, of all the distressing things nothing is worse than getting out a lot of sandy ice cream and scattering it over your trade. I believe it is a worse condition than getting out a batch of sour ice cream, and either one is bad enough. This was several years ago as I remember it, and we took it up with the people at the creamery where the condensed milk was made. I am still assuming, Dr. Williams, that the fundamental trouble is with the condensed milk. We had a heart-to-heart talk with the creamery people and laid down our theory. They took the advice that we gave them and we haven't had a trace of trouble since that time and I think that was two or three years ago.

I advised the creamery people not to go over 260 pounds of milk in the spring of the year. It seems to us that with summer milk you can run to 300 pounds condensation if you wish. Of course, you get more milk solids. That is our experience.

Dr. Williams: I have had trouble many times by taking the milk some days from the condensed milk can and at night setting it in the refrigerator in a little water and letting the water run all night without agitating it, and then make ice cream out of that without pasteurizing it; I would have some sandy ice cream.

Mr. Lide: If you store condensed milk, sugared milk, and make it as high as the government standard, forty and thirty, you will certainly get it.

Dr. Williams: In my second classification in the studies that we made I mentioned pasteurization. I

hink everybody ought to recognize the essentials of pas-eurization, not only from the bacteriological standpoint ut from the amelioration of the mix, getting into uni-orm condition, and if you pasteurize sandy condensed nilk properly and have the proper concentration in your nix of lactose, you ought not to have any difficulty.

Mr. McDonald: Dr. Williams, after you already have his crystallized lactose, can it be put back into solution?

Dr. Williams: You pasteurize it. I would say it is not the best plan to work that stuff up as you would have to take it out of the cabinet and you might have a little metallic flavor after that. If you pasteurize it properly you wouldn't have any difficulty dissolving your crystals. To invert lactose you have to heat it in the neighborhood of 140 for about thirty minutes. It would be safe to heat it to 145.

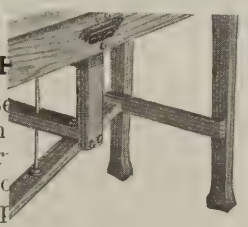
Mr. Wright: We have made condensed milk ice cream mix and also ice cream. The first sandy experience we ever had was when we were making superheated condensed milk and we found that was caused by holding the condensed milk at too low a temperature. We experimented with that quite a lot. You hold it to almost freezing temperature and you will get sand every time. Another experience we found, as Mr. Cunningham says, condensed milk made from milk of too high acidity will make sandy ice cream, if it is only condensed two to one or even less. We have had that in ice cream mix condensed two to one which is caused by too much acidity in the milk.

Another thing that will make sandy ice cream is cooling your condensed milk too fast. All people who manufacture sweetened condensed milk know you can't cool it very rapidly. If you do, you will have sandy sweetened condensed.

* * *

The address of Mr. F. D. Chase, of Chicago, on "The Layout and Design of a Modern Ice Cream Plant," which followed was also published in a previous issue.

Mr. C. F. Eurich, Auditor, J. M. Horton Ice Cream Company, addressed the convention on the subject, "Proper Depreciation." This address was published in the November issue.



NEW HYDROX PLANT AT H

The Hydrox Company, whose o, Illinois, have purchased an Hammond, Indiana, for the pur usiness in this particular sectio

A complete new ice cream p over the entire property. The s long one side of the property ooms will be located, and coal a

A 30-ton ice tank will form which will adjoin a large ice stor fficient to take care of the com rge ice cream gallonage.

The building will face on Hohman Street, one of the rincipal thoroughfares of Hammond, and exceptionally ne face brick pattetrn work will form the front of the uilding.

The plans for the bulding have just been completed y the McCormick Company, Inc., of Pittsburgh and ew York, and competitive estimates are being secured om local contractors at Hammond. It is expected that uilding operations will commence immediately.

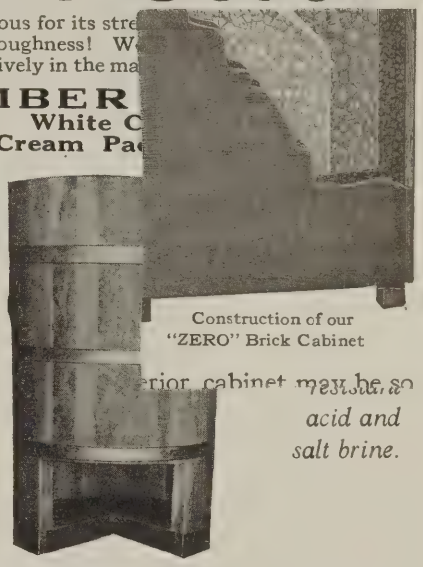
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HOW MUCH DOES A NAME HAVE TO DO WITH A BUSINESS?

We have always maintained that a man's name, in some mysterious way, represented some quality—or otherwise—of the product which he manufactured or sold. We looked over the situation recently and found that the ice cream manufacturers certainly do not live up to their names anyway.

For instance, we stopped at a town in the middle west to try some of Bob Baker's ice cream and found that it was not baked at all but frozen, and frozen hard.

Next we were victims of Holliday Ice Cream. We couldn't afford to stay in town until Sunday so we ate it on an ordinary week day and were genuinely surprised to find that we remained in perfectly good health.

Traveling south we found what we then considered a really outrageous sign—"Sloppy Ice Cream For Sale Here"—on the show window of a candy shop. Thinking that we had truly found something here that was a disgrace to the ice cream industry, we entered, and savagely ordered a lemon sundae, being careful to disgustedly specify Sloppy ice cream. The waitress brought us a nut sundae, but we let it pass because we were interested in the ice cream not the trimmings. In our rage we grabbed a spoon and jabbed it at the ice cream—but not into it. The scoop of ice cream slid up one side of the dish and pushed part of the trimmings into our lap. But we were not convinced. This tim we went at it steadily and firmly; we shoved on th spoon until the handle began to bend; then, snap! and that ball of ice broke—also the sherbet glass that held it. We took a napkin and mopped up the rest of the trimmings off of our trousers. Stung again, we realized that the pretty young lady, who was now laughing behind the counter, gave us the right thing when she handed us a nut sundae, however, that realization didn't help our temper any s we viciously slapped four bits down and got out.



We were through investigating ice cream manufac turers names. In two hours we were riding toward a Atlantic seaport, intending to take an extended trip t Europe for our temper. Passing a small town station o the way, we noticed an ice cream tub on the depot plat form bearing the inscription "Manufactured by Pi and Eden." Pig and Eden, ye gods, what a combina tion! Yet faithful to our abandoned purpose, w jumped off the train. We located the dealer and or dered a sundae. We couldn't find a bit of garbage o tooth brush material in it. After the first one, we ha three more sundaes and finally arrived at the conclu sion that Eden was the name of the ice cream and Pi the name of the eater. Buncoed again, we went on ou way—home this time though, for our temper was cured

We had to change cars before we had gone very fa Our new train was due in two hours, so we sauntere downtown, and—Ghosts of Sherlock Holmes—look a that sign!

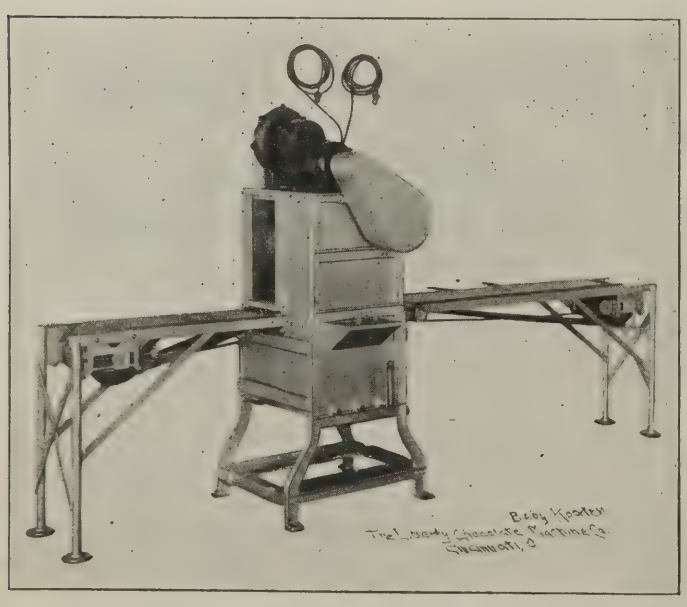
BUGGY ICE CREAM MFG. CO.
Wholesale Retail

We stepped right in and ordered a plain strawberry Cockroaches being the predominant bug in our hom town, we naturally expected to find them, and pro ceeded cautiously looking for same. The ice crea dwindled away, but there wer no cockroaches or else w missed them. There MUST b something to this, we thought It struck us that the most ple tiful bugs in this place migh be fleas. Fleas being smalle than cockroaches, we too vanilla this time so as not t overlook them. When we wer about half through with tha dish, we thought about th kind of bug you refer to whe you speak about a buggy top after that our search was most diligent and our progres most cautious. Done, and yet no bugs; we were de feated, chagrined, and had to come to the inevitabl conclusion that we were buggy, not the ice cream. Wit that thought in our mind, we sneaked out of the plac and rode the blind baggage home.

over your trade. I belie etting out a batch of sou ad enough. This was sev , and we took it up wit here the condensed milk ng, Dr. Williams, that th he condensed milk. We l he creamery people and ook the advice that we g trace of trouble since th wo or three years ago.

I advised the creamer ounds of milk in the spri

The Baby Liberty Koater



will coat your Eskimo Pies automatically with a larger production at a lower cost. Will use a better coating with less butter fats at less expense. Not a hook or dipping device. — *Write for our new catalogue.*

The Liberty Chocolate Machine Co.
Cincinnati, Ohio.

PUMPS

We firmly believe that we are in a position to give you superior service and reduced cost.

Blackmer Rotary Pump Company 314 SHERIDAN S PETOSKEY, MIC

No Loss-

The Grand Rapids
ICE CREAM CABINET OF QUALITY

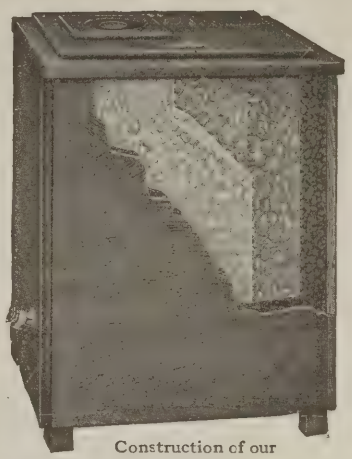


Style No. 5



Style No. 4

Through Shrinkage with a Grand Rapids Ice Cream Cabinet



Construction of our "ZERO" Brick Cabinet

THE high degree of perfection in insulation which is attained in a Grand Rapids Ice Cream Cabinet is responsible for the maintenance of a consistently low temperature. Loss in volume of your product is therefore eliminated.

The daily shrinkage in volume caused by an inferior cabinet may be so small as to almost escape notice. But multiplied by the number of cabinets in service and then estimated for a year, the figure representing the financial loss is surprising.

Of course you are interested in stopping the small leaks that cut into your profits. We are ready to show you conclusively that our cabinets eliminate shrinkage.

GRAND RAPIDS CABINET COMPANY

Successors to CHOCOLATE COOLER COMPANY

55-59 Alabama Avenue N. W. GRAND RAPIDS, MICH.

New England Sales Office and Warehouse, - Merrow Bros. Inc., 44 N. Market St., Boston, Mass.
South Eastern Sales Office and Warehouse, - Cherry Bassett Co., 33 So. Charles St., Baltimore, Md.
1918 Market St., Philadelphia, Pa.
Central Sales Office and Warehouse, - - Cherry Bassett Winner Co, 1139 Penn. Ave., Pittsburg, Pa.
North Western Sales Office and Warehouse, A. C. Black, 515 Lumber Exchange, Minneapolis, Minn.



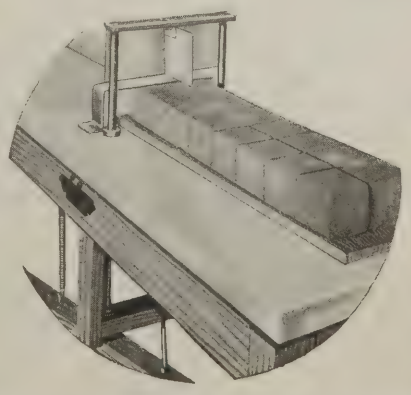
Jiffy Ice Cream Cutter

Will cut any shape that can now be cut with the most expensive ice cream cutter. It will do it just as fast and with only a little practice.

It cuts Eskimo Pies uniformly and the quantity is only gauged by the speed of the operator.

Pints or Quarts require only the omission or insertion of the projecting knife shown in illustration to the right.

Non-rustable table of substantial construction.



Two Weeks Free Trial Offer

To any responsible ice cream manufacturer we will ship one of these cutters on two weeks free trial. Put it to any test. Make any comparison you desire. If not satisfactory all you have to do is to write for shipping instructions and we will pay freight both ways.

Illustrated circular sent on request.

DAMROW BROTHERS CO.

MANUFACTURERS

Fond du Lac Wisconsin

WASHINGTON—MAINE

News From Far and Near

CALIFORNIA—FLORIDA

Tempe, Ariz.—Because af constantly increasing business the Lily Ice Cream Company has opened offices in Phoenix to serve as a subsidiary to the plant and headquarters at Tempe. And for the same reason new equipment is being constantly added at the Tempe plant as daily orders are now continually taxing the capacity.

Fred J. Paddock, manager of the Lily Ice Cream Company, ascribes the popularity of the products being marketed by the establishment to the sanitary and modern methods in which they are prepared and the purity of the ingredients used.

Los Angeles, Cal.—The Globe Ice Cream Company opened their plant to the public recently.

The factory, which is said to be one of the most modern of its kind on the Western coast, will have a capacity of 200 tons of ice daily, in addition to the continued manufacture of ice cream. Nineteen miles of piping for refrigeration purposes went into the construction of the new plant, in addition to sheet cork estimated as worth in the neighborhood of $26,000. Fifty-three electric motors graduating from 300 h. p. down to 2 h. p. have also been installed.

Los Banos, Cal.—The Los Banos Soda Works, Inc., is contemplating the installation of an ice cream plant. The firm was recently re-organized and the officers elected are: J. J. Lennon, president; Joe Ramello, vice-president; Nello Iacopi, secretary-treasurer, and A. Iacopi, manager.

King City, Cal.—F. M. Williams recently opened a new ice cream plant here.

West Palm Beach, Fla.—The Gibson Baking and Ice Cream Company recently began the erection of a new concrete and tile plant for the manufacture of ice cream and Eskimo pies. The firm is capitalized at $35,000. They are equipping their plant with the most modern machinery.

Nampa, Ida.—The Jensma Creamery Company recently shipped a carload of butter to the coast. The business of this creamery has nearly doubled during the last year. The company not only does a big business in the manufacture of butter and cheese, but is the largest manufacturer and shipper of ice cream in the state.

Astoria, Ill.—The Bushnen Poultry and Egg Company have completed a new ice cream making plant, which will hold about 7,000 gallons in storage, and which will increase their output over last year nearly 300 per cent.

Kewanee, Ill.—The first ice cream of the new company organized by Frank Burke and S. A. Charles, of DeKalb and Rochelle and E. W. Smith, of this city, under the name of the Illinois Ice Cream Company, is now on the market. The product is pleasing the patrons and bids fair to win favor with the public. This firm lately bought the business of the Van Ryan Ice Cream Company.

Mascoutah, Ill.—The Eureka Beverage and Ice Cream Corporation was recently organized here with capital stock of $2,500. The firm will manufacture cereal foods, beverages, and ice cream. The incorporators are Thomas Cooper, Charles Moffit, and Albert Van Rea.

Hammond, Ind.—The Consumers' Ice Cream Company is constructing a 90 by 140 foot building, one-story and basement, for the manufacture of ice cream. The cost of construction and equipment of the plant is estimated at $60,000. James Dixson is general manager of the firm.

Syracuse, Ind.—The Syracuse Ice Cream Factory began operations for the season recently. Wm. Snavely, proprietor, is anticipating a good business this year. John Meek has been employed to help run the factory this summer. Syracuse ice cream is in great demand in the surrounding towns.

Altoona, Ia.—The Caum Ice Cream Company is building an addition to its plant.

Bedford, Ia.—Walter Evans of this city, maker of good ice cream, in keeping up with all progressive and successful businesses, has installed a ten-ton refrigeration machine.

Belmond, Ia.—Steve Antoniou is now making ice cream for the wholesale trade at the Belmond Candy Kitchen and will manufacture and ship the toothsome dainty to the various surrounding communities. The ability of the Belmond Candy Kitchen to produce high class products is well known and the new ice cream manufactory will undoubtedly do a good business.

Booneville, Ia.—After a period of almost forty years in its

"Saved Over $10 a Day on Ice"

Writes a Texas Ice Cream Man

Freezing and hardening ice cream the old fashioned way is expensive. Ice and salt are items that unnecessarily increase manufacturing costs and cut down profits. You can reduce your expenses with the

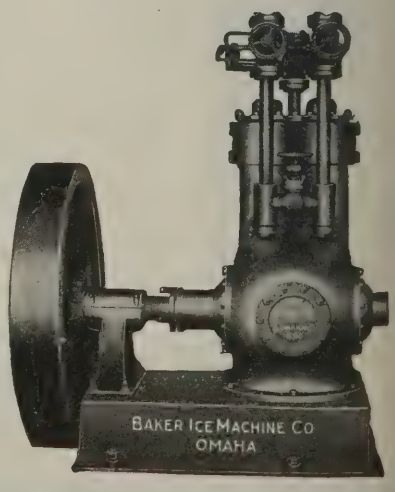
BAKER SYSTEM
MECHANICAL REFRIGERATION

LAREDO CANDY CO.
Laredo, Tex.

My Baker Refrigerating Plant is very economical and very easy to handle. Have been using it two years and never had any trouble.

Besides, the machine saves me over $10.00 a day on my ice bill and salt.

L. PAPPAS.



It will save you time, money and labor. Simple and easy to operate and you have absolute control of cold dry refrigeration. Does the work in less time than ice. No labor — no wet unsanitary condition in the factory.

Write today for bulletin "Making Ice Cream." Clip the coupon.

Baker Ice Machine Co., Inc.
Omaha, Neb.

BAKER ICE MACHINE CO.,
Omaha, Neb.

Gentlemen:—
Please send me without obligations copy of bulletin 65-D. We make.....gallons of ice cream per day.

Name .....
Town .....
State .....
65-D

Chocolate Coated Ice Cream and Tin Foil

THEY started out together and have developed into a strong team. The tin foil protects the chocolate coating and keeps the ice cream center firm and cold.

A Conley Foil wrapper, attractively printed in one or two colors, will keep your chocolate covered ice cream bar or Eskimo Pie selling at a lively clip this summer.

It will pay you to get in touch with us at once.

Perfect protection for perishable products.

Distinctive dress for all products.

Conley Foil

TRADE MARK

The Conley Foil Company

541 West 25th Street — New York City

present factory, Wagner's ice cream factory is ready to transfer its activities to its new modern plant. C. F. Wagner, founder of the ice cream factory, is the oldest wholesale business man in Booneville, with one exception. Mr. Wagner has been in business in Booneville constantly since 1876—forty-six years—and has been in his present location since November, 1882, almost forty years.

Bloomfield, Ia.—The Palace Sweet Shop has purchased a complete ice cream manufacturing plant and recently began the manufacture of ice cream. They make all kinds of ice cream, sherbets and ices.

Cedar Rapids, Ia.—Miss Emma Locke, of Marion, and Mr. Lyman C. Burdick, of this city, were recently united in marriage. Mr. Burdick is manager of the Hutchinson Ice Cream factory at West Liberty.

Chariton, Ia.—The plant of the Douglas Ice Cream Company has been sold to C. D. Smith, A. V. Whitlatch, Adam Pierschbacher and E. A. Anderson, who will operate the business under the name of the Chariton Ice Cream Company. The new firm has been incorporated under the new name, the incorporators being named as the buyers and Paul D. Shreck and Ray E. Adams. Mr. Adams, who has for some months been in active charge of the affairs of the business, will continue as manager.

Leon, Ia.—The Rex Coal and Ice Co., of Creston, have installed a branch of their big ice cream factory here, which will be in charge of Willis Bray, as local manager.

C. S. Rex and Geo. P. Holmack, of Creston, completed the arrangements for the opening of the ice cream factory for business. The Rex Company have been located at Creston for years, where they own the artificial ice plant, and operate a mammoth ice cream factory in addition to their coal business. For the present the ice cream will be manufactured at the Creston plant and shipped here in quantities, where it will be repacked and distributed over the territory in every direction from this city. If the business is what is anticipated, machinery will be installed here for the manufacture of ice cream. This firm makes all kinds of plain ice cream, ice and specials.

Perry, Iowa.—The Perry Artificial Ice and Storage Company have installed new refrigeration machinery to help them take care of their increased ice and ice cream business.

Webster City, Ia.—The Webster City Cream Company re-

Tempro Food Box

for Preserving and Transporting

Ice Cream and Eskimo Pie

Neat, Light, Handy, Efficient and Sanitary.

Ideal for Tourists, Domestic Uses and House Delivery.

Patent Applied For.



The Pure Cork Box

Prices and Particulars on request.

UNITED CORK COMPANIES

LYNDHURST, - N. J.

cently held a formal opening when it began operations in its ice cream plant. Mr. H. E. Forrester, former Iowa State Dairy and Food Commissioner, is in charge of the plant, which is a branch of the Waterloo Ice Cream Company. The plant is a modern one in every respect and the townspeople were delighted with it. Ice cream in cones and dishes was served free and flowers were given away as souvenirs during the opening.

Girard, Kans.—The New Roselle Creamery is now in operation under the supervision of A. H. Goadley, formerly of Sidney, O., an expert ice cream and buttermaker. The plant is larger and more modern than Mr. Roselle's former plant, which was destroyed by fire some time ago, and a 10-ton refrigeration plant, a hardening room, and a large size pasteurizer, with other machinery, have been installed.

Kansas City, Kans.—Approximately $100,000 expended recently by the DeCoursey Creamery Company, Kansas City, Kans., in enlarging its plant and adding new equipment, has made that company the largest ice cream producing concern in Kansas.

Springfield, Mass.—A one-story building, to be used as a distributing station, is being constructed by the International Ice Cream Company at a cost of approximately $22,000.

Battle Creek, Mich.—The Fields Myers Ice Cream Company, a recently organized firm, has begun the manufacture of ice cream.

Iron Mountain, Mich.—The Asselin Creamery was recently opened for business here. It is said to be one of the most modern buildings of its kind to be found in a town of this size in the Northwest. They will manufacture butter and ice cream.

Pine River, Minn.—The Pine River Creamery Company was recently incorporated with capital stock of $15,000, for the purpose of handling dairy products, including ice cream, and other farm produce. The firm is erecting a new one-story brick and tile building, 42 by 47 feet in size, which will be fully equipped to do a large business by the most modern methods. Wm. H. Keilty and Wm. and Nellie Lauritzon, all of Pine River, are the incorporators.

Madison, Minn.—After being closed for about a year, the creamery in this city has been re-opened. In addition to making butter the creamery will manufacture ice cream. S. S. Sorenson of Lamberton, Minn., will have charge of the creamery.

Marshall, Mo.—The Missouri Ice Creamery Company's plant is now in full operation and turns out some 400 gallons of ice cream and ices per day. The officers of the company are as follows: W. A. Sparks, president; O. J. Gustin, manager; J. F. Huston, secretary-treasurer.

Neosho, Mo.—H. W. Wolfskill, J. M. Carnes, and W. M. Hawk recently organized the Quality Ice Cream Company here and incorporated for $5,000.

Richmond, Mo.—Harry Lillard recently opened a modern ice cream plant here for the manufacture of "Rich Cream" ice cream.

St. Joseph, Mo.—The St. Joseph Ice Cream Company, a branch of the Greene Ice Cream Company of Nebraska City, Neb., a large wholesale organization has been established and is now open for business. The company will do a wholesale business in ice cream and expects to supply its product to towns within a radius of 100 miles of St. Joseph. The one-story building, which is 100 by 50 feet, has been remodeled and $40,000 in machinery and equipment. D. D. Miller is manager of the local plant.

West Plains, Mo.—Ben Hollingshead, formerly deputy sheriff of Howell County, has accepted a position with the Mt. Grove creamery as salesmaneger of the company's ice cream department in south central Missouri and northern Arkansas, his territory extending from Springfield south to Jonesboro.

Harlowtown, Mont.—William Van Dyke recently installed complete equipment for the manufacture of ice cream, and will be able to supply needs, not only of this vicinity but of the adjacent towns with the best to be obtained. The machinery is electrically driven, and will be in charge of Foster McMillen, who is experienced in the work. All flavors of ice cream, Eskimo pie and brick ice cream will be manufactured. Mr. Van Dyke will conduct a wholesale and retail business.

Kearney, Nebr.—The Kearney plant of the Ravenna Creamery Company recently began operations after being remodeled and new machinery installed. The plant is now a very modern and complete one for the manufacture of butter and ice cream.

Lincoln, Nebr.—The Aurora Butter and Ice Cream Company have completed the addition to their building, and new machinery has been installed. The new ice machine doubles the company's ice capacity, and many other changes increase the output of the creamery.

Lincoln, Nebr.—S. H. Hawkins and Albert Sparks, of Ellsworth, recently opened the business for the Hawkins ice cream factory in this city. The machinery for making their product is not yet installed and until it is, the trade will be supplied with cream made in the Ellsworth factory. The company has plants at both Ellsworth and Sterling and it is their intention to establish a plant here that will serve the large territory which the shipping facilities from Lincoln offer.

Syracuse, N. Y.—Work on the new building of the newly organized Cloverland Ice Cream Company is progressing very favorably. Edw. R. Hawkins is president of the firm.

Mount Airy, N. C.—J. L. Banner has rented a building here which he will remodel for an ice cream plant.

Lincolnton, N. C.—Fire of undetermined origin late tonight destroyed the Lincolnton Creamery and Ice Cream Company's plant, and a new ice-making plant attached thereto, involving a loss estimated at $60,000, partially covered by insurance.

Bradner, O.—The Bradner Dairy Company was recently incorporated here with capital stock of $10,000. The firm will handle milk, butter, and ice cream.

Marion, Ohio.—The Rockwell Ice Cream Company has been sold to Bowe Brothers of Edgar, Wis., who will continue the business for the present under the old name. The new owners are experienced ice cream men.

Marysville, O.—O. S. Dickson sold his wholesale and retail ice cream and confectionery business recently to Elba Mather and Wm. Bowersmith.

Port Clinton, O.—The Esmond Dairy Company opened for business recently. Their cold storage room was placed in commission and they began freezing ice cream. Later on they will handle milk and may establish a milk route. They will also operate a condensary. There will be a big demand

VISCO coaxes out all the goodness there is in your ice cream mix. It is making a hit east and west—north and south.

For those who know. Get our booklet.

CHERRY-BASSETT-WINNER CO., Philadelphia, Baltimore, Pittsburgh

Taber Creamery Pumps



are the most sanitary because they are entirely dissectable. Demand a Taber Pump from your jobber. If he cannot supply you we will sell you direct. Address:

Taber Pump Company

297 Elm Street

BUFFALO, N. Y.

The Important Ingredient is GELATINE

"B" Brand Snow White Gelatine Guaranteed 2 Oz. Goods.

Genuine imported gelatine, Snow white, is tasteless, odorless, colorless, and practically free from bacteria; and complies with all Pure Food Laws. Absolutely uniform; no variation; goes twice as far as ordinary grades of gelatine. Ice cream manufacturers should consider these qualities when ordering gelatine. Only requires about 2 oz. to a batch. Sample on request.

	Per lb.		Per lb.
5 lb. Lots	$1.25	100 lb. Lots	$1.00
10 lb. Lots	1.20	1 Bbl. Lots (200 lbs.)	.95
25 lb. Lots	1.15	2 Bbl. Lots (200 lb.)	.90
50 lb. Lots	1.10		

Dairymen's Mfg. and Supply Co.

403 NORTH MAIN ST.

Saint Louis, Mo.

PURITY
STRENGTH
UNIFORMITY

ARE STANDARDS COVERING THE PURCHASE OF GELATINE

BOSTON
CRYSTAL GELATINE

IS STRONGEST - IS GUARANTEED PURE UNDER ALL PURE FOOD LAWS - IS ALWAYS UNIFORM

A TRIAL ORDER WILL CONVINCE YOU

CRYSTAL GELATINE COMPANY

121 BEVERLY STREET BOSTON, MASS.

Branch Stores

New York	Philadelphia	Chicago	St. Louis	San Francisco
14 Ferry Street	418 Arch Street	3630 Iron Street	408 Elm Street	Fairfax Avenue and Rankin Street

SPECIALIZED SERVICE



A NEW MODERN ICE CREAM PLANT
HAYES ICE CREAM CO.
Minneapolis, Minn.

Reinforced Concrete Construction.
Enclosed Loading Shed and Garage.
Designed for Future Second Story.

For Ice Cream Making plants covering Buildings, Machinery and Equipment.

Twenty-five years experience in designing and supervising equipment of manufacturing plants using refrigeration.

CHAS. A. BERGER
REFRIGERATING ENGINEER and ARCHITECT
401 Phoenix Bldg: Minneapolis, Minn.

Member—American Society of Refrigerating Engineers, American Association of Refrigeration
Registered Engineer and Architect in the State of Minnesota

REFERENCES—Larger Plants

CRESCENT CREAMERY CO. - - St. Paul, Minn.
MINNESOTA MILK CO. - - - - St. Paul, Minn.
KEMPS ICE CREAM CO. - - Minneapolis, Minn.
IVES ICE CREAM CO. - - - - Minneapolis, Minn.
HAYES ICE CREAM CO. - - Minneapolis, Minn.
METROPOLITAN MILK CO. - - Minneapolis, Minn.
FLYNN DAIRY CO. - - - - - Des Moines, Iowa
WATERLOO CREAMERY CO. - - - Omaha, Nebr.

for ice cream during the summer months from the many resorts, that will about take their supply.

Sandusky, O.—The Kelly Ice Cream Company recently began the production of ice cream. E. R. Kelly is president of the firm.

Guthrie, Okla.—The Pierson Ice Cream Company's plant located at 214 North Division street, said to be one of the best ice cream factories in the southwest, suffered severe damages as a result of the terriffic tornado that struck this city recently. The greater damage was due to a flood of water that came in as the windows in the south side of the plant were torn out. Fine furniture and much of the equipment of the factory was damaged badly. Notwithstanding the great damage and the water soaked condition of the factory everything was humming at the plant the next morning.

Lawton, Okla.—The Lawton Ice Cream Company opened recently. The plant has a capacity of 2,500 gallons of ice cream a day. Mrs. C. E. Bear is sole owner and proprietor.

Brownsville, Ore.—The Brownsville Creamery recently moved into its new home, a fine new cement block building, 40 by 80 feet in size. A five-ton ice plant has been installed and, besides supplying the community with ice, the company manufactures a high grade of ice cream. They also handle the milk delivery for the town.

Hood River, Ore.—The Hood River Creamery has installed a two-ton ice machine. The refrigerated rooms of the concern were formerly cooled by ice hauled from the plant of the Apple Growers Association. The equipment will be used temporarily. The creamery is planning the early construction of a new plant, the present quarteres having been outgrown. When the new structure is complete, the machinery just purchased will be turned in on refrigerator equipment of larger capacity.

The directorate of the creamery will hold a meeting soon and reach a definitae conclusion as to the construction of the new plant. A lot has already been purchased. A concrete building is proposed.

Blairsville, Pa.—The Nelson Ice Cream Company which leased the building of the Brown Packing Company and began operations but a few weeks ago, now has a production of more than five hundred gallons of ice cream a day.

Brookville, Pa.—The formal opening of the new plant of the Brookville Ice Company occurred recently and was marked by a fine attendance. While it is not of mammoth proportions, everything is designed with an eye to sanitary and expeditious production. G. A. Carmalt, manager of the plant, was on hand to show the visitors through the place. The factory is equipped to take care of special orders of any kind, and the management is to be complimented for the quality and variety of its producers.

So heavy has become the demand for Wagner's ice cream that the present factory quarters and equipment have become inadequate to handle the trade.

The new plant is sanitary and modern in every respect. It has a capacity of 1000 gallons per day.

Johnstown, Pa.—The Purity Ice Cream Company of this city has, within the past few weeks, completed six new service stations and equipped them with large new sales cabinets of a new idea and design patented by R. W. Gearhart, manager of the local plant.

Osceola Mills, Pa.—A new firm, The Superior Ice Cream Company is to establish an ice cream plant here.

Wellsboro, Pa.—The Directors of the Schwarzenbach Brewing Company some time ago decided to equip the Galeton plant for the making of ice cream.

Camden, S. C.—The Camden Ice Cream Company recently began business here. E. L. Moseley and Wiley Sheorn are the proprietors.

Greeneville, Tenn.—Outside parties spent a day here investigating conditions and in an effort to interest local capital in an ice cream factory and additional ice plant for Greeneville. It is understood that plans were set on foot for the immediate installation of the two new industries for this city.

El Paso, Tex.—Mr. J. R. Butler opened a new $100,000 ice cream factory here about six weeks ago.

Rusk, Tex.—Work was started here recently on an ice house. It will be used for ice shipped here from Jacksonville and a portion of the building will be used as an ice cream factory by the Rusk Creamery.

Ogden, Utah.—Articles of incorporation of the Uintah Dairy Products Company of Ogden have been filed. The purpose of the company as set forth is to carry on a general dairy business and to manufacture and sell ice cream and other products. The company is capitalized for $50,000. The officers are: H. H. Hudman, president and director; C. C. Mortenson, vice-president and director; Henry Combe, secretary-treasurer and director; Albert Spencer, director, and Huber Roylance, director.

Farmville, Va.—The Farmville Creamery Company recently purchased the business of the Newman Ice Cream Company here. This firm was only recently organized with capital stock of $25,000 and with A. F. Howard, president; N. B. Davidson, vice-president, and E. S. Martin, secretary.

Anacontes, Wash.—The West Coast Dairy recently commenced delivering to their trade ice cream packed in cylindrical sealed paper containers.

Centralia, Wash.—The Polar Ice Cream Company has begun the erection of a new building which is to have 25 feet frontage and will be 100 feet in depth. It will be two stories high and of special concrete construction of most approved type such as is recommended for ice cream factories. The building exclusive of machinery will cost in the neighborhood of $9,000. When completed and machinery installed it will represent an investment by the Polar Ice Cream Co. of approximately $50,000. Work on the building is under way at the present time.

Puyallup, Wash.—A. W. Thomas, an experienced groceryman of Port Townsend, has purchased the retail department of the Puyallup Ice Cream Company, including the Purity Dairy store. He has increased the stock in the store and has added a line of confectionery and light groceries. His family in Port Towsend will join him in Puyallup later.

Huntington, W. Va.—The Wilson Creamery Company has changed its name to the Wilson Ice Cream Company.

Huntington, W. Va.—The Imperial Ice Cream Company recently held a two-day reception for ice cream dealers in the surrounding territory at their new plant.

Ashland, Wis.—The daily output of the Dhooge Creamery since it took over the plant of the Ashland Dairy Products Company, is 5,000 pounds of butter a day and 500 gallons of ice cream.

Brownsville, Wis.—The Brownsville Creamery, owned and operated by Wingo Eggleston and his father, is expanding. Recently the creamery took over the two Brownsville dairies and is now distributing milk for the town. It is also manufacturing ice and ice cream.



CHICAGO
NEW YORK
PHILADELPHIA
BUFFALO
ST. LOUIS
MILWAUKEE
LOS ANGELES
SAN FRANCISCO

Clarkson Gelatine Works

Manufacturers of

FOOD GELATINES

Write Us Regarding Our Supreme Pure Food Gelatine
No Better Stabilizer

Superior in Purity *Odorless and Tasteless*
Economical in Price *Uniformity Always*

WE GUARANTEE TO SHOW YOU A SAVING

I Analyze Your Building Problems

Like a chemist or the attendant in your laboratory studies the various constituents of your product, — so I analyze the requirements of a building to properly house your business,—to place material in kind, quality and price to give a lasting and satisfactory service for every dollar invested.

And,— primarily to provide a plant conducive to efficient factory operation and one that lends itself to a ready and constructive policy of business expansion.

LET ME MAKE A DIAGNOSIS BEFORE STARTING YOUR NEXT BUILDING OPERATION

M. R. CARPENTER, *Architect and Refrigerating Engineer*
72 W. Washington St., CHICAGO, ILL.

FOR OVER 20 YEARS

We have ***specialized*** on
Vanilla Extracts
and **Vanilla Compounds.**

We guarantee to improve your Flavor with a saving in cost

Proprietors of "VANOLEUM." The *Original Concentrated Vanilla Flavor.* We warn the trade against worthless imitations having similar sounding names claiming to be "the same as *Vanoleum.*"

MEMBER

Corrizo Extract Company

211-215 West 20th Street **NEW YORK, N. Y.**

FREEZE YOUR ICE CREAM IN AN ADVERTISED FREEZER.

Notes on the National Dairy Exposition

Co-operation a Basic Need.

If the proper study of mankind is man, then the proper study of dairy farming is the dairy cow. An unproductive cow, a below-the-average or even an average cow, has not the money making elements essential to attract the business instincts of a normal American. It follows that the dairying interests of a community are no further advanced than the pedigree of the cows upon which the industry looks for its sustenance.

When the cow through her individual productivity, becomes a money maker, when the monthly cream check awakens the farmer to the possibilities of a dairy herd, then only can the distributor, the creameryman, the cheese man and the ice cream manufacturer expect to prosper. The better the cow as a producer, the better will the subsidiary interests prosper, and the distributing and manufacturing interests who are building their hopes upon the future of dairying must exercise their vision to this extent—that their prosperity is dependent upon the prosperity of the dairy cow herself.

Creamerymen, cheesemen, ice cream manufacturers, and milk dealers who attend the National Dairy Exposition at St. Paul-Minneapolis, October 7th-14th should not overlook this feature. They will find that many improvements have been made in pasteurizing and churning machinery, but they can well afford to give a thought to the co-operation with those producing interests which are striving to improve the quality and the quantity of the milk from the dairy cow.

What a Prominent Merchant Thinks of Dairying.

Dairying receives indirectly many compliments which cannot fail to create confidence in the minds, not only of the farmers, but of the merchant, the manufacturer and the banker as well. The fact that dairying influences so quickly and directly the pocket books of those engaged in it gives it a special appeal. There has come to our attention a letter of instructions sent out by Mr. Charles Gordon, leading merchant of St. Paul, in which he directs his salesmen to confine their efforts to territories where dairying is being practiced extensively and to pass up the grain producing districts. He explains that merchants in the exclusive grain producing districts are experiencing much difficulty in taking in enough cash to pay their bills while in the districts where the farmers are milking cows they have money to meet their bills promptly. This conclusion on the part of Mr. Gordon serves to emphasize the possibilities of developing the dairy industry everywhere. The Federal Reserve Bank in its latest report substantiates the conclusions of this St. Paul merchant when it makes the statement that the districts where dairying is a large factor are in very much better financial conditions than other agricultural districts.

The big outstanding thing to which the dairy industry now looks forward is the National Dairy Exposition at St. Paul-Minneapolis, October 7th-14th. Every agriculturist in this country should take an interest in this exposition and attend if possible. Everything from the dairy cow herself to the highly specialized machinery of hundreds of manufacturers will be presented in a manner that will at once educate and entertain.

North Dakota Retail Merchants Enthusiastic About National Dairy Exposition.

The annual convention of the North Dakota Retail Merchants Association has just been held at Grand Forks. Mr. Sam Crabbe, Vice President of the North Dakota Development Association gave a very interesting talk on the remarkable record made by the state of North Dakota at the 1921 Dairy Show. He called attention to the rapid growth of the dairy industry in North Dakota. He also told of the plans of the Development Association now under way for creating further interest in the industry and stimulating attendance at the National Dairy Exposition next October. He urged all of the merchants present to go back to their respective homes and work among their neighbors to further the advance of the dairy industry. Mr. Crabbe's talk was very well taken and there was much enthusiasm expressed by the attending merchants.

What applies to North Dakota, applies to other dairy states as well. Merchants, bankers, and business men everywhere are awakening to the fact that dairying is a basic, dependable cash-producing industry.



MAPLEHURST DAIRY CO. TAKES NEW MEMBER.

The Maplehurst Dairy Company, at present located in Grinnell, Iowa, was originally started in Newburg, Iowa in June, 1917. In October 1919 the company purchased the Grinnell Creamery, Ice and Cold Storage Company at Grinnell.

The original company was composed of E. M. Newcomer and E. G. Squire. On June 1st, 1922, an interest was sold to W. C. Winkleman of Chicago. Mr. Winkleman formerly operated a creamery at Whitewater, Wis.

The officers of the new corporation are: W. C. Winkleman, president; E. M. Newcomer, vice-president; E. G. Squire, secretary and treasurer.

In addition to making butter, ice cream and artificial ice, this company deals in milk in a wholesale way, taking in about 15,000 pounds a week.

Buy Forbes
Alamada Instant Coating
Requires no thinning—Prepared especially
For Eskimo Pie
A combination of High Grade Milk Chocolate, Chocolate Liquor, and Pure Cocoa Butter shredded;
Write for sample
THE FORBES CHOCOLATE COMPANY
CLEVELAND, OHIO

"Apply it as you would a paste---
It does away with DRIP and WASTE"
DOES NOT CONTAIN GRAPHITE
CHAINOLENE LUBRICANT
Will add life to your **Roller** and **Link Belt Chains** and **Gears.**
IT'S SOMETHING DIFFERENT
Sold on Trial
CHAINOLENE MFG. COMPANY
1018 S. Wabash Ave. Chicago, Ill.

Chalmers  Gelatine

1872 1922

For fifty years
An unfailing source of satisfaction

James Chalmers Sons
Williamsville, N. Y.

Richardson & Holland
Seattle, Wash.

Chalmers Gelatine Sales Corp.
Richmond, Va.

MEMBER THE ASSOCIATION OF ICE CREAM SUPPLY MEN

VANILLA CONTROL

STANDARD VANILLA AND BLENDS

IN every highly specialized industry the laboratory plays an important part. The laboratory makes possible exact buying and manufacturing, without which the highly specialized business does not prosper.

Just consider the importance of the laboratory in the ice cream industry. Crude materials are bought on comparative tests, milk components are bought on a definite fat-and-solids basis and the finished product has a fixed overrun and fat-and-solids composition. Nothing is left to chance. And only by such methods as this is it possible to strike a favorable balance at the close of the year.

Our business, just as highly specialized, if not more so, demands the same control. Crude materials are bought, subject to laboratory approval, processes are checked, and finally, the finished product is analyzed for constancy of composition. And just as the ice cream manufacturer by such methods gives fair value to the public so do we guarantee our products to the manufacturer at all times.

STANDARD VANILLA AND BLENDS

G. R. Ryan Manufacturing Company
INCORPORATED
Rochester, New York

REFRIGERATOR BODIES GROW IN FAVOR.

A good indication of the merits of refrigerator bodies in the ice cream industry is their steadily increased use by ice cream manufacturers.

John J. Grothe Company, Inc., of Woburn, Mass., an enterprising firm making refrigerator bodies of quality, is making remarkable strides in the sale of their product as manufacturers are quick to see its advantages. Here are some of their recent customers:

Canada.

Guelph, Ont.—Yeates & Thomas have added Refrigerator Bodies to their delivery equipment.

District of Columbia.

Washington—Fussell-Young Ice Cream Co. have extended their ice cream delivery by using Refrigerator Bodies.

Connecticut.

Hartford—Cebrook Ice Cream Company have added Refrigerator Bodies.

Hartford—Hartford Ice Cream Company have increased their delivery, putting on Refrigerator Bodies.

Louisiana.

Shreveport—Campbells Ice Cream factory have added Refrigerator Bodies to their equipment.

Massachusetts.

Cambridge—Mansion House Ice Cream Co. have added a Refrigerator Body which has caused favorable comment from large ice cream manufacturers. It is a "Grothe" Type B with cab built on as one unit, mounted on a 1 and one-fourth ton Reo Chassis, 125 gallon capacity and carrying 15 pounds cracked ice to each gallon.

Fall River—Peckham-Davis Co. have extended their delivery service by additional Refrigerator Bodies.

Newburyport—Olympia Ice Cream Co. who enjoy an extensive seashore trade along New England's sandy beaches have put on Refrigerator Bodies on these routes.

North Adams—Berkshire Ice Co. have put on a 300 gallon Refrigerator Motor Truck Body.

Springfield—Indessi Ice Cream Co. have increased their motor delivery by adding more Refrigerator Trucks

New York.

Valatie—Isaac Lamont & Son now have a motor refrigerator body.

Pennsylvania.

Altoona—Caum Ice Cream Co. are enlarging their refrigerator motor delivery fleet, the John J. Grothe Co. Inc., furnishing the additional equipment.

Butler—Penn-Cress Ice Cream Co. have added Refrigerator Body trucks to their delivery service.

Erie—Erie County Milk Ass'n have increased their delivery equipment with a Refrigerator Body.

Greensburg—J. M. Davison Ice Cream Co. have aded a Refrigerator Body.

Harrisburg—Hershey Creamery Co. have put on a 300 gallon Refrigerator Body.

Milton—West Branch Creamery have put to work a Grothe Refrigerator Body.

Tyrone—W. E. Hoffman have added a Refrigerator Body to their delivery equipment.

Wisconsin.

Janesville—Shurtleff Ice Cream Co. have added a Grothe Refrigerator Body to their delivery equipment.

BUILT STRONGER LASTS LONGER
G-W ICE HANDLING EQUIPMENT *and* TOOLS



Equipment, tools, and accessories for every ice handling, storing, and harvesting need.

Write for CATALOG 50

Gifford-Wood Products

Ice tools, equipment, and accessories; ice and salt elevators and conveyors; ice crushers; crushed ice carts; conveying machinery for all purposes; wagon loaders; portable belt conveyors; buckets; chain; chutes, etc.

228R

Gifford-Wood Co. WORKS HUDSON N Y
NEW YORK-CHICAGO BOSTON-BUFFALO

ON ALL PARTS OF THE GLOBE.

These two fellows—(or maybe they're girls, or possibly one of each; we've been stung so many times trying to tell them apart in this country since the bob and knicker epidemic that we won't try to qualify in Africa) look as if they were in a climate where a dish of ice cream would go mighty good. They've got the means at hand for making a mighty fine grade of ice cream, for the object behind the individual with the earrings is an Emery Thompson Brine Freezer, known nationally, and in fact, internationally, for the high quality of the product turned out.



This picture was taken in South Africa where this machine is in operation, and has been widely commented upon by tourists traveling in that part of the country.

Does your business pay? If not, why keep it? Advertise it For Sale in The Ice Cream Review Want Department. Some one may be glad to buy it if they only knew it was for sale.

Is your package easy to remember?

"Putting the name across" is never an easy job. People do not make it a point to remember your name when they see it. But if the package is so designed that it will arrest their attention, if it is striking—"different"—they will begin to remember it after seeing it the second or third time. And they will associate your name with your product.

Then, too, your package must deliver its contents in good condition. And only a house that has learned, through long experience how to build the best boxes can do both jobs well.

We have designed and made boxes for exacting organizations in every branch of business. For more than 20 years we have been improving the packing methods of business houses thruout the country.

Our service department will be glad to send samples and quote prices.

The Peerless Paper Box Mfg. Co.
1137 West 6th Street : Cleveland, Ohio

Any kind of folding box for every kind of business

PEERLESS BRAND CLEVELAND



MERIDALE POWDERED MILK



Jos. Middleby, Jr. Inc.
Established 1870
The Daylight Factory
327-347 Summer St. Boston, Mass.

Messrs. Ayer & McKinney
39 S. Water St.,
Philadelphia, Pa.

June 3, 1922

Gentlemen:

It is now four years since we started handling your Meridale Brand Milk Powder, and in addition to the fact that our relations with your concern have been of a most satisfactory nature, we are glad to be able to add that during the period that we have handled your product, we have never had a complaint on the quality of the Meridale Milk Powder.

Yours very truly,
Jos. Middleby Jr. Inc.

39 South Water St. PHILADELPHIA **AYER & McKINNEY** 541-543 W. 22nd St. NEW YORK

Manufacturers of Whole and Skimmed Milk Powder of Quality

DISTRIBUTORS:—Jos. Middleby, Jr., 327-347 Summer St., Boston, Mass. Lee & Saddler Company, Atlanta, Ga. Haines-Carpenter Dairy Products Co. 716 N. 18th Street. St. Louis, Mo. SOUTHERN REPRESENTATIVE:—C. Gibson Ford, 1012 Union Trust Building, Baltimore, Md.

The Sessions Factory at Fond du Lac, Wis.

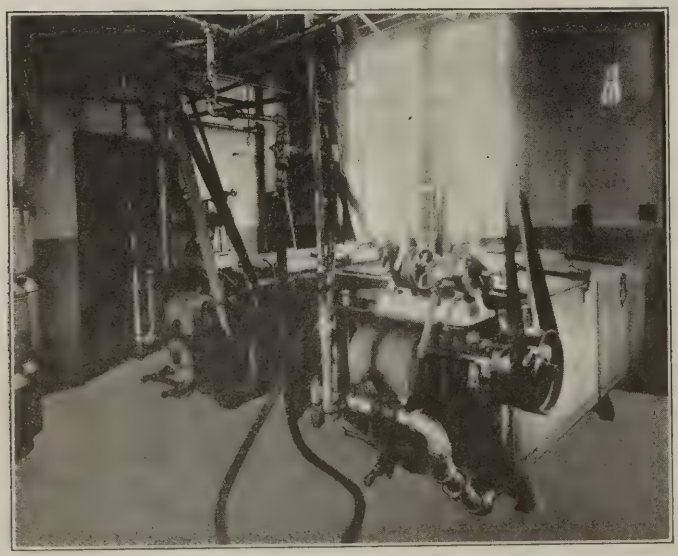
A "Review" representative visits ice cream plant of former President of Wisconsin Association

A fondness of the great out-of-doors and a desire to explore a territory we had never traveled before, led a representative of The Ice Cream Review to head his motor northward through network of concrete highways of the Badger state toward the Fountain City in the north.



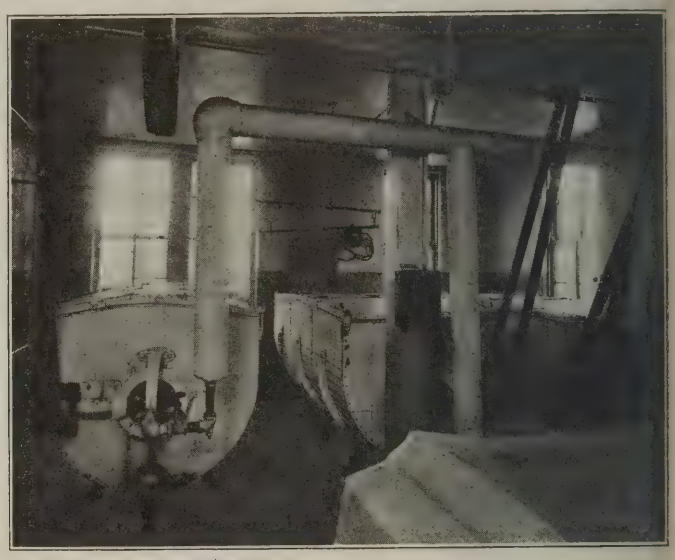
Five Forty Quart Creamery Package Freezers Are Operated Continuously.

Fond du Lac, the Fountain City, its picturesque parks, boulevards and homes, is also noted for its ice cream. In Fond du Lac, it is "Sessions" 99 44/100 per cent pure, and sold in practically every first class drug store, and confectionery in the city. No signs were needed to inform us we were in the city of Fond du Lac; here and there in the outskirts, the walk in front of a delicatessen or drug store was graced with a neat sign, black and white, "Sessions Ice Cream Sold here" and as we approached the heart of the city, and the first heralds of "ice cream-dom" remained to tease other palates, the little black and white signs came in greater numbers, growing closer and closer together till they appeared in perspective to form a hedge.



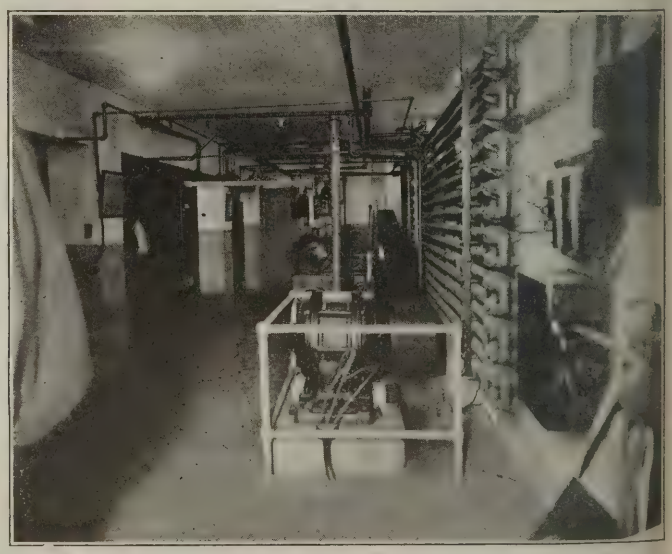
The Mixing and Pasteurizing Room.

The plant of the Sessions Ice Cream Company is well located, being near the heart of the city and a half block from the main business thoroughfare of the city. They have a fine three story plant, modern, convenient, and sanitary in every respect. Manager D. D. Smith was a very busy man making his regular calls upon dealers so the role of host was wished upon Mr. L. Bonell, the plant superintendent.



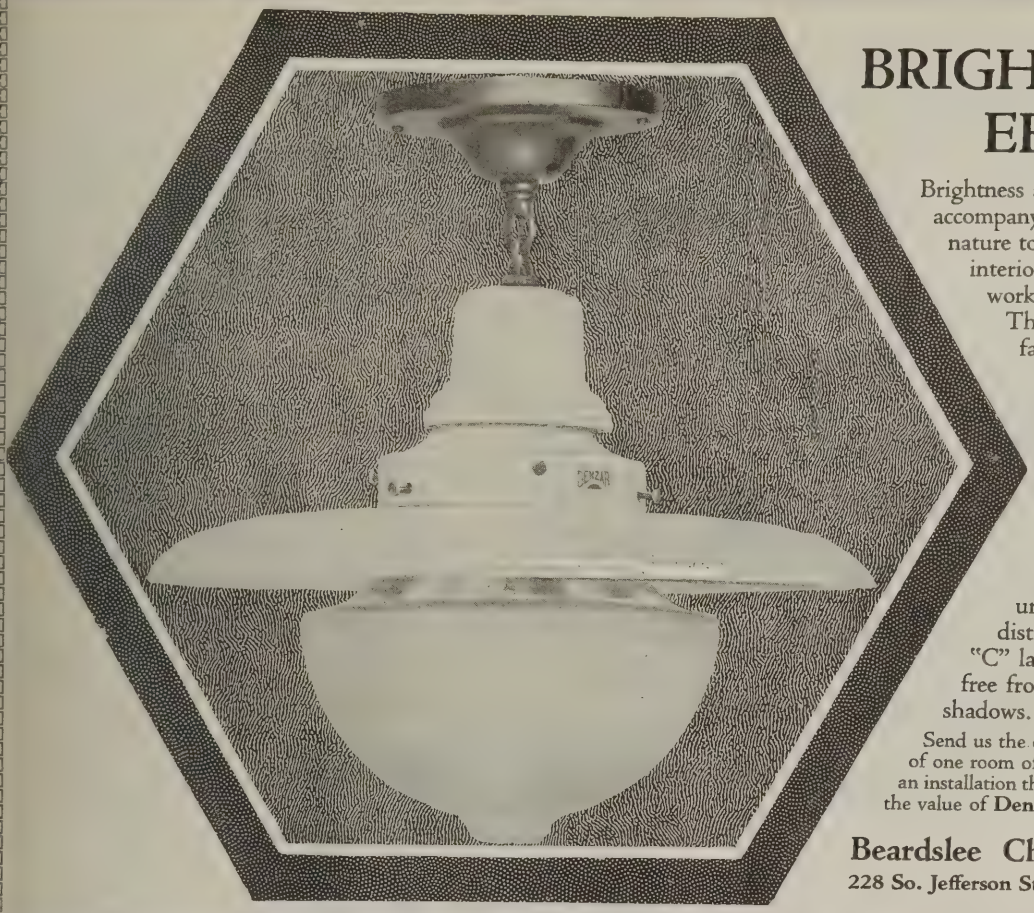
Where the Sessions Mix Is Aged.

In the office to the left of the main entrance we found order clerks and bookkeepers busily engaged in entering and charging orders coming in by phone, telegraph and mail for Sessions famous ice cream. A happy group of folks they were, busily engaged in their work even tho the "boss" was away.



Fifteen Ton Baker Ice Machine Doing the Work of an Eighteen Ton Plant.

The visit began at the receiving room where whole milk and cream are received, graded, tested and weighed before its preparation to become an ingredient of the mix. At this season of the year production is very heavy, but the demand for ice cream is so great that very little of the milk or cream received at the



BRIGHTNESS and EFFICIENCY

Brightness and efficiency just naturally accompany each other. It's human nature to be cheerful in a well lighted interior, and when cheerful, one works better and more efficiently. That is why the keenest manufacturers are using plenty of good light in their offices and work rooms.

DENZAR

The *Unit of Day Brightness* is the logical lighting unit for ice cream makers. It distributes the rays of the Mazda "C" lamp in a soft, even radiance, free from blinding glare and sharp shadows.

Send us the dimensions and height of ceiling of one room of your plant and we will suggest an installation that will convincingly demonstrate the value of **Denzar** lighting.

Beardslee Chandelier Mfg. Co.
228 So. Jefferson Street CHICAGO

Dunn's Celebrated Gelatines

Guaranteed to Comply With all State and National Pure Food Laws

Specially manufactured and blended for use in the

Ice Cream Industry

Also owners of "COX'S GELATINE" in the "Checkerboard Box"

THOMAS W. DUNN COMPANY

546 Greenwich Street, New York

Canadian Office and Warehouse **55 Cote Street, Montreal**

Sessions factory is churned. Whole milk which is not needed in standardizing the mix is separated, the cream needed in standardizing the mi xis separated, the cream used either for ice cream or butter and the skim milk sold to a local condensary. The mix is prepared in a 500 C. P. Vat, run through the Viscolizer at about 150 degrees and about 2000 pounds of pressure. After being pasteurized, and cooled over a tubular cooler, the mix is forced into aging vats shown in the picture where it is held 24 hours before freezing.



Icing and Delivery Room.

The five Creamery Package horizontal freezers are kept in continuous operation at this time of the year. Mix enters the freezer through the pipe lines at a temperature of about 36 degrees F. Brine temperature is maintained at about zero, and a batch is frozen in less than 20 minutes.

A temperature varying from zero to 10 below is maintained in the hardening room, the capacity of which



Delivery Equipment. Ice House in the Background.

is ample to take care of the needs of the plant under present demands during the warmest weather. In addition to the hardening room there are cool rooms where supplies of cream, milk and sweet butter are kept.

Refrigeration is furnished by an eighteen ton Baker ice machine, driven by a 32 horsepower motor. This, however, is not sufficient, as a large quantity of ice is put up in a building in the rear of the plant and used for the cool rooms and packing. Electrical power is used throughout the entire plant. A boiler furnishes steam and hot water for pasteurizing, cleaning and sterilizing.

Sessions Ice Cream factory was established years ago by a man named Sessions. About five years ago the old buildings were replaced by the large modern structure which now bears the name. Quality of product and service and satisfaction to customers is their slogan and if the numbers of little black and white ice cream signs may be considered criterions, it is a slogan that pays.



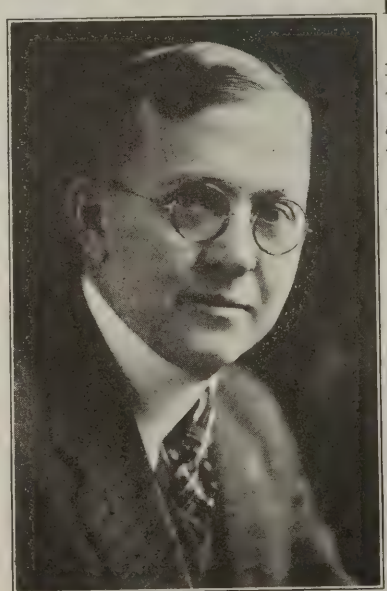
Wolfhounds

J. WILL CARPENTER, Pres.
Haines-Carpenter Dairy Products Company, St. Louis, Mo.
OTIS B. WITTE, Secretary
N. A. Kennedy Supply Company, Oklahoma City, Okla.



FROM THE PRESIDENT.

If the weather of June is a fore-runner for the season, I can only say that 1922 is a very profitable one for the Ice Cream Manufacturer, and that it will help offset some of the losses, if such a thing is possible, for last season.



J. WILL CARPENTER

A profitable year means successful conventions for State, Sectional and National Associations; a big meeting, that we all know, will be held this coming October in Cleveland, in connection with the mammoth Exhibit of the Association of Ice Cream Supply men, and which should be attended by every Ice Cream Manufacturer in the South and Southwest, The Southern Association at New Orleans, The Texas Association at San Antonio and last, but not least by any manner of means, the Oklahoma State Meeting, the dates of which have not yet been set, but will no doubt be arranged in order that Ice Cream Manufacturers and Supply members can arrange to attend conveniently, one to the other.

From the present indications of letters which I have been receiving from different ones in the State of Oklahoma and from Supply Men asking information regarding the Oklahoma meeting, even this early in the Season, would indicate to me that it means many more rooms, more speakers, a much better time, if possible, at Oklahoma this Fall.

I should like to suggest to the Ice Cream Manufacturers of Oklahoma and the surrounding, neighboring States, that they lay their plans now to attend the Oklahoma Meeting this Fall. Every Wolf Hound: see you there; no doubt I shall have something more definite for you later on.

J. WILL CARPENTER,
President of the Wolf Hounds

(Continued on page 124)



Sethness Company,

COSCO TRADE MARK

Western Branch
DENVER, COLORADO
2910 Huron Street

Pittsburgh Office
511 First Avenue
PITTSBURGH, PA.



659 HOBBIE ST., CHICAGO

Operating 75,000 Square Feet for Quality and Service

COSCO BRAND

FRUITS

ICE CREAM CRUSHED FRUITS (BULK)
SOLID PACK FRUITS IN NO. 10 TINS
COLD PACK STRAWBERRIES
C. P. CRUSHED FRUITS IN BULK PKGS.

EXTRACTS

FLAVORING EXTRACTS, ARTIFICIAL
TRUE EXTRACTS
ORANGEADE EXTRACT (FOR ICES, SHERBETS AND PUNCHES)
CONCORD GRAPE EXTRACT (FOR ICES, SHERBETS AND PUNCHES)
VANILLA COMPOUNDS
VANILLA EXTRACTS, PURE
MARVEL PURE VANILLA BEAN EXTRACT
VANILONG
WALNUT FLAVOR
MAPLE COSCO CONCENTRATED
PINEAPPLE JUICE
QUINTOLS
EMULSIONS

COLORS

LIQUID CERTIFIED COLORS
CERTIFIED DRY COLORS
CARAMEL SUGAR COLORING
BUTTER COLOR ANILINE
NEW YORK ICE CREAM COLOR

TRUE FRUIT PASTES
CERTIFIED PASTE COLORS
MARSHMALLOW TOPPING
COCOA
BUTTERSCOTCH SUNDAE
CARAMEL SUNDAE
GELATINE
CITRIC ACID
GUM, PURE INDIA, POWDERED
ICE CREAM POWDER
SOLUBLE SKIM MILK POWDER SPRAY
KREMOLIN R. ICE CREAM RIPENER AND BINDER
VANILLA BEANS
VANILLIN
COUMARIN
GLYCERINE
TARTARIC ACID

SODA FOUNTAIN FRUITS AND PRIVATE LABEL MARSHMALLOW TOPPING FOR JOBBING PURPOSES

ESTABLISHED 1879

Gelatine is the most efficient of all stabilizers for Ice Cream

WHITTEN'S GELATINES Are Standard

Guaranteed to Comply with all National and State Pure Food Laws

STRENGTH, PURITY AND UNIFORMITY GUARANTEED

MANUFACTURED BY

J. O. WHITTEN COMPANY

Main Office and Works

Winchester, Mass.

Woolworth Bldg.
NEW YORK CITY

20 E. Jackson Boulevard
CHICAGO, ILL.

ICE CREAM MIX READY FOR FREEZING IS ON THE MARKET.

THE WOLFHOUNDS.

(Continued from page 122)

ICE CREAM BUSINESS ON THE BOOM.

According to a recent letter from C. R. Hauk, indications point to a record season for ice cream manufacturers. He says:

"The writer's personal opinion as to the general conditions in the ice cream industry in the state of Oklahoma, based on first hand information hot off the bat from the live wire manufacturers, is that business is on the boom, especially the package cream business. All are showing a gain over last year. The season has been a backward one, owing to so much rain and hail, but even this does not hold the output down for those manufacturers who advertise their products and hold up the quality. The day and age of the 6 per cent butterfat fellow is over. The public, through honest advertising has been educated to a point where they know the difference. This is one big reason why ice cream today is considered by the public in general as a part of their every day diet. This feeling, combined with the advertising campaigns put on by live, up-to-the-minute ice cream men, has put this wonderful product near the head of the list of foods, a position that has been gained by the combined efforts of the manufacturers who believe in and uphold quality and advertise honestly. These men do not cry "hard times." They have no reason to. Thus the story could go on and on. Big business is on hand for the go-getters. The future looks glorious. What more can man want? GO GET IT!

* * *

WHO'S WHO AT THE NEW STATE ICE CREAM COMPANY.

We just got another of those breezy letters from C. R. Hauk, and we're all pepped up. Whenever we read one of these supercharged letters we feel as if we'd like to go out and sell somebody a million dollars' worth of something, or settle this Genoa conference satisfactorily to France, Germany and William Randolph Hearst, or revise a couple of tariffs, or any similar simple pastime, all of which we feel would be an easy day's work for Mr. Hauk.

This time he gives us news of interest about a well known, progressive firm of ice cream manufacturers, who are no strangers to readers of The Ice Cream Review. In addition to all their other virtues, the last paragraph of this letter vouches for their excellent judgment, we think, don't you? Mr. Hauk's letter follows: To the Editor of The Ice Cream Review:

The following is the personnel of the New State Ice Cream Company of Oklahoma City. At the head is one of the most widely known business men in the country, one who needs no introduction to the readers of The Ice Cream Review—Mr. Carl Glitsch, President and General Manager. The new member of this group is Mr. U. G. Fowler, Superintendent. Mr. Fowler, who recently assumed his duties as Superintendent, is a well known business man in the Southwest, though new to this particular line. He has stepped right into the new work like a veteran, with the able assistance of Mr. H. C. Ashburn, foreman of the ice cream factory, whose vast knowledge of the ice cream game, gained through 15 years of study and experience has put this plant in the front ranks as being one of the most capably handled in the country.

Their cashier, Mr. Ramsey Kendrick, is a man admired by all for his pleasant manner and promptness of action. Mr. Robert Squires looks after the prompt shipment of their products during the day, and his able assistant, Mr. A. E. Spencer, does likewise at night. Thus they keep things humming 24 hours every day in the year.

Mr. Jones, the night cashier, claims he has no time to sleep on the job any night, as he also acts as telephone girl on the private switchboard after 7 P. M.

With this star line-up, and Bob at the head of the drivers, and with thirty-five employes in the factory, Mr. Glitsch has certainly surrounded himself with the livest bunch that could be collected.

"Quality and Service" is the watch word of this group. Little wonder that their business is growing by leaps and bounds, far ahead of last year's output at this time of the year. Mr. Glitsch says ADVERTISING is the helping factor. Up on your toes, boys, that's the spirit that brings home the bacon. The laggers with a grouch are left way behind in the race. Smile and the world smiles with you, grouch and weep and you do so alone.

This entire line-up, headed by Mr. Glitsch, are big boosters of the leading journal of the country, The Ice Cream Review.

C. R. HAUK,
Oklahoma City, Oklahoma.

* * *



Readers of The Ice Cream Review are familiar with the fact that the youngest Wolf Hound in captivity is Master Benjamin Ralph Hauk, of Oklahoma City, Okla. Here we have him in the foreground demonstrating an inherited fondness for the fair sex, the young lady in the case being his sister Dorcas. In the background we find him pleading with his doting sire, C. R. Hauk, for a spin in the family gas phaeton. Note the serious but proud expression spread all over Dad's map. No wonder he can sell goods to the ice cream trade. Who couldn't with such an inspiration and such responsibilities.

FORTUNE
"NORTH POLE"
Sweet Milk Chocolate Coating
Especially Prepared for
ESKIMO PIES
Ready for Use—Nothing to Add
FORTUNE PRODUCTS
TRADE MARK
FORTUNE PRODUCTS CO., 416-422 So. Desplains St. CHICAGO, ILL.

Powdered Milk Market Report for June, 1922

By Bureau of Markets and Crop Estimates, United States Department of Agriculture.

Prices Paid for Raw Material Delivered During May, 1922, F. O. B. Factory.

Geographic Sections	Whole Milk			Buttermilk per gallon	Skimmilk per cwt
	Price per CWT	Butterfat Basis	Allowance 0.1 p. c. fat		
New England	1.43	3.5	4	...	..
Middle Atlantic	1.43—1.71	3.5	4	...	15
South Atlantic	1.55	3.5	4	...	..
E. North Central	1.40—1.70	3.5	4	...	..
W. North Central	1.72	3.5	4	¾—1.3	..
South Central	....	...	..	...	..
Northwestern	1.35—1.48	3.5	4	...	..
Southwestern	1.35—1.51	3.5	4	...	14.9

Manufacturers' Wholesale Selling Prices During May.

The wholesale prices given below are based on reports of manufacturers covering actual sales made to jobbers, wholesale grocers, and similar buyers on basis of cash or short time credit with freight included to distributing point in each section.

Prices in the column headed "Range of Prices" are the highest and lowest reported by all firms. Those given under "Bulk of Sales" are the highest and lowest reported by different firms as the "bulk of sales" prices.

Geographic Sections		Whole Milk Powder		Skim Milk Powder		Buttermilk Dried	
		Range of Prices	Bulk of Sales Prices Fresh Goods	Range of Prices	Bulk of Sales Prices Fresh Goods	Range of Prices	Bulk of Sales Prices Fresh Goods
N. E.	Case	60	60	33	33	9½	9½
	Bulk	24½–28	25–28	7½–11	7½–11	6½–10½	6½–10½
M. A.	Case	45–60	45–60	18–33	18–33	10–11	10
	Bulk	24½–28	25–28	5¾–11	5¾–11	6–11¼	7–10½
S. A.	Case	62	62	36	36	11	11
	Bulk	24½–28	25–28	8–11	8½–11	7–10½	7–10½
E. N. C.	Case	35–60	35–60	33	33	9½–12	9½–12
	Bulk	18–28	18–28	6½–11	7–11	5¾–11¼	6½–10½
W.N.C.	Case	60	60	33	33	9½	9½
	Bulk	26–28	26–28	6–11	7–11	3½–10½	3½–10½
S. C.	Case	62	62	36	36	.....	.....
	Bulk	26–28	26–28	7–11	7½–11	7–11	7½–10½
N. W.	Case	40–65	40–65	38	38	9½–10	10
	Bulk	28–29	28–29	5–12	5–12	7–11½	7½–11½
S. W.	Case	40–65	40–65	38	38	9½–10½	10
	Bulk	28–29	28–29	7–12	7½–12	7–11½	7–11½

NOTE: Bulk goods includes that sold in barrels and drums. Case goods includes that sold in tin containers.

NOTE: Skimmilk powder for export trade was reported sold at 10c per lb. F. A. S. Atlantic Seaboard, and 8c per lb. F. A. S. Pacific Seaboard.

New England (1)—Maine, New Hampshire, Vermont, Massachusetts, Rhode Island and Connecticut. Middle Atlantic (2)—New York, New Jersey, Pennsylvania. South Atlantic (3)—Delaware, Maryland, Dist. of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia and Florida. East North Central (4) Ohio, Indiana, Illinois, Michigan and Wisconsin. West North Central (5)—Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska and Kansas. South Central (6)—Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, Oklahoma and Arkansas. Northwestern (7)—Montana, Wyoming, Idaho, Washington and Oregon. Southwestern (8)—Colorado, New Mexico, Arizona, Nevada, Utah and California.

(Concluded on page 129)

PROSPERITY FOLLOWS THE DAIRY COW. Be sure you attend the National Dairy Exposition—St. Paul-Minneapolis, Oct. 7-14.

Condensed and Evaporated Milk Market Report

By Bureau of Markets and Crop Estimates, U. S. Department of Agriculture.

Manufacturers Wholesale Selling Prices of Condensed and Evaporated Milk (May).

The wholesale prices given below are based on reports made by manufacturers covering actual sales of condensed and evaporated milk to jobbers, wholesale grocers and similar buyers, delivered at manufacturers' distributing points on basis of cash or short time credit. Foreign prices are given as F. O. B., or F. A. S., points of export in section in which sales were made.

Geographic Sections	Sweetened Condensed, Bulk, Per Cwt. Unskimmed	Skimmed	Unsweetened Evaporated, Bulk Per Cwt. Unskimmed	Skimmed
New England—				
Range	7.50—9.00	4.00—5.47	8.35	2.80
Average	8.25	4.70	8.35	2.80
Mid. Atlantic—				
Range	7.75—11.40	3.60—5.47	6.00—12.00	2.20—6.60
Average	9.54	4.67	8.16	3.44
So. Atlantic—				
Range	9.00	4.00—5.47	....	2.42—2.80
Average	9.00	4.83	....	2.61
E. N. Central—				
Range	8.00—9.00	4.00—5.50	6.50—8.00	2.20—5.50
Average	8.63	4.75	7.35	3.39
W. N. Central—				
Range	9.00	5.00—6.50	7.08—8.75	3.00—4.44
Average	9.00	5.49	8.05	3.72
So. Central—				
Range	9.00	5.00—5.47	....	....
Average	9.00	5.24	....	....
No. Western—				
Range	9.00	5.47	....	4.10—4.40
Average	9.00	5.47	....	4.25
So. Western—				
Range	....	5.47	....	....
Average	....	5.47	....	....
United States—				
Range	7.50—11.40	3.60—6.50	6.00—12.00	2.20—6.60
Average	8.94	5.00	7.95	3.42

New England—Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, Middle Atlantic—New York, New Jersey, Pennsylvania. South Atlantic—Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida. East North Central—Ohio, Indiana, Illinois, Michigan, Wisconsin. West North Central—Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas. South Central—Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, Oklahoma, Arkansas. North Western—Montana, Wyoming, Idaho, Washington, Oregon. South Western—Colorado, New Mexico, Arizona, Utah, Nevada, California.

LIGHT EXPORT DEMAND REDUCES CONDENSED AND EVAPORATED MILK OUTLETS.

With export outlets limited by foreign competition at lower prices, condensed and evaporated milk markets have been thrown back upon domestic demand as their principal support, all classes of foreign business have been reduced to a minimum, and relief buying which for several months constituted one of the large outlets for canned milk has now become practically negligible. Rumors are to the effect that opportunities to further relief orders may be presented later, but the uncertainty which accompanied handling past orders was such that the prospect of this business contributes no strength to present conditions. Exporters look upon European countries as the most probable outlets for goods, but European factories are working back to a point of normal production, and this coupled with the fact that Australian and New Zealand factories have been able to out bid American manufacturers has resulted in the export trade of the United States falling off materially. A further condition of some influences is that in England where it has been possible to place comparatively large quantities of canned milk, prices of fresh milk have been reduced and consumers have shown their preference for the fresh product.

Export figures for May show that a total of less than 16,000,000 lbs. of condensed and evaporated combined were shipped during the month. Approximately one-third of this went to Germany and Russia, and except for about a million and a half pounds each to Cuba and the United Kingdom, the remainder consisted of smaller scattered shipments. Evaporated goods continued to constitute the bulk of the demand.

Firm Butter Markets Help Condenseries.

Firm butter markets have helped condenseries which have found it necessary to curtail production. Throughout May and so far during the storing month of June butter prices have stayed at higher levels than were generally anticipated. Cheese markets have also been steady to firm with prices likewise higher than last year. While these conditions have steadied the condensed milk situation, a more or less unsettled undertone has been evident on the part of manufacturers who have had to hold condensery production below normal.

Stocks Heavier on June 1.

Stocks of condensed and evaporated milk in manufacturers' hands June 1 were almost 20 per cent heavier than on May 1, the increase applying to all classes of goods. Approximately the same increase occurred in

(Continued on page 129)

MANUFACTURERS UNSOLD STOCKS OF CONDENSED AND EVAPORATED MILK

Includes all stocks held by manufacturers which were not sold or under contract for delivery on unfilled orders.

Commodity	Total Unsold Stocks June 1, 1922		Comparison of Unsold Stocks For Same Firms Reporting			% Inc. or Dec.
	Firms	Pounds	Firms	May 1, 1922 Pounds	June 1, 1922 Pounds	June 1, 1922 over June 1, 1921
Condensed Case Goods	13	21,586,333	13	20,546,423	21,586,333	— 27
Condensed Bulk Goods	34	9,241,178	34	2,910,015	9,241,178	— 37
Evaporated Case Goods	33	108,125,800	33	96,567,278	108,125,800	+ 2
Evaporated Bulk Goods	15	343,733	15	217,770	343,733	— 41
Total	63	139,297,044	63	120,241,486	139,297,044	— 7

UNFILLED ORDERS FOR CONDENSED AND EVAPORATED MILK

Includes the amounts of each commodity for which orders have been received by manufacturers whose orders were in excess of their unsold stocks.

Commodity	Total Unfilled Orders June 1, 1922		Comparison of Unfilled Orders For Same Firms Reporting			% Inc. or Dec.
	Firms	Pounds	Firms	May 1, 1922 Pounds	June 1, 1922 Pounds	June 1, 1922 over June 1, 1921
Condensed Case Goods	..	.....	..	.....	.....	..
Condensed Bulk Goods	2	421,625	2	353,760	421,625	..
Evaporated Case Goods	8	296,241	8	161,687	296,241	— 89
Evaporated Bulk Goods	..	.....	..	.....	.....	..
Total	8	717,866	8	515,447	717,866	— 71

MONTHLY POWDERED MILK MARKET REPORT.

(Concluded from page 127)

Manufacturers' Total Stocks of Powdered Milk.

Includes all stocks held by manufacturers reporting whether manufactured by them or purchased from others; whether on their own premises; in storage; or in transit (unsold) for warehouse consignment; and whether sold or contracted for sale but not delivered.

TABLE I.

Total Stocks of Powdered Milk Products.

Commodity	Code	Pounds June 1, 1922	Pounds June 1, 1921
Whole Milk Powder	Case	163,962	304,309
	Bulk	1,125,548	1,026,718
Skim Milk Powder	Case	,208,483	204,466
	Bulk	8,364,324	11,096,441
Part Skim Milk Powder	Case	.....	.....
	Bulk	65,899	3,929
Cream Powder	Case	.....	.....
	Bulk	54,107	92,838
Dried Buttermilk	Case	38,460	.....
	Bulk	251,045	1,604,875

Manufacturers' Unsold Stocks of Powdered Milk.

Includes that portion of stocks reported in Table 1, not covered by current sales or future delivery contracts.

TABLE II.

NOTE—Bulk goods includes that sold in barrels and drums. Case goods includes that sold in tin containers.

Unsold Stocks of Powdered Milk Products.

Commodity	Code	Pounds June 1, 1922	Pounds June 1, 1921
Whole Milk Powder	Case	163,962	304,309
	Bulk	312,442	111,869
Skim Milk Powder	Case	145,437	204,466
	Bulk	4,012,414	8,108,891
Part Skim Milk Powder	Case	.....	.....
	Bulk	3,913	3,229
Cream Powder	Case	.....	.....
	Bulk	16,657	34,838
Dried Buttermilk	Case	38,460	.....
	Bulk	44,125	840,130

EXPORTS OF CONDENSED AND EVAPORATED MILK FROM THE UNITED STATES.

	Condensed Pounds	Evaporated Pounds
Total—May, 1922	6,678,332	9,032,294
Total—May, 1921	5,674,652	3,511,209
Jan.-May (inc.), 1922	30,188,304	73,063,995
Jan.-May (inc.), 1921	41,316,601	68,355,744

EXPORTS OF POWDERED MILK FROM THE UNITED STATES DURING MAY, 1922:

Total exports May, 1922	915,258
Total exports May, 1921	144,632
Jan.-May (inc.), 1922	3,787,457
Jan.-May (inc.), 1921	2,002,292

LIGHT EXPORT DEMAND REDUCES CONDENSED AND EVAPORATED MILK OUTLETS.

(Continued from page 128)

unsold stocks, with unfilled orders practically negligible. While not confirmed it is reported that some of the stocks represent goods held for some time, having been made in anticipation of outlets which did not materialize. Prices have shown but little change. In the case of bulk goods the increased demand brought about by warmer weather has resulted in selling prices having advanced slightly.

ICE CREAM COMPANIES CONSOLIDATE.

The Rose Ice Cream Company of Uniontown, Pa. was recently consolidated with the I. N. Hagan Ice Cream Company of that city. The old Rose plant was entirely dismantled, and the consolidated companies will operate under the name of the Hagan Ice Cream Company. Both ice cream and ice are manufactured at their plant.

The officers of this company are: A. J. Hagan, president, R. A. Stenz, treasurer, and Jos. C. McClure, secretary. The directors are A. J. Hagan, I. N. Hagan and C. F. Hagan. The company is capitalized at $500,000.

SERVICE AND VALUE ARE TONICS OBTAINED FROM ADVERTISERS—DON'T STINT DOSES.

The Ice Cream Business for the First Half of 1922

A Report of Business Conditions from Manufacturers

THE first half of the calendar—but not the ice cream—year 1922 is gone. On June 30th we sent out a number of circulars to ice cream manufacturers asking how this year compared with last year's production. We asked:

How do your **present** sales compare with last year's (gallonage or percentage)?

How have your sales **so far this year** compared with those of the same period last year? Increase—Decrease Per cent. Gallons.

What about future prospects?

Do you find the supply of fresh raw material greater or less than last year (milk and cream instead of butter, powdered milk, etc.)?

Do you find collections easier than last year?

Of course we knew what the total answer would be; it couldn't be anything else than an increase, but what is more interesting is just how much the increase has been.

For convenience, we have divided the states into groups. The first group includes the New England States, New York, New Jersey and Pennsylvania. Practically every manufacturer in this territory, except those in the bituminous coal fields of Pennsylvania, reported an increase. There were no unusual increases, but a steady general increase, indicating the fact that the consumption of ice cream is growing. Future prospects were reported good; supplies of fresh raw materials the same or greater, and collections easier. One manufacturer in the bituminous coal fields reported a decrease of almost 40 per cent in business, but the coal strike is responsible for that and it cannot be used as a business indicator. Future prospects in this section are dependent upon the settling of the strike, and collections are slow.

Group two includes Delaware, Maryland, Virginia, West Virginia, the Carolinas, Georgia and Florida. This territory seems to have the strongest general increase of any in the United States. It seems that the year didn't start off very well on account of inclement weather. A few manufacturers report a decrease in production for the first half of the year, but all reported an increase in present sales over last year's, with the single exception of one who said it was about the same. The largest decrease for the year reported was 10 per cent. Increases for the half year ranged from four to 50 per cent, and for the months of May and June, they ran as high as 90 per cent.

"Good," "Very good," "Excellent," and "Business getting better all the time," are some of the expressions used to indicate the optimism of the Southern ice cream manufacturer.

Replies to the next question certainly brought out the fact that the Southern farmers are going into dairying on a larger scale than formerly. The supplies of fresh milk and cream for raw material were reported greater in every case.

Money is evidently easier in this territory, too. One manufacturer reported collections harder than last year, a few of them reported about the same, but the general run of answers was "Yes," "Much easier," etc.

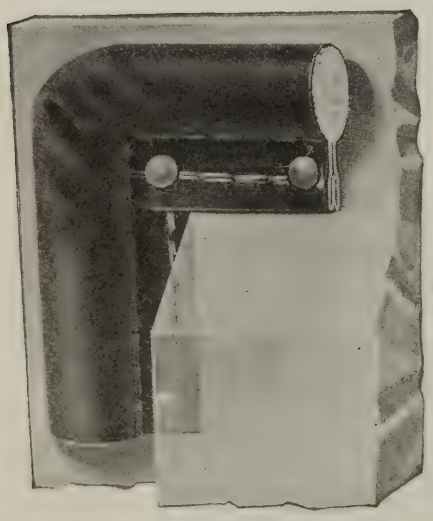
The reports from group three were not so good. This territory includes the states of Ohio, Indiana, Illinois, Michigan and Wisconsin. Subtracting the answers reporting "about the same," the remainder was equally divided between the "decreases" and the "increases." Weather, new factories, cut-throat competition, and the Illinois coal strike got the blame for the decrease. It is worthy of note, however, that the increases were larger than the decreases.

The fact we like to observe is that most of the "decreases" say that future prospects are good, with a few modifying phrases in some cases such as "dependent upon the weather," and all of the "increases" report future prospects good or fine.

The supply of fresh raw material is reported greater, or the same, with a few exceptions who report less. A little more than half of the manufacturers have found collections easier; of the remainder, three-fifths reported the same, and two-fifths reported slower.

The West North Central territory, consisting of Minnesota, Iowa, Missouri, the Dakotas, Nebraska, and Kansas, reported in about the same manner that the previous group did, except that there were fewer manufacturers reporting decreases. The weather and the cotton crop "copped off" the blame for decreases and gloomy future prospects in this group.

The South Central group, consisting of Tennessee, Kentucky, Alabama, Mississippi, Louisiana, Texas, Oklahoma, and Arkansas, carried the high men, but did not stand up as well in general as did the South Atlantic group. One manufacturer reported an increase of 120

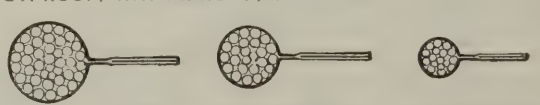


STOP COLD-AIR LEAKS WITH

WIRFS WATERPROOF "AIRTITE" CUSHION GASKET

FOR REFRIGERATORS AND COLD STORAGE DOORS, AIRTIGHT SECTIONAL COOLING ROOM AND REFRIGERATOR-JOINTS, RAILWAY COACHES, DWELLINGS AND ALL OTHER PURPOSES REQUIRING AIRTIGHT, DUSTPROOF, WATERPROOF, OR NOISELESS MEANS OF CLOSURE-CONTACTS

MADE IN 3 SIZES; (ANY LENGTH)



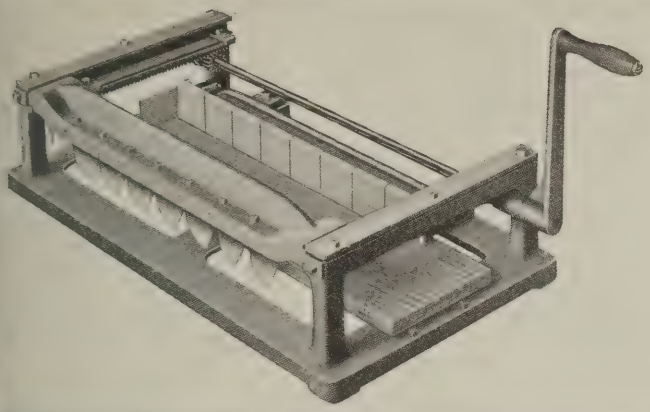
No. 1 LARGE No. 2 MEDIUM No. 3 SMALL

SIMPLY TACK ON—TURN THE CORNERS! (SEE CUT)

REGULARLY FURNISHED WITH BLACK RUBBERIZED CASING; CAN ALSO BE HAD WHITE RUBBERIZED CASING.

GET SAMPLES AND PRICES, STATING QUANTITY NEEDED.
WILL SAVE YOU MANY DOLLARS.

E. J. WIRFS 105 SO. 17TH ST., ST. LOUIS, MO.



Popularity Proves Merit

More Brick Ice Cream is cut on the R & D Better Brick Cutter in Chicago than on all other Cutters combined

Such large manufacturers as Chapell, Victory, Columbia, McBride Bros. & Knobbe, Max Tauber's Sons, Thompson, Hadfield, and Drexel of Chicago and Allen of Rockford are using this machine.

REICHEL & DREWS

452-4-6 N. Ashland Ave. CHICAGO

per cent for June; another reported an increase of 100 per cent for the half year, and several of them ranged around 50 per cent. Slightly more than one-third of the answers received reported a decrease. The weather again came in for a good share of blame for decreases, while possibilities of strikes and no cotton crop got the blame for pessimistic future prospects.

The outstanding fact in this group is that collections are harder. Only one manufacturer reported collections easier; several reported the same; several more simply answered "No," but wrote it as if they meant it pretty thoroughly, and the remainder used such expressions as worst, harder, or not as good.

Finally, we have the Western group—all states west of those already named, and the coast states. Reports from this section were of the steady general kind, indicating a sure and not too slow progress, with the exception of California, which has made much greater gains, but which may be directly attributed to the remarkably rapid increase in the population of that state.

There are several things worthy of comment in these reports. One manufacturer didn't give us any percentage of increase, but just put down "May, 1921—4,081 gal.; May, 1922—10,483 gal.; June, 1921—5,047 gal.; June, 1922—9,611 gal." Another manufacturer wrote:

"Replying to yours of the 30th, relative to our present sales, compared with last year's, beg to advise that our gallonage will amount to better than double of what it did last year. Future prospects seem very bright for further increase in gallonage. We are building up our business on quality products, however, profits are not near so good this year as last, due to cut-throat competition in our section. We have unscrupulous competitors who will make any kind of a price on any kind of a deal to get a customer or hold a customer. However, we are rapidly gaining; especially is this true since we have only been in the ice cream business the past couple of seasons."

We happen to know that ice cream is not the only dairy product that this firm has made a fine success with, and that success, in either case, was directly due to quality product and quality advertising.

Quite in contrast to this man's method is the manufacturer who gives as a reason for his decrease in business, "Money scarce and sales are limited, but general business conditions are much better." Money may be scarce, but if general business conditions are better than last year, money is more plentiful than it was then, and this ice cream manufacturer is not getting his share of it. Either this man has not found the real cause for his decrease in sales, or he needs to advertise his product.

Advertising is surely the one great need of the ice cream business. Many manufacturers still consider it a seasonal product and a luxury; manufacturers who had bad seasons so far, blamed their decrease on cold or cool

IN BUYING YOUR MILK . . . .
AND CREAM TEST BOTTLES . . .
DOES ACCURACY COUNT? . . . .

DOES STRENGTH COUNT . . . .
AND THE ABILITY . . . . . .
TO WITHSTAND . . . . . .
THE STRESS AND STRAIN . . . .
OF THE CENTRIFUGE TESTER? . .

DOES ESTABLISHED REPUTATION
OF THE MANUFACTURER COUNT?

DOES THE FACT THAT . . . . .
THE KIMBLE GLASS COMPANY. .
IS ONE OF THE LARGEST . . . .
MANUFACTURERS OF CHEMICAL .
AND LABORATORY GLASSWARE .
IN AMERICA INDICATE . . . . .
ANYTHING TO YOU . . . . . .
REGARDING THEIR ABILITY . . .
TO MAKE UPSTANDING . . . . .
ACCURATE, DEPENDABLE . . . .
CREAMERY GLASSWARE? . . . .

IF IT DOESN'T, SHOULDN'T IT?.

Order from your jobber or Write us direct

Kimble Glass Company

Vineland, N. J. Chicago, Ill. New York, N. Y.

B-K Bacili-Kl Trade-Mark

Universal Purifier For the Dairy Industry

B-K has been accepted by the Dairy Industry as the Standard Sterilizing Agent. From farm to factory it is used to prevent bacteria from causing inferior dairy products. Farmers, manufacturers, inspectors, physicians, health boards, and dairy schools agree that B-K fills an important need in the problem of maintaining greater purity of dairy products.

Such universal acknowledgment of the value of B-K can only be the result of exceptional merit backed by intelligent cooperation from our Laboratories.

It is our business and our pleasure to help you to better products and more profits.

Ask for Bulletin No. 320, telling How B-K is used to improve quality.

All Supply Houses carry B-K.

GENERAL LABORATORIES

MADISON, WISCONSIN

Sole Manufacturers B-K

weather, and those in the strike districts said that money was so scarce that people couldn't afford to buy ice cream because **they considered it a luxury.** People drink their coffee and tea just as hot in the middle of August as they do in January, and it is only fair to assume that they can eat their ice cream just as cold in January as they can in the middle of August, once they get the idea. It is a well known fact among ice cream manufacturers, and some of the public, that ice cream is not a luxury; substantial evidence of this was that during 1921, when other businesses were at their lowest, ice cream plants were doing a regular business and new plants were springing up all over. People must eat no matter how bad business conditions are, and if ice cream is considered a food instead of a luxury, people will buy it no matter how bad conditions are. One manufacturer says that his business has increased 30 per cent because "people are learning to eat more dairy products." That is a good reason for an increase and another is: "People buy ice cream because there is no other dessert so healthful and refreshing and yet so reasonable in price." There are the two sides of the situation; why not have only one?

A number of manufacturers complained about new plants selling their ice cream too cheap and giving all kinds of concessions to get and hold business. Such statements as, "New factories are offering concessions that are impossible and cannot make a profit; it is bound to cripple the industry and break themselves," and "Abuses of the trade are being tolerated which are not to the best interest in general," were quite frequent. These are regrettable facts, and it is certainly to be hoped that manufacturers who are engaging in such practices will soon reconsider and run their businesses on right principles.

To sum it all up, we believe that the ice cream business so far this year has made a very substantial gain over the corresponding period of 1921. The large increases and decreases in business were, no doubt, mostly in smaller plants which have not thoroughly developed or stabilized their market. Taking into consideration the average of increases and decreases, there is only one conclusion—the ice cream business is growing and not with the growth of the population but in direct proportion with the increase of value and quality advertising.



BOUQUETS FOR THE LIVING.

Editor The Ice Cream Review:

Your June issue is certainly a pippin. If there was any question about the character of the industry in general, this issue should certainly put the quietus and finishing touches on same, and convince the most skeptical that any industry capable of sustaining a trade paper of this character must be taken out of the lists of infantile industries and placed in the catagory with many of our leading industrials, hardly any of which can claim to have a monthly journal of 150 pages devoted to their exclusive interests, and doing the work as thoroughly as The Ice Cream Review.

The writer was particularly impressed with your news item in relation to the development of this industry in foreign climes, and feels that this is a feature on which you cannot lay too much stress for the reason that our company's records will show that the demands for ice cream machinery from across seas has increased at least 500 per cent in the past twelve months, proving to our satisfaction that the arrival of two million Yankee boys on foreign soil a short time ago, not only helped to put out the most serious conflagration the world ever saw, but also installed and left behind them on their return, a wholesome appreciation of the merits of ice cream—not as a delicacy, but as an actual article of diet and of real food value; and it is our thought that this is the time right now when we, through our organizations and trade papers, should put our shoulders to the wheel and back up (with all our accustomed energy and Yankee ingenuity) the work which our boys so unconsciously started, and which we know will prove an immense benefaction to those countries as it did to this, and incidentally ought to be a benefit to many of our organization members if not financially, at least morally.

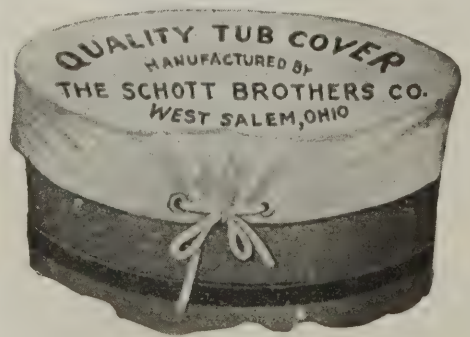
Furthermore, to prove that these benefits are not local, but are spreading all over the old world, we recently sent you, an electro of a rather primitive ice cream plant lately established in South Africa, which you are at liberty to publish, if you find it of interest and care to adopt our suggestion.

We also wish to compliment you especially on your questionaire; that to our mind is very constructive work. On reading your replies to same, wish to state that the writer (who has been mixed up in this line for many years) received some very valuable ideas, many of which were entirely new to him, and our thought is that no doubt many of your readers, supplymen as well as ice cream manufacturers, will probably find just as much enlightenment perhaps on some of their problems.

Assuring you of our most earnest hope of being of assistance to you in your original efforts on behalf of our industry, and with personal best regards, we remain,

Yours very truly,

EMERY THOMPSON MACHINE AND SUPPLY CO



WRITE FOR PRICES NOW

Buy from the Originator

We are the originators and patentees of this quality ice cream tub cover. No royalties to pay—no infringements to guard against. All good reasons why

Schott Brothers Quality Tub Covers Are Lower in Price

The fact that after six years as users, original buyers of **Quality Tub Covers** send in repeat orders each season for new tub covers, should be proof enough for you to investigate the quality, price and serviceability of Quality Tub Covers.

The Quality Tub Cover comes to you complete with staples, tie strings and your advertisement.

THE SCHOTT BROS. COMPANY

WEST SALEM "If Made from Canvas We Make It" OHIO

MORE DATA ON FREEZER SIZES.

The following letter reached us too late to be printed with other letters on the same subject in the June number:

Relative to your letter regarding the use of the large type freezers instead of the small machines, we state that we have have delayed answering this until we could have further opportunity to make some tests on the results obtained from the large machines.

As you know we last year put on the market a 160 quart machine that has been highly successful in every way. We have recently made some tests on the very question raised in regard to the effect on the overrun, during the drawing of the cream into the cans.

During the drawing of one batch into three gallon cans, we took three tests and found a variation of only one degree in the overrun. In other words, the last end of the batch was one degree lower than the beginning.

We made another test during the drawing of a batch from a 160 quart machine into brick slabs and during the drawing the overrun dropped three points.

We do not think that this record can be beat by any 40 quart machine. Our experience being that with the same amount of cream drawn from a 40 quart freezer the variation would be considerable more than one point.

The freezers are so constructed that the discharge is very rapid and the stream does not fluctuate. For this reason they can be emptied very quickly. During the recent tests above mentioned the 160 quart machine was emptied into the three gallon cans in one minute.

In one plant in which these large machines are operated they draw the cream into hoppers and the cans are filled from the hoppers on the floor below. It takes about forty-five seconds to empty this large machine into the hoppers.

There is no question but that the satisfaction that is given by these large freezers in the matter of overrun is to a great extent due to the fact that they can be so quickly emptied when the proper overrun has been reached, and in this rapid discharge we believe we have overcome the objection that has properly been raised to the large machine.

We have made these tests on the largest machine that we make so as to get the results in this extreme size, and while we have not made any tests on the smaller machines, we have no doubt but that the results would be equally as good in our 120, 80 and 60 quart sizes.

We do not urge the manufacturers in all cases to put in large machines. There is no doubt but that any wholesale factory should have at least two machines and if their output is not very large they, of course, should use their judgment as to the size that these two machines should be.

We have many plants who have put in 2-40 quart machines and some that have put in 2-60 quart machines. On the other hand we have some plants that have put in 1-120 quart and 1-40 quart machine. The large machine being used for vanilla, strawberry and chocolate, and the 40 quart machine for special's. We, also, have plants that have put in 3-120 quart machines and some with 3-160 quart machines, and we find the tendency everywhere seems to be toward taking out the 40 quart machine and putting in the larger type instead of increasing the number of small machines, and we have never yet heard any of these manufacturers express any regret at the change, as they are able to turn out a much larger quantity of cream with fewer men and much less space in the freezing room.

U. S. FREEZER & MACHINE CORP.

TEXAS FIRM QUADRUPLES CAPITAL STOCK.

The Milk Products Company, with ice cream plants at Port Arthur, Orange and Beaumont, Texas, has increased its capital stock from $10,000 to $40,000 to take care of the expansion of their business. The plant at Beaumont, which was only recently completed, is built and equipped in the most modern manner and has hardening room capacity of 2000 gallons.

This firm manufactures ice cream exclusively in their three plants and is enjoying an exceptionally fine business, which is expanding exceptionally fast. The officers and directors are: D. Button, president; Chas. R. Stevenson, vice-president; R. C. Allis, secretary, and W. C. Ross, treasurer and general manager.

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MOST FILLING MACHINES WILL PACKAGE BULK ICE CREAM SATISFACTORILY.

NEWS ABOUT SUGAR

Items of Interest for the Ice Cream Manufacturer

RESUMPTION OF BUYING BY EUROPE ANTICIPATED.

Lull in Demand Only Temporary Is Tenor of Reports—Accumulated Supplies Not Sufficient.

Europe will again be a buyer in the American market in a comparatively short time in all probability, judging by advices that have been received from European importers of refined sugars.

The lull in the export demand, it appears, is not wholly due to competition from Java or to high prices, though these undoubtedly have had an effect.

Exchange Situation a Factor.

Another factor which has brought about the dullness of the past two weeks is the exchange situation, the depreciation of the value of European currency, more particularly that of Germany, having acted as a deterrent to purchases.

On the other hand, Europe has shown a natural resistance to the advancing prices of the American and Cuban markets, and buying was lessened, to some extent on this account.

Information from reliable European sources, however, is to the effect that the greatest factor in cutting down the demand for American granulated has been the fact that earlier heavier purchases have supplied immediate needs and that the sugars already bought which are now being consumed have enabled European firms to await developments before placing further orders.

European buyers, however, are not under the impression that they are through buying in the American market, and are said to admit without hesitation that they will be obliged to call on the refining capacity of this country to cover their further wants in the fall.

While this is the attitude of British buyers, French and Norweigian buyers are keeping up their activity, or at any rate are showing interest in export sugars.

Germany out of Market.

The demand from Germany seems to have dropped out of sight as a result of the unusually adverse exchange situation. Germany, however, it is intimated, will need further supplies before the German beet crop is available.

From well informed sources in close touch with the situation in Java it is learned that Germany has drawn on that source for supplies to a considerable extent, and it is believed that her imports this year from all sources have been far above the amount generally supposed and will be possibly as high as 400,000 tons.

NEW ICE CREAM PLANT FOR DURHAM, N. C.

In a letter received recently from the Durham Ice Cream Company, they say they have purchased a lot in the heart of the business district, containing 13,000 square feet of ground, upon which they contemplate building a two-story ice cream plant, with a capacity of 2000 gallons daily. They will install a twenty ton ice plant. This move is made necessary by the rapid growth of their ice cream business.

In addition they will install a first class bakery and catering business. All equipment and machinery will be of the most modern type.

NEW BRICK MAKER IN USE IN CHICAGO.

There is a growing demand among users of brick ice cream for bricks that are perfectly formed and uniform in size. In order to supply a local demand for a machine which would cut bricks uniformly and rapidly, Reichel and Drews, of Chicago, brought out a machine which operates either by hand or power, which cuts the slab into eight bricks at one operation. The machine has seven knives which are rigidly fixed at the proper distance apart, so that the bricks are all exactly alike in size. The use of seven knives also permits an extremely rapid operation, since the entire slab is cut at once.

Before offering the machine for sale, the cutter was tried out thoroughly in the large plant of the Chapell Ice Cream Company in Chicago. After a thorough test under working conditions, it was offered to other Chicago manufacturers, with the result that it has found its way into nine Chicago plants. This great popularity is a substantial endorsement of the merits of this brick cutting machine, more information regarding this machine may be secured by writing to Reichel & Drews, Chicago.

TIME REQUIRED TO FREEZE, WHY IT VARIES.

Under his title an article appeared in the June issue of The Ice Cream Review on page 140, but two good letters from the western part of the country came in just a little late so we are publishing them this month.

DUE TO RE-PASTEURIZATION.

I have, in the past, had the trouble you speak of, slow or varied time for freezing and hard to get the desired overrun. Eighty-five to ninety per cent overrun and three batches an hour was all I could get. It is needless to state here all of the many earnest efforts on the part of many, directly and indirectly concerned. I wish to state here, with all modesty, that I detected the trouble from the beginning, but, at that time, being only second-man in the department, I did not like to crowd my opinion too hard although I did express it at that time. I think I can honestly state that over $2,200 was spent trying to find a remedy to no avail. The whole trouble was simply this; we were buying "pasteurized" cream and "re-pasteurizing" it too high before homogenizing. I finally got permission to try my theory and bought raw cream and pasteurized it properly and froze a batch every eleven minutes with 100 per cent overrun.

* * *

Depends Upon Handling.

The question tho somewhat closely circumscriber, seems to imply difference that solids, age and acidity do not cover. The following may possibly have some bearing: first, nature and source of solids; second, the conditions of aging, and third treatment of material during mixing.

Literally the question would limit us to different freezings of the same mix as the implication is that the different freezings are identical. From my own experience I do not believe this is what is wanted; rather, why the difference in different mixes supposed to be the same. In the same mix the method of freezing, the kind of freezer, amount of overrun desired, might be suggested tho have no such trouble myself.

In different mixes where very likely the most trouble has been had, I can say that mixes made of raw sweet milk and cream usually whip easier than the heavily pasteurized and homogenized ones. Old milk and cream, even at the same acidity, will whip better after mixing as a general rule. Again mixes made largely of milk powder will take longer to freeze and harder to get required overrun unless given special treatment. Numerous such combinations could be given. Different mixes of the same age and makeup will vary considerably, depending on ripening temperature used, especially when widely different numbers of bacteria are pres-

ent or different species predominate. A light acid or non acid producing bacteria could produce a considerable change not noticeable to taste. Someone qualified may disagree with me emphatically, but my observation without means of positive proof indicates such to be a fact.

It is evident that the same material may be made into widely varying product by different methods of mixing. Differences that materially effect the whipping may pass the operator unnoticed. For instance, we were carrying the sugar content very close to the line of poor whipping and testing in mixing vat before homogenizing. A slight mishap delayed the mix, hot in pasteurizer, for an hour. About 15 gallons of water were evaporated making the sugar content too high so a very poor overrun was obtained. Numerous such instances could be cited showing what to many is the same solids, acidity, age, etc., is really considerably different. I feel that in conditioning mix there is much to be learned and what here is suggested only the merest observations made while operating.

⚜

MADISON FIRM TO BUILD $150,000 PLANT.

An $80,000 milk and ice cream plant will be erected by the Kennedy Dairy Company, at 629 West Washington Avenue, on the site of its present ice cream factory, formerly owned by the Zilisch Milk Company. With the machinery to be installed in the new building, the plant will represent an investment of approximately $150,000 when completed.

The dimensions of the structure are to be 87 by 133 feet. The plant will be built of stone, brick and reinforced concrete. The building will be two stories high. The latest and most sanitary machinery will be installed, according to Emerson Ela, a member of the company. The company also plans on installing its own ice plant.

"When the building is completed, we will give Madison a first-class milk producing plant," said Mr. Ela.

Mr. Edward J. Samp, one of the incorporators, will be manager of the plant. Other incorporators are Attorney William Ryan and Attorney Arnold Peterson.

The building of the Zilisch Milk Company, which stands on the property purchased by the Kennedy Company, will be razed to make way for the new plant. It is expected to be ready for occupation by September.

⚜

NEW WEBSTER CITY CREAMERY IN OPERATION.

The fine new factory of the Webster City Creamery, Webster City, Iowa, which has been in process of building for about two and a half months, is now in operation. This is the first plant in this city which is a combined creamery and ice cream factory.

H. E. Forrester, formerly with the Iowa State Dairy and Food Commission in Des Moines, and a dairyman of nearly twenty-five years' experience, is manager of the plant. He, with the assistance of his three sons, did most of the work of getting the building in shape for occupation. The three boys and one daughter will be associated with their father in the operation of the plant.

It is estimated that the cost of the building, equipment and installation will total $18,000.

Cream is delivered to the plant at a side door, where a small bell is located which enables the farmers to summon attendants to assist with unloading the cream. The attendant weighs the cream and tests it for butterfat content, after which it is pasteurized. The cans are returned to the owner after being cleaned and sterilized with live steam.

If the cream is to be churned, it is pumped from the pasteurizer to the churn by an automatic pump. The pipes through which the cream is conveyed are sectional, and can be taken apart and cleaned. The buttermaking is in charge of Mr. Forrester, who possesses a great number of medals for his fine butter.

Cream for use in ice cream is piped in another direction, into a mixer, which is operated by a one-horse power motor. From the mixer it is run through sectional pipes into the freezer. The freezer is of 40 quart capacity, and is operated by a three horse power motor. From the freezer the frozen cream is placed in a hardening room of 2,400 gallons capacity. At the rear of the building is a room where the ice crusher is operated, and where the cans are packed for delivery. There is also equipment here for cleaning incoming cans with live steam. In the basement is a fifteen horse-power boiler which supplies steam for cleaning the cans. Here also is located the twelve ton refrigerating plant.

Cement has been used on the floor of the main room of the creamery and the basement will also have a cement floor as soon as improvements are completed.

Provision has been made to install other freezers in the plant as soon as the business warrants their installation. The present plant, running full speed, would have a daily capacity of some 1,500 quarts of ice cream a day.

The company which operates the local plant has ice cream factories at Oelwein, Waterloo and Cedar Falls.

⚜

NEW "CREAM OF CREAMS" PLANT AT KENOSHA

The Blommer Ice Cream Company of Milwaukee, Wis., manufacturers of "The Cream of Creams," with plants at Milwaukee and Wisconsin Rapids, have lately completed their third plant, which is at Kenosha, Wis.

The new Kenosha plant is the last word in ice cream plant construction and equipment, according to Wisconsin Dairy and Food Inspector, Madison, and ice cream supplymen who have seen it. The building is one-story with full basement and built of reinforced concrete. It is equipped with two 120-quart direct expansion freezers and has a capacity of 2,500 gallons per ten-hour day. The point of special interest is the hardening room, which is equipped with an eight inch cork inlay. "The hardening room of our Milwaukee plant is equipped with six-inch cork inlay and we are of the opinion that it could stand more without overdoing it, so we added an extra two inches in the Kenosha plant," says Mr. Geo. Blommer.

The Blommer plants are all equipped with the most sanitary equipment obtainable. All vats and pasteurizers are Elyria glass lined, the freezers are of large capacity, and all pipe lines are of sanitary sectional construction that can be readily taken apart and cleaned without even the use of a wrench. Modern efficient machinery properly arrainged is the source of heavy production in the Blommer plants. One illustration of efficiency is seen in the arrangement of the brick-making department of the Milwaukee plant. The brick slabs come from one end of the hardening room, are dipped, forced out of the container with air pressure, cut, packed, packaged—several bricks of assorted flavors going into a package—and go down a chute back into the hardening room all in one continuous operation which does not permit a lost motion.

The mix for the Blommer plants, sufficient to make about 6,000 gallons of ice cream daily, figuring on an overrun of 85 to 90%, is all made in Milwaukee. The cream going into the mix comes in daily from reputable large dairies, and, although the butterfat content is held reasonably close to the 12 per cent standard, the total milk solids content is permitted to run over the standard about three per cent. "This," says Mr. Blommer, "is

the chief reason for the increasing popularity of 'The Cream of Creams.' By the looks of things at present we will have to add another story to the new Kenosha plant for next year."

Three brothers, George, John and Al. Blommer are behind Blommer's ice cream. Two of them, George and John, look after their Milwaukee interests and take a run down to Kenosha occasionally, and Al. has charge of the Wisconsin Rapids plant. Mr. Wm. Isermann, general salesmanager of the company, has charge of the new Kenosha plant, and Ernest Bauman is superintendent.

WINDBER, PA., TO GET ICE CREAM PLANT.

What will be one of the most up-to-date ice cream plants in this section of the state is now in the course of erection at Windber, Pa. Frank Tarr, the genial proprietor of the Grand Central Hotel, is having the building erected and upon completion will himself engage in the manufacture of ice cream on a large scale. The building, which adjoins that of the hotel property, will cost in the neighborhood of $30,000 and will have a capacity of 400 gallons per day. It is 100 feet long with a frontage of 40 feet. It will be two-stories high and constructed of brick, stone and concrete, and will be obsolutely fireproof. The upper story will be an apartment house, in which Mr. Tarr and his family will reside. The first story will be devoted exclusively to the manufacture of ice cream, which is to be sold wholesale only. There is to be a refrigerating plant of the latest approved type, with all the modern machinery that goes toward the making of an up-to-date concern of this kind. The plant will be in charge of an experienced maker of ice cream. It will soon be in operation.

E. D. FRANCKE AND SONS OF SAGINAW MAKE IMPROVEMENTS IN PLANT.

E. D. Francke and Sons, makers of Francke's Quality Brand ice cream at Saginaw, Michigan, have practically doubled their capacity by the addition of another 15-ton York ice machine and another hardening room. They have also installed a conveyor and have taken out several partitions, which gives them more room.

This firm is a partnership of father and three sons, namely, Emil D. Francke, Arthur N. Chester A. and Leonard N. Francke.

THE ICE CREAM FIELD.

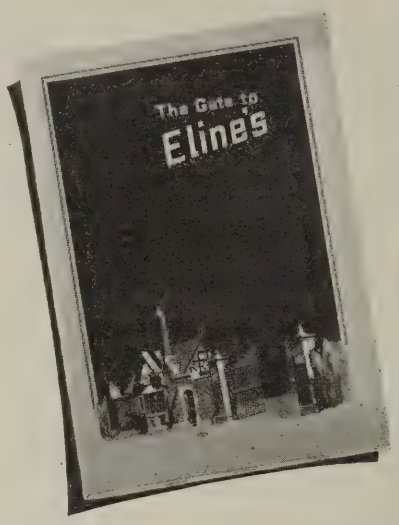
A new publication in ice cream trade circulars is the "Ice Cream Field" published at Atlanta, Georgia, by D. A. Loyless and edited by Craddock Goins. Vol. 1. No. 1 appeared last month. Good trade publications dignify and help develop any business and we cordially welcome this splendid addition to the ice cream trade press family.

ILLINOIS ICE CREAM MANUFACTURER DEAD.

A card has just reached this office announcing the death on May twenty-sixth of Mr. William F. Prast, a partner of the Cherry-Prast Ice Cream Company, of Danville, Illinois. The Ice Cream Review extends its sincerest sympathy to the family and friends of Mr. Prast in their bereavement.

SOME UNIQUE VIEWS AND NEWS ABOUT CHOCOLATE AND COCOA.

From the mass of literature that comes to The Ice Cream Review week in and week out there must be something of unusual interest about a certain booklet, folder or other piece of printed matter to cause a lull in the routine of our operations and just naturally impel an anxiety in us for an immediate thorough inspection and reading.



Such was the case when we opened an envelope and feasted our eyes on a highly attractive booklet entitled, "The Gate to Eline's." The "gate" itself is something that will be appreciated by the man who enjoys good architecture and history, but for the busy ice cream man who is progressive and ever seeking information and knowledge about the ingredients of his product, there is something back of "The Gate to Eline's" that is best told in the pages of this splendidly illustrated booklet.

Chocolate and cocoa are two products that in the past year have played a greater part with the ice cream manufacturer than ever before in the history of the industry. When combined with ice cream chocolate and cocoa is surely a tasteful combination. It forms the opportunity for a variety of ways in which the ice cream manufacturer can increase sales.

So every ice cream manufacturer who wants to learn something more about chocolate and cocoa will find in "The Gate to Eline's" the best collection of educational photographs and instructive paragraphs relative to these products, their origin and preparation, we have ever seen.

The expense of getting up this booklet no doubt makes its promiscuous distribution prohibitive. It is worth writing, however, to Eline's, Incorporated, Milwaukee, Wisconsin, where, if copies are available we are quite sure interested ice cream manufacturers will receive courteous consideration in the order requests are received.

A NOVEL PICTURE CONTEST.

Fortune's, Incorporated, of Memphis, Tennessee, have undertaken a means of popularizing their All-Cream Ice Cream and Cococones that is somewhat unusual in its nature, and certain to be very effective. The are offering a prize of $50 for the best child's photo or Kodak picture to be used in advertising these products. There are no rules or restrictions to this contest, the only requirement being that in every picture the Cococones and ice cream must be plainly visible. It is announced that a committee of disinterested judges will select the winning picture.

For stimulating interest locally and acquainting the public with their product, this method is excellent, for not only does it create great interest among the children, but among parents as well. Such a campaign as this, backed up by the products that are all that they are "cracked up" to be, is sure to be a success.

CONTINENTAL

Modernizes

Ice Cream Freezing

GREATLY reduces operating cost and speeds production. Simply turn a valve and you get instant freezing action, no time wasted, no brine to pump.

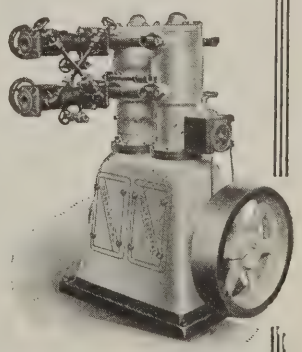
With this Continental money saving freezer you get a greater swell, more uniform consistency—better quality product—better satisfied trade.

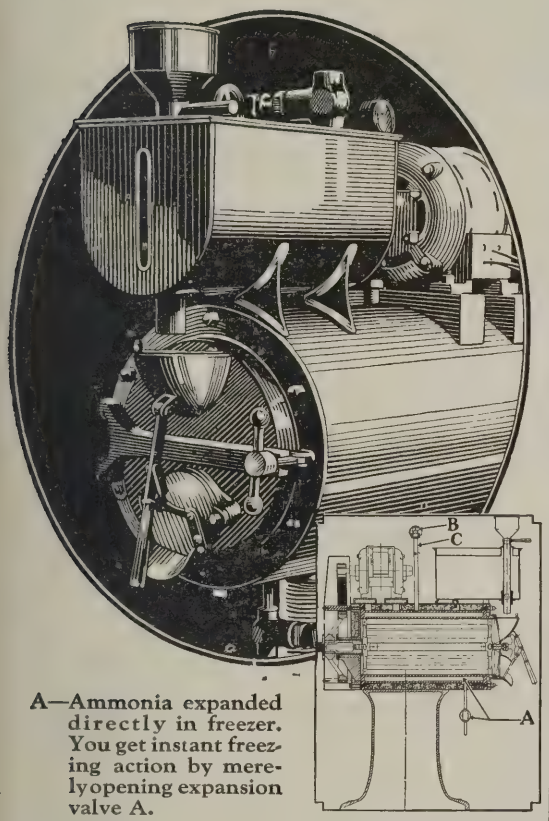
See this marvelous machine in operation—and you will readily understand why it is the most distinct improvement ever achieved in ice cream freezers.

Investigate it—NOW. Write for Bulletin 28-C.

We also build compressors and complete refrigeration equipment for ice cream plants.

With a Continental Compressor you make ammonia do its best by intense control, high speed, ribbon valve and avoidance of lubricating oil contamination in refrigerating coils—and remember—no ammonia can enter a Continental Crank Case.





Cross Section of Continental Direct Expansion Freezer

A—Ammonia expanded directly in freezer. You get instant freezing action by merely opening expansion valve A.

B—Absolute temperature control; opening or closing suction valve B regulates temperature instantly at any point desired by operator.

C—Combination temperature and pressure gauge; constantly indicates temperature maintained in freezer cylinder, thus enabling operator to know exact temperature and to raise or lower it at will.

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Co-operative Service

Our Service Bureau and Refrigerating Engineers will gladly study your particular problem and offer recommendations for your consideration without any obligation whatever. This department is maintained to co-operate with our customers and as an authoritative source of practical, helpful information for those interested in efficient refrigerating equipment. Put your problems up to us; if you like we'll send you a data sheet for this purpose.

Continental Machinery Co

Builders of Quality Refrigerating Equipment

111 W. Monroe St. : Chicago, Illinois

THEY EAT ICE CREAM ON SUNDAY IN HUNTINGTON, W. VA.

Even in these Volsteadian days of Sahara-like aridness, there are such occurrences as "ripping off the lid," and having a jamboree that is absolutely devoid of inebriation, other than such mental exhilaration as accompanies the release from restraint that has been placed upon individuals by misapplied authority.

Residents of Huntington, W. Va., have for a matter of three years been held down, so far as Sabbath day deportment is concerned, by the vagaries of a mayor, who enforced every law on the statute book since the day Noah drove the first nail into his now famous houseboat.

When Mayor C. W. Campbell went into office in June, 1919, he started out immediately to redeem his preelection pledges about law enforcement pertaining to Sunday closing, and he invoked everything that was ever written into the city or state books.

But the worm has turned, to employ the vernacular, and Mayor Campbell, after a regime of three years, has been dethroned, his successor being the man he defeated for office, Floyd S. Chapman.

Without any particular ceremony Mayor Chapman proceeded to cut the Gordian knot that has held his constituency enmeshed and the people responded by having a veritable orgy sans liquor, for the first time in three years on a Sunday several weeks ago.

They regaled themselves with ice cream in cones, bulk, brick and every other conceivable form until the town's supply was exhausted.

Restraint was cast to the four winds, the movies beckoned to the unleashed populace, ball games were in full swing and the soft drink parlors did a land office business.

The people gave vent to their pent up feelings by going the limit, but in a dignified and orderly manner. They had had their fill of Sunday denials, and old folks joined with the kiddies in having a rollicking good time.

An observer, who chanced to be in Huntington on this memorable occasion declares it was a sight for sore eyes, to see the enthusiasm with which the people entered into the spirit of the occasion, and to say that Mayor Chapman was the hero of the occasion is putting the facts mildly. If it had been within the gift of the voters of Huntington to make him president of the United States and chief porter of the Fiji Islands, he would have won in a walk.

When Mayor Chapman lowered the bars of restraint he did not confine himself solely to appeasing the Sabbath-day gastronomical desires of the populace, for his edict also had something to do with conditions at the municipal bathing beach, which on Sunday for three years had been deader than the tomb of the Pharoahs. Here young women were permitted to splash about in one-piece suits with extremities that were determined entirely by their own sense of decency and modesty. They do say the young ladies mirrored their predilections in this matter by furnishing the assembled "multitudes" with one of the most exquisite optical feasts conceivable.

In fact the day proved a huge success and scored another victory for the champion of a down-trodden people.



A clever bit of advertising which is utilized in the West by a leading ice cream firm, reads as follows:

"When your sweet tooth calls for ice cream, let your wisdom tooth say (name of manufacturer).

ICE CREAM REMOVED FROM PALE OF BLUE LAW ENFORCEMENT.

A great big splash of white, judicially applied, has taken a great deal of the indigo out of the atmosphere which has enveloped Bucyrus, Ohio.

This town has been waddling about its daily duties in habiliments of blue for some time, but it devolved upon Common Pleas Judge William F. Duncan to brighten matters up a bit for the home folks when he ruled without reservations that in the future it will be no violation to sell ice cream on Sunday, which has been under the ban.

This progressive magistrate was hearing several cases of alleged violations of the blue laws, including the sale of ice cream, when he made the pronouncement that ice cream is indisputably in the food class, possessing practically all the elements of nutrition, and is recognized as such by the authorities on such subjects.

In announcing his decision, which placed the sale of ice cream without the pale of the stringent blue laws, Judge Duncan said the very nature of ice cream makes it impossible to preserve it for any length of time, after it has been purchased, thereby precluding its purchase on Saturday night for consumption on Sunday.

This constructive interpretation of the food laws by Judge Duncan takes on special significance when it is known that the Barrister is one of the strongest advocates of the campaign being waged in the Ohio town for a stricter observance of the blue laws.

The Sunday closing law enforcement in Bucyrus is being espoused by the leading citizens and apparently will win the day but Judge Duncan seceded from the ranks of the leaders in the movement just long enough to put across a most commendable decision.

According to all of the facts available Judge Duncan has not in the least impaired his standing in the community, but on the contrary has in all probability recruited to his side a not inconsequential army of little folks who clamor for ice cream and who will some day exercise the right of franchise, and if Judge Duncan is looking for support from this direction to retain his judicial position will be able to count a substantial number of ballots bearing an X after his name.

This is only another illustration of common sense accurately applied when the best interests of the people are concerned.



AMMONIA LEAK INTERRUPTS WORK AT ICE CREAM FACTORY.

Ammonia gas escaping through a valve in which the packing was blown out, caused the factory of the Berlin Ice Cream and Dairy Products Company, Berlin, Wisconsin, to shut down temporarily one morning recently. The suffocating fumes drove the entire working force out of the factory for a time, and stopped the taking in of milk.

Not a gas mask in condition to be used could be located in the city, it was said. A few venturesome spirits attempted to enter the workroom, but the stifling atmosphere drove them back. Finally a window was broken on the east side of the building, and the valve turned so that the escaping gas was shut off. In a few hours the air had cleared so that work could be resumed.

This may suggest to other manufacturers that it is a good idea to have a gas mask or two around the factory in case of a similar emergency.



Did you ever get up a party, invite your friends and then worry whether they would send regrets or flowers? Did you ever get fooled and have them all run in on you and the supply of ice cream and cake run low before you had served half of them?

If so, then you know how we felt when "the bunch" swooped down upon us in our new home, took possession, put their feet upon the mahogany furniture and proceeded to tell us how glad they were to see us. They came in singles, doubles, triples and home-runs and if we looked good to them they surely looked good to us. They brought bouquets of every description and littered up our desks with expressions of good will and kind wishes. They left nothing undone to make the occasion memorable for us.

These dignitaries were in attendance upon the convention of the Associated Advertising Clubs of the World, and they left their jamboree to come and see us and help us celebrate the opening of our new publishing plant.

We tried to make them feel at home, but we probably made a sorry mess of it. We were as bashful as a debutante at her first coming out party, and the things we said and did to these many kind visitors were not the things we would say and do under normal conditions. We hope that they gained the impression that they were welcome and will be welcome at any time. And you folks who couldn't be here at our opening, come and see us when in Milwaukee. We have something we want you to see. If you don't find the latch string hanging out kick in a window. We want you to come.

SALES BOOSTER FOR ICE CREAM BARS.

In the April issue of The Ice Cream Review an article appeared entitled "The Manufacturer's Point of View," which summarized the replies to over a hundred questionnaires regarding the manufacture and sale of chocolate coated ice cream bars. Some of you may remember that the replies to one of the questions brought out the fact that the main difficulty encountered by the retailer in selling these bars was keeping them in a properly frozen condition.

A new invention placed on the market by the Northwestern Corporation of Morris, Illinois, appears to furnish an attractive means of eliminating this difficulty. It is a unique cabinet arrangement, one of the most convenient contrivances conceivable for keeping these bars in a 100% salable condition, and at the same time bringing them to the favorable attention of the public.

The bars are kept constantly packed in ice, the only operation necessary to emit them from the cabinet being a simple turn of a handle. Very little warm air is admitted by this process, which reduces the ice shrinkage to a minimum, and insures a constant low temperature.

An advertisement of this cabinet, which gives an interesting account of its usefulness and convenience, appears on page 71 of this issue of The Review. Turn to it now, and establish an acquaintance with this new invention.

GRAND RAPIDS TABLE COMPANY PLANT DESTROYED BY FIRE.

On July 4th the factory of the Grand Rapids Table Company, Grand Rapids, Michigan, was completely destroyed by fire.

This firm, in addition to manufacturing tables, made the well known NoSwet ice cream cabinet.

⚜

BROADVIEW FIRM PLANS TO REBUILD.

Rebuilding of the stable building and warehouse of the Broadview Dairy Company, which were damaged by fire to the extent of $18,000 to $20,000 on June 7th, will begin as soon as details can be cared for and plans made according to Manager Frank B. Flood.

Mr. Flood also stated that the damage was fully covered by insurance.

⚜

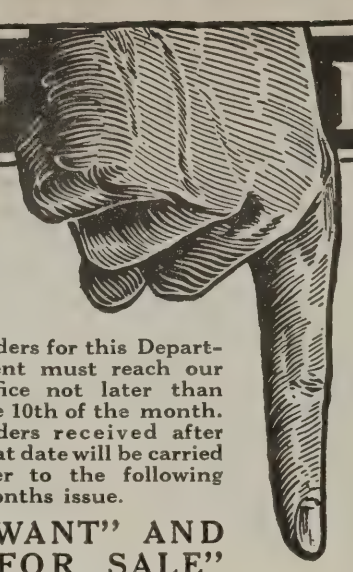
His Interpretation.

A profane man was reminded of the Scriptural command: "Swear not at all." "I do not swear at all," was his response. "I only swear at those who annoy me."—Boston Transcript.

⚜

Send news items and personal notices to the "Review" and see how well they look in print.

WANT DEPARTMENT



Orders for this Department must reach our Office not later than the 10th of the month. Orders received after that date will be carried over to the following months issue.

"WANT" AND "FOR SALE"

Notices will be published at the rate of 2 cents per word, cash with order. For blind address 15 cents extra.

NOTE: Names and addresses of advertisers using blind addresses cannot be furnished direct from this office. The advertiser can be reached only by using the key number and addressing your reply care of "The Ice Cream Review."

NOTICE.

The Ice Cream Review disclaims any responsibility for the reliability of parties advertising in the Want and For Sale Department, nor for the truthfulness of statements made in such advertisements. In answering such ads, ask for references if parties are unknown personally, before sending money. Our subscribers are requested to assist us in keeping unreliable parties from advertising by reporting any suspicious dealings.

HELP WANTED

THE TREMENDOUS SUCCESS of the recently invented confection, "ESKIMO PIE," has demonstrated the wonderful possibilities of protective patents and trade-marks for novel confections. Patents procured, trade-marks registered; 22 years' experience. Instructions and terms on request. Robb, Robb & Hill. 920 McLachlen Bldg., Washington, D. C., and 1385 Hanna Bldg., Cleveland, Ohio. 2-22tf

EMPLOYERS!—Men, men, men—the crying need of the day! If you need any men in your business today, read the following ads and see if you can use any of these. The fact that these men are advertising here stamps them as unusually progressive. Write them and give them a chance to sell their services to you. "Ice Cream Review," Milwaukee, Wis. tf

WANTED — Soda Fountain Department Manager—by large Pacific Coast jobber. Must be experienced, live, energetic executive, capable of managing salesmen, ordering and expanding established fountain and supply business. Give full particulars of experience in first letter. F. Norton, 42 First St., San Francisco. 7-22

WANTED—An experienced bookkeeper for a co-operative milk plant producing market milk, butter and ice cream. Address: Delta Milk Producers Association, Escanaba, Mich. 7-22

POSITION WANTED

POSITION WANTED — By ice cream maker, eighteen years experience, desires position with reliable concern. Willing to go any distance. Address: R-284, Ice Cream Review. 7-22

POSITION WANTED—Expert ice cream maker thoroughly conversant with all details of manufacture A to Z would consider position as superintendent in small city where could locate family and home permanently. Now superintendent of large Chicago plant. Address: R-298, The Ice Cream Review. 7-22

POSITION WANTED—By an ice cream maker who thoroughly knows his business and not afraid to work. No proposition too big. Address: R-297, Ice Cream Review. 7-22

POSITION WANTED — By ice cream maker with 20 years experience in all branches of business. Position in West preferred. Thoroughly familiar with all details and capable of handling entire plant. Understand pasteurization, standardizing, homogenizing, refrigeration, mixing, freezing. Can handle help to advantage. Familiar with all modern machinery and methods. First class references. J. W. Scott, 1905 23rd St., Detroit, Mich. 7-22

POSITION WANTED—By reliable well experienced married man to take permanent charge of medium sized plant for butter making, ice cream, milk, cream and buttermilk. Can help you over rough places. Address: R-296, The Ice Cream Review. 7-22

POSITION WANTED — Dairy chemist and bacteriologist desires employment with progressive dairy concern. Experienced in technical control and manufacture of various dairy products. Know how to work and anxious to get ahead. References furnished. Address: R-292, Ice Cream Review. 7-22

POSITION WANTED—As plant superintendent, butter maker or ice cream maker. Capable of taking charge of any plant. Fourteen years experience. Understand all phases of the industry, mechanical refrigeration, steam engineering, testing, grading, pasteurizing. Worked for large centralizing plants, also large ice cream plants. Understand standardizing ice cream mix. Owned and operated combined plant. Best of reference. Address: R-299, The Ice Cream Review. 7-22

FOR SALE BARGAINS

FOR SALE—Wholesale ice cream plant in city of 20,000 population, 4 railroads, large territory, located in heart of city, largest ice cream business in territory. Up-to-date plant. Also butter business locally and sub creamery within forty miles in dairy belt. Will sell both plants. Address: R-238, Ice Cream Review. 3-22tf

POSITION WANTED—By all around ice cream man at once. 13 years experience. Address: R-280, Ice Cream Review. 7-22

FOR SALE — One-half interest with management and operaiton of ice and ice cream plant in west-central Kentucky; 600 gallons per day ice cream, 7 tons ice; built 1921; modern and complete in every way; private electric plant. Address: R-281, The Ice Cream Review. 7-22

FOR SALE—Ice cream plant located in central Minnesota, city of 4,000 population, doing good business. Will sell entire business or will sell equipment and rent building. Address: R-287, Ice Cream Review. 7-22

FOR SALE—Small ice cream factory in northern Wisconsin town of 2,000. Miller brine freezer, 80 cans and tubs, good equipment. $1,500 cash. Write R-301, Ice Cream Review. 7-22

FOR SALE—Ice cream plant and confectionery store. Doing a fine wholesale business. Well established in both lines. Only reason for selling is trouble in the partnership and same must be dissolved by Sept. 1st. Investigate this. $7,000 takes it. Write R-295, The Ice Cream Review. 7-22

FOR SALE—Perfection, factory overhauled, forty-quart batch ice cream freezer with brine box and pump as good as new; never used after overhauled; this freezer has only froze about twelve thousand gallons ice cream and is the latest model, with new scrapers and everything in A No. 1 shape; regular price, $800; will sell for $500 cash. Lake Pepin Co-operative Creamery Association, Lake City, Minn. 8-22

FOR SALE—Milk, ice cream and egg business established 20 years in thriving Wisconsin manufacturing city. Gross sales 1921, $120,000 and growing. Illness of owner necessitates selling. This is an excellent opportunity for one or more enterprising men. Well worth investigating. Write: R-293, Ice Cream Review. 7-22

NEED ANY HELP?

An advertisement placed in "The Review" Want Department will put you in touch with just the kind of help you are looking for. Give "The Review" a trial —it's the best way to get results.

MACHINERY AND SUPPLIES AND

BOILERS, NEW AND SECOND HAND—Electric Motors, Engines, Pumps, Pipes and fittings. Valves, Belting, Shafting, Bearings and Pulleys. Money Saving prices. Harris Machinery Co., Minneapolis, Minn. 12-20tf

FOR SALE—Three new Cherry model "I" 60-quart freezers; motor driven. Rich Ice Cream Co., Buffalo, N. Y. 3-21tf

FOR SALE—Cottage cheese in one, two or five tub lots, shipped date of make. Rock Lake Creamery, Lake Mills, Wis. 1-21tf

FOR SALE—12 Babcock tester, 8-10-12 bottle size; 1 Jensen bronze sanitary pump, 1¼ in. connections; 1 Trahern iron pump, 1 in. connection; 1 continuous double disc ice cream freezer, 100 gallon capacity, with counter shaft and pulleys; 1 Ventura 18 in. wall suction fan (new); 1 12 bottle Troemner cream scale. The Bennett Creamery Company, Ottawa, Kans. 8-22

FOR SALE—One Creasy No. 50-Y ice crusher, capacity claimed 25 tons per hour; belt driven; price $125.00 F. O. B. Milwaukee. This crusher is in good condition and has seen two years actual service. The Geo. C. Mansfield Co., Milwaukee. 7-22

FOR SALE—1 vertical open top, blue enamel tank, 47 in. O. D. x 50 in. high, 375 gal. $300.00 each. 1 horizontal blue enamel 6 ft. 9 in. O. D. x 6 ft. long, 2-30 inch rings, 1,342 gal., $350.00. 4 vertical closed top 6 ft. 0 in. O. D. x 7 ft. 6 in. high, 2-36 inch rings, 1,575 gallons capacity, $400.00 each. Chas. S. Jacobwitz, Buffalo, N. Y. 5-22tf.

FOR SALE—First grade unsalted butter. Get our prices. Golden Belt Cry. & Ice Co., Hays, Kansas. 9-22

FOR SALE — Creamery Package ice cream brick mould releaser. Good as new. Used only one year. Price $125.00 F. O. B. Milwaukee, Wis. Reason for selling, installed Mojonnier automatic brick filler. The Geo. C. Mansfield Co., Milwaukee, Wis. 7-22

FOR SALE — ICE MACHINES — SEVERAL SMALL SIZES taken in on larger ones. A No. 1 order. About half price. Will erect and guarantee. **H. A. BORN CO.,** 326 River Street, Chicago. 7-22

FOR SALE—Miller 80-qt. motor drive freezer and twelve 40-qt. freezers, various makes, both belt and motor drive—cheap. Cans, tubs, cabinets, vats, Manning can washers, ice breakers. Send for complete list of bargains in equipment. Philadelphia Retinning Co., North Philadelphia, Pa. 7-22

If you want help for your factory, the quickest and cheapest way to locate same is through The Ice Cream Review Want Department.

FOR SALE—Advance Special. Four 40 quart new and highly efficient motor-driven freezers. Simple, economical and possessing all the advantages found in higher priced machines. Very low price for quick sale. The Advance Dairy Mch'y Co., Frank Tyson, Gen. Mgr., 608 Cherry Ave., N. E., Canton, Ohio. 7-22

FOR SALE—Giant ice crusher, 20 ton, belt drive, excellent condition. $120.00 or best offer. Address: R-294, Ice Cream Review. 7-22

FOR SALE—Meyer refrigerated body, 5 ton, used one month. Refrigeration works perfectly. $700.00. Rich Ice Cream Co., Buffalo, N. Y. 7-22tf

FOR SALE—A Creamery Package concentrator or condenser, brand new. Capacity 4,000 to 4,500 lbs. per hour. Offered at a very liberal concession for immediate sale. Address: R-300, The Ice Cream Review. 8-22

WANTED TO BUY

WANTED TO BUY—Chocolate Kettles with agitators. Write Bradas & Gheens, Louisville, Ky. 7-22

WANTED—Eight or ten ton ammonia compressor, complete, high and low side, Frick or York preferred. Also want fifteen or twenty H. P. motor to run compressor. Motor will have to be 3 phase, 60 cycle, 220 volts. Address Americus Ice Cream Co., Americus, Ga. 7-22

The Ice Cream Review

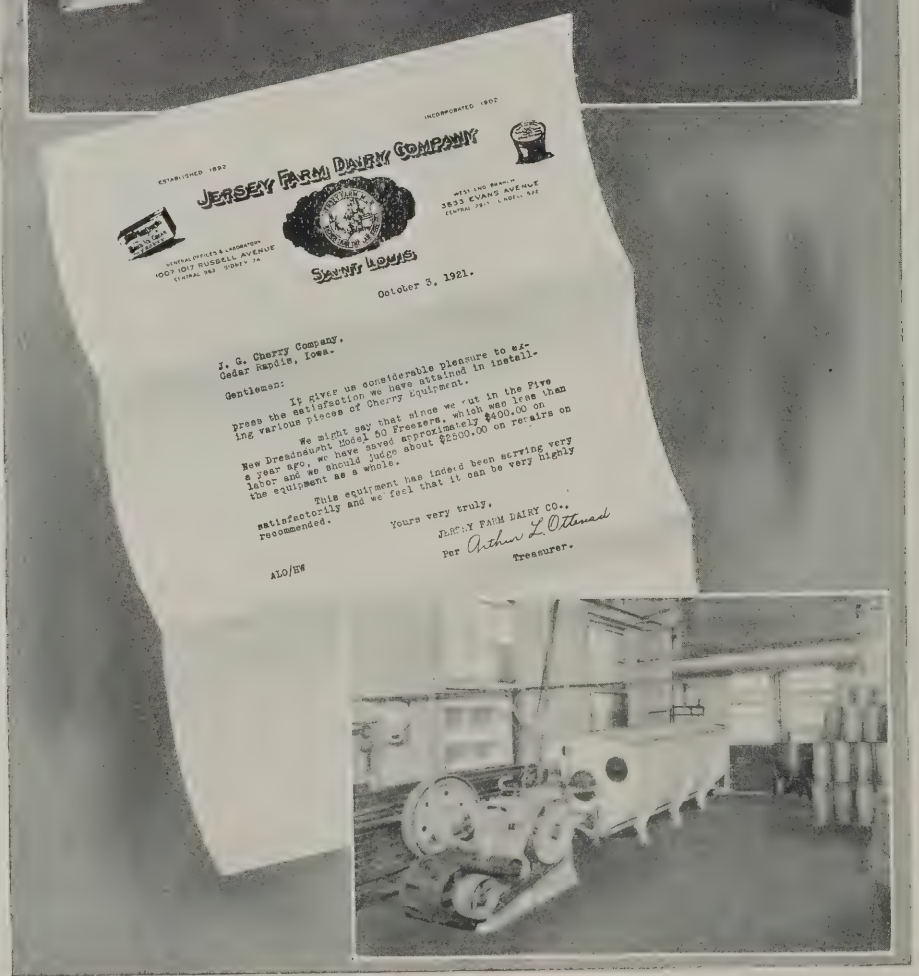
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Volume 5, Number 12 MILWAUKEE, WISCONSIN—August, 1922 Two Dollars a Year

Cherry Freezers and Batch Mixers effect tremendous saving in this plant —





JERSEY FARM DAIRY COMPANY

ESTABLISHED 1892 — INCORPORATED 1907

GENERAL OFFICES & LABORATORY 1007 1017 RUSSELL AVENUE CENTRAL 342 SIDNEY 74

MILK AND CREAM 3833 EVANS AVENUE CENTRAL 7811 & 4061 RAY

SAINT LOUIS

October 3, 1921.

J. G. Cherry Company,
Cedar Rapids, Iowa.

Gentlemen:

It gives us considerable pleasure to express the satisfaction we have attained in installing various pieces of Cherry Equipment.

We might say that since we put in the Five New Dreadnaught Model 50 Freezers, which was less than a year ago, we have saved approximately $400.00 on labor and we should judge about $2500.00 on repairs on the equipment as a whole.

This equipment has indeed been serving very satisfactorily and we feel that it can be very highly recommended.

Yours very truly,
JERSEY FARM DAIRY CO.,
Per Arthur L. Ottenad
Treasurer.

ALO/EW

"Prosperity follows the Dairy Cow"

Be Sure
You Attend
the
National Dairy
Exposition
at
St. Paul - Minneapolis
October 7-14

"Prosperity follows the Dairy Cow"

Be Sure
You Attend
the
National Dairy
Exposition
at
St. Paul - Minneapolis
October 7-14

Send for Bulletin No. 2011 describing Cherry Freezers and Bulletin No. 2031 describing Cherry Coil Batch Mixers.

Put it thru in '22

J. G. CHERRY COMPANY

CEDAR RAPIDS IOWA

St. Paul, Minn. Tama, Iowa. Peoria, Ill.

Put it thru in '22

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Syracuse Ice Cream Company

Wholesale and Retail Manufacturers of

PLAIN AND FANCY CREAMS AND ICES

Office and Refrigerator Plant:
Cor. PLUM and TRACY STS.

SYRACUSE, NEW YORK

July 5th, 1922.

The Association of Ice Cream Supply Men,
1328 Broadway,
New York,
N. Y.

Gentlemen:

The ice cream shows put on by the Association of Ice Cream Supply Men have been of inestimable value to the ice cream industry at large.

I have attended each and every one of your shows for a number of years past, and I fully believe that ice cream manufacturers who want to keep up with the latest achievements of the manufacturers of ice cream factory supplies, can not afford to miss your shows.

It would take many miles of travel and weeks of time to visit the plants who exhibit at these shows, and I know that the large majority of manufacturers throughout the country feel very grateful to your Association for having made it possible to see the valuable lines on exhibit at centered points throughout the country.

I am

Yours very truly,

SYRACUSE ICE CREAM COMPANY

AML/MH Mgr.

ICE CREAM
A NATIONAL
INDUSTRY
Come to
Cleveland
Oct. 16-21 Incl.

The
ICE CREAM REVIEW

PUBLISHED THE FIFTEENTH OF EACH MONTH BY
THE OLSEN PUBLISHING COMPANY
H. P. OLSEN, President and Manager E. K. SLATER, Secretary and Editor
Also Publishers of
"THE MILK DEALER" and "BUTTER, CHEESE & EGG JOURNAL"

FIFTH AND CHERRY STS. MILWAUKEE, WISCONSIN

We will not accept responsibility for the views or opinions expressed by contributors, nor for news sent us for publication, nor for statements made by advertisers in their advertisements

Entered as second-class matter September 25th, 1917, at the Post Office at Milwaukee, Wis., under the act of March 3rd, 1879

Subscription in United States . . . . . $2.00 per annum in advance
Canadian and Foreign Subscriptions . . . . . $3.50 per annum in advance

OFFICIAL ORGAN
Ice Cream Division Indiana Manufacturers of Dairy Products
North Carolina Ice Cream Manufacturers' Association
South Dakota Ice Cream Manufacturers' Association
North Dakota Ice Cream Manufacturers' Association
Oklahoma Association of Ice Cream Manufacturers
Louisiana Association of Ice Cream Manufacturers
Wisconsin Association of Ice Cream Manufacturers
Mississippi Ice Cream Manufacturers' Association
Nebraska Association of Ice Cream Manufacturers
Michigan Association of Ice Cream Manufacturers
Southern Association of Ice Cream Manufacturers
Kansas Association of Ice Cream Manufacturers
Association of Ice Cream Manufacturers of Iowa
Arkansas Ice Cream Manufacturers' Association
Texas Ice Cream Manufacturers' Association
Poodle Dog Association of Iowa
National Order of White Caps
The Nebraska Cornhuskers
Michigan Dairy Boosters
Oklahoma Wolfhounds
Kansas Jack Rabbits
Hoosier Wild Cats
Texas Longhorns
Missouri Mules
Badger Flyers
Dixie Flyers

AUGUST 1922

BULLETIN OF EVENTS

National Dairy Exposition, Minnesota State Fair Grounds, Minneapolis--St. Paul, Minn., October 7-14, 1922. W. E. Skinner, Secretary, Ryan Hotel, St. Paul, Minn.

National Exhibition, Association of Ice Cream Suppy Men, Cleveland, Ohio, October 16-21, 1922, headquarters Hotel Winton. Robert Everett, 1328 Broadway, New York, Secretary.

National Association of Ice Cream Manufacturers. 22nd annual convention, Cleveland, Ohio, Hollenden Hotel, October 16th, 17th and 18th. N. Loewenstein, 155 N. Clark Street, Chicago, Secretary.

Pacific Ice Cream Manufacturers' Association—Annual Convention, Davenport Hotel, Spokane, Washington, November 13, 14, 15, 1922. Bert H. Walker, Royal Ice Cream Co., Tacoma, Wash., Secretary.

Southern Association of Ice Cream Manufacturers, annual convention, New Orleans, December 5, 6 and 7. J. W. Clopton, Secretary, Decatur, Ala.

MR. BERT H. WALKER, Secretary of the Pacific Ice Cream Manufacturers Association, Tacoma, Washington, pays his respects to irresponsible newspaper writers in a communication in this issue. After calling attention to the sensational tirade against the ice cream industry by A. W. McCann of New York, he expresses the opinion that it is about time that reputable manufacturers are protected from attacks by such writers. We fully agree with Mr. Walker, and we hope the time will come when men cannot commit such hideous crimes under the popular but overworked theory of freedom of the press.

Mr. Walker suggests that the editor of the New York daily newspaper in which McCann's articles appear is in sympathy with the sentiments expressed by McCann. Not necessarily, Mr. Walker. He may be and probably is in sympathy with them only so far as the affect advertising in his publication. In last month issue we called attention to the fact that a few yea ago this same McCann conducted a similar campaig against creamery butter manufacturers who refused advertise in the paper he represented. The reputab creamerymen refused to pay tribute in this manner, ju as reputable ice cream manufacturers will refuse to pa tribute in McCann's present efforts to force them spend money for advertising. The editor lets the c out of the bag when he says "There is a fortune f some man who will make pure ice cream and adve tise it."

This tirade of McCann's should fool nobody, b unfortunately it does. It fools the uninformed consum who is ready and almost anxious to believe everythin of a sensational character that he hears about estal lished institutions or industries. Such a bare-face blackmailing campaign should not be possible in a ci ilized community. As stated above, we hope the tim will soon come when our much touted freedom of th press will not permit irresponsible scalawags who pose a experts to tear down what honest business men hav built up without getting the punishment which the crim deserves.

THE big event for Southern ice cream manufacture will be held in New Orleans on Dec. 5th, 6th an 7th. The annual convention of the Southern Associatio of Ice Cream Manufacturers will be held in that city o those dates, and we have a letter from Mr. J. W. Clopto Secretary, in which he says that "judging from th interest shown in the coming convention it will be th biggest one ever held in the South." We have no dou about it. We know how the business men of New Orlea treat their visitors and it is true Southern hospitalit that they show them. The editor has attended conve tions of different kinds in New Orleans and recalls wit pleasure the entertainment that was provided by Ne Orleans business men to their visitors. A trip to a bi sugar plantation and refinery a few miles from the cit is a most interesting one, and we hope that delegat to the coming convention will be accorded the pleasur of inspecting this big institution. We have made a rangements to secure some interesting information abou this plantation and refinery which we are going to giv readers of The Ice Cream Review in a subsequent issu

OUR readers will be particularly interested in th information contained in this issue relative to ic cream standards in the various states. The pure foo law of each state establishes certain requirements whic the ice cream manufacturer should be familiar with, no only to avoid trouble, but to profit from the experienc of the men who fathered such requirements. The infor mation we have compiled was gained from authoritie recently, so it may be accepted as authentic and righ up to date.

DURING the hurry and hustle of the busy time of the year it is hard to realize that cooler weather will soon be here and that with it will come the big gatherings which always interest the ice cream men. First of all comes the big National Dairy Exposition in the big livestock amphitheatre at the Minnesota State Fair Grounds, midway between St. Paul and Minneapolis. This is the big dairy event of the year and is the place where all branches of the dairy business are represented and where all may find things of intense interest. This big show runs from October 7th to the 14th, inclusive. The ice cream manufacturer can find much to interest him. Following the National Dairy Exposition comes the National Exhibition, Association of Ice Cream Supply Men in Cleveland, Ohio, on October 16th to the 21st. On October 16th, 17th and 18th the National Association of Ice Cream Manufacturers will hold its annual convention. Everything of interest to the ice cream manufacturer will be at Cleveland.

We cannot urge too strongly upon readers of The Ice Cream Review to avail themselves of the opportunity to attend these big doings. You cannot attend such functions without learning things that will help you make more money in your business.



MANY accidents in factories might be avoided if proper precaution were taken to prevent them. It is clearly the duty of the management of any manufacturing business to provide adequate protection to employees against accidents. The more machinery in operation the greater the responsibility as a rule. In those days when the ice cream factory was largely made up of hand operated appliances it was comparative easy to avoid accidents.

With improved machinery and lots of it the chances for a serious accident have been multiplied many times. This has been offset to a considerable degree by the enforcement of safety measures by state officials, but law enforcement can only correct some of the greatest elements of danger. There is a lot for the management to think about in addition to meeting the requirements of law. It is more than a humane question, it is a good investment to take every precaution to avoid accidents. "A stitch in time saves nine," and an employee on the job is worth more than one in the hospital.



NOT long ago it was our privilege to visit an ice ice cream manufacturer who makes good ice cream, and who is building up a fine business. A situation prevails in his town, however, which it is hard for us to understand. Six different brands of ice cream are sold in his town and only one retailer is buying his ice cream. His business is about three years old, and previous to the time he began operations the town was without an ice cream factory for many years. These outside brands of ice cream are all good brands and are popular. We sampled the local man's product and we are sure he makes just as good ice cream as the best sold in his town. He enjoys a good business in the surrounding towns but his local business amounts to very little. He wants to know how to get the local dealers to handle his ice cream. We would like to tell him, and we are passing the question on to our readers. How would you go about it to get this local business?

SOME ice cream manufacturers make the mistake of neglecting to advertise to the home trade. They seem to work on the theory of the storekeeper who refuses to advertise because everybody knows him and knows where he does business. This is the result of a dangerous state of mind.

The home folks may know you as an ice cream manufacturer and they may know that you make good ice cream but they must be told about it regularly and effectively if you are to enjoy the results of the highest possible ice cream consumption in your community. People act on suggestions and if you keep suggesting to them to buy ice cream they are going to do it often. If they don't get the suggestion they will not buy it so often. The business man who depends upon his customers to act upon their own suggestion never enjoys the business he might enjoy if he makes the suggestions to them. Don't neglect the home field. There lies the best opportunity you have to increase gallonage.

THE man who furnishes a market to the dairy farmer for his milk or cream, whether he manufactures it into butter, cheese or ice cream, is performing a real service to his country. We doubt whether there was ever a time before when dairying was so greatly appreciated by the farmer as at the present time. The farmer who has had milk or cream to sell during the past year has not suffered like the farmer who is not interested in dairying. He has enjoyed a regular cash income and has not had to deny his family the necessities of life. He may not have enjoyed his accustomed purchasing power and he may even think that he is poverty stricken, but he doesn't know what poverty is like. It is a well known truth that nothing else holds a farmer on a milk stool like hard times. Then is when he best appreciates his cows and his market for his milk and cream.

WE HEARTILY agree with a correspondent who says that the term "filler" should be dropped from our ice cream vocabulary. He says that the only possible "filler" for ice cream is water, and that the term "filler," as applied to any ingredient of the mix, is a misnomer. Our correspondent, whose letter appears on another page of this issue, suggests the word "stabilizer."

State Ice Cream Standards

A Compilation of Requirements Regarding Milk Fat, Gelatine, Etc., of the Various States up to August 1, 1922.

WE HAVE taken upon ourselves the task of compiling the laws of all the states relating to the ingredients of ice cream. In the summary which follows, a few states have been omitted because the necessary information was not obtainable at this time.

It is to be understood that "gelatine" includes vegetable gum as well, as both are usually specified, but "gelatine" is used for our purpose here. A star in or at the end of a paragraph indicates a reference to a paragraph below, quoted direct from the laws of the state. Discussions of matters of a general nature immediately follow the direct quotations; these points are the ones a manufacturer is most liable to misunderstand or misinterpret and should be read thoroughly.

Federal Standard—Fourteen per cent milk fat required, fruit and nut ice creams 12 per cent.

Alabama—Adopted federal standards.

Arkansas—No state laws regarding ingredients of ice cream but many cities have ordinances.

California—Milk fat ten per cent, fruit and nut ice cream, eight per cent; .6 per cent gelatine allowed.

Colorado—Ten per cent milk fat, no exceptions; gelatine allowed and no limit specified.*

Connecticut—Eight per cent milk fat, fruit and nut, six per cent; gelatine allowed and no limit specified.*

Delaware—Adopted federal standards.

Florida—Fourteen per cent milk fat, fruit and nut, 12 per cent.*

Georgia—Eight per cent milk fat, no exceptions.*

Idaho—Fourteen per cent milk fat, fruit and nut, 12 per cent.

Illinois—Eight per cent milk fat, no exceptions; use of all other ingredients ordinarily used permitted.*

Indiana—Eight per cent milk fat, no exceptions; must contain 18 per cent total milk solids, including milk fat, and not to exceed .7 per cent gelatine.

Iowa—Twelve per cent milk fat, fruit and nut, 10 per cent; gelatine not to exceed one per cent, and acidity must not exceed .3 of one per cent.

Kansas—Ten per cent milk fat, no exceptions; 20 per cent total milk solids, including milk fat, and finished product must not weigh less than four and three-quarters pounds per gallon. All cream and milk products must be pasturized.

Kentucky—Ten per cent milk fat, fruit and nut, eight per cent.

Louisiana—Ten per cent milk fat, fruit and nut, eight per cent; not more than one per cent gelatine.

Maine—Fourteen per cent milk fat, fruit and nut, 12 per cent.*

Maryland—Eight per cent milk fat, fruit and nut, six per cent; one per cent gelatine.*

Michigan—Ten per cent milk fat, fruit and nut, eight per cent; .7 per cent gelatine permitted.

Mississippi—Eight per cent milk fat, no exceptions; .5 per cent gelatine permitted.*

Missouri—Eight per cent milk fat, no exceptions; gelatine permitted, no limit specified; certified colors permitted.

Montana—Ten per cent milk fat, fruit and nut, nine per cent; must have total solid content of 33 per cent; one per cent gelatine allowed, and a gallon of finished product must not weigh less than four pounds.

Nevada—Adopted federal standards.

Nebraska—Fourteen per cent milk fat, fruit and nut, 12 per cent.

New Hampshire—Fourteen per cent, no exceptions; .2 per cent gelatine allowed.

New Jersey—Eight per cent milk fat, fruit, nut and egg may have six per cent; certified artificial colors and flavors permitted.

New Mexico—No state standards but cities have own regulations.

New York—Eight per cent milk fat, specials* six and one-half per cent; 18 per cent milk solids and fat combined, 15 per cent for specials.*

North Carolina—Eight per cent, no exceptions; gelatine not to exceed four ounces to ten gallons.*

North Dakota—Twelve per cent milk fat, 10 per cent fruit and nut; for gelatine and colors see reference.*

Ohio—Eight per cent milk fat, no exceptions; .5 per cent of gelatine allowed; must not weigh less than four and one-quarter pounds per gallon.

Oklahoma—Ten per cent milk fat, eight per cent for fruit and nut; must have total solids content of 32½ per cent.

Oregon—Eight per cent milk fat, six per cent in fruit and nut ice cream; gelatine not to exceed one per cent allowed; acidity shall not exceed .3 per cent.

Pennsylvania—Eight per cent milk fat, nut and fruit, six per cent; .5 per cent of gelatine allowed.

Rhode Island—Eight per cent milk fat.

South Carolina—Adopted federal standards.

Tennessee—Eight per cent milk fat, some exceptions; 18 per cent total milk solids, including milk fat, some exceptions; gelatine permitted, no limit specified.*

Texas—Eight per cent milk fat, fruit and nut, six per cent; .2 per cent gelatine allowed.

Utah—No standards.

Vermont—Fourteen per cent milk fat, fruit and nut, 12 per cent; gelatine permitted, no limit specified.

Virginia—Eight per cent milk fat, no exceptions; four ounces per ten gallons allowance of gelatine, and coloring as permitted under the national law.

Washington—Eight per cent milk fat and 18 per cent total milk solids, no exceptions; gelatine permitted, no limit specified.*

West Virginia—Eight per cent milk fat, no exceptions; .7 per cent gelatine permitted; artificial colors may be used if so labeled.

Wisconsin—Twelve and ten per cent—see reference;* .5 per cent of gelatine in all cases, and melted product shall not be less than one-half of product as sold.*

Wyoming—Ten per cent milk fat, no exceptions; gelatine permitted, no limit specified—see Colorado reference.*

* * *

Colorado—The use of eggs, gelatine and vegetable gums is not forbidden, but must not be used to conceal an inferior product.

* * *

Connecticut—Ice cream shall be deemed adulterated within the meaning of this act if in substance and quality it fails to meet the provisions and standards required for standard ice cream, or if it shall contain boric acid, slicylic acid, formaldehyde, saccharin or any substance deleterious to health, or if it shall contain salts of copper, iron oxide, ochres, or any coloring substance or compound or flavoring matter deleterious to health, provided nothing in this section shall be construed to prohibit the use of harmless colors permitted to be used in foods, or of harmless imitation flavors, if the presence of the same shall be made known to the purchaser thereof.

Sec. 4. Nothing in this act shall be construed to prohibit, in the manufacture of ice cream, the use of fresh eggs, pure gelatine or harmless vegetable gums; and nothing in this act shall be construed to prohibit the manufacture and sale of ice cream containing less than the amount of milk fat required by section two of this act, provided the true fat content of such ice cream be plainly and conspicuously stated on the container in which it is sold, or in the case of ice cream sold in bulk, that the true fat content be made known to purchasers thereof by means of a suitable sign displayed at the time and place of sale. (See comment below.)

* * *

Florida—Any frozen milk product that does not comply with standards of Ice Cream provided in section two shall have plainly printed on each package, either wholesale or retail, the common names of the ingredients contained therein and shall not be sold under the name of Ice Cream.

(Continued on page 8)

THREE EXPERTS
were added to our pay-roll this week.
WE WILL GIVE YOU FACTS IN A MORE STARTLING MANNER—A LITTLE LATER. AT YOUR SERVICE.
SANI-DAIRY PRODUCTS CORPORATION,
45th and Evans Avenue, CHICAGO

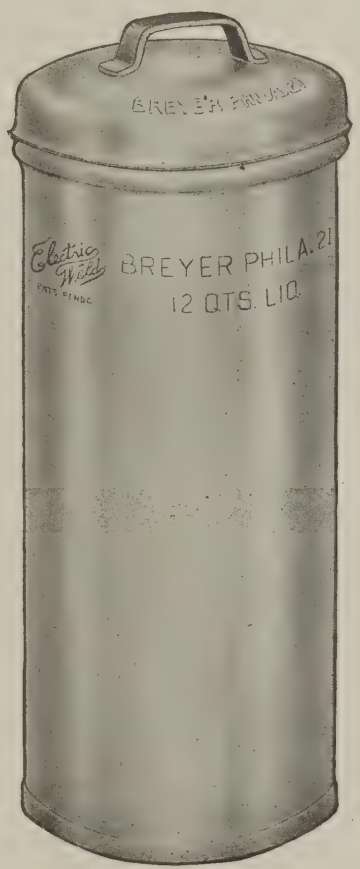
"This is the Can We Want"

Wrote a large ice cream manufacturer across our advertisement in "The Ice Cream Review" with an arrow pointing to this can. This is one of many similar letters received from all sections of the United States.

Electric Weld rivetless-solderless ice cream cans are used in all parts of the country.

No Solder

This is the can you will want, too, for the low cost and economical can service



PATENTED

No Rivets

This is the can backed by the strongest GUARANTEE

Electric Weld cans have made many loyal friends for us. One customer's repeat orders total

50,000 Electric Weld Cans

JOHN WOOD MFG. CO. Conshohocken, Pa.

(OFFICES AND WAREHOUSES)

CHICAGO OFFICE (320 E. North Water St.) CLEVELAND OFFICE (2041 Warren Rd., Lakewood, O.) BOSTON (60 Pemberton Sq.)
BROOKLYN Bush Terminal Bld. No. 5) OAKLAND, CAL. (335 Cypress St.)

Georgia—Para. 16—The sale of homogenized frozen milk products in Georgia as "Ice Cream" is in violation of the law.

The sale of such product is hereby prohibited, except when full notice is given the purchaser of the nature of the product, and the same is branded or labeled "Homogenized Frozen Milk Products."

* * *

Illinois—Provided that nothing in this section shall be construed to prevent the sale of any wholesome food product which is below such standard if such article of food be labeled so as to clearly indicate such variation.

* * *

Maine—The Maine regulation as to the standards for ice cream is not a law, but a regulation made by the commissioner of agriculture, the authority for which is given him under statute.

* * *

Maryland—* * * to which may be added fresh eggs and **not exceeding 1 per cent of pure gelatin,** gum-tragacanth or vegetable gum, **without statement of such fact,** and such goods may be called ice cream, provided the required percentage of fat is maintained. But such product when not containing 8 per cent and upward of milk fat shall be labeled, showing the percentage of milk fat; if imitation flavoring materials are used, the label must state the fact.

* * *

Mississippi—Any frozen product other than ice cream shall be designated and sold as sherbet or water ice.

* * *

New York—* * * which does not contain at least eight per centum of milk fat and at least eighteen per centum of milk fat and milk solids not fat combined, except that when the ingredients of ice cream shall include eggs, fruit, fruit juices, cape confections, cocoa, chocolate or nuts, such reduction in the percentages of milk fat and milk solids not fat as may be due to the addition of such ingredients shall be permitted or approved, provided the product shall contain at least six and one-half per centum of milk fat and at least fifteen per centum of milk fat and milk solids combined.

* * *

North Carolina—4. Compound ice cream is a frozen product made from cream, sugar, and other wholesome food products, and contains not less than four per cent of milk fat.

5. Imitation ice cream is a frozen product made from cream, sugar, and other wholesome food products, and contains less than four per cent of milk fat.

6. The sale of a product as ice cream which contains less than eight per cent and as much as four per cent of milk fat, will not be contested, provided the same is labeled compound ice cream; or if a placard bearing the statement:

"COMPOUND ICE CREAM SERVED HERE."

shall be posted in a conspicuous place in the room where any and all persons may see same when purchasing ice cream; and provided further, that the statement on placard is printed in plain black letters not less than one inch in size, on a white background.

7. The sale of a product as ice cream or compound ice cream which contains less than four per cent of milk fat will not be contested, provided the same is labeled imitation ice cream; or if a placard bearing the statement:

"IMITATION ICE CREAM SERVED HERE"

shall be posted, as is provided for in the sale of compound ice cream.

* * *

North Dakota—Gelatine ice cream is a frozen product made from cream and sugar, with or without natural flavoring; and contains not less than twelve per cent (12%) of milk fat, and not more than four ounces of pure gelatine for each ten gallons.

Gum ice cream is a frozen product made from cream and sugar, with or without a natural flavoring; containing not less than twelve per cent (12%) of milk fat, to which has been added a small quantity of gum powder free from starch or other cereals, and free from any harmful ingredients or foreign color.

Each and every package of gelatine or gum ice cream must be clearly and distinctly labeled, as it is shipped out, to show what the product is. Every container in which ice cream is sold to the consumer must bear the same statement clearly and distinctly set forth separate from any other fact upon the label.

However, in a recent letter the North Dakota Chief Deputy Food Commissioner says, "Under new ruling issued by this Department, it is not necessary to state on the label that the ice cream contains gelatine or gum."

Where gelatine ice cream is dispensed prominent signs must be posted, so as to be easily read from all parts of the room stating, "GELATINE ICE CREAM SOLD HERE" or "GUM ICE CREAM."

The use of artificial coloring matter is strictly prohibited in the manufacture of ice cream to be sold in the State of North Dakota.

This ruling is made in accordance with Section 3, Articles three and four, and Section 4 of the North Dakota State Food Law, and is intended to prohibit the coloring of ice cream so as to make it appear better or richer than it otherwise would. It is not the intent of this ruling to prohibit the manufacture of colored ice cream where the coloring is vegetable and wholesome, and of such nature as to make itself clearly evident to the purchaser, as, for example, Neapolitan Ice Cream, Caramel Ice Cream, etc.

* * *

Tennessee—Standard ice cream contains not less than eight per cent milk fat and the content of milk fat and milk solids not fat combined shall be not less than eighteen per cent, except that when the ingredients of standard ice cream include eggs, fruit or fruit juices, cake, confection, cocoa, or chocolate or nuts, such reduction of the percentage of milk fat and milk solids not fat, as may be due to the addition of such ingredients shall be allowed.

For the purposes of this act ice cream shall be deemed to be adulterated:

First: If in quality or grade it is lower than the professed standard or quality or grade under which it is sold or offered for sale. (Other conditions general, see below.)

* * *

Vermont—Articles of food frozen in the form of ice cream but not conforming to the standards established by this chapter may be sold or offered for sale under any fancy, descriptive, or trade name whatsoever, except that the words, "ice cream" or "cream" shall not be a part of such name; nor appear, nor be used in any manner whatsoever in connection with such product or the sale thereof.

* * *

Washington—The term "ice milk" shall mean the frozen product made from the combination of pure, sweet milk and sugar with or without harmless coloring or flavoring matter, and containing not less than 2.4 per cent of milk fat, and not more than .6 per cent of pure and harmless vegetable gum or gelatine.

West Virginia—* * * And if any artificial coloring matters are used, this fact must be declared upon the label of the package.

All preparations not in accordance with the above shall plainly state on a label attached to the container, the ingredients and character and quantity of each, and they shall not be sold as ice cream.

* * *

Wisconsin—Twelve per cent is the milk fat standard for ice cream in Wisconsin, but fruit, nut, chocolate or cocoa, caramel and maple ice cream may contain only 10 per cent milk fat. Orange, lemon and wintergreen ice cream are also defined with 12 per cent milk fat.

* * *

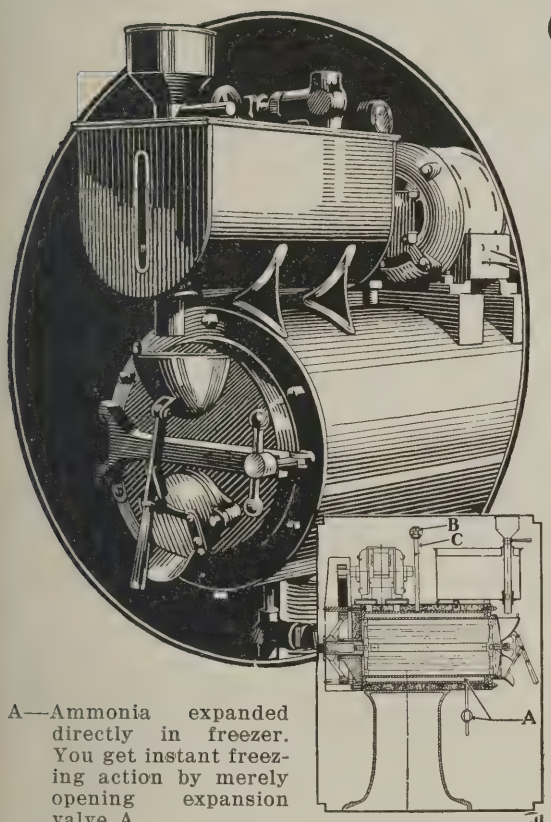
Most of the state laws merely state what the milk or butterfat content of ice cream shall be and leave the other ingredients to the judgment of the manufacturers. Gelatine, total milk solids, total solids, and overrun have had the attention of the legislatures in some states. It is safe to assume, however, that all the usual ingredients of ice cream may be used in any state, whether or not the laws of that state specifically say that they may be used. For instance, in most cases ice cream is termed "a frozen product made from sweet cream or sweet milk and cream," but this does not prohibit the use of condensed or powdered milk and butter; likewise, the usual definition does not include eggs, but they may be used in ice cream, nevertheless.

However, ice cream manufacturers should guard against the use of any ingredients which, although they are not prohibited in the ice cream laws, are prohibited by the pure food laws. The Connecticut ice cream law (quoted above) furnishes an illustration. It is to be noted that the clause "provided nothing in this section shall be construed to prohibit the use of harmless colors permitted to be used in foods," does not mean exactly

(Concluded on page 11)

CONTINENTAL

Modernizes the Ice Cream Freezing Operation



Cross Section of Continental Direct Expansion Freezer

A—Ammonia expanded directly in freezer. You get instant freezing action by merely opening expansion valve A.

B—Absolute temperature control; opening or closing suction valve B regulates temperature instantly at any point desired by operator.

C—Combination temperature and pressure gauge; constantly indicates temperature maintained in freezer cylinder, thus enabling operator to know exact temperature to raise or lower it at will.

The other advantages are equally important and desirable.

THE USE of a Continental Direct Expansion Ice Cream Freezer in ice cream making, wholesale or retail, saves time and money.

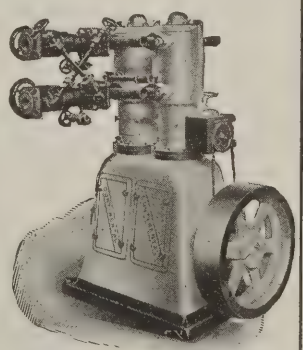
With a ***Continental*** Freezer not a minute need be wasted out of a busy, profit producing day.

You can freeze 10 gallons in 10 or 15 minutes, or, 500 gallons in 8 to 10 hours from a "standing start" with direct expansion ONLY.

Only necessary to turn a valve and the freezing action starts instantly. You can adjust the freezing temperature to suit yourself—you have absolute control. No long waits as with a brine system. No slush. No pumping. No precooling of brine.

You ***do*** get higher quality, remarkable uniformity and much greater production at a pronounced lower operating cost.

See a Continental freezer operate. Speaks for itself. Designed for the ice cream maker with up-to-date ideas striving for leadership. Write us for complete and interesting particulars. It's "money in your pocket."



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Our Service Bureau and Refrigerating Engineers will glady analyze your particular problem and offer recommendations for your consideration without any obligation whatever. This department is maintained to co-operate with our customers and as an authoritative source of practical, helpful information for those interested in efficient refrigerating equipment. Put your problems up to us; if you like we'll send you a data sheet for this purpose.

Continental Machinery Co

Builders of Quality Refrigerating Equipment

111 W. Monroe St. Chicago, Illinois

Adding the Gelatine to the Mix

A Different Method For Every Manufacturer

ICE cream manufacturers like variety in methods of adding gelatine to the ice cream mix. At our request a number of ice cream manufacturers told us how they did it, and hardly any two of them carried out exactly the same practice. Following is a selection of replies to our query that give an idea of the various systems in use and cover the subject thoroughly:

Our method of adding gelatine to the mix has been to cover the required amount of gelatine with cold water and soak for about 20 minutes. Then add more water to make four (4) parts water to one part gelatine and heating to 145 degrees Fahrenheit, stirring well while heating and pouring directly into the mix while same is being pasteurized or near the same temperature as the dissolved gelatine.

We have been very successful with this method for several years. However, the past thirty days we have worked with a different method and as far as our experience goes we are getting same result. This is to add gelatine dry before pasteurized, in other words, while the cream is cold we put the coil or stirring device into motion adding the dry gelatine powder directly to the cream through a fine sieve—this while the cream is cold, then we turn the steam on and pasteurize and viscolize as usual and when vat is empty we have never found any gelatine sticking to the vat. We like this method for the following reasons:

1. Most convenient.
2. Saves time and labor.
3. Less loss from sticking to other vessels used.

* * *

We place about 100 gallons of cold milk in our pasteurizing vats and then add the required amount of gelatine, accompanied by agitation. The additional ingredients are then added and heated to 145 degrees F., and held for thirty minutes. The entire batch, sugar, gelatine and milk products are then homogenized at 2,500 pounds pressure. We believe that the addition of gelatine to the cold milk insures perfect solution and find that the 145 degrees temperature does not affect its properties as we understand that gelatine may be heated as high as 180 degrees without affecting its jellying qualities. Some manufacturers add the gelatine to the mix just before freezing but we believe that this does not allow the gelatine to accomplish one of its chief functions, that is, coating the globules of water with its film, because it has not had enough time to permeate the mass thoroughly.

* * *

We have tried various methods in a small way. We have also tried putting dry gelatine into the pasteurizer with the mix when ready to pasteurize but did not think best to subject the gelatine to 145 degrees for 30 minutes. We have tried condensing the entire mix to the proper consistency to give proper percentages of fat and total solids. This did not prove satisfactory in our case for making the mix. In subjecting gelatine to such a high degree of heat, as is necessary for condensing and for such a long time, did not seem a good practice.

We now get our gelatine into solution by adding one quart of water to every pound of gelatine. After the mix has been pasteurized and brought to the homogenizing temperature, the gelatine solution is strained into the mix and mixture homogenized. This method has given us the best results and has proven very satisfactory.

* * *

In regard to the best method of adding gelatine to the ice cream mix, I find that the best results are obtained by first soaking the gelatine in a quantity of water and then adding to the batch being pasteurized. Carry the pasteurizing temperature for the full 30 minutes then cooling to about 110 degrees and putting through the steam emulser at not less than 60 pounds steam pressure. This will raise the temperature up close to 200. We discharge from the emulser directly into our holding vat through which cold brine is constantly circulated dropping the temperature to about 65 degrees and after the batch is completely pumped over the temperature is carried down to 32.

* * *

We soak 3½ ozs. of gelatine into ½ gallon of cold water, stirring until all lumps have been removed and begins to thicken, then insert steam hose and heat to 145 degrees F., after which time we pour it into the ice cream batch which we are pasteurizing around 100 degrees, or warmer. We are having first rate success by soaking our gelatine in cold water and pouring into the heated mix.

* * *

We homogenize our entire mix excepting fruits and flavors. We add the gelatine solution to the mix, after which the mix is held at 150 degrees F. for thirty minutes before homogenizing. This gelatine solution is made by diluting the gelatine in milk, using gelatine in the approximate proportion of .4 per cent of the completed mix.

By introducing the gelatine before homogenizing, we avoid any lumps of gelatine as well as getting more even distribution through the batch. Also by holding the mix at a pasteurizing temperature after adding the gelatine, we know that the gelatine is pasteurized with the balance of the ingredients.

* * *

The method we use of adding gelatine to our mix is by adding it just before pasteurizing. We mix our water and milk powder till it is thoroughly dissolved and then sift the gelatine slowly over the coils. Heat it to 140 degrees or 145 degrees F. and hold for twenty minutes.

This method has given us very good satisfaction ond we have had very little trouble in dissolving our gelatine. We think this method is better than mixing gelatine with milk or water because it saves unnecessary labor and it is much easier to handle.

* * *

We are buying as high a grade of commercial gelatine as we can secure. We have found the bacteria content in our gelatine to be very low, and therefore have used the following method of adding to the mix:

We dissolve the gelatine in cold water and add to the mix after all other ingredients have been added and the temperature has risen in the vats about 110 degrees. After adding the gelatine we pasteurize and cool down to proper temperature for homogenizing.

* * *

We pasteurize and homogenize our entire mix, including the gelatine, and for some time we have been putting the gelatine directly into the pasteurizer in dry form just before starting to heat the batch. So far as we are able to judge this gives very satisfactory results.

The advantage of this method is that it is much simpler than cooking the gelatine separately, and there is no danger of over heating the gelatine, and we believe that the pasteurizing temperature is about right to get the best results from the gelatine.

* * *

We have tried various methods of dissolving gelatine for our mix but believe that we are having the best success in dissolving our gelatine in a sufficient amount of hot water in a double boiler and introducing into the mix at a temperature of 100 to 130 degrees F.

* * *

Our present method of adding gelatine to our ice cream mix is to mix the ground gelatine with the granulated sugar in proportions of 3½ pounds gelatine to 30 pounds sugar and add this to the hot mix. Contrary to some theories we have found that we get absolutely the full strength of the gelatine by this use.

* * *

I disolve my galatine in milk (40 oz. in 1 gal. milk), taking about one hour to dissolve it in an ice cream can set in warm water; then bring the gelatine slowly to about 120 degrees F., and stir it into the mix. It is necessary to dissolve slow to prevent curdling of the milk.

I like milk instead of water, as it seems to help to do away with granular ice cream, with which I used to have considerable trouble; also it seems to help make smoother cream.

* * *

The gelatine is added in dry form as soon as the batch reaches the proper temperature. We have found that it is unnecessary to mix it with anything else, as it dissolves very satisfactorily when added dry.

* * *

In adding gelatine to the mix, we soak the gelatine ten hours. Then add fifty gallons warm milk. Heat the whole to a temperature of 135, then add to the batch. Then heat the batch and agitate it.

* * *

We dissolve our gelatine in the hot mix before running it over the emulsion. This seems to give very satisfactory results and is very easy to do.

Crown Fruit Products

ARE USED

In The Largest Ice Cream Factories

From Coast to Coast

BECAUSE

THEY ARE OF SUPERIOR QUALITY

CROWN FRUIT & EXTRACT CO., Inc.

420 WEST BROADWAY

New York

STATE ICE CREAM STANDARDS.

(Concluded from page 8)

what it says. There are a great many foods that are artificially colored and ice cream may also be colored in some cases, but the Connecticut pure food law says that food shall be deemed adulterated within the meaning of the law "if it be mixed, colored, powdered, coated or stained in a manner whereby damage or inferiority is concealed." Plain vanilla ice cream is a good example. If a manufacturer adds coloring to his mix in order to give the ice cream a rich creamy color, that ice cream is colored to conceal inferiority. The reason is obvious. Vanilla does not itself color (as do fruit, caramel, or chocolate for instance) the ice cream, so the color of that ice cream would be natural and would indicate the amount of cream in it. To add coloring which would give it a richer cream color than the butterfat alone would be able to give it, would, in law, be considered as concealing inferiority.

The pure food law of New Hampshire and the ice cream law of Michigan may be said to be typical laws, as every state has a law similar to one or both of these, which regulates the purity of ice cream.

The New Hampshire law says:

A food is adulterated:

(1) If any substance has been mixed with it so as to lower or injuriously affect its quality or strength.

(2) If any substance has been substituted either wholly or in part.

(3) If any valuable constituent has been removed.

(4) If it has been treated in any way (as by adding color) so as to conceal inferior quality, that is, cause the article to appear of better quality than it really is.

(5) If there is any added injurious substance.

(6) If it contains any chemical preservatives.

The Michigan law says:

Ice cream shall be deemed to be adulterated within the meaning of this act:

First, If it shall contain boric acid, formaldehyde, saccharin, or any other added substance or compound that is deleterious to health; Second, If it shall contain salts of copper, iron, oxide, ocres or any coloring substance deleterious to health: Provided, That this paragraph shall not be construed to prohibit the use of harmless coloring matter in ice cream when not used for fraudulent purposes; Third, If it shall contain any deleterious flavoring matter, or flavoring matter not true to name; Fourth, If it be an imitation of, or offered for sale under the name of another article; * *

All of the state laws use in their definitions such expressions as sweet pure milk, non-rancid butter, sound clean fruits, sound non-rancid nuts, etc., but it is hardly imaginable that any intelligent ice cream manufacturer would be even tempted to use anything else than pure, clean, sound, raw materials.

Ice cream entering into interstate commerce must comply with the law of the state into which it is to be consumed, except in cases where it is shipped into a state having no state regulations, in which case it must comply with the Federal regulations or the ordinances of the particular municipality in which it is retailed. The Federal Act is only an administrative act, and does not affect any ice cream except that entering into interstate commerce and that only when the state into which it is shipped has no standards.

This article does not, by any means, cover all of the laws relating to the ice cream industry, but merely those relating to the ingredients going into the composition of ice cream. However, we are prepared to furnish data upon any other point or it may be obtained by writing to the department of agriculture of the state in question.

WHEN SHIPPING ICE CREAM BY EXPRESS, NEVER USE A LARGER TUB THAN THE CAN REQUIRES.

From Coast to Coast Ice Cream Exposition Endorsed

Association of Ice Cream Supply Men Hears from Leading Manufacturers All Over Country.

THE Pacific and Atlantic states are joining in boosting for the National Exposition for the ice cream industry being promoted by The Association of Ice Cream Supply Men, and to be held in the $6,000,000 Cleveland Public Hall October 17th to 21st, inclusive.

Many of the strongest endorsements of the National Exposition are coming from ice cream manufacturers. The exposition will be held in conjunction with the twenty second annual convention of the National Association of Ice Cream Manufacturers.

Bert H. Walker, President of the Royal Ice Cream Company, Tacoma, Wash, recently wrote to the Association:

Association of Ice Cream Supply Men,
New York, N. Y.

Gentlemen:—I do not know of anything that makes a better impression on a person's mind than actually seeing an object, whether it be a wonderful painting, a natural landscape, a piece of machinery, or an exceptionally fine piece of merchandise to be used for any purpose of manufacture or wear.

If this is a fact, what better method could be employed in bringing to the attention of the ice cream manufacturers the different items used in their industry than the expositions promoted by The Association of Ice Cream Supply Men for the instruction and convenience of all manufacturers?

The association members are to be commended for their efforts in arranging for the National Exposition to be held in Cleveland during the week of October 16th in conjunction with the annual convention of the National Association of Ice Cream Manufacturers.

To those who do not have an opportunity of visiting the various factories and supply houses where the latest types of machinery, etc., are shown, these exhibits are quite a liberal education, as those in charge are well trained in demonstrating the qualities of their respective lines.

The visiting manufacturer wherever possible should bring his plant men with him as the valuable information gained by the man who actually does the work is worth many times the investment.

The association is entitled to the support of manufacturers who appreciate high class business methods, and the code of ethics they have adopted assures those dealing with their members the best class of merchandise procurable and the protection of the "Seal of Safety."

We wish you every success and trust we may be able to visit the "Big Show" where we are sure of seeing an instructive exhibition and meeting many friends in the supply division.

Yours very truly,
ROYAL ICE CREAM COMPANY,
(Signed) Bert H. Walker.

Jumping clear back across the continent, A. M. LeMessurier, manager of the Syracuse Ice Cream Company, Syracuse, N. Y., has also written the association:
The Association of Ice Cream Supply Men,
1328 Broadway, New York, N. Y.

Gentlemen:—The ice cream shows put on by The Association of Ice Cream Supply Men have been of inestimable value to the ice cream industry at large.

I have attended each and every one of your shows for a number of years past, and I fully believe that ice cream manufacturers who want to keep up with the latest achievements of the manufacturers of ice cream factory supplies, cannot afford to miss your shows.

It would take many miles of travel and weeks of time to visit the plants who exhibit at these shows, and I know that the large majority of manufacturers throughout the country feel very grateful to your association for having made it possible to see the valuable lines on exhibit at centered points throughout the country.

Yours very truly,
SYRACUSE ICE CREAM COMPANY,
(Signed) A. M. LeMessurier, Mgr.

Recently communications from W. M. B. Sine, general manager of the Imperial Ice Cream Company's chain of ice cream activities, and from L. M. Hendler, head of the large Hendler Creamery Company of Baltimore, similarly expressing their opinion of the value of the National Exposition to the whole industry, have been published.

According to the association, supply houses and their salesmen all over the country are predicting with convincing detail an attendance at the National Association's convention and at the National Exposition far exceeding any that has ever characterized an ice cream industrial event before.

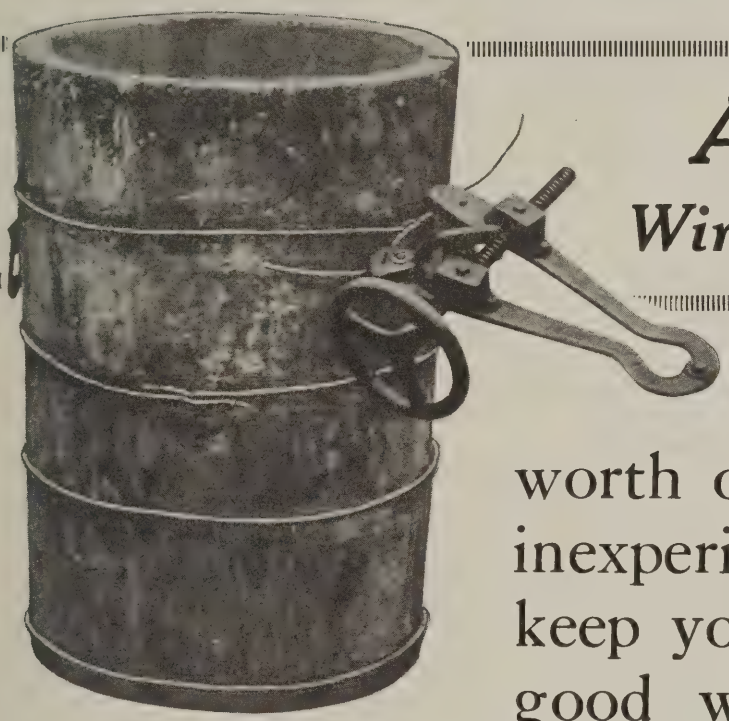
EXTRACTS FROM DAIRYMEN'S NOTEBOOK
"GREATER LOVE HATH NO MAN."

"I love my scrub cow. She gives me employment every day in the year. She consumes my hay and grain, and grows fat and sleek. She is a thing of beauty, though a burden forever. To produce milk and butterfat would detract from her physical beauty, therefore, it is unreasonable to expect it of her. She helps to reduce my income tax. I love my scrub cow. She is a luxury. Dairymen are entitled to luxuries as well as other people. My neighbor tells me to sell her to the butcher, but my neighbor is a hard-hearted man, so is the butcher. The official tester says that the profits from three of my best producers will keep her in comfort, so why should I worry. I love my scrub cow. It requires time to milk her. My banker says that the small amount of milk she contributes can justly be called 'the milk of human kindness,' for it is human kindness that allows her to exist. Even Parson Jones was heard to remark that 'greater love hath no man than he who wears his young life away to support a scrub cow, expecting no reward, not even the respect of real dairymen.' I love my scrub cow. Who can doubt it?"

Show Me The Man who will not be benefitted by our "plan" and I'll show you a man who is not in the ice cream business.
Get the facts from
SANI-DAIRY PRODUCTS CORPORATION
45th and Evans Ave. - - CHICAGO

Don't let that used machinery of yours stand in your way. Turn it into cash by advertising it for sale in "The Review" Want Department.

Keep Your Old Ice Cream Tubs in Service



You Can Crate Anything With a Gilmour

A Gilmour Wire Hoop Machine

— a few cents worth of wire and an inexperienced boy can keep your old tubs in good working order.

Thousands of ice cream tubs are cast aside every year because they need a hoop in a hurry. It only takes a second or two to put on a wire hoop with a GILMOUR and anyone can use it and do a good job. Wire hoops are a lot cheaper and quicker to use than band iron. There are thousands of GILMOUR users and boosters.

Gilmour Hoop Machine Co.

Masonic Temple Bldg. **OWENSBORO, KENTUCKY**



PROF. BAER'S INQUIRY DEPARTMENT

Dear Sir:—Please give me the total solids of the following: 90 gallons of 35 per cent cream, 90 gallons of 3.5 per cent milk, 90 gallons of condensed, 360 lbs. of sugar, 13½ lbs. of gelatine. R. D. Co.

Reply: I am indicating below in Table No. 1 the analysis of your ice cream mix:

Table One.

Ingredients	Fat	Serum Sol.	Total Sol.
360.0 lbs. sugar	.....	.....	342.00
13.5 lbs. gelatine	.....	.....	12.80
728.0 lbs. 35% cream	254.8	42.1	296.90
774.0 lbs. 3.5% milk	27.09	66.49	93.58
810.0 lbs. plain condensed	.....	219.30	219.30
2675.0 lbs.	281.89	327.89	964.58
Per cent	10.6	12.2	36.05

I assume that the condensed milk which you mentioned was plain condensed skimmilk containing no butterfat and having 27 per cent solids.

* * *

Dear Sir:—We wish you would kindly inform us how you figure solids in the following ingredients for the purpose of standardizing the ice cream mix: cream, sweet butter, skim milk, evaporated whole milk, skim milk powder, gelatine, sugar, salt, meloine, Washburn's Improver.

We note that some writers on the standardization of ice cream mix recommend that skim milk be assumed to contain 8.9 per cent total solids. Why is this practice recommended when the State standards in some cases require as high as 9.3 per cent solids, and the analysis given in the text book is approximately 9.7 per cent.

We shall greatly appreciate this information, and anything else you may see fit to tell us regarding the standardization of ice cream. P. I. C. Co.

The method for figuring solids in cream consists first in finding the number of pounds of butterfat, subtracting this from the total number of pounds of cream we have the total pounds of milk serum and multiplying this by 8.9 per cent gives the serum solids. For instance: 30 per cent cream would have 30 pounds of butterfat in 100 pounds and 70 pounds of serum, multiplying 70 by 8.9 is 6.23, or the number of pounds of serum solids.

The average analysis for unsalted butter is usually taken as 84 per cent, the butter containing no other solids. Skim milk may be figured the same as milk serum multiplying the total pounds by 8.9.

The average analysis for evaporated whole milk is 7½ to 8 per cent butterfat and 18 per cent serum solids, the total solids being from 25.5 to 26 per cent. All the other ingredients, including skim milk powder, gelatine, sugar, etc., you can figure at 95 per cent.

The figure 8.9 per cent was arrived at from a great many analyses and actual results obtained by the Merrell Soule Milk Powder Company. I have made many analyses personally and I find that 9 per cent is a little too high to figure serum solids. The amount of solids in skim milk will vary, of course, due to many factors, the principal factor being the composition of the milk as affected by the breed of cows. It is possible to get skim milk from very rich Jersey cows that will contain as high as 10 per cent serum solids but using milk as it comes to the ice cream factory, mixed from many different herds 8.9 per cent is about correct.

Dear Sir:—I am using the following mix and cannot get no more than 10 gallons out of 7½ gallons mix. Could you please advise me immediately what can be the trouble? I would like a 100 per cent overrun. Twenty gallons 17 per cent cream, 18 oz. gelatine, 7 lbs. condensed milk, 30 lbs. sugar.

I pasteurize this at 145 degrees, cool down to 120 and then viscolize at 2300 lbs., cool in ordinary milk cans down to 45 or 50 degrees, hold for 24 hours, add 1 oz. Meloine dissolved in water and sugar ½ hour before freezing; cool brine down to about between 10 and 12 degrees above zero.

Out of this mix all I can get is 30 gallons finished ice cream. I have the cream separated by the farmers at about 30 per cent and I reduce down the cream with sweet milk testing 4 per cent. I have a second-hand brine freezer which was just overhauled by the factory. P. M.

Reply: I have analyzed your formula as you will find below in Table One:

Table One.

Ingredients	Fat	Serum Sol.	Total Sol.
20 gal. or 168.0 lbs. 17% cream	28.56	12.41	40.97
7.0 lbs. condensed	.....	1.89	1.89
30.0 lbs. sugar	.....	.....	28.50
1.2 lbs. gelatine	.....	.....	1.14
206.2 lbs.	28.56	14.30	72.50
Per cent	13.7	6.94	35.0

Many ice cream makers use a similar formula and have no difficulty in securing plenty of swell. Your trouble may be caused by freezing your mix too soon after processing and not holding it at a low enough temperature before freezing. I suggest that you try holding your mix 48 hours instead of 24 to cool to 35 or 40 degrees instead of 45 or 50.

Then again, your freezer may be the cause of the low overrun. You stated you had a second-hand machine and in rebuilding this machine it probably was not geared correctly. Running the freezer with a brine temperature of 10 or 12 degrees should freeze a batch in 12 to 15 minutes. I suggest you try running the freezer using a smaller load and see if you can't get more overrun.

* * *

Dear Sir:—A South Dakota customer writes for suggestions for using 8 per cent sweetened condensed, containing 8 per cent butterfat, 22 per cent serum solids and 42 per cent cane sugar.

He wants to use it with sweet butter. We have suggested to him that sweetened skim would be more economical for him, since he makes his own sweet butter.

We are often asked for directions for use of our sweetened condensed. Do you publish a book containing receipts and directions for using condensed milk of all kinds in the various combinations which come up in different mixes?

We think what our South Dakota friend wants is suggestions on the preparation of the mix, rather than simply a formula of ingredients. P. M. P. Co.

Reply: I am sure that your customer would secure just as good results at less cost if he used sweetened condensed skim milk rather than the butterfat product, as long as he is able to secure his butterfat at a reasonable price.

I am sorry that we do not have a book published which gives various formulas and methods on the use of condensed milk in ice cream, but its use is very simple and your customer should have no difficulty in mixing it with butter and skim milk or mixing it with but-

JENSEN
The Mark of Merit

Vertical Condensed Milk Cooler



with suspended coil, always rotating from bottom up, not only frees your product from effects of air—ACTUALLY RELEASES AND EXPELS AIR AND GASES.

CANS ONCE FILLED, stay filled.

Flavor control positive from chemical standpoint.

Elimination of *stuffing* boxes removes the principal source of contamination.

Occupies only one-half the usual floor space —requires very little power to operate.

Jensen Creamery Machinery Company

Builders of "Equipment of Practical Efficiency"

BLOOMFIELD, N. J. OAKLAND, CALIF.

Southern Representative: BLANKE MFG. & SUPPLY CO., St. Louis, Mo.

ter and water to secure a satisfactory mix. All he will have to do will be to carefully calculate the amount necessary for the proper amount of serum solids in connection with the butter in the mix. If your customer will write me a personal letter telling just what kind of a mix he desires, I shall be glad to figure it out for him.

* * *

Dear Sir:—We are in receipt of a copy of a letter written by you to the ———, whom we had asked for information on the use of condensed milk in ice cream.

As per your letter we are writing you for information. Our object for trying the condensed material in either form (skim or 8 per cent) in our case is that we might improve our flavor. We, all through the season last year, used a mix of sweet butter water and milk powder, and had fine luck, but this season, with the same mix and everything seemingly equal, our flavor is off, it seeming to be of a dead or flat nature. We thought probably condensed milk of some form might help this or possibly fresh cream, but the latter, of good quality in any amount, is not very easily obtainable.

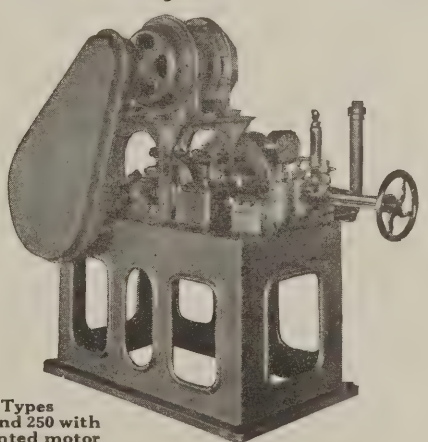
We would greatly appreciate any help or suggestions you can give us that you think will benefit us in our trouble, and possibly if you think that the condensed product will help our case you can work us out a formula to use with sweet butter and water.

Our mix at present contains 14 per cent fat, 34 per cent total solids and 13 per cent sugar. T. A. C.

Reply: It is possible that the difference in flavor you have this season is due to the quality of milk powder rather than for any other reason. In order to get a good flavored article from entirely reconstructed materials it is necessary that the quality of the powder be first-class and also that the powder be fresh and sweet.

The Gaulin Homogenizer

Is Preferred by Ice Cream Makers



Types 100 and 250 with mounted motor

ICE cream manufacturers who take the trouble to investigate, invariably prefer the Gaulin Homogenizer. It is constructed of as excellent materials and with the same painstaking care as is the finest automobile.

This is one reason why the product homogenized is unexcelled in quality and why the machine gives good service for many years.

Write for free booklet "The Story of the Homogenizer."

Manufactured by MANTON-GAULIN MFG. CO., 11 Elkins St., Boston

Distributed by

The Creamery Package Mfg. Company

General Offices: 61-67 W. Kinzie St., Chicago

See Other Advertisement for Lists of Sales Branches

PROSPERITY FOLLOWS THE DAIRY COW — Be sure you attend the National Dairy Exposition, St. Paul, October 7-14, Minneapolis.

DON'T TRY TO SAVE MONEY BY USING CHEAP LUBRICANTS.

A very slight rancidity in the powder will leave its effect in the flavor of the ice cream.

If it is possible for you to obtain some fresh cream you would improve the flavor of your ice cream considerably even if you use only a small amount of cream with the butter and powder mixture. I suggest, however, that you try the mixture given below in Table One, using the sweetened condensed whole milk along with some skim milk powder and see if that will improve the flavor:

Table One.

Ingredients	Fat	Serum Sol.	Total Sol.
6.6 lbs. sugar	.....	.....	6.27
.5 lbs. gelatine	.....	.....	.47
16.0 lbs. 8% sweet condensed	1.28	4.32	12.00
15.2 lbs. 84% butter	12.76	.....	12.76
4.0 lbs. skimmilk powder	.....	3.80	3.80
57.7 lbs. water	.....	.....	.....
100.0 lbs.	14.04	8.12	36.30

I shall be glad to have you write me as many times as you desire until you have your mix as you want it.

* * *

Dear Sir:—Will you please give me a formula for 100 lbs. of mix containing milk, cream, condensed milk, sugar, gelatine, flavor, to give about 15 to 18 per cent fat? What would be the proportions if skim milk were used instead of whole milk?

Our milk varies from 3 to 3.5 per cent, cream from 45 to 50 per cent, condensed milk contains 9 to 10 per cent fat and 42 per cent sugar.

We are using a vertical freezer with brine box and get our brine temperature about 10 degrees F, and it freezes in 15 to 20 minutes. Our swell is 50 per cent only and we do not seem able to get more; we should like at least 75 per cent. Is it useful to vary the speed of the dasher during freezing? Is it desirable or otherwise to keep brine flow even during freezing?

We do not at present homogenize, nor do we age our mix, but we are fixing up a plant to make 10 tons of ice per day and want to do a real top hole ice cream and brick business, and any suggestions will be most thankfully received, as it is difficult to get information here as everyone is doing differently and what one says is good another says is the worst possible to do. We do not get together as you do in the States; I wish we did. We have done well so far this season and customers prefer our cream ices to other makes, but our profit is very small owing to the small swell. I wish that I could spare the time to run over the "puddle" and go through one or two of the plants, as I know it would be very instructive. I have been over some of the milk plants in New York and received the very greatest kindness. I am not a Wolf Hound or a Dixie Flyer, but I dined one day with the Schwine Fressers in the Bronx and still feel proud about it. G. S. C. (England.)

Reply: We have your letter of recent date, with a request for a formula for a 100 pounds of mix, using the ingredients suggested in your letter, namely, whole milk, cream, sugar and condensed milk. I am suggesting below in table one, a formula containing 14 per cent sugar, about 15 per cent fat and about 10 per cent serum solids. This will make a product containing a very high per cent of solids, but I am sure you would get satisfactory results:

Table One.

Ingredients	Fat	Serum Sol.	Total Sol.
7.3 lbs. sugar	.....	.....	6.91
.5 lbs. gelatine	.....	.....	.47
16.0 lbs. sweet condensed	1.44	4.32	12.48
28.00 lbs. 45% cream	12.60	1.38	13.98
48.20 lbs. 3% milk	1.44	4.2	5.64
100.0 lbs.	15.48	9.90	39.48

In table two below I am suggesting another mix with about 15 per cent fat but with considerably less condensed milk. You will probably prefer the mix in table two:

Table Two.

Ingredients	Fat	Serum Sol.	Total Sol.
10.6 lbs. sugar	.....	.....	10.07
.5 lbs. gelatine	.....	.....	.47
8.0 lbs. sweet condensed	0.72	2.16	6.28
30.0 lbs. 50% cream	15.00	1.35	16.35
50.9 lbs. skimmilk	.....	4.58	4.58
100.0 lbs.	15.72	8.09	37.75

I do not quite see your point in trying to make ice cream containing as high as 18 per cent butterfat. Here in the States our ice cream does not average much over 10 per cent butterfat and our trade likes this kind of cream much better than the high butterfat cream.

We also notice that you have difficulty in securing a satisfactory overrun with your vertical type of freezer. We find here in the States that our ice cream factories using the vertical type machine seem to have a great deal more difficulty in securing the overrun than with a horizontal machine. You ought to get at least 75 to 100 per cent overrun, using either of the two mixes suggested above. My opinion is that you are consuming too much time to freeze a batch, and I suggest that you try to get the brine temperature down to 5 or 8 degrees F. and try to freeze a batch in no longer than twelve minutes. It is possible when you freeze your mix twenty minutes you beat out considerable air which you had in the mix had you completed the freezing in less time. It is not practical to vary the speed of the dasher during freezing but rather to standardize the overrun by regulating the brine flow and temperature of the brine and watching carefully the consistency and weight of the ice cream when drawn from the freezer.

* * *

Dear Sir:—We are going into the ice cream business here in Missouri and we want to get the right kind of a start and put out a quality product, so we are writing you asking that you give us a couple of good standard formulas. We expect to put out at least a 14 per cent ice cream, and possibly a 16 per cent. We would like your opinion in regard to the 16 per cent.

We expect to use a tub freezer the balance of this season and would like to know if we can connect this up and freeze with brine instead of the ice and salt mixture?

Which do you consider the best for body in the cream, skim milk powder or condensed milk? L. A. S.

Reply: I am suggesting below, in table one, a 14 per cent butterfat mix which I am sure would give you good results in competition with other factories in Missouri. You probably know that the State of Missouri only requires 8 per cent butterfat. My experience has been that consumers prefer a product which is not too rich in fat. With 14 per cent fat it is hardly necessary to

(Concluded on page 126)

MAILING FOLDERS
MAGAZINES AND HOUSE ORGANS
BUSINESS CARDS
CONVENTION PROCEEDINGS
LETTER HEADS
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BILL HEADS
ENVELOPES
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LET US DO YOUR
PRINTING

High grade work at reasonable prices. Send us a sample of what you want and we will quote you prices.

THE OLSEN PUBLISHING CO.
Fifth and Cherry Sts. Milwaukee



"Carry-Home" Sales

Filling Sealright Liquid-Tight Paper Containers with bulk ice cream direct from the freezers, or, by Sealright Filling Machines—a method nationally known as the "Sealright-Way"—and already adopted in 44 States, has proven itself a positive stimulation to increased "carry-home" sales of bulk ice cream. Surely, you want to enjoy the larger volume of business to be derived from the potential possibilities in this field, heretofore never fully developed.

GET ALL THE DETAILS NOW

Sealright Co., Inc., Fulton, N.Y.

Largest Manufacturers in the World of Cylindrical Liquid-Tight Paper Containers





ACHIEVEMENT

TAYLOR ICE CREAM CO.
BUFFALO N.Y.
June 17, 1922.

HYDROX COMPANY
CHICAGO
June 15, 1922

LAWRENCE ICE CREAM CO.
MANUFACTURERS OF
Goldenrod
CHICAGO
June 14, 1922.

Mojonnier Bros. Company,
739 W. Jackson Blvd.,
Chicago, Ill.

Gentlemen:- Attention Mr. J. J. Mojonnier.

We have been using your ice cream packaging machine, since July, 1921, and we have been making all of our brick ice cream by your method from that time. We feel that with the new liner and the improvements that you have made upon your present machine that you have absolutely solved the problem of packaging ice cream directly into the carton. Our brick business is now greater than it ever has been, and is on the increase. We attribute this largely to the splendid package that we are enabled to put out with our machine. Every quart is a full quart. The bricks do not rattle in our package. The cream is of far better texture and more like bulk cream than our brick cream made by the old method. The lines on the three flavored bricks are always much better than we were ever able to make by hand.

We believe that one of the finest features of ice cream packaged in this way is that the cream is hermetically sealed upon all six sides in pure vegetable parchment from the time it leaves the freezer until it is opened in the consumer's home.

We would not think of ever going back to the old method of packaging ice cream.

We recommend your machine with great pleasure.

Very truly yours,
LAWRENCE ICE CREAM COMPANY,
By
President.

LBO:MS

NEW ORLEANS ICE CREAM CO.
BROWN'S Velvet ICE CREAM

M & G COMPANY
M&G ICE-CREAM

Tamaqua, Pa., June 10, 1922.

Mojonnier Bros. Co.,
739 West Jackson Blvd.,
Chicago, Ill.

Dear Sir:

Attention Mr. Timothy Mojonnier.

It gives me pleasure to recommend to other users of your machine its particular advantages and usefulness covers a long felt need in the matter of placing before the public a small, sanitary package which we probably could not have gotten had it not been for this sanitary package.

We find the machine easy to operate, and also unusual care or any great amount of repairs. We should not require of it is a good, sturdy machine, and should not require before the public a small, sanitary package which we probably could not have gotten had it not been for this sanitary package.

We find that it is a good, sturdy machine, and also unusual care or any great amount of repairs. We should not require of it is a good, sturdy machine, and should not require before the public a small, sanitary package which we probably could not have gotten had it not been for this sanitary package.

We feel that during the dull season in particular that we will be able to hold our sales through its use better than heretofore.

Very truly yours,

EVD/JSC.

See Our Exhibit at the
NATIONAL DAIRY EXPOSITION
St. Paul — Oct. 7-10 — Minneapolis
Booths 34-35

Also see our exhibit at the
NATIONAL
ICE CREAM EXPOSITION
Booths 67-68, October 17-21
Cleveland, Ohio

The letters reproduced above indicate the opinion of some leading ice cream manufacturers in NEW YORK, PENNSYLVANIA, ILLINOIS, and LOUISIANA, with regard to the

Mojonnier Ice Cream Packaging Machine



Pat. Dec. 17, 1918; Aug. 19, 1919.
Process and other patents pending.

Our new rotary sanitary valve and the new suspended-agitators have received the enthusiastic endorsement of our customers.

The new parchment lined carton is a great improvement.

The brick of ice cream packed by the Packaging Machine can be unwrapped at the home just the same as under the old method.

The pure vegetable parchment wrapper hermetically seals the ice cream on all six sides.

Orders now taken for fall and winter delivery. Model B capacity 900 quarts an hour $1750.00. Model A, capacity 1200 quarts per hour $2250.00.

Our representative will be glad to call. Address nearest branch office.

Mojonnier Bros. Co.

MILK ENGINEERS
739 W. Jackson Boul. Chicago

SALES BRANCHES:
New York City, 490 Sanford Ave. Flushing
Atlanta, Ga. - - 3 Bonventure Avenue
Columbus, Ohio - 123 E. Frambes Street
St. Louis, Mo. - 4931 Margaretta Avenue
Seattle, Wash. - 513 Pioneer Building

Eline's Dutch Process Cocoa

All the World Loves Good Chocolate

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Freezer accommodates packaged cream in any form—bricks, eskimo pies, cylindrical packages in quarts, pints, etc. Where necessary special size containers are made.

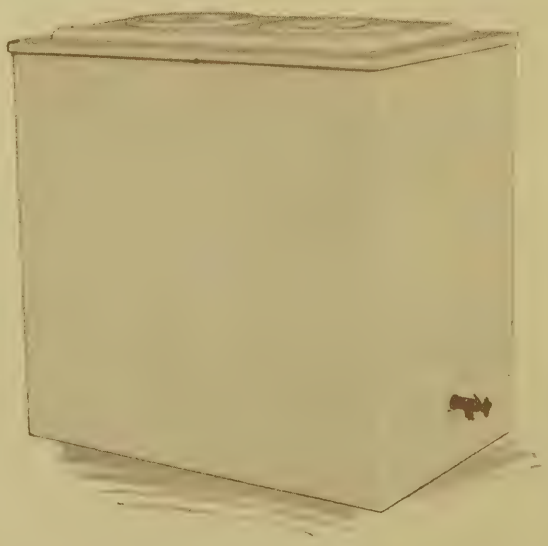
Cream container proper consists of a centrally located receptacle surrounded by ice on all four sides, top and bottom, and is arranged to provide individual compartments for cream of various flavors.

We guarantee these Ever-Keep Freezers if iced properly once in 24 to 36 hours to keep cream in most perfect shape.

Ever-Keep Freezers are carried in stock in 32, 40, 48, 56, 60 and 70 quart capacity.



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LAURENS CO-OPERATIVE CREAMERY CO. TO MAKE ICE CREAM.

The Laurens Co-operative Creamery Company, which has plans under way for the erection of a new plant at Laurens, Iowa, will include in their new machinery equipment for the manufacture of ice cream.

This firm is capitalized at $20,000. The officers are Thomas Edge, president; R. V. Neville, secretary and treasurer; R. Rouse, L. Ferguson, J. R. Davidson, G. Ashenbrenner, M. Hertz, directors. F. Johnson will be buttermaker and general manager.

The new building will be 32 by 80 feet in size. It is expected that it will be in operation by November first.

ICE CREAM CONE PLANT FIRE DOES $100,000 DAMAGE.

A fire which did damage estimated at $100,000 swept the fifth and sixth floors of the A. Jacovilli ice cream cone manufacturing plant at Philadelphia recently. It is believed that the fire was caused by explosion of gas used in the operation of the cone-making machine.

Huge quantities of flour, sugar and other materials stored in the building were ruined by the smoke and water.

AMERICA.

"God built Him a continent of glory and filled it with treasures untold. He carpeted it with soft rolling prairies and pillared it with thundering mountains. He studded it with soft-flowing fountains and traced it with long, winding streams. He graced it with deep-shadowed forests and filled it with song.

"Then He called unto a thousand peoples and summoned the bravest among them. They came from the ends of the earth, each bearing a gift and a hope. The glow of adventure was in their eyes, and in their souls the glory of hope.

"And out of the bounty of the earth and the labors of man, out of the longings of hearts and the prayers of souls, out of the memories of age and the hopes of the world, God fashioned a nation of love, blessed it with purpose sublime and called it America."—Rabbi Abra Hillel Silver.

BEAVER ICE CREAM COMPANY NOW IN NEW PLANT.

The Beaver Ice Cream Company, formerly located at Beaver Dam Junction, Wisconsin, has recently moved into new quarters at Beaver Dam. A new building was constructed, 26 by 30 feet, which houses the entire plant. Practically all new machinery has been installed, including an ice machine. An ice house was also erected, where ice for packing and shipping ice cream is stored during the summer season. The plant has a capacity of 700 gallons of ice cream a day.

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Ideal for Tourists, Domestic Uses and House Delivery.



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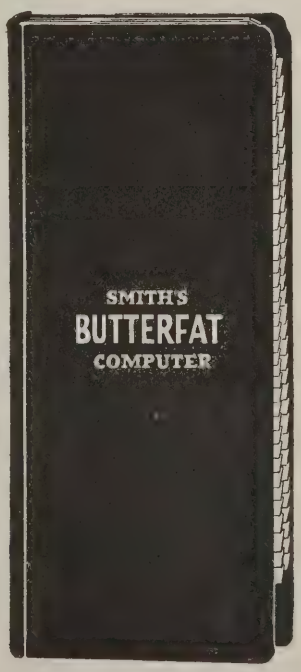
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Wisconsin Supreme Court Upholds Constitutionality of "Filled Milk" Law

STATE OF WISCONSIN,
In Supreme Court.

State of Wisconsin Upon the Relation of Carnation Milk Products Company, a Corporation, and The Hebe Company, a Corporation,
Plaintiffs.

vs.

J. Q. Emery, as Dairy and Food Commissioner of the State of Wisconsin,
Defendant.

An action under the original jurisdiction of this court, upon the relation of the plaintiff corporations to enjoin the defendants from enforcing the provisions of Chapter 409, of the Laws of 1921, this state, as against the plaintiffs, so far as the same applies to the manufacture and sale by the plaintiffs of the product known as "Hebe."

Upon the filing of the complaint, an answer was served, raising certain issues of fact, which were referred to a referee for his findings. Chapter 409, in so far as it affects the plaintiffs, is as follows:

"2. It shall be unlawful for any person, firm or corporation, by himself, his servant or agent, or as the servant or agent of another, to manufacture, sell or exchange, or have in possession with intent to sell or exchange, any milk, cream, skimmilk, buttermilk, condensed or evaporated milk, powdered milk, condensed skimmilk, or any of the fluid derivatives of any of them to which has been added any fat or oil other than milk fat, either under the name of said products or articles or the derivatives thereof or under any fictitious or trade name whatsoever."

The plaintiffs manufacture and have in their possession for sale, Hebe, which is a compound composed chiefly of milk from which the butterfat has been extracted and cocoanut oil injected in place of the butterfat.

Plaintiffs contend that this provision of law as applied to their business is in contravention to the Fourteenth Amendment to the Constitution of the United States, and similar provisions of the state constitution, and to the commerce clause of the federal constitution.

Hebe is manufactured by the Carnation Milk Products Company in Wisconsin, and its entire product sold to The Hebe Company. The Hebe Company sells the compound to jobbers and wholesalers only. The compound contains 92.3 per cent skimmed milk or buttermilk, and 7-8 per cent of cocoanut oil similarly evaporated as condensed milk. It is similar in taste, color, appearance, consistency and manner of packing to evaporated milk. The butterfat extracted from the milk is much more expensive than the cocoanut oil injected into the milk to take the place of the butterfat. Hebe can therefore be sold, and is sold, to wholesalers and retailers cheaper than the genuine evaporated or condensed milk.

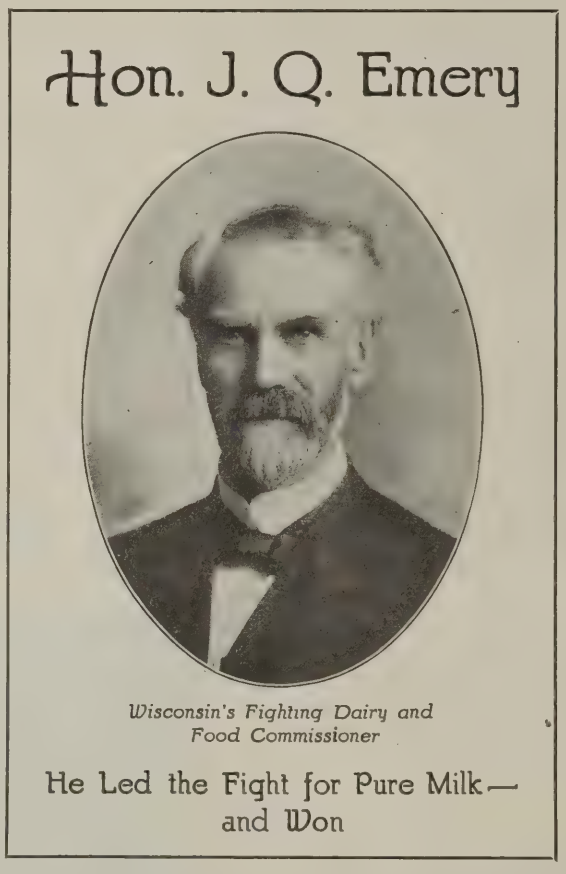
The compound has been manufactured in the state for the last five years, while condensed or evaporated milk has been manufactured and on the market for the last twenty-five or thirty years. The compound is not deleterious in itself, but is not of the same quality or food value as the genuine evaporated milk. It is lacking in a certain chemical substance known as Vitamines A, which are essential elements of a proper dietary. These Vitamines may be supplied by other foods. It is admitted that the compound is not a proper substitute for the genuine for infants.

Hebe has been extensively advertised as a substitute for milk, through the press and magazines, and by means of cook books prepared by The Hebe Company. It has been advertised in the newspapers of Wisconsin as "milk," "milk compound" and "compound of milk." It has been sold by retailers in Wisconsin as "milk" or "evaporated milk."

There have also been advertised and sold four other similar compounds in the state of Wisconsin, either as "milk" or "compound of milk." These compounds are also shipped out of the state and advertised and sold in other states as substitutes for evaporated milk.

In some cases the compounds are sold by the retailers at the same price as the genuine evaporated milk. The compounds have been variously labeled at different times to indicate that they were more or less equivalent to or better than the genuine evaporated milk. At the time of the commencement of this action, Hebe was labeled: "A COMPOUND OF EVAPORATED SKIMMED MILK AND VEGETABLE FAT. Contains 7.8% Vegetable Fat, 25.5% Total Solids." On the margin of the label was printed: "FOR COOKING AND BAKING—Do Not Use in Place of Milk for Infants."

The Carnation Milk Products Company has an investment in its plants in Wisconsin of about $650,000, and of this about $50,000 in its plants is used for the manufacture of Hebe.



I.

CROWNHART, J. It is but trite to say that the constitution of our state is the supreme law. Therein will be found the powers of the executive, legislative and judicial branches of government, each supreme in its field but coordinate in their sources of powers and the exercise thereof.

The greatest deference must be paid by each department to the other acting within the scope of its powers. Any usurpation of power by one department at the expense of another is a wrong against the people who adopted the constitution as their charter of liberties and rights.

To the legislature was given the power to enact laws not in contravention to the constitution. A law so enacted becomes the public policy of the state. BORGNIS. v. FALK COMPANY, 147 Wis., p. 351.

Before a statute can be said to be unconstitutional the statute must lack in public purpose "so clear and palpable as to be perceptible to the mind at first blush" so said the great Chief Justice Dixon, who sat in the constitutionel convention and helped frame the charter of our state. BRODHEAD v. MILWAUKEE, 19 Wis., p. 686. "We must bear in mind," said Chief Justice Winslow, "the well established principle that it (the statute) must be sustained unless it is clear beyond reasonable question that it violates some constitutional limitation or prohibition." BORGNIS v. FALK COMPANY, 147 Wis., p. 348. "The rule of all courts," said Justice Bardeen, "is that a statute will be declared unconstitutional only when it is shown beyond reasonable doubt that it conflicts with the fundamental law. It is equally true that the courts will seek every reasonable mode of reconciliation of the statute with the constitution, and it is only when reconciliation has been found impossible that it will be declared void." STATE EX REL HICKS v. STEVENS, 112 Wis., p. 172. Said Mr. Justice Dodge: "We must and do concede to the legislative branch of the government the fullest exercise of discretion within the realm of reason, and, if a public purpose can be conceived which might rationally be deemed to justify the act, the court cannot further weigh the adequacy of the need or the wisdom of the method." STATE EX REL ZILLMER v. KREUTZBERG, 114 Wis., p. 549. The courts will presume in favor of the constitution-

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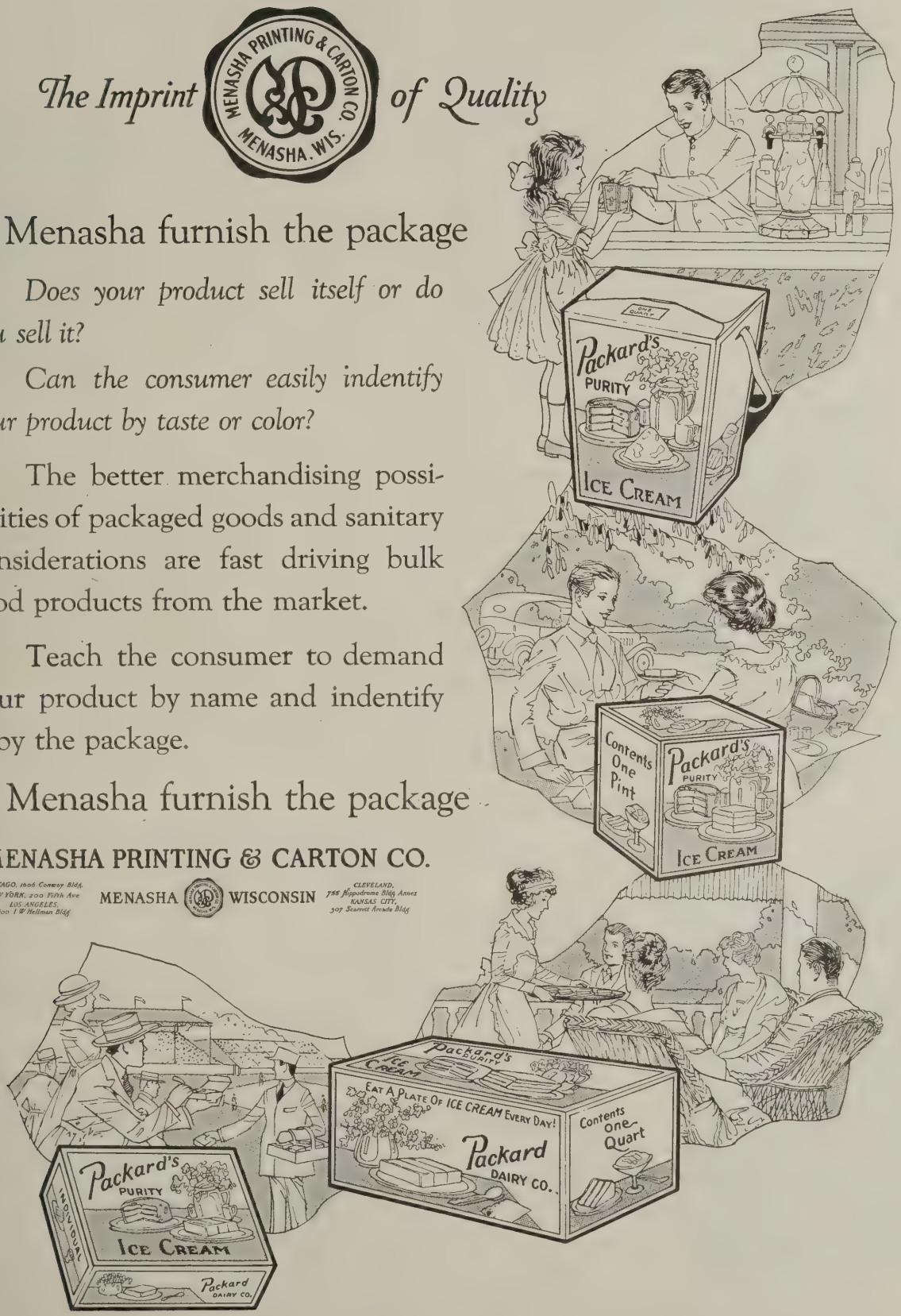
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ality of the acts in a case of doubt and sustain them. STATE EX REL BRAYTON v. MERRIMAN, 6 Wis., 14; SMITH v. MARINER, 5 Wis., p. 541; IN RE OLIVER, 17 Wis., p. 681; STATE EX REL KELLOGG v. CURRENS, 111 Wis., p. 431; NORTHWESTERN NATIONAL BANK OF SUPERIOR v. CITY OF SUPERIOR, 103 Wis., p. 43.

The United States Supreme Court has declared equally emphatically in favor of sustaining acts of Congress and the statutes of states. PRICE v. ILLINOIS, 238 U. S., p. 446; RAST v. VAN DEMAN & L. CO., 240 U. S., p. 357; HEBE CO. v. SHAW, 248 U. S., p. 303.

COOLEY ON CONSTITUTIONAL LIMITATIONS, page 238, says:

"The rule of law upon this subject appears to be, that, except where the constitution has imposed limits upon the legislative power, it must be considered as practically absolute, whether it operate according to natural justice or not in any particular case. The courts are not the guardians of the rights of the people of the State, except as those rights are secured by some constitutional provision which comes within the judicial cognizance. The protection against unwise or oppressive legislation, within constitutional bounds, is by an appeal to the justice and patriotism of the representatives of the people. If this fail, the people in their sovereign capacity can correct the evil; but courts cannot assume their rights. The judiciary can only arrest the execution of a statute when it conflicts with the constitution. It cannot run a race of opinions upon points of right, reason and expediency with the law-making power. Any legislative act which does not encroach upon the powers apportioned to the other departments of the government, being prima facie valid, must be enforced, unless restrictions upon the legislative authority can be pointed out in the constitution, and the case shown to come within them."

Again, on page 239:

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"Nor are the courts at liberty to declare an act void, because in their opinion it is opposed to a **spirit** supposed to pervade the constitution, but not expressed in words."

II.

The act sought to be avoided was passed in the exercise of the police power of the state.

The police power covers all matters having a reasonable relation to the protection of the public health, safety or welfare. McLEAN v. ARKANSAS, 211 U. S., 539.

As applied to food, this authority extends to requiring a fixed minimum amount of nutritional elements. HUTCHINSON ICE CREAM COMPANY v. IOWA, 242 U. S. 153; HEBE COMPANY v. SHAW, 248 U. S. 297.

The police power also has an especially appropriate field of action in the prevention of fraud and deception. HALL v. GEIGER-JONES COMPANY, 242 U. S. 539.

It may be legitimately exercised against even the occasional fraud not inherent in the business or product, and a **fortiori** against the fraud that is inherent in it. MERRICK v. HALSEY COMPANY, 242 U. S. 568.

It extends farther, and embraces the right to prohibit all things which constitute obstacles to a greater public welfare (RAST v. VAN DEMAN & LEWIS, 240 U. S. 342) and to do whatever will promote the general convenience or the general prosperity (BACON v. WALKER, 204 U. S. 311), including even such matters as the preservation of the reputation of a great industry of the state against injury in markets outside of the state. (SLIGH v. KIRKWOOD, 237 U. S. 52.)

Given a legitimate subject for the exercise of the police power, it is for the legislature to adopt such measures as it may deem necessary to make its action effective, so long as they have reasonable relation to that end. PURITY EXTRACT CO. v. LYNCH, 226 U. S. 192.

The measures which the legislature may adopt for such purpose may be either regulatory or prohibitory, whichever the legislature deems the more effective method of accomplishing the result (SILZ v. HESTERBERG, 211 U. S. 31), and they may be either in the form of general directions or of detailed measures against a particular article (PRICE v. ILLINOIS, 238 U. S. 448).

Accordingly, the authority of the legislature to prohibit an article is not affected by the fact that the article may be truthfully labeled (HEBE CO. v. SHAW, 248 U. S. 297) or that the law will result in destroying the value of property devoted to the manufacture of such article (MUGLER v. KANSAS, 123 U. S. 123).

"At an early day it (the police power) was held to embrace every law or statute which concerns the whole or any part of the people, whether it related to their rights or duties, whether it respected them as men or citizens of the state, whether in their public or private relations, whether it related to the rights of persons or property of the public or any individual within the state. New York v. Miln, 11 Pet. 102, 139. The police power, in its broadest sense, includes all legislation and almost every function of civil government. Barbier v. Connolly, 113 U. S. 27. It is not subject to definite limitations, but is co-extensive with the necessities of the case and the safeguards of public interest Camfield v. United States, 167 U. S. 518, 524. It embraces regulations designed to promote public convenience or the general prosperity or welfare, as well as those specifically intended to promote the public safety or the public health. Chicago, B. & Q. R. Co. v. Illinois, 200 U. S. 561, 592. In one of the latest utterances of this court upon the subject, it was said: 'Whether it is a valid exercise of the police power is the question in the case, and that power we have defined, as far as it is capable of being defined by general words, a number of times. It is not susceptible of circumstantial precision. It extends, we have said, not only to regulations which promote the public health, morals, and safety, but to those which promote the public convenience or the general prosperity. . . . And further, 'It is the most essential of powers, at times the most insistent, and always one of the least limitable of the powers of government,' Eubank v. Richmond, 226 U. S. 137." SLIGH v. KIRKWOOD, 237 U. S. p. 59.

It is competent for the legislature to exercise all legislative power not forbidden by the constitution or delegated to the general government, or prohibitd by the constitution of the United States. BUSHNELL v. BELOIT, 10 Wis. 195.

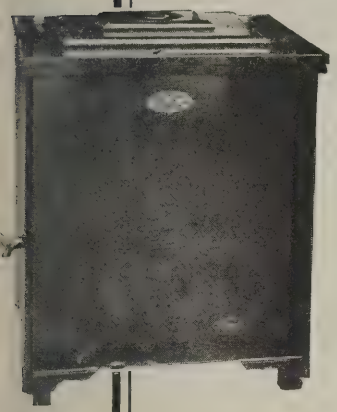
Mr. Justice Timlin said: "We must start with the axiom that the legislature has all legislative power not withheld or limited by the constitution of the state or the exercise of which is not prohibited by the federal constitution." NITKA v. W. U. TEL. CO., 149 Wis. 110.

The police power of a state is as broad and as plenary as the taxing power. BITTENHAUS v. JOHNSTON, 92 Wis. 588.

The police power is a broad and comprehensive power, by which the rights of an individual, both as to his liberty and his enjoyment of property, may be curtailed in the interest of the public welfare, but it is not easy of accurate definition. HUBER V. MERKEL, 117 Wis. 366.

As was said by Mr. Justice Dodge: "By a long line of decisions and consensus therein by the people of the various states, it has become settled that thereby all powers of a legislative character ordinarily enjoyed by sovereign govern-

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ments became vested in the state legislature, except so far as restrained expressly or by substantially necessary implication elsewhere in the constitution." STATE EX REL ZILLMER v. KREUTZBERB, 114 Wis., p. 532.

III.

History of Legislation Relating to Filled Milk.

We submit a history of legislation relating to filled milk. It has been held that where the objection to the constitutionality of a statute turns on the question as to its reasonableness under the police power, such history may be very persuasive. Certainly on the question of whether it is a debatable subject, it is peritnent to know that the matter has been generally debated. ADAMS v. MILWAUKEE, 144 Wis. 371; PURITY EXTRACT CO. v. LYNCH, 226 U. S., p. 204; MULLER v. OREGON, 208 U. S. 412.

As was said in the latter case: "When a question of fact is debated and debatable, and the extent to which a special constitutional limitation goes is affected by the truth in respect to that fact, a widespread and long continued belief concerning it is worthy of consideration."

It was said by Mr. Justice Holmes, in NOBLE STATE BANK v. HASKELL, 219 U. S. 104, speaking of the police power of a state: "It may be put forth in aid of what is sanctioned by usage, or held by the prevailing morality, or strong and preponderant opinion to be greatly and immediately necessary to the public welfare." And it has been well said, what we know as men we cannot ignore as judges; that is, we will consider matters of common knowledge without proof.

The laws prohibiting filled milk, now in force, are of three general types:

1. Laws which directly prohibit the manufacture and sale of filled milk. Of this type are the laws of New Jersey, New York and Wisconsin.

2. Laws which prescribe standards for condensed or evaporated milk which have the effect of prohibiting the manufacture and sale of filled milk. Of this type are the laws of Colorado, Connecticut, Florida, Maryland and Ohio.

3. Laws which permit filled milk to be sold as "imitation milk" under restrictions to prevent fraud. These restrictions are so severe as to be practically prohibitive. These are the laws of California, Oregon and Utah.

The Bureau of Animal Industry of the U. S. Department of Agriculture, in a bulletin on "Legal Standards for Dairy Products," issued in 1919 as a typewritten bulletin, lists thirty-one states as having standards for condensed or evaporated milk, which were adopted either by an act of the legislature or by some administrative body under legislative authority, which prescribe the percentage of solids and butterfats. These states are Arizona, California, Colorado, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Nevada, New Hampshire, New York, North Carolina, North Dakota, Ohio, Oregon, Rhode Island, South Dakota, Utah, Vermont, Virginia, Washington, Wisconsin, Wyoming. In addition to the states listed in this bulletin, Connecticut and Florida have laws prescribing standards for condensed milk.

Congress has before it a prohibitory bill which has passed the House 250 to 40.

History of Bill in Our Legislature.

The legislative records show that the bill was thoroughly considered before committees of each house; that substitute amendments were offered for regulation in each house, which were defeated by large majorities; that the bill came up in each house by special order, which denotes special consideration.

The bill was passed in the assembly by a vote of 67 to 10, and in the senate by a vote of 28 to 0.

The bill was signed by the Governor, who himself is a lawyer and has been Attorney General of the state. The legislative members and the Governor are bound by the same oath to support the constitution as are the members of this court. Their well considered action should have great weight according to judicial authority.

It will be seen that the compounds have been considered inimical to the public welfare by a large portion of the people of this country. We must conclude that there must have been some reasonable basis to induce legislation of this kind by so many different bodies.

IV.

We now come to a recognized judicial authority on the subject, which finally settles the question so far as the federal constitution is concerned.

The "Hebe" Company shipped some of its product manufactured in Wisconsin into Ohio for sale in that state. The sale being forbidden in that state by statute, the question of the validity of the statute was raised in the United States District Court for Ohio, and passed upon by three judges sitting at the trial. The statute was upheld. The "Hebe" Company then took the case to the United States Supreme Court, and there the statute was again upheld. In the United States Supreme Court the contention was made, as here, that the statute was in contravention to the Fourteenth Amendment. As there is no corresponding provision in our state constitution that goes so far to sustain the rights of property as the Fourteenth Amendment of the federal constitution, that decision is decisive of the case here if it is followed. While this court has the right to differ from the Supreme Court of the United States on this question, it will not do so on the construction of the federal constitution. Of the twelve federal judges passing on the subject, three Supreme judges dissented, but not upon the validity of the statute but on its construction as to whether it applied to the case before them.

The United States Supreme Court, in HEBE CO. v. SHAW, 248 U. S., p. 303, said:

> "The purposes to secure a certain minimum of nutritive elements and to prevent fraud may be carried out in this way even though condensed skimmed milk and Hebe both should be admitted ot be wholesome. The power of the legislature 'is not to be denied simply because some innocent articles or transactions may be found within the prescribed class. The inquiry must be whether, considering the end in view, the statute passes the bounds of reason and assumes the character of a merely arbitrary fiat.' PURITY EXTRACT & TONIC CO. v. LYNCH 226 U. S., p. 204. If the character or effect of the article as intended to be used 'be debatable, the legislature is entitled to its own judgment, and that judgment is not to be superseded by the verdict of a jury,' or, we may add, by the personal opinion of judges, 'upon the issue which the legislature has decided.' PRICE v. ILLINOIS, 238 U. S., p. 452; RAST v. VAN DEMAN & L. CO., 240 U. S. 342. The answer to the inquiry is that the provisions are of a kind familiar to legislation and often sustained, and that it is impossible for this court to say that they might not be believed to be necessary in order to accomplish the desired ends."

As was said by Mr. Justice Dodge:

> "The reasons for a given statute are for the legislature, if there are any which can fairly have weight. They are not for the courts. The latter have no control over the validity of a law unless they can say with substantial certainty that no argument or consideration of public policy exists which could have weight with any reasonable and honest man. If any such argument or reason can be suggested, its weight or sufficiency is not debatable in the courts. The existence of legitimate and adequate reasons for any law should not lightly be denied. Human

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Modernization can often be accomplished by additions to old buildings, or by completely revamping the old plant, conserving such of the old buildings as may be used to advantage in the new layout. A careful study of each particular situation will best determine what proceedure should be followed.

We have modernized dairy plants and ice cream factories for many concerns. In each instance we studied the problems from the operating standpoint, prepared plans for the improvements and the construction was executed by local contractors.

If you are confronted with building or production problems, regardless of their nature, consult the McCORMICK organization. Our long experience in handling the most difficult and complicated ice cream and dairy plant problems may prove invaluable to you. An interview does not obligate you in any way. Just write us that you are interested.

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PITTSBURGH, Century Building NEW YORK, 41 Park Row

THE TROUBLE WITH SOME BUSINESS MEN IS THEY ARE NOT SET TO GO.

minds differ, and what may seem inadequate or irrelevant to one may seem cogent to another. One is not justified, therefore, in assuming that all who differ from him are unreasonable or are not acting in good faith. It is from such considerations as these that the courts have laid down for themselves the rule that only in a clear case—clear beyond reasonable doubt—will they venture to assert that a law is without reason to support either its purpose or the classifications it may make." THE STATE EX REL KELLOGG v. CURRENS AND OTHERS, 111 Wis., p. 439.

V.

The findings of the referee are not conclusive on the court. They may be considered only to refresh the memory of the court as to matters of which the court will consider as common knowledge and of which it takes judicial notice, or for the purpose of bringing to the attention of the court scientific facts which would otherwise devolve upon the court undue labor.

If there is any reasonable basis upon which the legislation may constitutionally rest, the court must assume that the legislature had such fact in mind and passed the act pursuant thereto. The court cannot try the legislature and reverse its decision as to the facts. All facts necessary to sustain the act must be taken as conclusively found by the legislature, if any such facts may be reasonably conceived in the mind of the court. 6 R. C. L., sections 101 to 116, inclusive, and cases there cited.

The compounds manufactured and sold by the plaintiffs and other companies are in exact imitation of the genuine evaporated milk. They are produced and sold by the manufacturer cheaper than the genuine. They are not of equal food value as the genuine. They may be sold, however, and are susceptible of being sold to the public for the genuine at the same price. They are, therefore, capable of being used for fraudulent purposes and to deceive purchasers. The temptation of retail dealers is to sell the cheaper article in place of the more expensive article to increase their profits. If used as a substitute for milk, the public health may be impaired, not because the compounds are in themselves deleterious, but because they lack in certain food elements essential to a well balanced dietary. It was competent, therefore, for the legislature to find that the manufacture and sale of the compounds in question were conducive to fraud and deception, and likely to be injurious to the public health. Having so found, as we must conclude it did, it is not for this court to set its judgment against that of the legislature.

VI.

By reference to the federal census of 1920, we find that Wisconsin ranks first among all the states of the Union in total value of dairy products from its farms. It had 2,763,488 dairy cattle in that year, an average of more than ten to the farm. It held first rank in milk production, producing 858,258,521 gallons, valued at over 230 millions of dollars. It produced more cheese than any other state, the value of which amounted to $91,462,878. It ranked second in amount of butter produced. It ranked first in the manufacture of condensed milk. It ranked second in milk powders produced. In 1920, 64.9 per cent of the nation's cheese was produced in this state, and 26.6 per cent of her condensed milk, 24 per cent of her milk powders, and 11.4 per cent of the nation's butter were produced here. Nor is this all. The great dairy industry of this state is reflected in the high average production of agriculture crops of many varieties. The fertilizers from the dairy industry enrich the soil, so that of the north central states, Wisconsin was first in ten years average yield per acre in wheat and potatoes, second in barley and hay, and third in corn, oats and rye.

The reputation of Wisconsin for the purity and excellence of her dairy products stands high in the markets of the country, and the prices she obtains therefore are equally well sustained.

The constitution of our state was ordained, among other things, to promote the general welfare. Thus it might well be that the legislation in issue could be upheld to protect the reputation of the state for its dairy products in the markets of the country from adulteration and misleading representations. The advertisements of cocoanut oil compounds have been skillfully prepared to give the impression that the compounds are equal, if not better, than the genuine dairy product. For instance, a full-page advertisement in the Chicago Tribune contains a typical gem of the advertiser's art:

"Nutro is a delicious and nutritious new milk product. It is prepared in the rich dairying districts of Wisconsin and Indiana, and made of pure, fresh cow's milk with the animal fats extracted and essential food values replaced by a refined, rich, sweet, purely vegetable cocoanut fat.

"Nutro is pure, delicious, wholesome. It is prepared in model condenseries from pure cow's milk evaporated to double strength, with the animal fats extracted and then enriched with sweet, edible, highly refined cocoanut fat."

Comment is unnecessary, other than to say that other advertisements are equally well calculated to convey the idea to the public that pure, fresh cow's milk from Wisconsin has been enriched and improved by the injection of sweet, edible, highly refined conoanut fat.

The state is not without power to protect its industries in its markets in this and other states, according to a decision of the Supreme Court of the United States upholding a statute of Florida designed to protect its fruit trade. We quote from SLIGH v. KIRKWOOD, 237 U. S., p. 61:

"We may take judicial notice of the fact that the raising of citrus fruits is one of the great industries of the state of Florida. It was competent for the legislature to find that it was essential for the success of that industry that its reputation be preserved in other states wherein such fruits find their most extensive market. The shipment of fruits so immature as to be unfit for consumption, and consequently injurious to the health of the purchaser, would not be otherwise than a serious injury to the local trade, and would certainly affect the successful conduct of such business within the state. The protection of the state's reputation in foreign markets, with the consequent beneficial effect upon a great home industry, may have been within the legislative intent, and it certainly could not be said that this legislation has no reasonable relation to the accomplishment of that purpose."

Nothing will destroy the reputation of the state in this industry more completely than to allow the manufacture of a cheap and inferior article to be advertised and sold in the markets of the world as and for the genuine article made in Wisconsin.

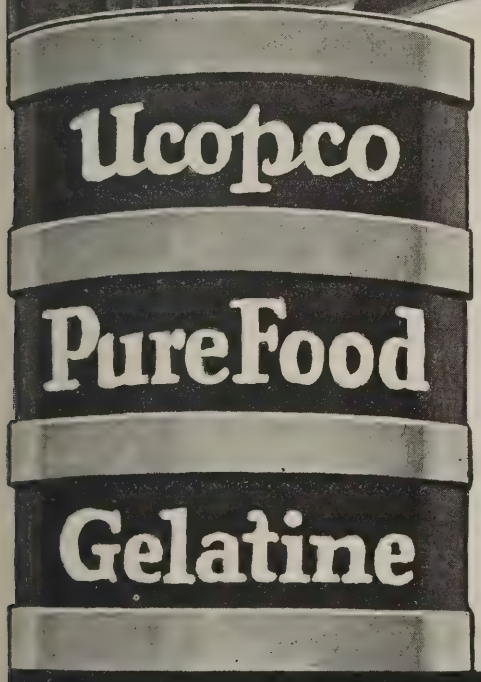
The principle of allowing these compounds to be manufactured and sold, followed to its logical conclusion, will lead from "filled" milk to "filled" butter,, from "filled"

From Nothing To 300 Gallons a Day
is the record of one Chicago plant in less than 10 days time on
"GOODY-GOOD!" IT'S A MASTERFUL PLAN THAT'S COMPLETE. YOU CAN START AT ONCE. NOTHING NEW REQUIRED. NO ROYALTIES. HURRY!!
SANI-DAIRY PRODUCTS CORPORATION, 45th and Evans Ave., CHICAGO.



RE-TINNING
ICE CREAM & MILK CANS
By Our Special Sanitary Process Makes
OLD, WORN OUT CANS LIKE NEW
Tinning of All Kinds Including Cast Iron
SANITARY TINNING & MFG. CO.
3753-63 E. 93rd Street CLEVELAND, O.





Popularity

and widespread demand is soon established for the Ice Cream made with UCOPCO Gelatine. It is smooth and velvety and immediately appeals to the public.

UCOPCO Gelatine embodies *all* the qualities necessary to a highly efficient stabilizer.

Make yours the most popular Ice Cream by starting now to use UCOPCO.

The United Chemical & Organic Products Co.

4200 S. Marshfield Ave. Chicago, Ill. — New Orleans, La. — 401 E. 45th Street New York City

"UCOPCO Comes Sealed in Red Drums"

Ucopco Pure Food Gelatine

PROSPERITY FOLLOWS THE DAIRY COW. Be sure you attend the National Dairy Exposition—St. Paul-Minneapolis, Oct. 7-14.

butter to "filled" cheese, and finally we may have the "synthetic" cow taking the place of the domestic animal of the farm. Vegetable fats, cheap, but lacking in essential elements of vigorous life, will take the place of butterfats of demonstrable higher food value. A great industry of a great state will decline, a victim of "national advertising" of cheap and deceptive substitutes.

It follows that the act challenged by this action is constitutional and within the police power of the legislature.

By the Court.—The action is dismissed.

The issues of fact were exhaustively presented to the referee, Hon. A. G. Zimmerman, who made and presented to the court able and comprehensive findings of fact. His claim for services and disbursements are allowed.

Costs will be taxed against the plaintiffs as follows:

Services referee 20 days at $25 per day	$400
Services reporter, 12 days at $10 per day	120
Transcribing 4790 folios at 10c	479
Clerk's fees	...
	$...

No other costs to be taxed.

ANOTHER METHOD OF TESTING GELATINE.

We find the following method has been a good practical test of the jelly strength of gelatine. Color and odor are two things which can readily be distinguished by slight heating. For jelly strength we determine as follows:

We take one-half ounce sample of gelatine and place it on top of a pint of water. By placing on top we mean that we do not stir the gelatine in the water but place it on a piece of paper and hold the paper close to the glass of water and allow it to drop in very slowly and usually it remains on top of the water for some time. We know then the quickness with which the water dissolves the gelatine which is an indication of the solubility of the gelatine.

Allow it to stand for five minutes and then put the glass in a bath of water and gradually heat to 50 degrees. We then allow it to stand ten minutes and stir until thoroughly dissolved. We then take it out of the bath and cool for fifteen minutes in an ordinary room temperature and then place it in the hardening room for two hours. We then remove the sample in the hardening room and by gently pressing the finger to the top of the test we determine the resistance to the pressure given by the finger.

This resistance in a number of samples determines the relative strength and is very noticeable indeed, to the practiced finger with a number of samples.

In case that it is difficult to determine which of two samples is the stronger we find that by gently slipping the finger across the top of the sample in an endeavor to tear away the top surface, one can easily decide which is the stronger.

A very much more practiced test than the above is a comparative test for two gelatines in ten or more gallons of ice cream as follows:

Take some ice cream and put in a specially prepared square scoop about two inches square. It is understood that the ice cream for this comparison is to have been manufactured the same day and maintained at same temperature in same room for a certain time. Transfer quickly to a cool slab the sample or samples to be compared and mark samples number 1, 2, etc.

Into each square sample of ice cream transferred on slab stick a ruler graduated 1-32 inch and just note the length of time that it takes each sample to melt a given number of inches or fraction thereof. In other words, as sample one melts ¼ inch an hour and number two ½ inch an hour, the gelatine used in sample one is stronger than number two. M. F. F.

FARMVILLE CREAMERY BUYS ICE CREAM BUSINESS.

The recently incorporated Farmville Creamery, Inc., Farmville, Va., has bought the ice cream business of that place which was formerly operated in connection with the local ice plant by the Newman Ice Cream Company. The new firm has resurrected the old Farmville creamery and is making butter along with the ice cream. Mr. F. O. Jones, a practical dairyman of several years experience and a graduate of the Wisconsin Dairy School of the University of Wisconsin, is manager and treasurer of the firm. Mr. Jones is a man who keeps in touch with the improvements and conditions of the business through trade papers, and this, with his experience, assures the successful management of the business. The other officers of the organization are: A. F. Howard, president; N. B. Davidson, vice-president, and Geo. L. Stuart, secretary.

PHILADELPHIA MANUFACTURER CONSOLIDATES WITH LOCAL MILK DEALER.

The Breyer Ice Cream Company, one of the largest ice cream manufacturers in Philadelphia, has joined the P. E. Sharpless Company in forming the Breyer-Sharpless Milk Association. The Breyer Company confined itself to the manufacture of ice cream previous to the consolidation, while the Sharpless firm have long been known as manufacturers of fancy print butter and package cheese, as well as condensed and evaporated milk. Both of the firms had country plants which are now maintained by the Association.

The new organization is capitalized at $500,000 and will also engage in the fluid milk business in the city of Philadelphia. A 400 by 160 foot lot has been purchased upon which a plant capable of handling 60,000 quarts of fluid milk per day will be erected.

The officers of the new corporation were all officers of the original firms and are: H. W. Breyer, president; C. P. Sharpless, vice-president; W. S. Scott, secretary, and H. Nusbaum, treasurer.

MERCED, CAL., BUSINESS ENLARGING.

The Castle Ice Cream Company of Merced, Cal., owned and managed by C. H. Castle, Jr., recently purchased the building of the Fountain City Creamery. The Castle Ice Cream Company has been in business three years and the large and ever-increasing business has made it necessary that larger quarters be secured. The creamery building has been remodeled and an eight-ton refrigeration machine installed besides the 10-ton plant already in the building. Four 40-quart freezers will be operated and room for more equipment is there when the business needs it. The old plant has been put in use as a sales room and downtown office.

THE WEIBATCH LIQUID SCALE COMPANY, INC.

We are advised by Mr. J. S. Townsend, president and general manager of the Weibatch Liquid Scale Co., Inc., Grand Rapids, Michigan, that the above mentioned company has taken over the business of the Wm. G. Finch Company, manufacturers of the Weibatch and other liquid weighing devices. The amount of capital stock has been increased from $20,000 to $200,000. During the short time that the Weibatch has been on the market, splendid development has been made and plans are being laid for a greatly increased business.

All The Latest Improvements

In the 50 Quart Capacity U. S. Heavy Duty Freezer



The New 50 Quart U. S. Heavy Duty Freezer will be among those exhibited at the National Dairy Show at Minneapolis the first week of October. It has ***all the latest improvements,*** the same as all the larger sizes of U. S. Heavy Duty Freezers have.

We Can Supply You From Stock Without Delay

If, on account of a breakdown, or an overwhelming rush of business coming on late in the season, you must have another freezer ***right-away--quick,*** we can supply you ***promptly*** with a U. S. Heavy Duty Freezer ***from stock,*** embodying all the advanced improvements ***of the 1923 season.***

Our New 40 Quart for the Small Manufacturer

The New U. S. Heavy Duty 40 Quart Freezer is in a class by itself, and has been developed especially for the small manufacturer. It has been calculated to meet price competition without curtailing quality of material or workmanship, and is a high class machine that will efficiently meet all the demands of a small plant without fail. It is equipped with the Hinged Cylinder Cover peculiar to all our larger models.

WRITE US FOR DETAILS AND LITERATURE IF YOU ARE INTERESTED IN BUYING NOW

REPRESENTATIVES AND DISTRIBUTORS IN ALL PARTS OF THE UNITED STATES AND CANADA

May we not arrange to have one call on you?

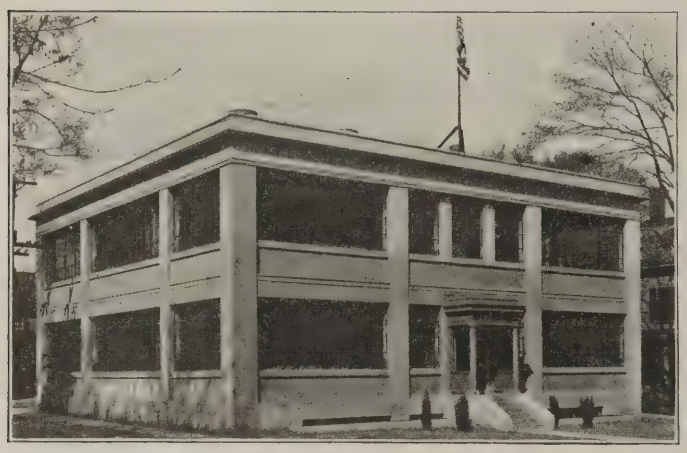
U. S. FREEZER & MACHINE CORPORATION

201-209 North 11th Street 28 **Brooklyn, N. Y.**

IT IS EASIER TO GIVE ADVICE THAN TO LEND A HAND.

Millbrook Dairy Company Has First Class Ice Cream Plant

On February first, 1912, the Millbrook Dairy Company came into existence at Middleton, Connecticut, under the name of the Millbrook Farm Dairy. At first it met with indifferent success, but in February, 1915, Mr. Edward W. Hazen became president of the company, in which capacity he has continued ever since, and from that time on the company has made rapid advancement, until at present through its policy of dependability, high grade products and best possible service to all, it ranks among the finest plants of its kind in the East.



The Plant of the Millbrook Dairy Company.

One of the policies instituted by the new management was to pay farmers who sold milk to this plant on a basis of butterfat content, giving a premium for all milk testing more than 4 per cent butter-fat, and paying less than the base rate for milk testing below that standard. The quality thus established has been constantly maintained.

Business grew so rapidly that early in 1921 the quarters at that time occupied were outgrown, and plans were drawn for a new building, which was completed in March, 1922, and is now occupied by the plant.



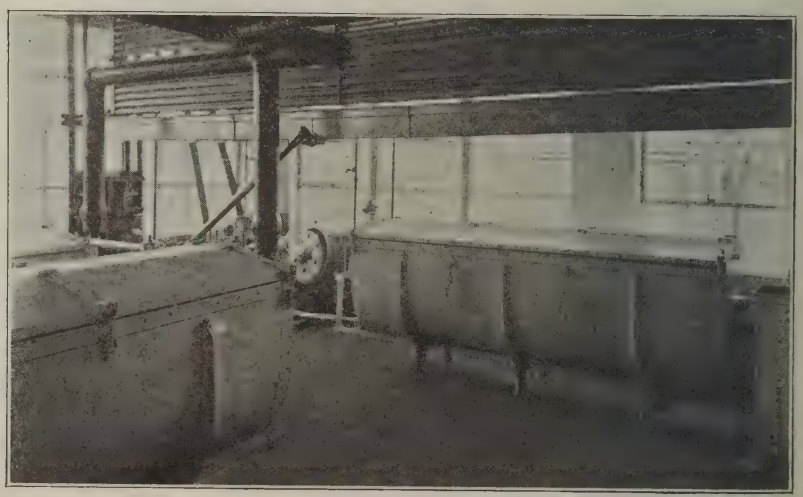
Freezing Room, Showing Doors of Hardening Room at Left.

The Millbrook Dairy Company deals in milk, cream and ice cream. The purity and deliciousness of Millbrook ice cream, combined with the wholesomeness of this product, has created such a demand for it that dealers are willing to pay a slightly higher price for it in wholesale quantities in order to give their customers the perfect satisfaction resulting from its sale.

Millbrook ice cream is made from pure, rich cream of wholesome flavor, combined with other necessary ingredients, mixed in the proportions necessary to produce the finest results, and pasteurized to insure safety. It is manufactured with modern machinery, in light, well ventilated rooms. The accompanying pictures taken in the plant show part of the machinery, and indicate the absolutely sanitary conditions prevailing everywhere throughout the plant.

The mix is homogenized, and following this process is passed over tubular coolers, as shown in the photograph. After cooling it is passed into the aging vats, where it is held until it is frozen.

From the vats, the mix flows into the freezing room by gravity, where it is distributed to the freezers and frozen by the brine process. After freezing it is stored in the hardening room directly adjoining the freezing room. From the hardening rooms the ice cream passes to the packing room where it is packed in tubs for delivery. Salt and ice for packing are supplied by chutes from store rooms above, making the process rapid and convenient.



Room Where Homogenizing, Cooling and Aging of Mix Takes Place.

Officers of the company are Edward W. Hazen, president; Ashley A. Campbell, vice-president and general manager; John R. Lindmuth, treasurer and assistant manager; Charles A. Russell, secretary. The four officers and Robert Hubbard constitute the board of directors.

The management of this company are to be highly complimented upon the degree of perfection and efficiency they have achieved in the equipment and arrangement of this plant. It is a model plant in which no effort or expense is spared to turn out a quality product. The rapid and continued growth of the concern indicates that it pays in financial returns as well as in convenience and personal pride to operate a plant of this kind.



Send news items and personal notices to the "Review" and see how well they look in print.

Hydrox Company Uses Gigantic Spectacular Electric Sign

Following closely upon a number of other evidences of an aggressive merchandising plan, on June first The Hydrox Company of Chicago made a new and startling impression on the people of that city, including manufacturers and retailers of ice cream. This time the feature was the message "ENJOY HYDROX GUERNSEY ICE CREAM" blazoned forth by the largest and most spectacular electric sign west of New York.

The dimensions of the frame work are 50 x 70 feet. The five words of the advertisement contain 1,330 bulbs and can be read for two miles. The first word one can make out approaching from the South along Michigan Ave., is "JOY," which stands out all alone. But before a person has time to wonder what it is all about the second flash puts over the message, "JOY ICE CREAM." And then, after a moment's darkness comes the complete message, "ENJOY HYDROX GUERNSEY ICE CREAM."



This sign is at the wonderful new Boulevard Link Bridge, at the side of the celebrated Wrigley building, a location so strategic that the advertisement is said to be seen by several hundred thousands daily. In fact, no one driving into the city from the North or South side can fail to see the sign either on his way to or from the loop. And, considering that a pleasure drive through the boulevard system inevitably takes one over this bridge, it is safe to say that every one in the city who ever rides in an automobile will see this great sign.

The attention value of the sign has been so great that a full page in the Roto Gravure section of the Chicago Sunday Tribune, July 9th, was devoted to illustrating it. The spectacular greatness of the sign itself, plus the newspaper publicity it is receiving, cannot avoid adding new laurels to those already won by the Hydrox Company stamping it as one of the largest and most progressive ice cream companies in the country.

PROSPERITY FOLLOWS THE DAIRY COW. Be sure you attend the National Dairy Exposition—St. Paul-Minneapolis, Oct. 7-14.

Pacific Association of Ice Cream Manufacturers

Proceedings of Annual Convention, Seattle, Wash.

(Continued from July issue)

Gentlemen, I take great pleasure in introducing to you Mr. W. C. Robb of the Puyallup Ice Cream Company of Puyallup. (Applause.)

Mr. Robb is possibly one of those best qualified to tell you about long-distance delivery and I would like to have everybody study that question.

In my report to you I dwelt on that question and I would be glad to have you give special attention to Mr. Robb who is one of your own ice cream makers and can tell his experience with long-distance hauling. And I would like to have Mr. Peacock, of Bakersfield, California, tell you his experiences along that line also.

ADDRESS OF MR. W. C. ROBB.

Mr. W. C. ROBB: When this question was given to me for discussion, I did not exactly know whether to consider it as a slam or an honor or personal courtesy, for the fact is that I am not long in experience in this long-delivery hauling and I do not feel that I am as well qualified to speak as perhaps some of you other gentlemen are.

I have been a member of this association for about a year, and in that year's time I do not believe that any one of us can get enough data together to warrant our stating authoritatively what the costs are.

The first of the month I was down in Oregon on account of the death of my father, and I did not realize the convention date was drawing so close at hand, and by virtue of having opened my mail I saw the program in front of me and was confronted with the fact that I had to get busy and prepare some sort of an address, and as I did not have time to offer any excuse I set about preparing something.

The problem of long-distance delivery by auto and its costs can be determined only by the many methods employed in the systems of accounting, employment of labor, kind of trucks used, conscientious scruples of the garage and accessory man, roads over which the delivery is to be made, and may I say, many other items too numerous to mention.

The idea of what constitutes a long haul, is made up of items that are as numerous as the opinions of probably as many as are interested in the subject, have formed.

To stand up here and say that I have the correct system of accounting, when Mr. Terwilliger, without a doubt, stands ready to defy me, or that only the most efficient of labor stands ready at my beck and call, or that I have solved a plan whereby any and all garage and accessory men will lay aside their ambitions to achieve, in their eagerness to serve this particular plan, or to say that a Ford, Reo, Mack or White truck is the only one to use, facing the fact, that to speak unkindly of the service of any particular auto owned by an individual who prides his personal property, is equal to giving his dog a kick, are statements that my modest temperament will not allow me to make, even tho' I had solved the forementioned items to my own satisfaction.

However, it has been the expressed desire that I discuss this subject, and inasmuch as we are charged with the success of this convention, by each and every member putting forth his earnest endeavor in his particular assignment, I will make an effort to impart my opinion, rather than facts, hoping that the originator of the assignment will realize the ambiguity of the problem and turn to his own experiences, rather than to affirm any suggestions I may offer.

In the matter of cost accounting system for use in operating trucks, I belief I am safe in saying there is no system that has been universally adopted, owing to the fact that the task, in the minds of the majority, is greater than the advantage gained in the keeping of accurate accounts of cost records, however, several years ago automobile manufacturers got together and formed what is known as the Truck Owners Conference, Inc. They appropriated a large sum of money for the development of a standardized accounting system. High salaried men were employed, who gathered data and information from large fleet operators all over the country. From this information some forms have been adopted which are in use by a large number of operators and the complete set of rules are such that a clerk or stenographer can easily keep these records and which consists of: A daily service record to be kept by the driver giving the fundamental data.

A form for the monthly analysis and averages per day of operating data and cost.

A form for computing fixed monthly and yearly expense.

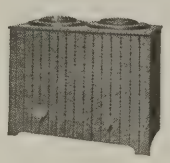
A form for computing the estimate and actual expense by months for one year.

And probably, the most important of all is the one which deals with the tire records. Operators are apt to be lax in their tire records of tires and tire mileage. Because of the fact tire expenses are scattered over a

STOUT

Schroeder Perfection Cabinets

are most appreciated when the weather is hottest.



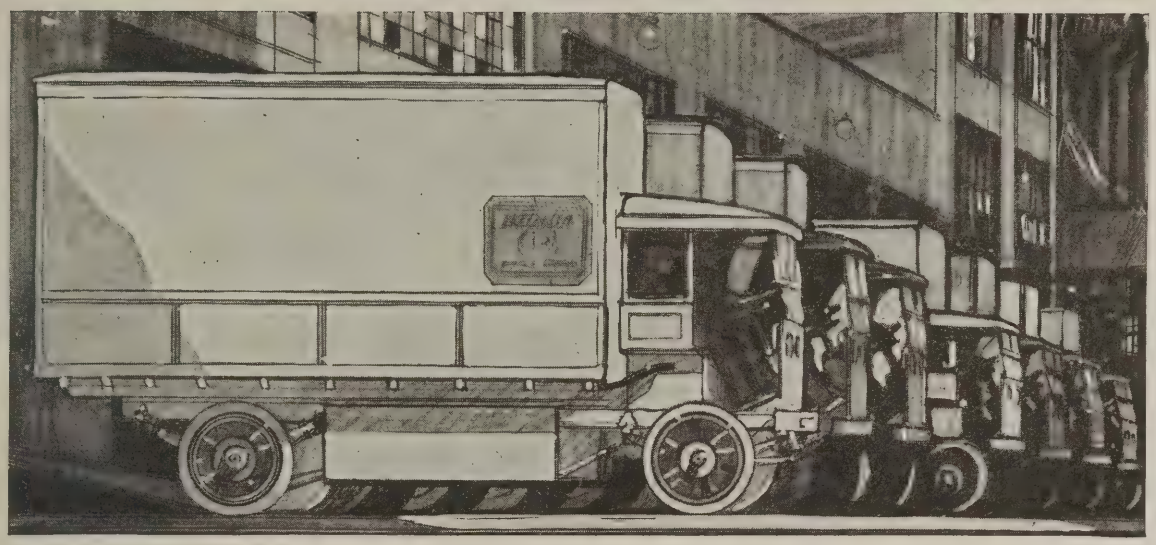
You know the reason—

"Insulation is the thing"

JOHN SCHROEDER LUMBER CO.

"A Dozen Cabinets or a Dozen Carloads"

WALNUT ST. -•- MILWAUKEE, WIS.



Deferred Payments on C-T Electric Trucks *for the Ice Cream Manufacturer* who Budgets his Expenses

Are you one of those ice cream manufacturers who make up a yearly budget of expenditures? Fine. Do you postpone buying new equipment you ought to have because the large initial investment required will not fit into your budget? Sound business.

But if there were a way to get that equipment and leave your budget intact you would be satisfied all around, wouldn't you?

You *can* buy new and better delivery equipment immediately under the C-T deferred payment plan, requiring only a small initial investment that will not disturb your budget. The balance is spread over a number of months and is practically absorbed by the additional earnings from using C-T Electric Trucks.

C-T Deferred Payments are Fair, Complete, Business-like. They Fit your Budget

Deferred payments on C-T delivery equipment are not offered as a favor. They are a business-like proposition—one of our regular standard terms of payment.

There is *no insurance required by us, no carrying charge* for 12 months, only a reasonable charge if extended to 18 months or 24 months.

Moreover, they cover chassis, battery, standard body—full equipment, and apply to all capacities of C-T Trucks.

This is the opportunity you have waited for to get new, quality delivery equipment immediately. Write now for full particulars.

All Capacities from Bantam to 5-ton

Commercial Truck Company *Philadelphia*

C-T STREET TRUCKS

"PROSPERITY PROVES THE FORTUNATE, ADVERSITY THE GREAT."—PLINY.

period of the life of the truck and do not come in a bunch there are very few men that realize that the tire expense in all amounts to more than the purchased price of the truck. These forms I myself have not put to practice but I feel that they are worthy of the effort and I mean to adopt and put them to use on the first of the year. They can be obtained by application to the company at 327 So. LaSalle St., Chicago, Ill.

The employment of labor is a vital factor in the cost of a long distance delivery, and care should be exercised in the selection of a truck driver. Not only should he be mechanically inclined, but he should have the faculty of mixing well with the trade, have pride in his personal appearance and should school himself in the art of salesmanship, and above all, be a careful driver. All these points if perfected will go a long way towards reducing the cost of delivery, as it will create the maximum volume of business on any particular route in mind.

In the system of selecting a crew of drivers, conforming to these requirements, it can only be done by the sound judgment of the manager in charge, but I have my faith in my own particular plan of cutting down the accident costs and that is: Insure all autos with liability and property damage, protecting yourself in this manner towards the injury of the other party and then if it is your driver's fault, it is up to him to stand good the damage done your property. Of course you cannot compel him to do this but if he values his job to the amount of the damage, he can have the option of standing for the damage or losing his job. It is well then that he has some financial interest at stake upon his departure from the plant.

That the conscientious scruples of the garage and accessory men, together with the condition of the roads over which the delivery is to be made, is in no way a statement that is intended to reflect discredit upon these men or the honorable body of County Commissioners, but bears out the fact that this particular subject is a problematical one and resolves itself into the fact that the longer the delivery, the greater the expense and this brings it back to the accounting system, which in itself will suggest that the greater part this item has to play in the game the greater will be the uncertainty as to the desired results and thus too much shouldered off on to this particular system should the balance show up in the wrong side of the ledger. Yet in order to promote the ice cream industry our country customer must be taken care of, but why not let the man with the nearest supply take care of them and devote more-time towards increasing our local business? Too long deliveries over too bad roads, with small volume does not pay, in my opinion. (Applause).

* * *

Mr. Dunne: Are there any questions?

Mr. Swanberg: Have you any knowledge when it would be cheaper by express to the customer than by your own conveyance?

Mr. Robb: As I have stated before I haven't any direct data, only as I have only been in the business a year in this particular locality, and to give my opinion it is not a matter of expense, it is a matter of service.

Now, it is in the minds of some that the country customer is not entitled to the service and the price owing to the fact that his overhead expense is nothing in comparison with the high rent of the city man, but when we consider the fact that a country customer dispenses his cream mostly in the form of quarts and pints, I think you are oftener with a shrinkage in that respect and I think some consideration is due the country customer and I do not think—of course the matter of expense is a vital factor, yet at the same time you can create your volume to make the delivery it is my opinion it is as cheap to deliver by auto as it is by express.

Mr. Swanberg: For a small amount it would be cheaper to do it by express, would it not?

Mr. Robb: It would be cheaper by express.

Mr. Swanberg: That is what I thought. I am just starting over again. I was in the business years ago but I am just starting in again, and there has been much progress since then.

A Member: Do you think there is any saving by using horses on a short, compact route, instead of using autos?

Mr. Robb: That reverts back to the item of service. You cannot give as good service as you give with autos if you use horses. The horse seems to have taken a back seat in favor of the auto.

The Member: Within easy distance of the factory the auto expense runs pretty high. I was wondering if there was any saving to be had by keeping a team.

Mr. Robb: I am not familiar with the cost of keeping a team and I have no exact information due to the fact that my records are not complete.

I have been conducting my business like I presume the majority of you men have and I have been lax in my methods of cost accounting. I do not know whether that statement will bear out or not but I believe in talking with different automobile men that comparatively few fleet operators know exactly how they stand on their automobile cost. If there is anyone here who has it in plain figures I would like to see them.

Mr. Dunne: Horses eat a lot of the time when they are not doing any good. I think our cost with horses

(Continued on page 41)

Nafis Automatic Acidity Test

For Testing the Acidity of Ice Cream Mix, Milk, Cream or Whey

ACCURATE CONVENIENT SIMPLE

for Ice Cream Plants, Cream Grading, Creameries, Cheese Factories, Condensing Plants and Dairy Schools.

Our INDICATOR and NEUTRALIZER are put up in convenient form and can be sent by parcel post for a few cents.

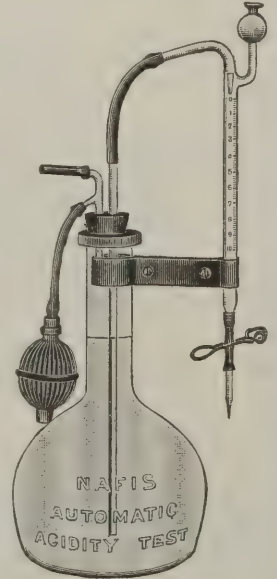
Our CONCENTRATED NEUTRALIZER is prepared in our laboratory with the same degree of accuracy that characterizes NAFIS GLASSWARE. The small bottle is sufficient to make a half gallon of solution, thus avoiding transportation charges on large bottles and water.

Complete test includes one bottle of each solution.

Our new style Volumetric Reservoir Flask permits the proper dilution of the concentrated neutralizer with great precision.

Broken parts easily replaced.

For Sale by All Dealers in Nafis Glassware.



Designed and Manufactured by

LOUIS F. NAFIS, Inc.

Manufacturers of Scientific Glass Apparatus for Testing Milk and Its Products.

544 Washington Blvd., Chicago, Ill.

Ask the Man Who Uses It.



Dependable Uniformity

"We have used your Vanilla Flavor for so long a time and will continue to use it as long as you maintain your high standard of quality. Our ice cream maker won't let us even try out any other brand simply because he knows your next shipment of vanilla extract will be identical in quality as the last. He says he can't see the use of experimenting with other brands when year after year your flavor has never failed us—always the same good quality, always dependably uniform."

The above explains why we succeed so well in holding our trade. Naturally, such confidence brings with it a responsibility—that of maintaining a high standard of quality at all times and at a reasonable price. We regard this confidence and prestige too highly to ever jeopardize it under any circumstances.

What is true of our Vanilla Flavor also holds good with our minor flavors and our colors. We sell them for what they are, knowing that they will give entire satisfaction. What's more, we guarantee satisfaction.

The Boerner-Fry Company

Manufacturers of High Grade Extracts

Iowa City, Iowa



HE WILL PUT YOU OVER THE FENCE WITH —

BABE RUTH HOME RUNS

"Chocolate Coated Ice Cream Baseball"
TRADEMARK REGISTERED



The Original Chocolate Coated Ice Cream

Made of two flavors, chocolate and vanilla, covered with bitter-sweet chocolate. *Tried, tested* and *perfected* by a successful confectioner, before offering to the ice cream manufacturer.

You pay *no bonus;* equipment is inexpensive.

We send our expert to teach you simplified manufacturing process.

Don't fool around with imitations when you can get *the original* backed up by *real local publicity* and *sales promotion* which we furnish.

Get in the big game which has proved as steady, reliable a *repeater* as baseball itself.

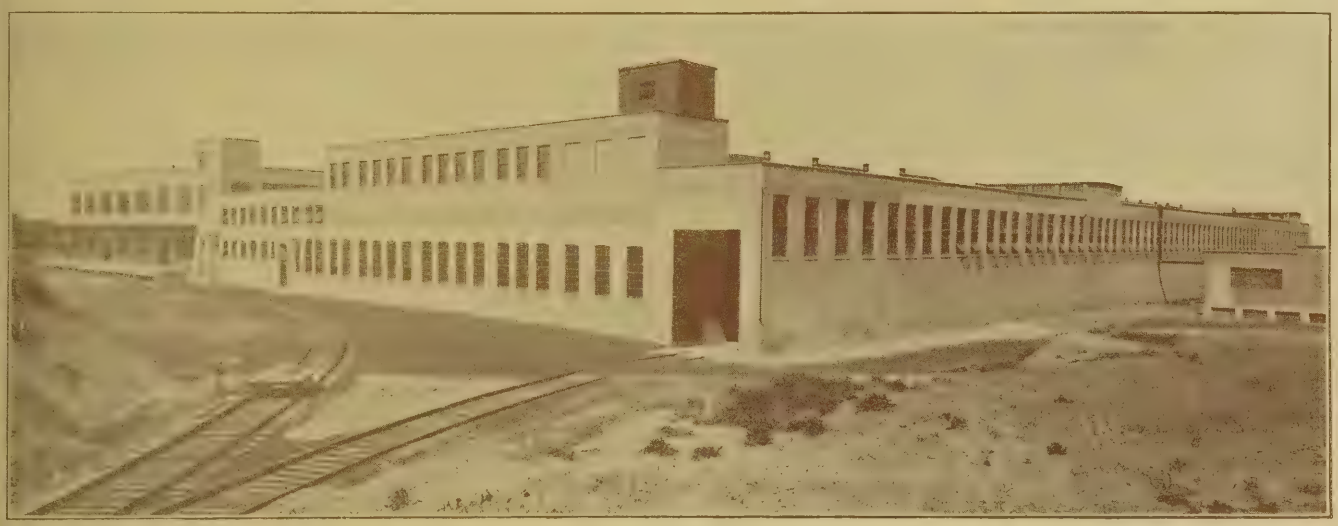
Put Babe Ruth to work for you. His *premium baseball offer* in exchange for wrappers *gets the kids* young and old.

WRITE RIGHT NOW!

Elite Chocolate Coated Baseball Co.

EL PASO, TEXAS

"U. S. GEL"



WORLD'S LARGEST INDIVIDUAL GELATINE FACTORY

UNITED STATES GELATINE CO.

MILWAUKEE, WIS.

U.S. Gelatine is produced in the World's Largest Gelatine Factory, which means Uniformity, Purity, Strength at the Right Price. Stock used in the manufacture assures a bright, clean, odorless Gelatine. Its use means a smooth, high quality and superior texture Ice Cream.

LET US SEND YOU SAMPLES AND QUOTE ON YOUR REQUIREMENTS

De Coursey Creamery Company Occupies New Plant

An event that comes as the triumph of years of steady business growth is the occupation of their newly enlarged plant by the De Coursey Creamery Company, of Kansas City, Kansas. At an improvement cost of more than $100,000, this company has erected a new main plant, which more than triples its former capacity, and increases its floor space to approximately 34,000 square feet. This makes it the largest plant in the state devoted to the manufacture of ice cream and butter, and one of the largest in the middle west.

The possible capacity of the new plant is 1,000,000 gallons of ice cream and 6,000,000 pounds of butter annually. The company also has branches at Wichita and Leavenworth, both of which show gratifying increases in sales each month.

Those active in the management of the De Coursey Creamery Company are J. H. De Coursey, F. C. De Coursey and W. B. De Coursey.



The De Coursey name has carried prestige in the dairy industry for a great many years. The present business success has its roots in the days before the Civil War, when the Leavenworth Creamery was owned by Harry De Coursey.

In 1906, at Kansas City, Kansas, in a twenty-five foot storeroom the De Coursey Brothers started in the dairy and creamery business, necessarily in a small way. Today, in the 16th year of the company's existence in Kansas City, it is in the foremost ranks in the west.

The De Coursey specialties are "White Rose" butter and "Perfection" ice cream. The quality of these two products has created a demand for them that has increased the annual sales of this firm from $16,500 in 1906, to $1,409,630.56 in 1921, an increase of over 8,500 per cent. In addition to supplying these products to Greater Kansas City, the distribution throughout the state of Kansas is large, and they are shipped into four neighboring states—Missouri, Nebraska, Oklahoma and Iowa.

The De Coursey Brothers are firm believers in the value of advertising in introducing their products into a new territory. They also firmly believe that the demand thus created can only be maintained and increased by reliable quality and efficient service.

This new plant is a monument to sound business principles and intelligent, untiring enterprise.

The Important Ingredient is GELATINE

"B" Brand Snow White Gelatine Guaranteed 2 Oz. Goods.

Genuine imported gelatine, Snow white, is tasteless, odorless, colorless, and practically free from bacteria; and complies with all Pure Food Laws. Absolutely uniform; no variation; goes twice as far as ordinary grades of gelatine. Ice cream manufacturers should consider these qualities when ordering gelatine. Only requires about 2 oz. to a batch. Sample on request.

	Per lb.		Per lb.
5 lb. Lots	$1.25	100 lb. Lots	$1.00
10 lb. Lots	1.20	1 Bbl. Lots (200 lbs.)	.95
25 lb. Lots	1.15	2 Bbl. Lots (200 lb.)	.90
50 lb. Lots	1.10		

Dairymen's Mfg. and Supply Co.

403 NORTH MAIN ST.

Saint Louis, Mo.

WE WONDER!!!

Small boys often ask embarrassing questions. A preacher was addressing the Sunday School and explaining the significance of white. "Why," he asked, "does a bride desire to be clothed in white at her marriage?" As no one answered, he went on: "Because white stands for joy, and the wedding day is the most joyous occasion in a woman's life."

Immediately a little fellow piped up. "Please, sir, why do the men all wear black?"—Trumpeter.

PACIFIC ASSOCIATION OF ICE CREAM MANUFACTURERS.

(Continued from page 36)

was about three times as high as it has been with trucks. I have not had a horse for five years.

Mr. Swanberg: I think as far as short hauls are concerned right in the center of the City of San Francisco, I think we get along as quick with horses as we do with automobiles. We have to stop at every corner and wait for the policeman to let us by and I am seriously thinking of not using my automobile any more for my own purpose. There seems to be too many automobiles in the center of San Francisco to get along, altogether. (Laughter).

Yes, there really does.

Mr. Dreyer: It might be well to explain our situation in Visalia. Visalia is on a side line of the Southern Pacific and we have not very good express service and we have established two routes of delivery, one is going from Visalia to Porterville and back over the main highway to Larry and then to Visalia again and that route is about one hundred miles and the other route covers a travel of about eighty miles, and we make two trips daily.

We have found it to be very profitable, in fact, more so than I ever dreamed of, for the reason in the summer we can double deck it and we have a trailer which we do not load at all. It is being used to haul in the empties, and we have to pay eighteen cents for every retainer emptied, fifteen cents rather, we were making that much of a saving on the trailer and we find it profitable in our instance because we are not on the main road.

Mr. Dunne: Is there anybody else? Mr. Peacock, have you anything to say?

Mr. Peacock We used to use horses and we have horses on our ranches, but we operate trucks for our hauling. We operated two small trucks in a small town of twenty thousand people for the last two years and we feel more satisfied with them than we were with horses.

Mr. Dunne: Will you tell about that new refrigerating body that you have?

Mr. Peacock: I could not say it is new. Somebody in Sacramento told us about it. It is just a common body with a little tank in the top of the compartment where the ice cream goes. You have a side door and you put the ice cream in that compartment. We like it very much. You do not have to put the ice cream in among the cracked ice and you can take it out in the dry chamber.

Mr. Dunne: Does water run around the sides?

Mr. Peacock: The water has a drain, and we drain the brine out of the can whenever the ice melts.

Mr. Swanberg: Where is that?

Mr. Dunne: At Bakersfield. How long will one packing last?

Mr. Peacock: It lasts a trip, or say four or five hours, or six hours; they generally come back at noon, and they will re-ice and salt that tank and it goes into the afternoon.

Mr. Swanberg: Can you put in more cans in that way?

Mr. Peacock: No, I do not think so. You set them in a chamber like a cabinet. There is no ice around the can. The ice and salt are in the tank above and the cold comes down.

Mr. Swanberg: But when you are delivering to a customer you put in the ice?

Mr. Peacock: We have another compartment for the ice.

A Member: What size truck is that?

(Continued on next page)

Wanted

500 ICE CREAM :: MEN ::

who will appreciate a cardboard cone carrier which helps the dealer sell more ice cream and pleases the customer.

The "SURVITOR" does these things and besides advertises your brand of cream at a very low cost.

Hundreds of factories who now use the "SURVITOR" know that it pays well to furnish your dealers with this *"Cone Carrying Cardboard."*

Get information now.

The DAIGGER CORPORATION

(Mfrs. of Washburn's Ice Cream Improver)

CHICAGO U. S. A.

Mr. Peacock: It is a one ton Ford. It is overloaded, the whole outfit weighs about 3200 pounds when it is loaded. It is overloaded but it went all through the summer.

Mr. Gregory: That cabinet you store the cream in is all in one box?

Mr. Peacock: Yes, Sir.

Mr. Gregory: One door?

Mr. Peacock: Yes, one door, on one side only.

A Member: You handle all kinds of flavors? Do you not have to throw out some of them to get at the flavors you want?

Mr. Peacock: No, sir; they are lined up in some way that we can get at them.

The Member: You are carrying about one hundred gallons?

Mr. Peacock: Yes, sir.

The Member: You have to double-deck to handle one hundred gallons, do you not?

Mr. Peacock: No.

The Member: About how much ice does it take to take care of that?

Mr. Peacock:. About a block of ice with the salt. There is generally some in there left from the day before. We drain the water out and put in a fresh block of ice. If anybody wants me to do so I can give you the dimensions of it so that you can work it out.

Mr. Dunne: If you will drop Mr. Peacock a line he will give you definite figures. He is with the Kern County Creamery at Bakersfield, California.

We will hear about "California's Fight Against Selling Ice Cream by Weight." The charts will be put on the wall tomorrow. The paper will be read now.

There are two drug stores in Los Angeles now selling ice cream by weight and there has been serious objection on the part of certain officials in California to sell ice cream any other way, and I am sure we will have trouble with that situation later. Mr. Dryden was formerly Professor of Bacteriology in the University of Oregon and he comes well qualified to speak to you on this subject and there is no one better qualified than Mr. Dryden to make the fight against this proposition.

Mr. Dorman, one of the Vice-Presidents of this organization, from Los Angeles, California, will read this paper.

Mr. Dorman: I am very glad to be here at the meeting of this Association today. I think it is an honor to have people from California invited here. We are glad to come here and get information, and to dispense information to you if we are able to do so.

This coming into this arid or semi-arid climate of yours—I have almost lost my voice, and as we are to have that stag party tonight I am glad that my turn has come tonight instead of tomorrow, because I am afraid tomorrow I will have no voice at all. (Laughter) Mr. Dryden is always ready to devote his service and money for such an examination as is shown here. I will now read Mr. Dryden's paper.

* * *

ADDRESS OF ROBERT J. DRYDEN.

History and Program.

On December 18, 1918, Mr. Charles G. Johnson, State Superintendent of Weight and Measures, addressed a letter to our Association suggesting that his office was interested in establishing a weight standard for ice cream. Prompted by this letter our Association appointed a committee to work throughout the year gathering data and ascertaining various things having to do with ice cream standards.

The instructions given this committee were broad and unrestricted. It was the attitude of our Association to thoroughly analyze the weight question, and if possible, to meet any constructive and progressive plan which would be of interest to the legitimate manufacturer and the public.

It was found by this committee that nowhere in the United States had the weight standard for ice cream been suggested officially by a State Department or any official body having to do with the control of food standards.

The Dairy Division of the U. S. Department of Agriculture reported that the matter had never been discussed by them and that they were not authority for a statement regarding same.

Without any available source from which to obtain information on this subject, our Committee set out to obtain information which would answer if possible the following questions:

1. Would a minimum standard of weight per gallon be a basis for control?

2. Would a standard of total solids be practical, and would this tend to stabilize weight?

3. Has weight in Ice Cream a close correlation with food value?

4. Should ice cream be sold by weight, eliminating the liquid measure?

Dr. C. L. Roadhouse offered the service of the Dairy Division of the University of California to gather data for our investigation. Professor Turnbow and his assistants carried out the detail investigations in several of the commercial plants in the state.

1. Would a minimum standard of weight per gallon be a basis for control? It has been suggested that a



The Pick of the Peaches

full-flavored, luscious fruit that blossoms forth into the most delicious ice cream is found in Reyam Brand

Crushed Peach Cold Process Solid Pack New Crop Goods

and particularly desirable since they now may be had at new low prices. Packed in all size containers from No. 10 cans to 50-gallon barrels. Always ready for instant use, they keep perfectly to the last drop.

Prompt Shipments Always—Write Today for New Low Prices

THE CINCINNATI EXTRACT WORKS

422-424 W. FOURTH ST. CINCINNATI, OHIO

Reyam Brand Fruits
for Ice Cream Manufacturers

are solid packed and economical. Surprisingly low prices on new crop goods. Just a few of our big selling specialties are listed.

Tutti Frutti Mixture
Orange Pineapple Crushed
Whole and Broken Maraschino Cherries, Red or Green
Small Regular Pieces Pineapple in Syrup, Red, White or Orange
Broken Assorted Glace Fruits
Cold Process Red Raspberries, Strawberries and Apricots



"MASTER METAL"

WRAPPERS

THE FOIL WRAPPER—WHAT IS IT?

The glowing sparkle of Master Metal radiates light and causes color-printing to stand out with remarkable brilliancy.

The Master Metal Carton is our latest creation and a big sales-winner.

Attractive prices.

It is the outward sign of the quality put into Eskimo Pie, Ice Cream Bricks, or Chocolate Coated Bars.

It is the foil wrapper which the consumer sees —which tempts him and "tickles his taste" into buying.

It is a great deal more than a thin sheet of metal used for wrapping Ice Cream Bars.

Don't Take Any Chances With Your Wrappers

Some Wrappers may cost less than Master Metal but you pay far more in the end — in loss of sales, in injured prestige. Master Metal Wrappers advertise quality and help build good will.

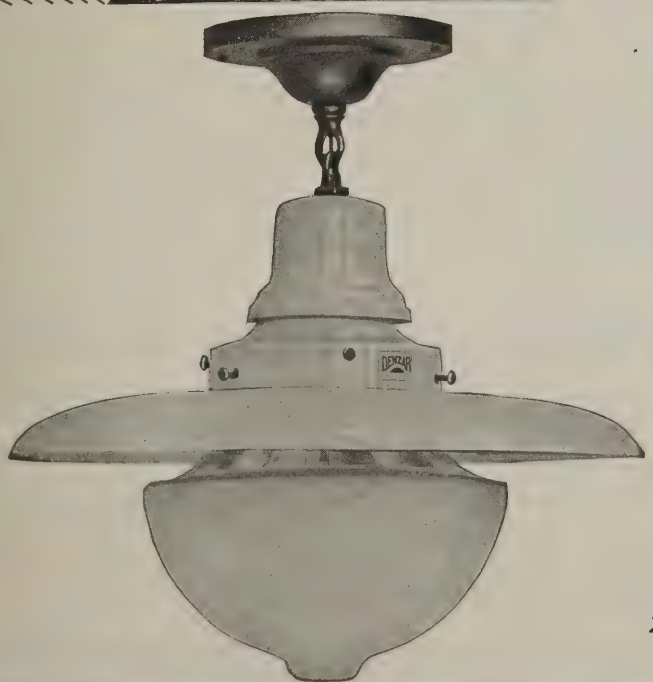
UNITED STATES FOIL COMPANY

INCORPORATED

LOUISVILLE - KENTUCKY

DENZAR

THE UNIT OF DAY BRIGHTNESS



A fitting title for Denzar because Denzar floods the room with a soft, white radiance which resembles daylight. Ice cream manufacturers will find in Denzar the ideal light for their offices and mixing, freezing and packing rooms, because the white opal glass and white enameled holder add to that spotless plant appearance so vital to the successful manufacturer. The absence of glare and harsh shadows in the Denzar lighted room is also important because it permits the workers to perform their tasks with the same ease as when working under daylight conditions. Let us tell you more about Denzar and why it is preferred by thousands of merchants and employees who appreciate the value of adequate glareless lighting. An interesting catalog which covers the subject in plain language will be sent you on request.

Beardslee Chandelier Mfg. Co.

228 So. Jefferson St. CHICAGO, ILL.

high minimum standard per gallon be adopted as a basis for standardizing the weight of ice cream. I refer to the following table showing the weight per gallon of ice cream as drawn from three large mixes in three separate commercial factories in California.

Factory A....Mix 33.81% Total Solids
Factory B....Mix 36.05% Total Solids
Factory C....Mix 33.01% Total Solids

Factory A. Weight per gallon separate containers:

4.60 4.29 6.05 4.56 4.77 4.37 4.68 4.46 4.45 4.76 4.47
4.29 4.37 4.68 4.88 4.50 4.37 4.68 4.19 4.64 4.62 4.81
4.48 4.47 4.28 4.68 4.61 4.46 4.12 4.25 4.22 4.08 4.00
4.21 4.10 4.51 4.57 4.59 4.68 4.21 4.34 4.45 4.16 5.02
4.54 4.18 4.25 4.42 4.50 4.13 4.10 4.31

Average weight per gallon..... 4.395%
Maximum per cent variation above average.37.65%
Maximum per cent variation below average. 9. %
Extreme per cent variation.....46.65 %

Factory B. Weight per gallon separate containers:

4.38 4.16 4.08 4.11 4.31 4.32 4.38 3.97 4.06 4.00 4.57
4.51 4.23 4.25 4.26 2.67 3.83 3.86 5.20 4.60 4.12 4.06
3.03 4.20 4.15 4.38 4.26 3.97 4.12 3.87 3.95 4.17 4.10
4.50 4.47 4.05 4.07 4.10 4.56 4.51 4.39 4.34 4.23 4.27
4.25 4.50 4.14 4.02 4.19 4.94 4.15 4.08 4.22 4.22 4.31
4.15 4.21 4.15 4.21 4.28 4.47 4.15 5.00 4.20 4.25 4.48
4.42 4.09 4.14 4.14 4.16 4.21 4.27 4.12 4.16 4.12 4.25
4.29 4.20 4.18 4.47 4.45 4.47 4.52 4.45 4.93 4.20 4.25
4.14 4.36 4.29 4.31 4.31 4.43 4.51 3.91 4.43 4.45 4.72
4.20 4.18 4.37 3.91 4.21 4.17 4.17 4.14 4.20 4.21 4.95
4.21 3.93 4.14 4.16 4.18 4.15 4.16 3.93 4.22 4.12

Average weight per gallon..... 4.219%
Maximum per cent variation above average.42.21 %
Maximum per cent variation below average,36.71 %
Extreme per cent variation.....78.92 %

Factory C. Weight per gallon separate containers:

4.70 4.60 5.25 4.50 4.40 5.09 5.00 5.00 4.80 4.50 4.60
5.00 5.10 4.40 4.30 5.20 4.50 4.40 4.80 4.50 4.40 4.50
4.95 4.65 6.00 5.11 4.65 4.71 4.60 4.50 4.67 4.60 4.65
5.20 4.40 4.50 4.80 4.50 4.90 4.50 5.00 4.30 4.40 5.33
4.30 4.30 4.92 5.00 4.80 5.00 4.70 5.10 4.70 5.00 4.50
4.50 4.40 4.60 4.50 4.71 4.71 4.70 5.00 5.00 4.89

Average weight per gallon..... 4.663%
Maximum per cent variation above.....28.67 %
Maximum per cent variation below..... 7.78 %
Extreme per cent variation.....36.45 %

1. It is to be noted that there is a wide variation in the weight of ice cream from the same mix. This is decisively illustrated in the above tabulations. Closer examination reveals the fact that the variation was not attributed to any one particular style of freezer, temperature of brine, flavor of ice cream frozen, or any other noticeable condition. In fact the freezing was carried on as carefully as possible and for this reason these figures are valuable because they show the true problem which confronts the commercial plant.

2. Would a standard of total solids be practical, and would this tend to stabilize weight? It has been suggested that the total solid standard might be adopted, presuming that the higher the percentage of solids, the more uniform would be the weight per gallon. However, we refer again to the commercial factories in the following chart. Here it is shown conclusively, that there is no particular correlation between the percentage of total solids, and the variation in the weight of ice cream. One might even draw the conclusion that the higher the percentage of solids, the larger was the variation:

Factory A. 51.30% Extreme Variation 33.81% Solids
Factory B. 98.00% Extreme Variation 36.05% Solids
Factory C. 39.00% Extreme Variation 36.05% Solids

It would be entirely practical to establish a standard of total solids per gallon, but from the conclusions drawn from the above table, it seems of no particular advantage so far as regulating the uniform weight of ice cream is concerned.

3. Has weight in ice cream a close correlation with food value? The weight of ice cream has only a certain relation to the relative food value. To illustrate this, I will state that ice cream made from a mix containing 32% total solids weighing 4½ pounds per gallon might have less food value than a cream containing 36% total solids and weighing 4 pounds per gallon; you can see from this conclusion that if it were possible to establish a uniform weight per gallon of ice cream that it would be of little value unless the percentage of total solids was taken into account; if it were possible to establish methods so as to uniformly manufacture ice cream out of the same mix to contain the same weight of total solids, I would then suggest a standard based on pounds of food solids per gallon.

4. Should ice cream be sold by weight, eliminating the liquid measure? For us to properly answer this question, we must of necessity consider the following factors:

1. Manufacture and distribution wholesale.
2. Retail purveyor and buying public.

1. Manufacture and distribution wholesale. For the wholesale ice cream manufacture to put up ice cream in containers to sell by weight would require the complete revolution of present manufacturing methods and

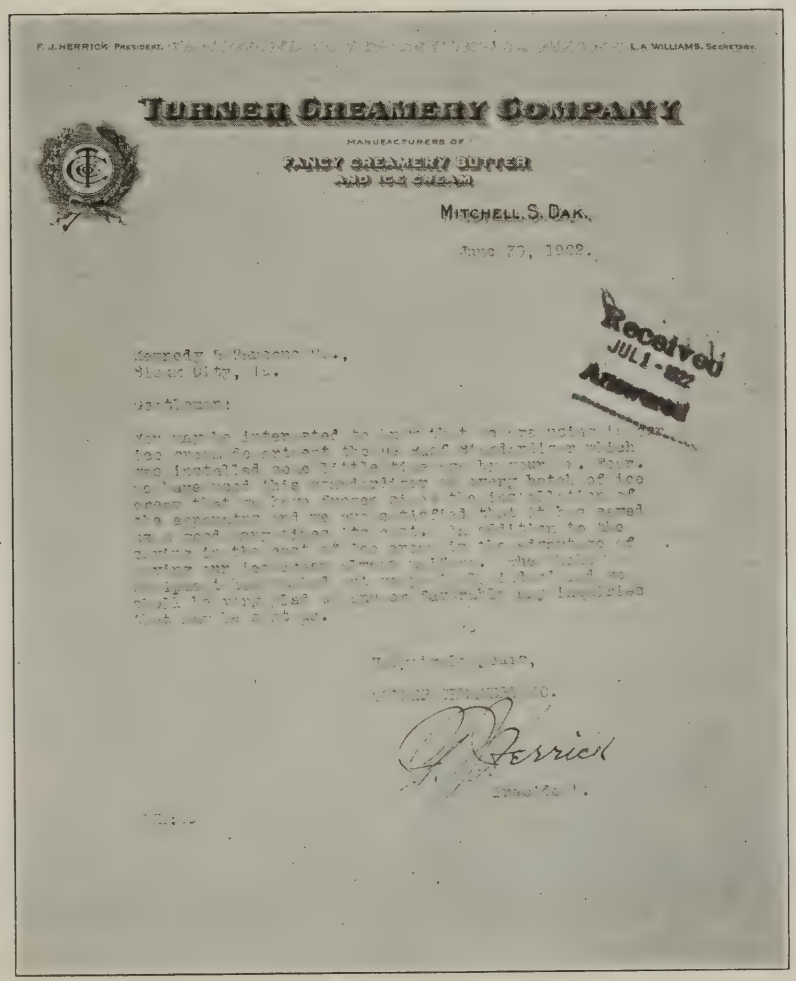
CLARKSON BRAND
TRADE MARK
GUARANTEED

Clarkson Gelatine Works
Manufacturers of
FOOD GELATINES
Write Us Regarding Our Supreme Pure Food Gelatine
No Better Stabilizer
Superior in Purity Odorless and Tasteless
Economical in Price Uniformity Always
WE GUARANTEE TO SHOW YOU A SAVING

CHICAGO ST. LOUIS
NEW YORK MILWAUKEE
PHILADELPHIA LOS ANGELES
BUFFALO SAN FRANCISCO

DeRaef Weight Standardizer

Registered U. S. Patent Office


F. J. HERRICK, President. L. A. WILLIAMS, Secretary.

TURNER CREAMERY COMPANY

MANUFACTURERS OF
FANCY CREAMERY BUTTER
AND ICE CREAM

MITCHELL, S. DAK.

June 29, 1922.

Received JUL 1 - 22 Answered

National Distributor

N. A. KENNEDY SUPPLY CO.

KANSAS CITY - MISSOURI

equipment. Under these conditions, it would require the tare weight be marked on each container, the cream would then have to be weighed as it is drawn from the freezer. Ice cream, being a frozen product, requires that it be handled with all expediency possible to preserve its quality. After being drawn from the freezer, the weighing and tagging necessary under these methods would therefore be a serious handicap.

2. Retail purveyor and the buying public. Providing ice cream were sold to the retailer by weight we find various seriously objectionable problems to meet. From his standpoint ice cream, as we all know melts readily and if it were necessary to weigh and handle it, we are sure that the practice would be very distasteful and certainly would be a serious handicap toward pleasing the public. In the case of brick ice cream the problem would be to weigh separately each brick and if we should find a 90% variation or less, as was previously illustrated in this paper, it can readily be seen, that the retailer would have a hard problem convincing the purchaser why he should pay as much for one pint today as he did for one pint and one half yesterday.

In treating this problem we might add that the retail seller of ice cream absorbs the shrinkage in handling between the wholesaler and the public. If ice cream weighs 4½ pounds to a gallon, when it is dipped either for cones, dishes or to be packed in paper buckets it will weigh on the average of 15% to 20% more in equal liquid displacement when sold to the consumer.

These are facts which we manufacturers realize. The retailer also appreciates this fact and naturally regulates the margin between wholesale and retail in order to cover up this discrepancy. The public, on the other hand, actually gets more food value in a quart container of dipped ice cream than in a quart brick. Our observation is that the public is gradually buying more brick ice cream not because they do not appreciate the fact that they would get more food value in a container of "dipped" cream but because they feel more secure in trusting the manufacture to measure the ice cream as is done in the form of bricks.

Conclusions: It is my idea to carry these investigations out at considerably greater length and to try if possible to show the cause for these extreme variations in the weight of ice cream out of the same mix. I might state that in two of the plants that furnished the data for this paper that the Mojonnier scale was used and the cream was drawn at a definitely reported over-run; incidentally Factory C had by far the least variation, and did not use a Mojonnier scale; this is not an argument for or against over-run, but it is proved that the value of these scales is considerably over-estimated by their manufacturers.

The following table shows the recapitulation of the information above reported:

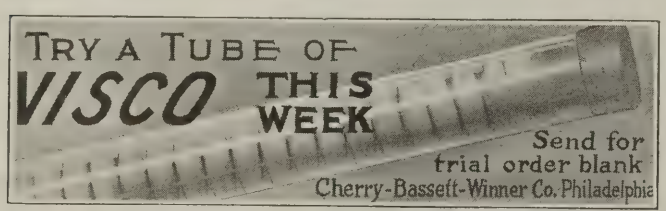
Factory	Flavor	Lowest weight per gal.	Weight of Solids	Highest wt per gal.	wt solids per gal	variation	total solid
A	Vanilla	4.00	1.352	6.052	2.066	51.3 %	3.80
B	Vanilla	3.03	1.092	6.00	2.163	98.00%	36.05
B	Strawberry	3.379	1.218	4.948	1.787	46.7 %	
B	Chocolate	4.479	1.615	5.20	1.875	16.09%	
C	Vanilla	4.30	1.419	6.0	1.981	39.53%	33.01
C	Strawberry	4.40	1.459	4.71	1.555	7.05%	
C	Chocolate	4.80	1.584	5.11	1.687	6.46%	

In concluding this paper, I do so mindful of the attention which has recently been centered on the weight of ice cream, and I wish to say that any state legislative committee considering legislation based on the weight of a gallon of ice cream should be given these facts, and while, as was the case in California and Ohio where these figures were used, there was no reason or basis upon which legislation for the control of ice cream could be constructed. In California we laid the cards on the table, so to speak, and the larger we could make our advisory committee composed of State Pure Food Officials, the more complete was our victory.

I am so completely absorbed in the results of this paper that while I find it impossible to deliver this paper in person, I will volunteer to give my time and expense to go to Washington or Oregon and help present this information, at a time when legislation is being fought.

My experience with authorities and persons interested in food control and standards prompts me to say that legislation is suggested by them most times without a clear understanding just what they are doing; it is therefore our duty to know and understand our own industry and when these things do come up, we should oppose them constructively by education among these officials.

Mr. Dunne: Those charts set out some astounding



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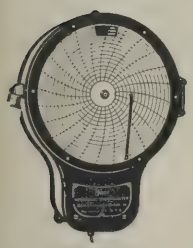
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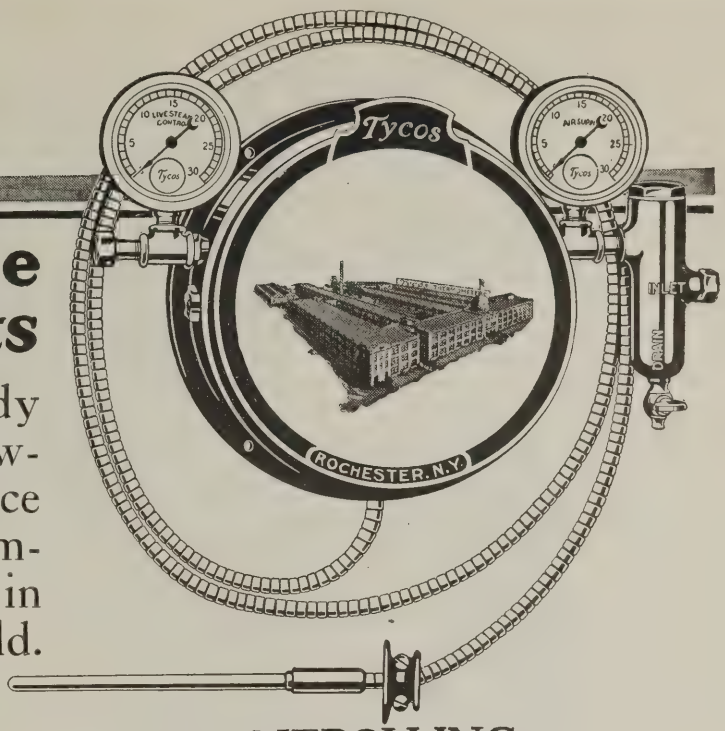
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facts. I would like to have you hear Bill Dreyer tell how he decorated that big cake of ice cream and we will have him do so before we get through. There will be a meeting of creamery men immediately upon the adjourning of this meeting.

I am requested to read to you an announcement sent out by the Pacific Slope Dairy Products Show which is to be held at Stockton, California, December 6 to 11, 1921, where there will be held five big conventions: The California Creamery Operators' Association, California Butter, Cheese and Ice Cream Makers' Association, California and Southwestern States Ice Cream Manufacturers' Association, State Milk Distributors' Association, and California Dairy Council.

Mr. Dorman: We are bound and determined that President Dunne and Secretary Walker shall come to our Dairy Council.

I was particularly interested in the report of the secretary of the dairy council of Oregon. We have two working in California. These meetings are principally in charge of Mr. Greene of California who is a wonderful man.

Stockton is a little ways down from San Francisco between Los Angeles and San Francisco. If you have not heard of Los Angeles, it is a little suburb of San Francisco, about five hundred miles to the south, and we would like to have you come down there.

Mr. Dunne: I want to assure you in advance that those fellows will show us a good time if we are able to attend that meeting. We have met a lot of the boys already and they will make it a royal good time for us if we are able to go.

I wanted to say that I am going to ask the Resolutions Committee to draw up and present to the ladies a vote of thanks of this organization for the entertainment they have provided our lady visitors and I should like to have you do that.

Mr. Swanberg: I make that as a motion.

(Whereupon said motion was duly seconded and was put to the convention by the president and carried unanimously and so ordered).

Mr. Dunne: The committee reports are not in and we will adjourn until tomorrow morning. I want to say something about the meeting tonight. The ladies will assemble in the lobby of the hotel and will go to a theatre party at the Moore Theatre.

There will be a round table talk by the ice cream men. We want you to all be here. You can bring up your problems, the problems of your own plant, your mixing problems or your machinery problems, and this is for the active members of the association and we want you all to be here.

And at nine o'clock we will leave here in motor cars going to the Motor Dealers' Club. That will be a real "stag." By the description that has been given of it, it will be really ferocious. "The biggest night ever featured at an ice cream men's meeting will be staged. Alaska, Port Said, the Days of '49, Nevada in its Prime—you may have seen all of these, but this evening will find something new. A real night for real men—that means the ice cream crowd. You can't afford to miss this." If it beats Port Said, believe me it will be a bird. Now, that is going to show us a good time and the ladies will be entertained while we are entertaining ourselves and I think we can leave it to the Seattle boys to give us a good time.

I would like to have the Resolutions Committee draw up a vote of thanks for this entertainment, but we will wait until the night is over so we can describe it suitably.

I want to call attention to the fact that there is an exhibit in the back room and there is one machine downstairs. There are several machines here and I would like to have you see those things, and I believe we will have another exhibit in the morning. There will be another demonstration at the plant of the Seattle Ice Cream Company and there will be a demonstration of the packing machine at the same time.

I was rather startled to see the things that those machines will do. The Mojonnier people were notified that their machine was wrecked by the railroad company and they cannot demonstrate it.

Mr. Groves of the Washington Chocolate Company is now a member of this association and advises us that the Washington Chocolate Company is keeping open house this week and anybody who wants to see the chocolate factory in operation, this is the opportunity to do so. They will be glad to welcome you and show you all through the plant.

Bill Dreyer is so well known as the canary of Visalia, Stockton and Fresno and San Francisco, that it is needless to introduce Bill to you. (Applause.)

(To be continued in following numbers)



He who knows not and knows not
that he knows not, he's a fool
Shun him
He who knows not and knows
that he knows not, he is simple
Teach him
He who knows but knows not
that he knows, he's asleep
Awake him
But he who knows and knows
that he knows, he is wise
Follow him
—Gus. A. Lowey.

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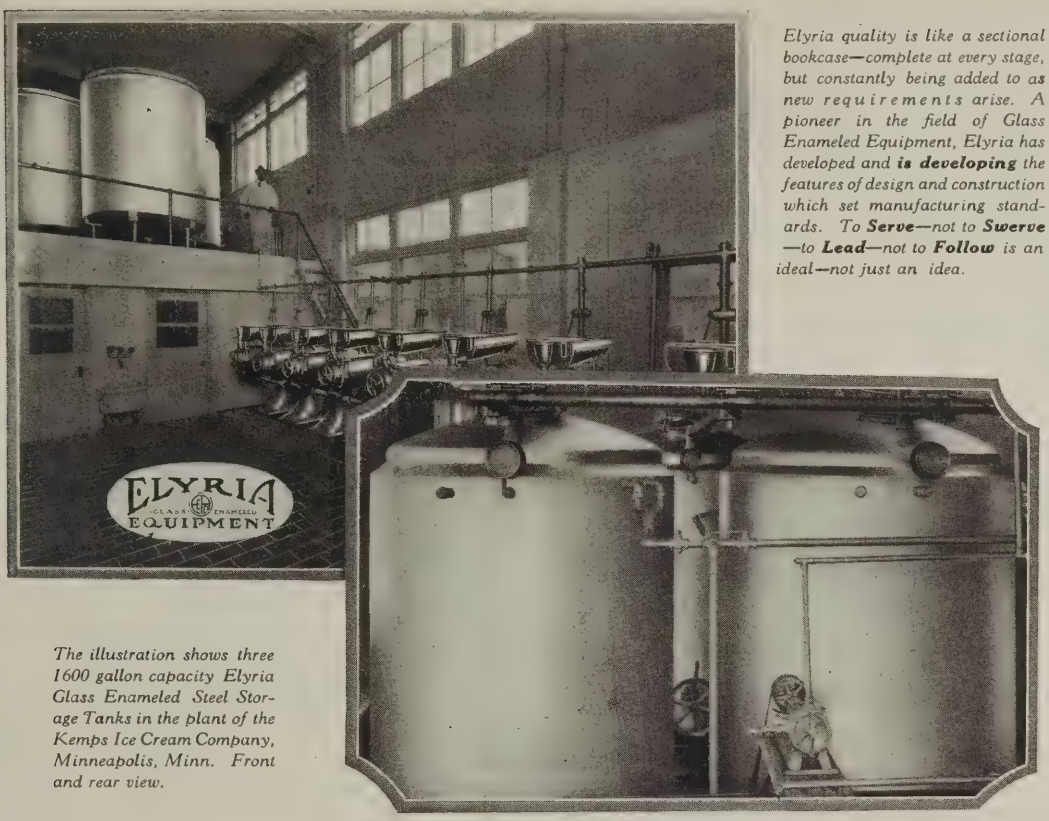
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The illustration shows three 1600 gallon capacity Elyria Glass Enameled Steel Storage Tanks in the plant of the Kemps Ice Cream Company, Minneapolis, Minn. Front and rear view.

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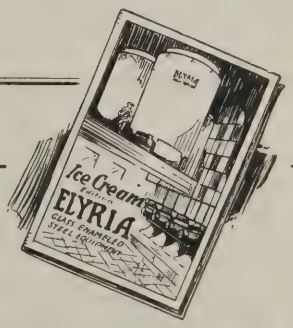
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How to Standardize the Ice Cream Mix

By R. M. WASHBURN, Director of Laboratories, International Dry Milk Company, Minneapolis, Minn.
(As Prepared for Minnesota Ice Cream School, Dec. 1920.)

FORMULAS for the making of ice cream have a place in the working factory, but a knowledge of how to standardize the mix by introducing the various ingredients in the right quantities to bring about the desired percentage amounts of fat, sugar and total solids is of greater value than the possession of even many formulas.

State laws and city ordinances require a minimum of various amounts of fat, but commercial competition requires in addition a minimum of sweetness, total solids, pleasing physical condition and taste.

In making up the mix it is most convenient to do so by "batches," using full cans of cream, milk, and condensed milk to simplify weighing. Larger or smaller batches may then be easily made by doubling, quadrupling or halving the unit batch, etc.

If then we work to, say the Minnesota standard of 12 per cent fat, we have as our requirements that the mix shall analyze about 12.25 per cent fat, 12.5 per cent to 14.5 per cent sugar, 8 per cent to 10 per cent milk-solids-not-fat and 34 to 35 per cent total solids.

Composition of Ingredients.

Before we can calculate the composition of the mix, however, we must know or have at hand a table showing the nature and composition of each of the several ingredients to be used, and desirably, too, a knowledge of how and why the components vary.

Cream. The more fat any cream contains, the less of other solids it can have; the fat crowds out the non-fatty solids. Therefore, to be able to compute the total solids content of an ice cream accurately, a table showing the composition of milk and cream of various grades is necessary. Such a table is shown, herewith, and also a statement of the weights per gallon of the same.

Evaporated-Condensed Milk. By condensed milk is usually meant sweetened condensed milk. This grade is little used in ice cream, and therefore will not be considered further here. By evaporated milk is meant milk from which more than half of the water has been driven off, leaving a creamy milk containing about 2.2 times the original total solids content of the milk. If a natural milk contain, say 87.8 per cent water and 12.2 per cent total solids and is reduced 2.2 to 1, the finished evaporated milk will contain (12.2×2.2=26.84) 26.84 per cent total solids, and if such milk tested 3.25 per cent fat in its natural condition, the evaporated milk would test 2.2 times as much, or 7.15 per cent fat. In the handling of milk and cream, however, there is always a loss and the loss of fat is greater in percentage amount than of any other constituent. Consequently a plain evaporated milk often tests as low as 7 per cent — such evaporated milk weighs about 8.85 pounds per gallon.

Skim Condensed. The greater part of the condensed milk used in ice cream making, however, is skim milk reduced about 3, 4, or 5 to 1. An average skim milk carries about 6.9 per cent solids; therefore, if reduced 3 to 1, the condensed milk would carry (3×8.9=26.7) 26.7 per cent total solids, or if reduced 5 to 1, the condensed milk would carry 44.5 per cent total solids. The degree of condensation varies as between different plants and in the same plant at different times unless very carefully guarded against, therefore in the calculation of the total solids content of ice cream, one may miss the true figure widely unless one knows what the particular condensed milk used does analyze. The buyer of condensed skim milk for ice cream making would be warranted in requiring a guarantee from the manufacturer as to its total solids standard for in no other way can he standardize his own work.

Skimmilk Powder is much used in ice cream manufacture in conjunction with rich cream or butter, for the building of body. It seems perfectly dry to the hand, yet it contains about 2 per cent moisture at its driest and will absorb from a moist room until it contains 6 to 8 per cent. It will not keep well, however, at this high moisture figure. In general we may assume an average of 3 per cent moisture; therefore, a 97 per cent total solids content.

Whole Milk Powder. Until quite recently there was no way known of producing a powdered whole-milk in which the fat would remain sweet and non-rancid long enough to warrant its manufacture, but fortunately such is no longer the case, and wholemilk powder may be used where conditions of availability and price will warrant. When standardized to be reconstituted to produce a 3.25 per cent fat milk the powder will analyze 26 per cent fat, about 2 per cent moisture and 72 per cent non-fatty solids.

Butter. Sweet butter, i. e., that containing no salt, is much used in building up the fat content of an ice cream mix. When made for general market it must

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At present low prices for retinning Ice Cream Cans you can make a very decided savings over the purchase of new cans.

Take advantage of this service, have your rusty cans retinned instead of junking them and buying new cans.

Our price for retinning a five gallon Ice Cream Can is seventy-five cents and ten cents for Covers—about one third the cost of a new can.

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not contain to exceed 16 per cent moisture, therefore contains about 83 per cent fat. Ordinary market butter may be used, however, with satisfaction by simply melting it at a temperature of about 115° F., allowing the salt, curd and water to settle out, and using the clear butter oil. In doing this the oil will, of course, be figured as 100 per cent fat. This practice also saves analyzing the butter.

Granulated Sugar (cane or beet sugar). Common dry flour contains more than 12 per cent moisture, oatmeal 8 per cent, but sugar, even if stored in a damp cellar, will absorb only ¼ per cent moisture, or less. As a general working formula we may consider that common sugar contains 100 per cent solid matter, all soluble and all digestible.

Inverted Sugar Syrup is made by treating sugar to tartaric acid in the presence of water. In the proportions 100 lbs. sugar, 44 lbs. water and 4 oz. tartaric acid dissolved and boiled for 25 to 30 minutes produces about 140 lbs. of clear syrup, said to have the sweetening power of about 125 lbs. of normal sugar. When boiled to produce 140 lbs. of honey-like syrup it will have 71.5 per cent sugar.

Corn Sugar is about 10 per cent moisture, therefore about 90 per cent solids. It is only about 60 per cent as sweet as cane sugar. It costs less per pound, however, and may be used to piece out other sugar, but not to take its place entirely because of its pungent taste.

Corn Syrup is a clear, mildly sweet syrup, containing about 82 per cent solids and possessing about 60 per cent the sweetening power of common sugar.

Gelatine is used in small amount, about one-half of 1 per cent or less. It absorbs moisture very readily, in fact is known in chemistry as an "imbiber." It contains about 5 to 10 per cent moisture and 90 to 95 per cent solids.

Gelatine Water. Some ice cream manufacturers dissolve the gelatine in as much as 6 parts of water to 1 of gelatine, while others start the gelatine in water, then expand it in some of the milk which is to be used any way for the reduction of the heavy cream, and yet others use milk entirely, but whatever amount is used must be considered in calculating the percent solids in the final mix.

As an aid in preparing a mix, the following table will be found valuable as giving approximately accurate figures:

AVERAGE COMPOSITION AND WEIGHT PER GALLON.

	Per Cent Fat	Per Cent Milk S. N. F.	Per Cent Sugar	Total Solids	Specific Gravity	Weight per Gal., lbs.—
Water	0.00	0.00	0.00	0.00	1.000	8.3216
Milk	0.02	8.91	0.00	8.93	1.037	8.6295
Milk	3.00	8.64	0.00	11.64	1.034	8.6045
Milk	4.00	8.55	0.00	12.55	1.032	8.5879
Milk	5.00	8.48	0.00	13.46	1.031	8.5796
Cream	15.00	7.57	0.00	22.57	1.018	8.4714
Cream	18.00	7.31	0.00	25.31	1.015	8.4564
Cream	20.00	7.13	0.00	27.13	1.013	8.4298
Cream	25.00	6.68	0.00	31.68	1.008	8.3882
Cream	30.00	6.24	0.00	36.24	1.004	8.3549
Cream	35.00	5.69	0.00	40.79	.999	8.3133
Cream	40.00	5.35	0.00	45.35	.995	8.2800
Evaporated Milk	7.00	20.00	0.00	27.00	1.065	8.8500
Sweetened Cond. Whole Milk	8.00	23.00	42.00	73.00	.....	9.1538
Skim Condensed	0.00	26.70	0.00	26.70	1.100	9.1538
Skimmilk Powder	.....	97.00	0.00	97.00	.....	.....
Wholemilk Powder	26.00	72.00	0.00	98.00	.....	.....
Granulated Sugar	.....	.....	100.00	100.00	.....	7.5000
Invert Sugar Syrup	....	.....	71.50	71.50	.....	10.0000
Corn Sugar	.....	.....	.....	90.00	.....	.....
Corn Syrup	.....	.....	82.00	82.00	.....	.....
Gelatine	.....	.....	0.00	90.00	.....	.....
Butter, Unsalted	83.00	.....	.....	84.00	.....	.....
Butter Oil	100.00	.....	.....	100.00	.....	7.5000

By combining three or more of the afore-mentioned substances in various amounts, Compounds of almost any composition may be made. The following illustrates the method used:

TRIAL MIX NO. 1.

	Gal.	Lbs.	% Fat	Lbs. Fat	Per Cent Skim Solids	Lbs. Skim Solids	% Sugar	Lbs. Sugar	% T. S.	Lbs. T. S.
Cream	60	510.0	30.0	153.0	6.24	19.34	.....	.....	36.24	112.34
Milk	40	344.0	4.0	13.76	8.55	29.31	.....	.....	12.55	43.12
Sugar	..	142.0	....	.....	....	.....	100.0	142.0	100.00	142.0
Gelatine	..	4.0	....	.....	....	.....	.....	.....	90.00	3.6
Gel. Water	3	25.0	....	.....	....	.....	.....	.....	.....	.....
Flavor	..	5.0	....	.....	....	.....	.....	.....	.....	.....
		1030.0		166.76		48.65		142.0		301.06

166.76 ÷ 1030 = 16.19% Fat.
48.65 ÷ 1030 = 4.72%.
142.00 ÷ 1030 = 13.78% Sugar.
301.06 ÷ 1030 = 29.42% Total Solids.

In this trial balance every item is wrong, except the sugar. The fat and the sugar are too high and the skim solids and the total solids are far too low. Now, keeping the total weight at about 1000 pounds, let us

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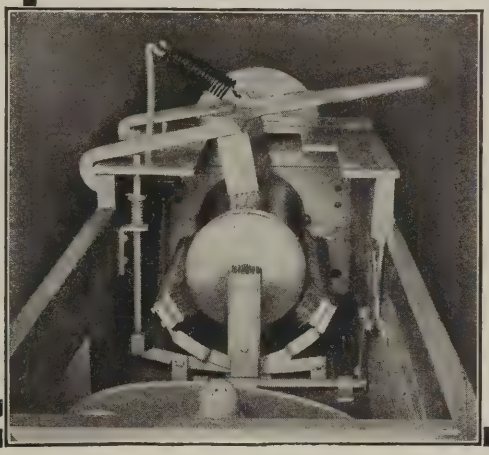
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A Manning user in New York state says, "For scrubbing dirty cans your washer certainly takes the lead." Another says, "We use the Manning on cans our hydraulic machine will not clean."

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MANNING EQUIPMENT

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let down the fat by the use of more milk and less cream; we could also use a little less sugar.

TRIAL MIX NO. 2.

	Gal.	Lbs.	% Fat	Lbs. Fat	Per Cent Skim Solids	Lbs. Skim Solids	% Sugar	Lbs. Sugar	% T. S.	Lbs. T. S.
Cream	40	334.0	30.0	100.2	6.24	20.84	.....	.....	36.24	121.04
Milk	60	516.0	4.0	20.64	8.55	44.12	.....	.....	12.55	64.75
Sugar	..	130.0	....	.....	.....	.....	100.0	130.0	100.00	130.0
Gelatine	..	4.0	....	.....	.....	.....	.....	.....	90.00	3.6
Gel. Water	2	17.0	....	.....	.....	.....	.....	.....	.....	.....
Flavor	..	5.0	....	.....	.....	.....	.....	.....	.....	.....
		1006.0		120.84		64.96		130.0		319.39

120.84 ÷ 1006 = 12.01% Fat.
64.96 ÷ 1006 = 6.45% Skim Solids.
130.0 ÷ 1006 = 12.92% Sugar.
319.39 ÷ 1006 = 31.74% Total Solids.

In trial No. 2 we have the fat fully low enough, the sugar about right, but the skim solids and the total solids are still too low. To correct these we must add condensed or dry milk. Let us try this by substituting 10 gallons of whole condensed milk for an equal amount of natural milk and note the effect.

TRIAL MIX NO. 3.

	Gal.	Lbs.	% Fat	Lbs. Fat	Per Cent Skim Solids	Lbs. Skim Solids	% Sugar	Lbs. Sugar	% T. S.	Lbs. T. S.
Cream	40	334.0	30.0	100.2	6.24	20.84	.....	.....	36.24	121.04
Milk	50	430.0	4.0	72.2	8.55	36.76	.....	.....	12.55	53.96
Cond. Wh. Milk	10	90.0	7.6	6.8	20.00	18.00	.....	.....	27.60	24.84
Sugar	..	130.0	....	.....	.....	.....	100.0	130.0	100.00	130.0
Gelatine	..	4.0	....	.....	.....	.....	.....	.....	90.00	3.6
Gel. Water	2	17.0	....	.....	.....	.....	.....	.....	.....	.....
Flavor	..	5.0	....	.....	.....	.....	.....	.....	.....	.....
		1010.0		124.2		75.60		130.0		333.44

124.2 ÷ 1010.0 = 12.29% Fat.
75.60 ÷ 1010.0 = 7.48% Skim Solids.
130.0 ÷ 1010.0 = 12.8% Sugar.
333.44 ÷ 1010.0 = 33.0% Total Solids.

In trial No. 3 the fat percentage is satisfactory, likewise the sugar, if it is high in price, but the total solids are still a little low. Let us try again and substitute still another can of condensed milk for the natural milk as follows:

PUMPS

The Blackmer is the silent partner on the job no matter how far the job is removed from the main plant.

Blackmer Rotary Pump Company

314 SHERIDAN ST.
PETOSKEY, MICH.

TRIAL MIX NO. 4.

	Gal.	Lbs.	% Fat	Lbs. Fat	Per Cent Skim Solids	Lbs. Skim Solids	% Sugar	Lbs. Sugar	% T. S.	Lbs. T. S.
Cream	40	334.0	30.0	100.2	6.24	20.84	.....	.....	36.24	121.04
Milk	40	344.0	4.0	13.76	8.55	29.41	.....	.....	12.55	43.17
Cond. Wh. Milk	20	180.0	7.6	13.68	20.00	36.00	.....	.....	27.60	49.68
Sugar	..	150.0	....	.....	.....	.....	100.0	150.0	100.00	150.0
Gelatine	..	4.0	....	.....	.....	.....	.....	.....	90.00	3.6
Gel. Water	2	17.0	....	.....	.....	.....	.....	.....	.....	.....
Flavor	..	5.0	....	.....	.....	.....	.....	.....	.....	.....
		1034.0		127.64		86.25		150.0		367.49

127.64 ÷ 1034.0 = 12.3 % Fat.
86.25 ÷ 1034.0 = 8.4 % Skim Solids.
150.0 ÷ 1034.0 = 14.50% Sugar.
367.49 ÷ 1034.0 = 35.54% Total Solids.

Trial No. 4 satisfies every requirement so far as chemical composition is concerned. The fat, 12.3 per cent, is nicely above the legal requirement and more than is required to produce a tasty product. The sugar, 14.50 per cent, is ample to produce the sweet taste called for, and the total solids, 35.54, are ample to produce a true food product and also to support or sustain the yield without danger of sagging or falling.

Using Butter and Skim Powder.

In many places cream in sufficient quantities cannot be secured at all times and this cream shortage often occurs during seasons of greatest ice cream consumption. To meet these conditions the use of butter and skim milk powder are regularly resorted to in formula much like the following:

TRIAL "A"

	Gal.	Lbs.	% Fat	Lbs. Fat	% T. S.	Lbs. T. S.	Price	Cost
Milk	70	602.0	3.7	22.33	12.00	72.24	.....	.....
Butter	..	110.0	82.0	90.20	83.00	91.30	.....	.....
Skim. Powd.	..	16.0	....	.....	97.00	15.52	.....	.....
Sugar	..	130.0	....	.....	100.0	130.00	.....	.....
Gelatine	..	4.0	....	.....	90.0	3.60	.....	.....
Gel. Water	..	25.00	....	.....	.....	.....	.....	.....
Flavor	..	5.0	....	.....	.....	.....	.....	.....
Water	..	20.0	....	.....	.....	.....	.....	.....
		912.0		112.53		312.66		

112.53 ÷ 912.0 = 12.33% Fat.
130.00 ÷ 912.0 = 14.15% Sugar.
312.66 ÷ 912.0 = 34.27% Total Solids.
..... ÷ 912.0 = Cost per pound.

The foregoing mix is fair, though a little high in fat and sugar. Let us try again.

(Continued on page 56)

PURE — HIGH GRADE

GELATINE

AND

Quick Action Ice Cream Powder
Special Double Strength Ice Cream Powder
Pure Powdered Gum
Ripener Powder

QUALITY — UNIFORMITY — SERVICE

St. Louis Gelatine Company

St. Louis Missouri

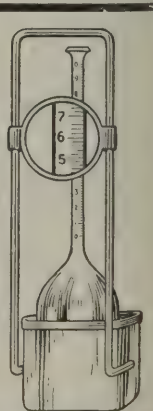
LACTI-MAGNIFIER

FOR BABCOCK TESTERS

Butter-fat readings of milk and cream at a glance—without a particle of eye strain or possibility of error.

The "Lacti-Magnifier" is used by Babcock Testers and all endorse it as an instrument of simplicity, accuracy and speed.

We will forward, carrying charges prepaid, a "Lacti-Magnifier" subject to return if not satisfactory, upon receipt of your check or money order for only **$4.50**



LACTEAL ANALYTICAL LABORATORIES, INC.
122 EAST EAGLE ST., BUFFALO, N. Y.



The Flavor Sells Your Ice-Cream

Here are 4 Types of Vanilla Flavoring that will sell your product

GIANT VANILLA COMPOUND
is all that the name implies.

MAMMOTH VANILLA COMPOUND
Different to Giant but equally strong.

VANILLA AND TONKA
Moderately priced. Hundreds of ice-cream makers swear by it.

STRAIGHT VANILLA BEAN EXTRACTS
Mexican, Bourbon, All Bean and Suva.
Contain 1 lb. of beans in a gallon of extract.

Inquire about our contract prices.

—o□o—

RED SEAL COLORS

Prices for 1922 are materially reduced. Our pure certified colors excell in strength and brilliancy.
Powder, Liquid or Paste.

—o□o—

RED SEAL RIPENER

Helps age the mix. Improves your ice-cream.

WARNER-JENKINSON CO.
ST. LOUIS

TRIAL "B"

	Gal.	Lbs.	% Fat	Lbs. Fat	% Sugar	Lbs. Sugar	% T. S.	Lbs. T. S.	Price	Cost
Milk	80	688.0	3.7	25.45	.....	.....	12.55	86.34	.....	.....
Butter	...	120.0	82.0	98.40	.....	.....	83.00	99.60	.....	.....
Sk. Milk Powder	...	20.0	....	.....	.....	.....	97.00	19.40	.....	.....
Pow. Water	...	13.0	....	.....	.....	.....	.....	.....	.....	.....
Sugar	...	140.0	....	.....	.....	140.0	100.0	140.00	.....	.....
Gelatine	...	4.0	....	.....	.....	.....	90.0	3.6	.....	.....
Gel. Water	...	10.0	....	.....	.....	.....	.....	.....	.....	.....
Flavor	...	5.0	....	.....	.....	.....	.....	.....	.....	.....
		1000.0		123.85		130.0		335.55		

123.85 ÷ 1000.0 = 12.38% Fat.
140.00 ÷ 1000.0 = 14.00% Sugar.
348.90 ÷ 1000.0 = 34.89% Total Solids.
..... ÷ 1000.0 = Cost per pound.

This is a very fair mix from all standpoints.

Butter, Skim Powder and Water.

Very good ice cream may be made, however, from powdered skim milk, butter, and water, and much is being so made. Nor can anyone distinguish the difference between ice cream so made and that made from normal cream, for they contain and are the same substances. When the mix is made in this manner it will be somewhat as follows: using the oil from melted common butter, instead of unsalted butter to furnish the fat.

This is an easy one to calculate, for since we must have 12 per cent fat with a small margin of safety, and since 12 per cent of 1,000 pounds is 120 pounds we may put in 122 of butter oil and be assured of 12.2 per cent fat. Likewise, to get 13 per cent sugar in 1,000 pounds mix we shall need 130 pounds. Adding the fat and the sugar percentages we have (12+13=25) 25 per cent of our needed 35 per cent total solids. Therefore, the difference, 10 per cent, must be made up of skim powder, or 100 pounds. Doing this we have as follows:

TRIAL "C"

	Lbs.	% Fat	Lbs. Fat	% Sugar	Lbs. Sugar	% T. S.	Lbs. T. S.	Price	Cost
Butter Oil	122.0	100.0	122.0	.....	.....	100.0	122.0	.....	.....
Skim Powder	100.0	.....	.....	.....	.....	97.0	97.0	.....	..
Water	639.0	....	....	....	....	....	....	.....	.....
Sugar	130.0	.....	.....	100.0	130.0	100.0	130.0	.....	.....
Gelatine	4.0	....	....	....	....	90.0	3.6	.....	.....
Flavor	5.0	....	....	....	....	....	....	.....	.....
	1000		122.0		130.0		352.6		

122.0 ÷ 1000 = 12.2% Fat.
130.0 ÷ 1000 = 13.0% Sugar.
352.6 ÷ 1000 = 35.26% Solids.
..... ÷ 1000 = Cost per pound.

To find amount of water needed for the above the total of all other ingredients are subtracted from 1,000, and the difference is the amount needed.

Ice Cream from Powdered Mix.

The first powdered ice cream mix ever made in commercial quantity and quality, if not in fact the first ever made, was produced by R. M. Washburn, in 1920. The mix is a compound of all the essentials of standard commercial ice cream, except flavor. To use it is simply necessary to dissolve the required amount of powder in water, let stand a few hours to regain viscosity, then flavor and freeze in the ordinary way.

TRIAL "D"

	Lbs.	% Fat	Lbs. Fat	% Sugar	Lbs. Sugar	% T. S.	Lbs. T. S.
Powdered Mix	350.0	35.0	122.50	38.0	133.0	98.0	343.0
Water	650.0	....	.....	....	.....	....	.....
Flavor	5.0	....	.....	....	.....	....	.....
	1000.0		122.50		133.0		343.0

122.5 ÷ 1000 = 12.25% Fat.
133.0 ÷ 1000 = 13.30% Sugar.
343.0 ÷ 1000 = 34.30% Total Solids.

The powder is made to contain all the essentials in right ratio and to fit various state standards.

Pasteurization of the entire mix (except flavor) has now become almost universal, and is to be favored as producing a better article than can be made from raw creams.

Homogenization of the entire mix as it comes from the pasteurizer is also quite common. It produces a smoother, creamier, meatier ice cream than can be made without it. Washburn's Powdered Mix has been both pasteurized and homogenized.

Standardizing Viscosity.

No freshly prepared mix is ready to freeze. It is too loose and sloppy, but let it stand cold, 24 to 48 hours, and it will regain viscosity apparently by the reuniting of the threads and shreds of casein into tough and comparatively long strings.

A light bodied mix will not retain the air beaten into it, but a vicid one will. Viscosity of mix may be hastened and uniformity assured by the use of some good enzyme viscosity improver or controller.

The art of making ice cream has passed from the realm of the rule of thumb and of mystery to that of science in a decade.

CYPRESS
SHIPPING TUBS
At Bargain Prices

1000—20 Quart—Big and Roomy—Our highest grade tub—Dimensions—26" deep inside—28" high overall—Bottom 13", Top 15" inside—Staves 1¼" thick—2" solid bottom.
SPECIAL PRICE..... $2.45 Each

500—8 Quart Tubs, Special value. Inside dimensions, 18½" deep, (20 inches high overall, 1½" solid bottom,) 11" at bottom and 12½" at top inside. SPECIAL PRICE $1.10 Each

All offered subject to prior sale and for prompt shipment only. Strictly guaranteed in every way. Orders must call for 25 or more. Stanley Handles RIVETED ON—Heavy hoops. F. O. B. Factory unpainted. Will paint any color at regular rate.

You can Safely Buy for Next Year

CYPRESS "THE WOOD ETERNAL"

You can Safely Buy for Next Year

A. L. SHAW & COMPANY
MANUFACTURERS
TUBS, PAILS, AND CABINETS
MECHANICSBURG OHIO

SAFE ICE CREAM

Published by ALFRED PURE ICE CREAM CO., Los Angeles, Cal.



Welcome Ideas for Social Evenings

By ANDRE DUPONT

An April Birthday Party

By EDGAR A. JORDAN

SAFE ICE CREAM is a monthly magazine designed to make the American Housewife respect ice cream as a delicious, healthful dessert for *everyday* use—not a child's "treat" or a "luxury" for great occasions!

ALFRED *of* LOS ANGELES

says—"It is going to be necessary for you to increase our order another thousand copies of SAFE ICE CREAM * * * "

(that's how this letter starts:)

THE ALFRED PURE ICE CREAM CO. of Los Angeles is one of the most progressive, thriving manufacturers of the Pacific Coast. Read their letter *twice*. They got 1700 *new* customers in 3½ months, proving that Safe Ice Cream *does do the business* with the consumer. You may not do business direct with the consumer . therefore — use S. I. C. as your *dealer-aid* so that *he* can get ice cream across (in the big "day-by-day dessert" sense) to *his* consumers. The more he sells the more you'll sell him.

C. J. ALFRED, PRESIDENT — H. P. TAYLOR, VICE PRES. — R. J. POWELL, SEC. & TREAS.

ALFRED'S ICE CREAM

ALFRED PURE ICE CREAM CO., Inc.

MAIN OFFICE 817-19 EAST 18TH STREET
CREAMERIES HIPTON CAL

LOS ANGELES, CAL.

December 14, 1921.

Frederick C. Mathews Company,
Detroit, Michigan.

Gentlemen:

It is going to be necessary for you to increase our order another thousand copies of SAFE ICE CREAM for February as our mailing list now exceeds our supply of magazines.

We wish to take this occasion to tell you of the gratifying results we have derived from the use of your monthly booklet in our city, and we are sure the figures taken from our sales records will prove interesting to you.

Our first mailing list which we compiled from retail customers' ledger on September first contained about thirteen hundred names for the city of Los Angeles, and today we have three thousand names. In other words we have taken on seventeen hundred new customers since the first of September - about three and one-half months.

As stated above, our original mailing list was composed of names from our old customers' ledger, and a large number of these had made one purchase only from the first of the year to September - nine months. But since we have been mailing them our SAFE ICE CREAM every month they have been reordering regularly. For instance we had twenty five repeat orders on Thanksgiving and about thirty new customers, and last Saturday, December 10th, we had nine new customers.

This is the first time we have ever been able to check the results of advertising, but the system we have installed proves absolutely that our new customers and repeat orders are directly due to the work of your little booklet, and we want to thank you for calling it to our attention and wish you all the success possible. It has certainly brought results away beyond our expectations.

Yours very truly,

ALFRED PURE ICE CREAM COMPANY

CJA-S

C. J. Alfred
President

Look on the other side of this sheet and see the cover design (actual size) of Safe Ice Cream—the magazine Mr. Alfred is referring to in his letter. This magazine is going into hundreds of thousands of homes every month. SAFE ICE CREAM would work just as effectively for you as it does for Alfred Pure Ice Cream Company of Los Angeles

FREDERICK C. MATHEWS COMPANY

"SERVANTS TO THE DAIRY INDUSTRY"

P. O. BOX 834 — DETROIT, MICH.

THE ASSOCIATION OF ICE CREAM SUPPLY MEN — MEMBER

This insert was produced complete by the Frederick C. Mathews Company, Detroit, Michigan

ICE CREAM FACTORY FOR CHINA.

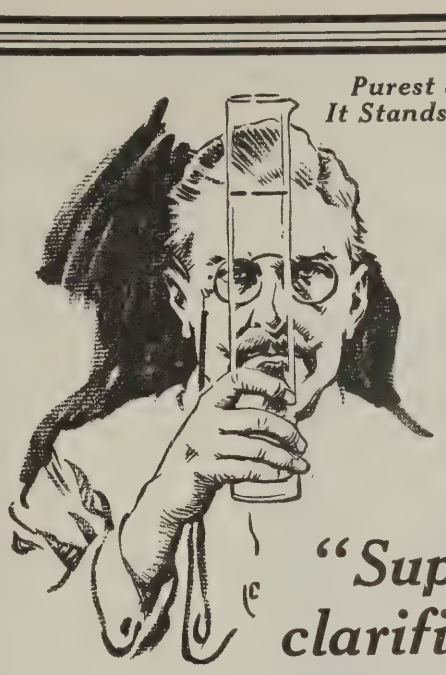
At last America is going to have an opportunity to reciprocate for its introduction to chop suey. China's first ice cream factory is having its inception at Fresno, California, where a company composed almost exclusively of Fresno Chinese merchants has been organized, with a capital of $160,000.

This company will erect and operate an ice cream factory at Canton, China, just as soon as Chinese government transactions, now in process, are completed. The building will be a three story modern concrete structure, and will be fitted with modern American machinery and equipment.

With dairying in its present undeveloped state in China, it will not be possible for this firm to obtain the necessary milk and cream from local producers, therefore they will use milk powder and sweet butter which they will import from America.

The name of this company is the Jone-Wah Ice Cream Company, Ltd., and the officers are: Lew Gun Yuen, president; C. H. Yuen, vice-president; Lee Toy, treasurer; Fong Q. Jing, secretary.

The organizers of this company are entering their work with all the enthusiasm of missionaries of a new faith. It is possible that tradition has established habits among the Chinese that will retard consumption at first, but this will no doubt be readily overcome, and this impetus to the dairy industry of that country may eventually benefit the entire nation. It may not be an unaccustomed sight in a few years hence to see swarms of Chinest children eating ice cream cones.



QUALITY ICE CREAM COMPANY NOW IN NEW PLANT.

The Quality Ice Cream Company of Neosho, Missouri, which has recently been organized, is an outgrowth of the Tulsa, Oklahoma, concern of the same name.

Needing a larger supply of sweet cream in its operations than was obtainable locally, the Tulsa concern in 1921 began looking for a suitable location for a branch to meet this requirement; after careful consideration, on account of the abundant supply of good milch cows in Newton County, Missouri, and the good railway connections between its county seat, Neosho, and Tulsa, it was decided to establish a branch at Neosho, and this was done in November, 1921.

It was not originally intended to operate the Neosho branch as a manufacturing plant, but, as time went on, it was seen that a good trade territory could be reached by the several railway and trucking lines serving Neosho. Accordingly, early in the spring of 1922, the Neosho branch began the manufacture and distribution of ice cream and kindred products, in addition to the buying and separating of sweet milk.

The manufacturing business showed such attractive possibilities that it was decided to incorporate, and, with the issuance of a charter May 23, the Neosho branch entered into a separate existence as the Quality Ice Cream Company, with the following officers, all experienced in their chosen line of work, in charge: W. M. Hawk, President; Mrs. H. W. Wolfskill, Vice-president; H. W. Wolfskill, Secretary-Treasurer.

The business is conducted in a building formerly occupied by the Neosho Creamery Company. Members of the firm state that the present quarters have been outgrown even this early in the history of the business, but it is probable that no change will be made during the calendar year.

Purest and Best
It Stands the Test

"Super-clarified!"

Months of ceaseless endeavor, constant striving for the development of a process of making a purer and clearer gelatine, consistent selection of only the finest of raw materials—these things have resulted in

ATLANTIC

—a super-clarified—

GELATINE

When seen in the solution its wonderful purity and clarity is apparent at a glance.

Not only will Atlantic pass the pure food requirements of any State in the Union, but it permits of greater economies. Grade for grade, it costs less and does more than others.

We Can Prove Its Merits

Send for a barrel of Atlantic Gelatine now. Use five, ten, or even fifteen pounds. If, after a fair test, you decide Atlantic isn't what we claim, send back the unused portion and we'll pay the freight both ways. The test is free if you decide Atlantic isn't your gelatine.

We make this offer because we're certain Atlantic — super-clarified gelatine — is best and will save you money.

ATLANTIC GELATINE COMPANY

Woburn, Massachusetts

BRANCHES

NEW YORK CITY, Room 1081 Woolworth Bldg. — BALTIMORE, 1012 Union Trust Bldg. — CHICAGO, Suite 518 118 N. LaSalle St.

SAN FRANCISCO, Room 240 Hansford Block, 268 Market St.

"Co-operation with the Public"

Address of F. ELLIS MILLER, before Pacific Ice Cream Manufacturers' Association, Seattle, Nov. 14, 15, 1921.

The discussion of co-operation among ice cream manufacturers is fundamental. We have had this subject before us in every convention program for years past. I am going to treat it from a different angle to-day. If the great war has taught the average business man or average American anything, it has taught him that he cannot get along by himself. The nations of the world found this out at great expense of blood and treasure.



F. E. MILLER.

We cannot go back to individualism in our business life. The old motto "everybody for himself and the devil take the hindmost" has passed out forever. In its place we have a new motto, "All for each and each for all." We have found out "we are our brother's keeper."

In my state, California, co-operation between the producer and the public was given a substantial impetus some years ago by the creation of a State Market Director, whose duty it is to bring producer and consumer together, to spread throughout the state educational information of food products, to fix prices in some instances and to co-operate in any manner that will tend to prevent fictitious prices. For instance, it is a common thing to see display advertisements in California papers telling of the official price of fish, and signed by and inserted by the State Market Director. As may be supposed bitter fights have been made against the functioning of this office, but without avail. As the public mind becomes educated along these lines it may be assumed that such co-operation will be extended in scope.

However, there are instances where men engaged in the same line of business have misused the co-operative principle to exploit the public for their own selfish purposes,—this is co-operation run mad against the public and should be condemned. This brand might well carry on its coat of arms the legend, "The public be damned."

Much of the best efforts of Congress, or state legislatures, and of municipal government have been directed in recent years against this kind of co-operation generally classified as a "Trust or Combine." But the entire environment of a business man who co-operates with the public is altogether different.

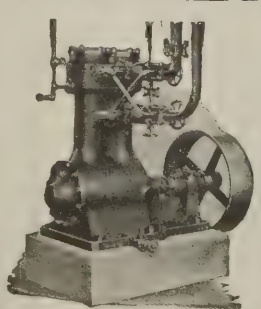
Since there can be no real and successful co-operation with the public without confidence, my remarks must perforce deal with the most practical and intelligent methods of earning the confidence of the consuming public. It is easier to talk about it than to do it.

Nor can business be maintained on "past performances" except insofar as the bulwark present performances. Let an ice cream man put out a splendid quality of his product for five years, then put out an inferior quality. You all know what would happen. The slogan, "Always the best" would get him nowhere. The judgment of his customers on what he is giving them to-day would seal his fate. He would have lost the confidence, the co-operation of the public, and he would automatically pay the penalty.

Experience has taught all of us that the policy of inviting the public to sit in at the game and of putting all our cards on the table, face up, is the policy that wins. All business is a contest between the producer and consumer, but with one great difference from other kinds of contests. The public always "plays square." Ever think of that? In the very nature of things the public gives you a square deal till you convince it that you don't deserve it; then it quits you. Doubtless every manufacturer here can look back and recall many "ups" and "downs" in business. But at no time does the level-headed business man lose sight of the fact that his greatest asset is public confidence. Should unprincipled competition be directed against him (an experience not at all uncommon) the discerning public, because of the confidence he has earned, will stand by him. Let the public know the facts, take it into your confidence, openly and squarely, and it will reciprocate every time. I have had ample proof of it, so have many of you.

It is common in our line of business for those who co-operate for purely selfish purposes, to launch their shafts at those who practice co-operation with the public and who are classed as "independents." Such tactics more often hurt the offenders more than those they would harass. The public mind is a dangerous thing to toy with. It is remarkably discerning and it is absolutely for the square deal when it knows all the facts.

THE VILTER MFG. CO.



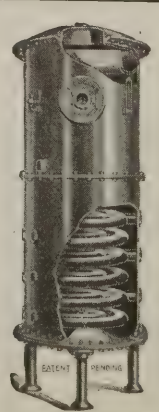
Twin Cylinder Refrigerating Machine.

830 Clinton Street
MILWAUKEE, -- WISCONSIN

If this small Refrigerating Machine is not large enough to handle your Ice Cream Trade, **Remember** we build

Refrigerating Machinery

of any capacity desired.



CONDENSED MILK MACHINERY

The Better Kind

We teach you to make condensed milk

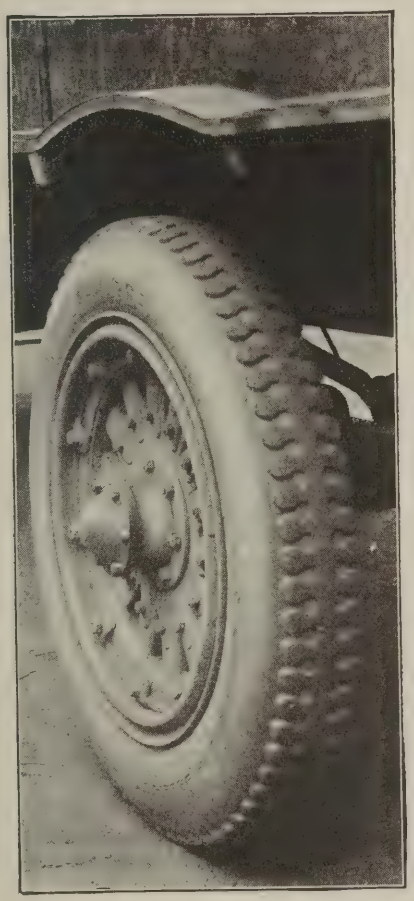
C. E. ROGERS

Builders of Better Condensing Equipment

8731 Witt St. Detroit, Mich.

FEDERAL

PNEUMATIC TRUCK TIRES



Scientifically built, especially to meet fully the exacting service which they are expected to give and perform.

Accepted as optional equipment by practically all of the leading truck manufacturers throughout the country.

Used exclusively by many hundreds of truck fleet owners, from the Atlantic Seaboard to the Pacific Coast, and from the Gulf of Mexico to the Canadian border.

Quality — Service — Economy

The Federal Rubber Co.
of Illinois
Cudahy, Wisconsin

Win public confidence, and keep it if you would hold and increase business.

But how? That is indeed a question, but not difficult for the experienced manufacturer to answer. The very first advance toward winning public confidence must be made in the organization of your business. Have perfect co-operation between every employee and every department. It would be presumptuous for me to go into detail before a representative body of ice cream makers. But let me emphasize a point of which we sometimes fail to appreciate the full significance.

We are apt to take it for granted that the public knows as much about our business as we do. They know nothing but what we tell them, and what we do for them. Ice cream is a 100 per cent thing to us; it is a comparatively small thing to the great public.

And just as surely as confidence is the basis of genuine, beneficial co-operation, so is intelligent and generous publicity, the invitation and the stimulant to public confidence. Here, of course, the prime factor is printer's ink. Do not think for one moment that your publicity is something in the nature of the tail to a kite. It is a large and essential part of the kite. I would make the criticism, in passing, that ice cream men have been altogether too moderate in their use of printer's ink. Select your publicity man as you would the manager of your factory. Do not lull yourself into the dream that because you have been doing business in your town for years that you need not advertise. I have said that the successful man must win public confidence. I also said that he must keep it and he cannot keep it if he leads the public into the belief that he is dead. The sun's rays of yesterday are not illuminating Seattle today. The memory of our last convention banquet will not satisfy my appetite this evening. No longer can we ignore the proper advertising of our business with the remark, "I have no time to write ads." Of course a busy man has not time to write ads; few have. Neither has he the time or the knowledge to care for the highly efficient plant that runs his factory. Get the services of the best publicity man you can find and turn him loose on the job. He'll get more returns for your money than the ordinary ice cream maker would think of.

Publish nothing but the absolute truth, but present it in a way that cannot be misunderstood or misinterpreted. No matter how original or unusual your advertising may be, judge it only by its common sense, forcefulness and results.

But while newspaper advertising may be given the place of first importance it must not be considered as the beginning and end of necessary and successful publicity. When a special or unusual combination of circumstances seems to demand it, a house-organ may be used with telling effect. I brought with me, for your edification or amusement, as the case may be, some copies of a little magazine called "The Housewife" that we published last summer and which tells its own story. The results far exceeded my anticipations.

Too much stress cannot be laid upon the value of personal contact with the public at every point that seems proper and expedient. There is a psychological principle in this phase of cultivating co-operation with the public.

There are many lines in which the public is largely indifferent as to personality of the maker. For instance, kitchenware, blankets, furniture, and so forth. But the ordinary housewife does like some degree of personal knowledge of those who supply the family food,—the grocer, the baker, the ice cream maker.

As good business men, we are members of our local Chamber of Commerce and similar organizations. Be not content with merely sending a check for your annual subscription. Take an active part in the actua constructive work of such bodies. Let it be known that you are a "live one" and ready to serve on committees and to do what a progressive merchant should do to foster local development. This is solid work, and brings us in direct contact with the forces that are making for material progress. Often, you will be asked to speak at clubs, lunches, housewives' leagues, and so forth, on your particular business. Respond freely and give a little time and thought to what you will say. Remember that not only you, but your business also, is under review and take the fullest advantage of all such legitimate opportunities to reach the public.

There is one avenue of approach to the public heart that can always be cultivated and which is always "bread cast upon the waters." This is a generous treatment of the kiddies in the schools. There is a vast amount of concrete pleasure and satisfaction in "taking care" of the kiddies, outside of the ultimate result in actual business. For their benefit year ago, I popularized the nickel ice cream cone when ice cream was a high priced luxury. Today thousands of these kiddies are now parents and believe me, they are real boosters for the firm that first won their confidence and good will years ago.

In this connection I will tell you—if you will pardon personal reference—how I brought 25,000 children and grownups for a day's outing at Idora Park, last spring. I distributed 250,000 tickets among our dealers. The tickets were good for admission to the Park on payment of one cent war tax and could be had only by calling at our dealers' for them. Wide publicity was given through the daily papers. Every person who came in at the park gate received a long ticket with attached coupons, each coupon good for one of the various concessions and an individual brick of ice cream. The free ice cream seemed to draw as much as the amusement of the park. It was a wonderful day, and we are going to make an annual event of it. It not only helped our firm but was a great boost in promoting the sale of ice cream.

Am relating this to you because doubtless any of you can do the same thing by utilizing some popular playground in your own community.

Another personal feature was the entertainment of the wounded veterans and soldiers of the world war, stationed at Letterman Hospital, on Decoration Day. A wealthy citizen at his own expense had been doing this for years and for some reason or other, this year the soldiers were about to be disappointed until the ice cream man undertook the job, and it was very easily accomplished. Friends donated automobiles to move them to the Ferry station and the Key Route dead-headed the men across the bay. The war mothers of Oakland were only too glad to contribute cakes and sandwiches and their services. The nurses contributed fully two hundred cakes. Business firms contributed fruits, cigars and cigarettes. Young ladies were on hand to dance with the convalescents. Newspapers gave very finest publicity about the ice cream contributed for the fact that the whole day's pleasure was made possible by the ice cream man, and could not help but give the industry favorable comment.

This may seem rather spectacular, but a little reflection will see that this is only one way to reach the public and that you can easily adapt some features of it to boost the game in your home town.

Another feature that has shown good results is the giving away of small cards entitling the bearer to an ice cream brick with our compliments, when presented at the factory. Church bazaars and societies are contin-

ally giving away prizes as an entertainment feature nd one-half dozen of these orders for ice cream bricks re very much appreciated as prizes.

We also use these complimentary orders as birthay presents. In our state, up until two years ago, every perator of an automobile had to give his age and birthay. This furnished us with a partial list of names. It ertainly brings your firm very much in touch with the ome if the mother or father get a letter of congratulaion on the morning of their birthday enclosing a ticket ood for a quart brick of ice cream. If you are enaged in delivering family orders, this will be of inesimable value.

As one means of laying-down our cards face-up, it as been amply proven that one of the greatest elements n winning public confidence is to encourage the people o visit our plants and see how the ingredients of our roduct are handled and how ice cream is made. Keep pen a standing offer to adults, and to children with heir parent or guardian, to inspect your plant and to eceive a brick of ice cream for their trouble. I have nown it to require the constant services of a guide o show groups of visitors through the plant, and each ne of the thousands of visitors obviously become a good dvertiser for the business and its proprietor. The impression they receive of the sanitary handling of everyhing, the modern machinery, and the scrupulous cleaniness everywhere never leaves them. It makes for popular cooperation of the most valuable kind. When they et home and enjoy their free brick, it possesses added nterest from the fact that they have seen exactly what t is made of, and how it is made. Each brick probably nakes four personal friends.

For fifteen years I have worked without cessation o build up the ice cream business in my city, Oakland. To cooperate with the public and to earn its confidence as always been my aim.

The times are changing—a quiet evolution is going on; it is unlikely that we may return to pre-war conditions. Our industry is face to face with new environment, new obstacles and new opportunities.

Few lines of business have shown greater growth n recent years than the ice cream business. Few years ago the ice cream man was little thought of, today he s a prominent factor in the public eye. The public is nterested in the ethics of our business.

The time is coming when the standard for our ice ream industry will be so high that every man here will realize more fully than we do now, that each one s a part of his industry, and not merely a part of his firm. Also, that every man's relation to his industry must be as honorable as his dealings with his own firm.

We will then learn that our duty is not only to our own business and success but to work for the advancement of the industry as a whole. When we are prepared to take this forward step, the holding of public confidence is assured.



Approximately 90 per cent of the milk consumed in Los Angeles, 75 per cent of the bread, and 500,000 pounds of fresh meat daily are delivered by motor truck.

* * *

Ma—"Is the clock running, Willie?"

Willie—"No, ma; it's just standing still an' waggin' its tail."—Western Christian Advocate (Cincinnati).

* * *

Foreman: "Didn't you tell the editor that everything was set up correctly?"

Pressman: "Yes, but he wanted proof."—Inklings.

Pasteurizing The Batch!

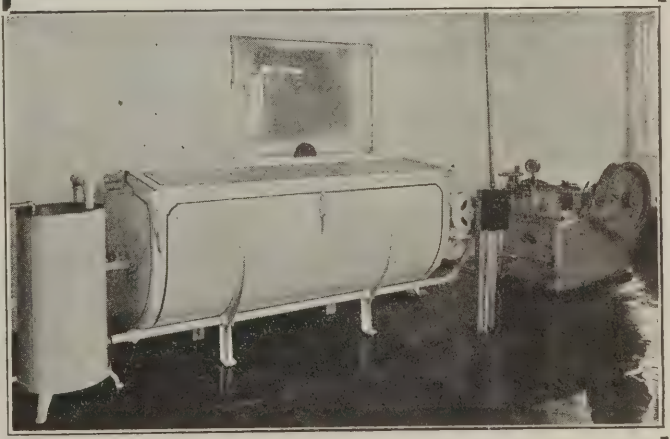
Many ice cream manufacturers are devoting as much attention to making a *safe* ice cream as they are to putting out a product of fine flavor and texture. Among these is the Tauber Absopure Ice Cream Company, of Chicago, Illinois, whose plant is considered one of the most unique in the country devoted to the manufacture of ice cream.

All Tauber Absopure Ice Cream is made and pasteurized in a Manning Batch Mixer, giving the Tauber product the advantage of assured safety through double pasteurization.

MANNING EQUIPMENT

MANNING MANUFACTURING COMPANY

Rutland Vermont U. S. A.



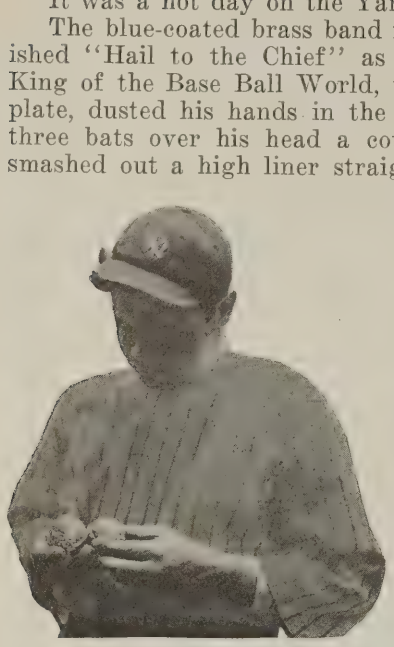
Manning Batch Mixer In Operation In The Tauber Plant!

Babe Ruth Knocks Five Thousand Home Runs

King Bambino of the Land of Swat Makes a Record Hit When He Tosses Chocolate Coated Ice Cream Baseballs into the Stands

It was a hot day on the Yankee's Home Grounds.

The blue-coated brass band in the loge had just finished "Hail to the Chief" as Babe Ruth, Home Run King of the Base Ball World, walked out to the home plate, dusted his hands in the dirt at his feet, swung three bats over his head a couple of times and then smashed out a high liner straight into the center field bleachers ANOTHER HOME RUN.



Around the bases plowed the Bambino to the blare of the band and the cheers of his admirers who filled the stands. As he galloped around third base and into the home stretch, the cheering grew to an ovation and perfectly good straw hats were smashed in the excitement which only a homer from the bat of Babe Ruth can inspire.

As he trotted back to the dugout, doffing his cap to the cheering crowds, a young man tossed a ball wrapped in silver foil to the Home Run King. Instinctively the baseball player caught it, looked at the foil wrapped ball in his big hand, cocked his head inquisitively and then slowly, in front of the admiring thousands, he unwrapped the foil and his face broke into a broad grin which deepened the sun wrinkles of years of campaigning in his face. Then he buried his teeth in the chocolate coated baseball.

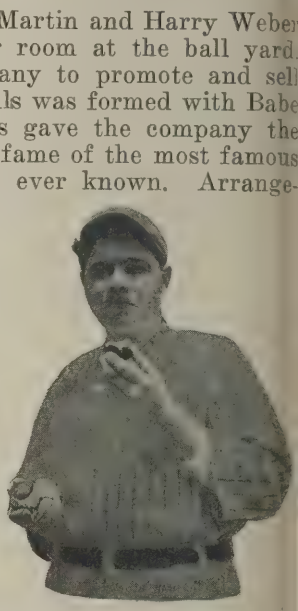
"Oh, Boy," he said as he bit into the crisp cold confection in his hand.

It was Babe Ruth's introduction to the original Chocolate Coated Ice Cream Baseball which has proved as big a hit at the confectionery box office as Ruth has at the baseball turn-stile.

Anticipating just exactly what would happen at this, New York's introduction to the Ice Cream Baseball, Royce G. Martin, president of the company promoting the Chocolate Coated Baseball, had had a flock of these frozen confections made downtown at Horton's factory.

After Babe and the rest of the team had eaten their fill of these delicious confections, they began tossing the Baseball into the grandstand. It was a riot. Everybody wanted a high wide one from the hands of the mighty swatman and in no time five thousand were consumed by the hungry fans.

After the game, Ruth, Mr. Martin and Harry Weber talked turkey in the dressing room at the ball yard. Right there the eastern company to promote and sell Elite Chocolate Coated Baseballs was formed with Babe Ruth as Vice President. This gave the company the exclusive use of the name and fame of the most famous baseball player the world has ever known. Arrangements were also worked out by which Ruth will personally redeem the foil wrappers of the Chocolate Coated Baseball with a regulation league baseball with his autograph written on the horsehide cover. Advertising copy, cut-outs, wrappers with Babe Ruth's signature on them and all of the other details of promoting the sale of Baseballs were worked out while President Martin was in the East.



The result has been that Babe Ruth Home Run Baseballs are now as well known as the Swat King himself, and the demand is increasing so rapidly that the parent company is having difficulty in meeting the demand for supplies from its warehouses. Babe Ruth Home Run Baseballs are now being eaten wherever ice cream is sold and traveling representatives are introducing the sales promotion plan and simple method of manufacture from coast to coast.



OFFICERS OF THE BABE RUTH HOME RUN CORPORATION.
1. **Harry Weber, Jr., President.**
2. **"Babe" Ruth, Vice-President.**
3. **Royce G. Martin, Secretary and Treasurer.**

For ten years experiments and tests were made with two flavors of ice cream coated with chocolate until the product was pronounced perfect by a confectioner who had had years of practical experience in merchandising frozen confections. The product was then given the acid test of the open market. Without any promotion or advertising, it was offered to a limited public in order to study the reactions of the buyer to the novel ice cream offering, in order to ascertain whether or not it had a repeat value without which no confection can long survive. The results of these somewhat extensive and elaborate tests was that the Chocolate Baseball grew in favor until the demand reached a point where it was placed on the market in wholesale quantities.

This required a carefully organized sales and promotion organization in addition to national and local advertising campaigns studied from the consumer stand-

The following is a partial list of the clients we are now serving

Alfred Pure Ice Cream Co.
Alta Vista Creamery Co.
Amsterdam Ice Cream Co.
Benham Ice Cream Co.
Berkshire Ice Cream Co.
Best Ice Cream Co.
George K. Brown Co.
Brown Ice Cream Co.
Buttercup Ice Cream Co.
Campbell Ice Cream Factory
The Carry Ice Cream Co.
The C. G. Carlson Ice Cream Co.
Carpenter Ice Cream Co.
Cascade Creamery Co.
Cline Ice Cream Co., Athens, O. Charleston, Hinton, W. Va.
The Crane - Ohio Ice Cream Co., Columbus, Sabina, Lancaster, Zanesville, O.
C. A. Connor Ice Cream Co
The Crystal Ice & Storage Co.
Detroit Creamery Co.
Dolbey Ice Cream Co.
Donofrio Confectionery Co.
Erie County Milk Asso.
Galliker Ice Cream Co.
Gloria Ice Cream Co.
Harding Cream Co. Omaha, Des Moines
Hazelwood Company
Hendler Creamery Co.
Hines Ice Cream Co.
The Hutchinson Company
Hydrox Company
Imperial Ice Cream Co. Parkersburg, Clarksburg, Fairmont, Grafton, Wheeling, Huntington, W. Va., Ashland, Ky., Cumberland, Hagerstown, Md. Staunton, Harrisonburg, Winchester, Va. Steubenville, O.
International Ice Cream Co.
W. H. Irvin Ice Cream Co.
Ives Ice Cream Co.
Missouri Valley Creamery Co.
The Montauk Ice Cream Co.
Montei Ice Cream Co.
Geo. C. Mansfield Co.
National Ice Cream Co., San Francisco, Cal.
National Ice Cream Co., Louisville, Ky.
H. L. Neuman Co.
The New Haven Dairy Co., Waterbury, Meriden, Hartford, New Britain, New Haven, Conn.
New Orleans Ice Cream Co.
The Noaker Ice Cream Co.
Page Dairy Co.
Piper Ice Cream Co.
Purity Ice Cream Co.
Rieck-McJunkin Dairy Co., Pittsburgh, Charleroi, Butler, McKeesport, New Castle, Pa.
Rochester Ice Cream Co.
J. D. Roszell
Royal Ice Cream Co.
Seattle Ice Cream Co.
Sidebottom Pure Ice Cream Co.
Steffen-Bretch Ice Cream Co.
Supplee - Wills - Jones Milk Co.
Smith and Clark Co.
Terry Dairy Co.
Trojan Ice Cream Co.
Waldorf Ice Cream Co.
Wheats Ice Cream Co.
Yellowstone Creamery Co.
Youngstown Sanitary Milk Co.



RIECK'S

IN Pittsburgh and the territory within seventy-five or a hundred miles, the name RIECK is synonymous with good Ice Cream. Newspapers, Posters, Signs and Window Displays continually remind the passerby of *Rieck's Ice Cream*. For a generation it has been the standard of comparison and the fame of the great *Rieck-McJunkin Dairy Company* is nation-wide today.

Twelve years ago we commenced advertising Rieck's Ice Cream and the pleasant relationship still continues. We believe they will gladly tell you of our service if you ask them. If you desire specialized, experienced service covering every feature of tried forms of advertising write today. We are planning next year's campaign and if we are not serving a client in your territory we should like to serve you.

Barker Duff & Morris

Ice Cream Advertising Headquarters
323 FOURTH AVENUE, PITTSBURGH, PA.

Keep your cans on wheels—

the handy, labor and time saving way for handling your ice cream cans. Here's the truck to do it with, **the truck that is built to last for generations.**

Nutting

Ice Cream Can Truck

has a frame built of heavy structural angle steel riveted like a steel bridge and especially braced at the corners to withstand shocks. The frame is entirely galvanized, instead of merely coated with aluminum paint.

The main wheels are 8¼ inches high, with wide, flat faces, smoothly machined, to save the floors. Cold rolled steel axle, heavy axle collars and boxes.



Ball Bearing Swivel Casters

The easily handled truck, balance type for quick turning. Rail around top holds all covers. Wooden bars at bottom fully protect cans from denting.

The Nutting puts your can handling on a systematic, money saving basis. They pay for themselves over an over again.

Note These Lower Prices

30 inch size, without top rail...$46.00
30 inch size, with rail.....$52.00
36 inch size, without top rail...$52.00
36 inch size, with rail.....$59.00

All prices F. O. B. Faribault

Ask your jobber or order direct from this ad, subject to our guarantee of Quality.

NUTTING TRUCK CO.

1143 Division St.

FARIBAULT MINN.

Floor Truck Specialists since 1891

point and with a view to emphasizing the wonderful appeal to the appetite and taste the bitter sweet chocolate coating and the two flavors of pure ice cream had. Francis O'Neill was made Sales Manager by President Martin and at once started to train a crew of experienced salesmen in the merchandising of these Chocolate Coated Baseballs. Factory experts were also organized to teach the manufacturer how the comparatively simple process of manufacture was carried out to get the maximum results. These merchandising efforts were backed up by both national advertising, local publicity and sales promotion plans emphasizing the fact that such an article must have the repeat, resale demand to make it a permanent money maker for the manufacturer.

The blend and flavor of honey sweet chocolate, vanilla and Chocolate ice cream to sell for a dime met the demand of the public for a frozen confection which tasted like more. Creating its own desire for an encore, the Chocolate Coated Baseball is proving to be one of the biggest money makers for the manufacturer and retailer that has ever been offered the ice cream trade.

Being an all-year confection, arrangements are now being made to push the advertising and sale of Baseballs during the fall and winter months and Babe Ruth will assist in this promotion work personally as soon as the baseball season closes, insuring its being kept before the public through national and local advertising and Babe Ruth's own brand of publicity and promotion.

The W. S. Hill and Ivan B. Nordhem Companies of New York, who are internationally famous in the advertising world, have been employed by the company to prepare the newspaper and out-door poster advertising campaign which the company proposes to spend $250,000.00 on. The interesting thing about the advertising policy for the Babe Ruth Home Run Chocolate Coated Baseball is that it is not going to be one grand splash but will be continuous the year around. The company feels that this is the only way to give the ice cream manufacturers one hundred per cent co-operation and support in the sale of the Babe Ruth Home Run Chocolate Coated Baseball.

The Boedeker Manufacturing Company, the well known ice cream manufacturer of Dallas, Texas, opened the selling campaign on the Chocolate Coated Baseball in the middle of July and in spite of hot weather, the sales were so great that they had to wire for several hundred thousand additional wrappers to meet the demand.

⚜

SWEET TOOTH OF PUBLIC AID TO PROSPERITY.

The urchin who eats an ice cream cone, and all others who consume this frosted sweet, are doing a larger share than is generally known in restoring prosperity and happiness to the farm, according to Guy H. Hall, director of the National Institute of Progressive Farming.

"When I was a boy," said Mr. Hall, "ice cream was a holiday treat. Now it seems to be an every-day commodity. In collecting data on the dairy situation, I learned recently that one million of the twenty-three million producing dairy cows in this country are, so to speak, in the ice cream business.

"Perhaps the dry law has something to do with it, but in any event this increased farm revenue is even now reflected in increased sales of farm lighting plants, tractors, power driving implements, automobiles and the like, which are doing so much toward making farm life more agreeable and prosperous. And the sweet tooth of the public is doing its bit in this direction."

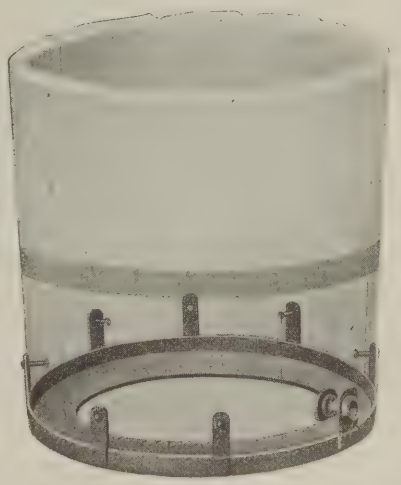
Protection where the wear is most

Just as walking on cement floors prematurely destroys the life of a pair of shoe soles, so does the "skating" of ice cream tubs on railway or shipping platforms shorten their usefulness thru an early wearing out of bottoms.

FRICK Bottom Hoops

assure a maximum life for every ice cream tub.

These heavy bands of specially formed steel fit snugly around the bottom of any standard ice cream tub. They keep the staves from shredding away, permanently hold every stave in place and prevent the bottom from falling out.



Pat. 6-29-20. Pat. Pnd.

Order a few for trial their cost is reasonable

FRICK HOOP CO., Corsicana, Texas

HITS THE NAIL ON THE HEAD.

Mr. Henry W. Stern, manager of The Daigger Corporation, Chicago, and known to the ice cream world as "Henry W.," wrote us a letter recently in which he paid his respects to one A. W. McCann. We quote as follows:

"In further reference to Mr. McCann's tirade against ice cream, would like to add that in the event of any chemist picturing H2O (water) giving magnified views of the various bugs and animals that crowd the ordinary drinking water, we believe that a large campaign on this basis would kind of spoil your appetite as well as mine for water, and we would all start in to drink 'moonshine.'

"We realize that there are certain kinds of bacteria that are desirable bacteria, and on the other hand the kind that are undesirable.

"We would hate to have Dr. McCann start in telling us about drinking water; as a matter of fact, we don't believe he ever will, because drinking water wouldn't hit anybody except the municipality, but would hurt some individual interests such as those people that sell spring water or distilled water, and certainly we doubt if he would want to aid anybody in their work."

OBEDIENT BOY.

Willie was almost through his reading lesson when he came to a word he could not pronounce.

"Barque," prompted the teacher.

Willie looked at his classmates and laughed.

"Barque, Willie!" exclaimed the teacher harshly.

Willie, looking up at the teacher, finally cried out, "Bow-wow!" — Western Christian Advocate (Cincinnati).

Two million quarts of milk are consumed in New York City every day.

B-K Bacili-Kil Trade-Mark

KEEP BACTERIA OUT OF MILK

B-K kills germs on utensils, in milk house, in barns, on cows, on calves—at **every step** in production.

Remarkable results. 70% of farmers shipping milk to large cities with less than 10,000 bacteria per c.c.

Can be done anywhere. Follow drections. B-K at your supply house. None genuine without our big blue label and trade mark.

Money back guarantee.

Write for bulletin 320-A.

GENERAL LABORATORIES
MADISON, WISCONSIN
Sole Manufacturers B-K

That Coal Pile

By Edwin Kayser

IN THIS era of progressive management and cost abridgement, a large proportion of the smaller industrial corporations lose sight of the fact, that an additional substantial saving could be effected were a more detailed study made of power plant efficiency. Indeed, only too many of these concerns are simply contented to let their engineer manage the power plant as he sees fit to do so, giving little consideration to a vast saving in dollars which could be made possible, were some capable fuel efficiency expert called into consultation.

Keen business competition, with the return to normal, behooves us to include in our personnel a competent combustion engineer, whose advice and recommendations should be acted upon. In the near future every manager will be required to know something regarding fuel economy, or will at least have the foresight, to call into consultation someone versed in this study.

Feeding fuel to boilers and producing steam therefrom is the work of a fireman. Unless he is particularly ambitious his knowledge of power-plant efficiency is very limited. In general, he receives his instructions from the plant engineer, whose education fits him to take charge of the boiler room and power plant. It is safe to assume that the average engineer, in the small industrial plant, has had little opportunity to study fuel economy.

Am I buying the most economic A1 grade of coal? Do I derive a maximum efficiency from my present equipment, or could I make alterations so as to improve on what I have? Am I utilizing my exhaust steam to the very best advantage? These are pertinent questions every manager should ask himself. If there is any doubt in his mind as to the answer, it will be well worth while for him to investigate.

Pigs is pigs, and coal is coal; is a shortsighted way of regarding your coal pile.

One may rest assured that in the plant, where power and coal conservation are neither known or respected, it is a certainty that many misuses are being made of live steam. With a little careful attention these could be avoided. Check this up with your engineer. Call his attention to the escaping exhaust, power that you have already paid for, and still with a "good kick" in it. There being numerous ways of utilizing this paid for energy.

To serve as a demonstration what, with a little detailed study, can be accomplished in the way of cutting down overhead expenses, the writer in February, 1921, took over the management of a large dairy plant. Previous to this date the plant was being operated as a milk condensary. Coal could be purchased for $4.05 per ton delivered. The engineer was a man of average capability. I was assured that the plant was running about 56 per cent efficient. Subsequent tests showed this to be only 47 per cent.

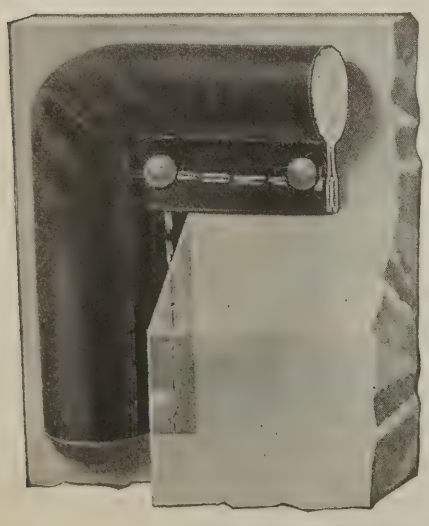
Preliminary to conducting any extensive tests and for the purpose of ascertaining just what economic improvements were advisable, several weeks were spent by the writer and engineer, in a detailed study of all equipment.

Here and there we found some machine operating with excessive pressure. Adjustments were made accordingly. A Foreman bottle washer, which was being used for washing dirty milk bottles by using boiling water and live steam, was connected up with the exhaust steam. The results being just as satisfactory. Three large 5,000 pound holding vats, surrounded with steam jackets, for heating and holding the milk at a temperature of 145 degrees for a period of thirty minutes, were using live steam for heating. The steam connections were broken and exhaust steam connections substituted. Throughout the plant we found many small leaks too numerous to record.

The results were indeed gratifying, the saving on the coal pile in a month's operation immediately perceptible. Instead of using approximately 230 tons of coal per month we dropped down to 185 tons. An actual saving of over $2,000 per annum, and this simply by cutting down on the small leaks and making the exhaust steam perform actual work.

Experiments were then conducted to ascertain if the proper kind of coal was being used, both as to quality necessary for our requirements, as well as to price.

After running tests on various kinds of coal it was found that screenings, which had passed through a 2 inch grizzley and cost $2.51 per ton delivered, gave excellent results. Attention must be called, however, to the fact that the boilers were neither being forced, nor did they have to maintain at any time, a pressure greater than 95 lbs. per square inch. The equipment of the boiler room consisting of six boilers of 150 horse power

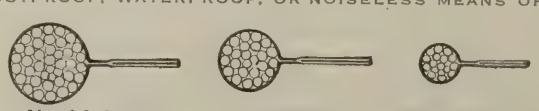


STOP COLD-AIR LEAKS WITH

WIRFS WATERPROOF "AIRTITE" CUSHION GASKET

FOR REFRIGERATORS AND COLD STORAGE DOORS, AIRTIGHT SECTIONAL COOLING ROOM AND REFRIGERATOR-JOINTS, RAILWAY COACHES, DWELLINGS AND ALL OTHER PURPOSES REQUIRING AIRTIGHT, DUSTPROOF, WATERPROOF, OR NOISELESS MEANS OF CLOSURE-CONTACTS

MADE IN 3 SIZES; (ANY LENGTH)



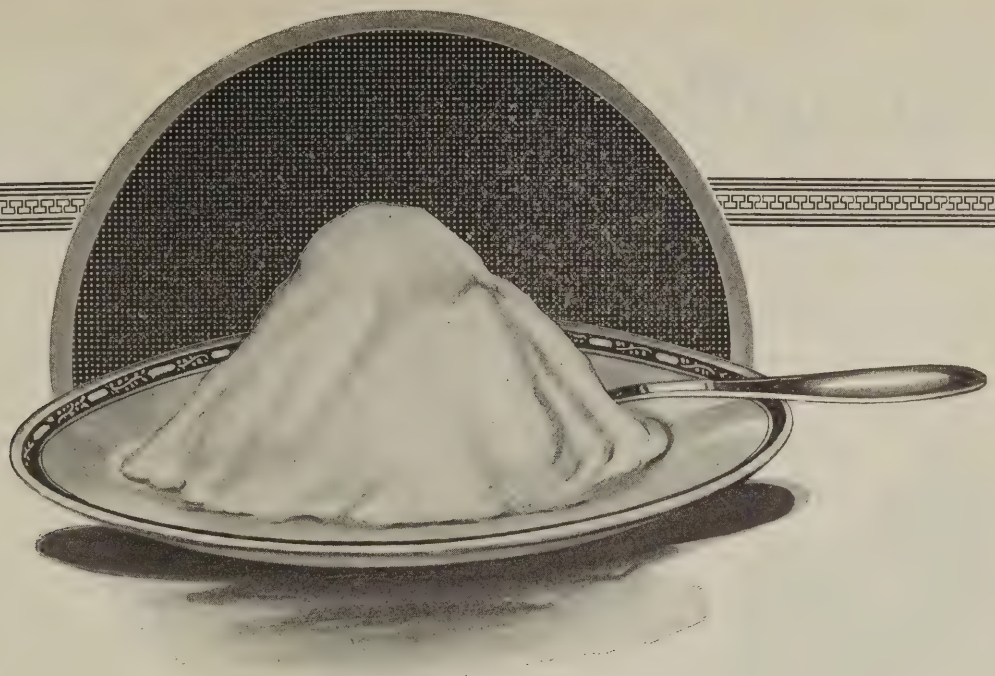
No. 1 LARGE No. 2 MEDIUM No. 3 SMALL

SIMPLY TACK ON— TURN THE CORNERS! (SEE CUT)

REGULARLY FURNISHED WITH BLACK RUBBERIZED CASING; CAN ALSO BE HAD WHITE RUBBERIZED CASING.

GET SAMPLES AND PRICES, STATING QUANTITY NEEDED.
WILL SAVE YOU MANY DOLLARS.

E. J. WIRFS 105 SO. 17TH ST., ST. LOUIS, MO.



The Flavor Is Retained

WHEN Hudson's Vanilla Flavored ice cream is consumed in the home, its delicate, delightful, pleasing aroma is still present in all its original strength and goodness. The flavor does not freeze out—nor has it changed any in degree. Its quality and strength are of a character which positively assures retention. This is a feature we watch and guard closely in making our flavors. Careful laboratory tests by expert, skilled chemists determine and establish the keeping qualities of every gallon which leaves our factory. Further, we absolutely guarantee this feature.

Ice cream manufacturers who have been using Hudson's Flavors regularly and continuously for years, implicitly bank on this "non-freeze-out" characteristic. It has never failed them. Send for sample keg of our Extract or sample gallon of our CONCENTRATED. Give same a fair trial. You will readily recognize its quality; use up the entire sample, reorder and purchase regularly thereafter nothing but Hudson's. That's usually the history of all our customers.

HUDSON'S FAMOUS ICE CREAM FLAVOR VANILLA AND TONKA BLEND No. 52 SPECIAL

$5.00 per Gallon . . . . . in Barrels
$5.50 per Gallon . . . . . in Kegs

HUDSON'S CONCENTRATED VANILLA AND TONKA BLEND No. 52 SPECIAL

Six times stronger than extract.

$25.00 per Gallon. Special prices in quantities.

SATISFACTION ABSOLUTELY GUARANTEED

The Hudson Manufacturing Company

[INCORPORATED]

GABE S. WEGENER, President

ESTABLISHED 1888

Vanilla Products

119-121 North Union Ave.

CHICAGO, U. S. A.

Branches at Dallas, Texas—Los Angeles, California

MEMBER

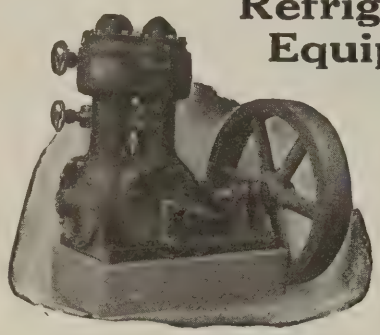
OUR ADVERTISERS ENDEAVOR TO GIVE CONSTANT COURTESY.

"Simplicity"

is a most essential requirement in a successful refrigerating system for Dairy Manufacturing plants.

Here is simplicity—

York
Refrigerating Equipment



is in a class by itself for simplicity.

Let us show you why. Write

WESTERLIN & CAMPBELL CO.
CHICAGO, ILLINOIS
J. G. HAMMERSCHLAG, *Wisconsin Manager*
1016 Majestic Building Milwaukee, Wisconsin

NOW IS THE TIME
TO BUY
FANCY
SWEET BUTTER

For Your PRESENT and FUTURE Requirements

We can supply your needs with quality and prices that are always right.

Before placing your order write, wire or phone us for prices and particulars.

THE W. A. BROWN BROKERAGE CO.
208 North Wells Street
CHICAGO, ILL.

LONG DISTANCE PHONE L. D. 45

each; of this battery, only two boilers being in operation at one time, and these fired by hand.

The cost of this slack for evaporating 1,000 lbs. of water from and at 212 degrees amounted to $.115, against a previous cost for the egg coal of $.178. At the same time the efficiency of boilers, including grate, (based on dry coal) only decreased 3%. These exceptionally good results could never have been obtained had the slack been of an inferior quality, as the following analysis will testify:

Moisture	7.85%
Volatile	39.10%
Fixed Carbon	40.72%
Ash	12.33%
Sulphur	3.13%
BTU Dry	12,558

The knowledge gained from conducting these tests actually saved the company a coal bill of $3,600 per annum.

Any superintendent or manager, who cares to devote a little study and application, is capable of running a fuel economy test. For the guidance of those, who have had no experience along these lines, the following simplified data will suffice. Be it understood, that while this is not a complete set of rules, still enough information will be obtained by following them to give some very interesting results.

For your calculations it will be necessary to secure a set of steam tables, and tables giving factors of evaporation. It will be necessary for the engineer to make suitable connections for weighing your boiler feed water, unless you desire to install a water meter.

In conclusion there are only three results you are interested in obtaining:

1. The cost of coal required for evaporating 1,000 lbs. of water from and at 212 degrees.
2. Water evaporated per pound of coal.
3. Efficiency of your boilers.

The first will vary greatly, depending upon the cost of coal delivered. The second, in good practice should run between 6.5 and 7.0 pounds. The third should never fall below 50%.

Rules for Conducting Boiler Tests.

Total Quantities.

1. Weight of coal as fired.....lbs.
2. Percentage of moisture in coal.....%
3. Total weight of dry coal fired (Item 1-Item 2)..lbs.
4. Total ash clinkers and refuse (dry).....lbs.
5. Total combustible burned (Item 3-Item 4).....lbs.
6. Per cent of ash in coal as fired.....%
7. Total weight of water fed to boilers.....lbs.
8. Factor of evaporation based on temperature of water entering boiler and gage pressure (consult tables) .....
9. Water actually evaporated (Item 7 × moisture in steam, which is usually between 2 and 4%).....lbs.
10. Total equivalent evaporation from and at 212 degrees (Item 9 × Item 8).....lbs.
11. Equivalent evaporation per hour from and at 212 degrees (Item 10 divided by time of duration of test) .....lbs.

Average Pressures.

12. Steam pressure gauge lbs. per square inch.....lbs.
13. Temperature of feed water entering boiler.....deg.

Horsepower.

14. Horsepower developed (Item 11 divided by 34.5).
15. Builders rated horsepower (on boilers).

KEYSTONE BRAND

Orange Pineapple

(the Original)

Make the most delicious, public-stirring ice cream you have ever sold. Wake up your business—give it new life with this remarkable flavor which was originated by Keystone and is being used everywhere by progressive ice cream makers.



Keystone Pineapple Specialties

ARE ALWAYS IN DEMAND—YOUR CHOICE OF

Grape Pineapple
Raspberry Pineapple
Maraschino Pineapple (red)
Mint Pineapple (green)
Lemon Pineapple
Crushed Pineapple

COLD PACKED PEACHES

A preparation consisting of true fruit only—ready for use in your ice creams.

Dept. IC-2

KEYSTONE FRUIT PRODUCTS CO.

CINCINNATI, OHIO

Economic Results.

16. Water apparently evaporated under actual conditions per lb. of coal as fired (Item 7 divided by Item 1).....lbs.
17. Equivalent evaporation from and at 212 per lb. of dry coal (Item 10 divided by Item 3).....lbs.

Cost of Evaporation.

18. Cost of coal per ton of 2,000 lbs. delivered.....$..
19. Cost of coal required for evaporating 1,000 lbs of water from and at 212 degrees (Item 10 × Item 18 divided by 2,000,000).....$..

⚜

A BRIGHT STAR REMOVED.

New York, July 12, 1922.

Editor Ice Cream Review:

It is with a deep feeling of sorrow and regret that we announce the loss of Mr. T. S. Maconkay, who, for several years, had charge of our department of editorial work and illustration. He passed away suddenly at 3:30 o'clock, Monday, July 10th, while writing copy at his desk in the office.

We desire to express to those of our business friends, who knew Mr. Maconkay, our estimation of his services and ability, which we feel have been recognized also by those whom he has served through us. Always conscientious and loyal, we sincerely appreciate the loss of a sincere friend and business associate.

Respectfully,
THE BURDICK-GARRISON CO., INC.,
Per H. C. Burdick, President.

⚜

You can't afford to miss a single copy of the "Ice Cream Review." Did you send in your renewal?



Boost Your Sales The Sanisco Way

Are You Prepared

for the big extra business that awaits the man with a Sanisco Ice Cream Sandwich Machine at Beaches-Fairs-Parks-Carnivals and like occasions?

We can make prompt deliveries
Write at once for circular and prices

SANISCO CO. MILWAUKEE WISCONSIN

B. B. SCOTT,
President,
care Scott Mfg. Co.
Providence, R. I.

Address all communications to
P. N. MILLER, Jr.,
Secretary,
2913 11th Avenue,
Birmingham, Ala.

NORTH REPEATING.

A couple of days ago a prominent "Flyer," one of the ex-officers of this peppy bunch, was stopping at a big Atlanta hotel. As he was enjoying the comfortable sense of well-being that follows a good dinner and a fat Perfecto, strolling through the lobby looking for a place to read the evening paper, he heard an excited voice, evidently belonging to an elderly woman, emanating from somewhere in the corridors, exclaim in a tone which indicated the height of huffiness, "I tell you, I won't have this room. I ain't going to pay my money for a place that isn't big enough to swing a cat, and, as for sleeping in one of them folding beds, I simply won't do it!"

The long-suffering boy she was addressing could stand it no longer.

"Get in mum," he said, in a weary voice. "This ain't your room, it's the elevator."



Tell us what you want, or what you have that you don't want, and we'll fix up a little Ad for you and insert it in the next issue of The Ice Cream Review. You just stay at home and wait for results. You'll soon have your hands full.

INFERIOR TO NONE

A HIGHLY CONCENTRATED VANILLA

Made of Mexican Beans and Fortified

Will Not Freeze or Cook Out.

THE IDEAL FLAVOR FOR CONFECTIONERY OR ICE CREAM

VAN-MUL

3 drams (10 cents) Flavors 100 lbs. Candy; ¼-oz. (5c) Flavors a 5½ Gal. mix of Ice Cream.

Can be made into an extract by adding warm water—1 pound making 2 gallons.

Price—Per Pound

1 pound Bottles.....$5.00
5 pound Bottles..... 4.50
6-5 pound Bottles..... 4.25
Special Contract Price Order Now

Guaranteed to please or money back

Downey-Turnquist & Co.

Soda Water Flavors True Extracts

27 W. Illinois Street Chicago, Ill.

INSPIRATION FOR SALESMEN.

The Little Black Hen.

Said the little red rooster, "Gosh all hemlock, things are tough!
Seems that worms are getting scarcer, and I cannot find enough.
What's become of all those fat ones is a mystery to me;
There were thousands through that rainy spell—but now, where can they be?"

The old black hen that heard him didn't grumble or complain—
She had gone through lots of dry spells, she had lived through floods of rain.
So she flew up on the grindstone, and she gave her claws a whet,
As she said, "I've never seen the time there weren't worms to get."

She picked a new and undug spot—the earth was hard and firm;
The little rooster jeered, "New ground—that's no place for a worm!"
The old black hen just spread her feet, she dug both fast and free—
"I must go to the worms," she said, "the worms won't come to me."

The rooster vainly spent his day, through habit, by the ways
Where fat round worms had passed in squads back in the rainy days.
When nightfall found him supperless, he growled, in accents rough,
"I'm hungry as a fowl can be—conditions sure are tough."

He turned, then, to the old black hen, and said, "It's worse with you,
For you're not only hungry, but you must be tired, too.
I rested while I watched for worms, so I feel pretty perk.
But how are you—without worms, too—and after all that work!"

The old black hen hopped to her perch and dropped her eyes to sleep,
And murmured, in a drowsy tone, "Young man, hear this and weep:
I'm full of worms, and happy, for I've dined both long and well;
The worms are there as always—**but I had to dig like hell.**"

Oh, here and there red roosters still are holding sales positions;
They cannot do much business now, because of poor conditions.
But soon as things get set again they'll sell a hundred firms—
Meanwhile, the old black hens are out and gobbling up the worms.

"DYNAMO."



DIXIE FLIERS.

Supper Time.

I like to eat in the morning,
I enjoy my snack at noon;
But the end of the day—oh, boy; I'll say,
Is the time for a fork and spoon.
For the meal I think's the winner
Is the subject of my rhyme—
The highbrows call it "dinner,"
But to me it's "supper time."

After a day's hard toiling
Outside in the cold and wet,
When the fall of night makes my appetite
As healthy as it can get,
Oh, the joy that comes to meet me
As I open my own nall door;
The heavenly smells that greet me,
Makes life worth while once more!

A king has a throne to sit on
While he nibbles his costly fare,
But I give him the laugh—he doesn't know half
Of the joy of my old armchair,
Where I sit as long as I'm able
In comfort that's half sublime,
With my legs stretched under the table
When it's good old supper time!

—The Milk Salesman.

COAT ESKIMO PIE

WITH

ALASKA CHOCOLATE COATING

A High Grade Milk Chocolate READY TO USE

Prepared especially for Coating Eskimo Pie and any other Ice Cream Delicacies

If you want to build up a lasting trade use ***this*** Chocolate Coating.

It eats right, Looks Better, Dips Easy, ***Coats*** more Bricks, costs less when quality is considered.—Contains ***more*** milk Solids, and more ***Pure Cocoa Butter.***

Made only by

Ambrosia
REG. U. S. PAT. OFF.
CHOCOLATE CO.

331-333-335-337 Fifth Street - - MILWAUKEE, WIS.

Write or Wire for a SAMPLE CASE of 110 Lbs.

USE

MEXOCINE

High Grade Concentrate

A Compound Bean Vanilla, Vanillin, Coumarin and Tonka Flavor

FOR ICE CREAM AND CONFECTIONS

Impossible to freeze out its true flavor
Forever dependable

Use ¼ oz. (or dessertspoonful) to flavor 10-gallon batch ice Cream.

Use ¼ oz. (or dessertspoonful) to flavor 100 pound batch candy.

Sample cheerfully sent on request

PRICES
Per Pint

1 pint	$7.00
5 pints	6.75
10 pints	6.50
25 pints	6.25
50 pints	6.00

TERMS: 2% 10 days, 30 days net.

REX EXTRACT COMPANY

257 Pacific Street Brooklyn, N. Y.

Order direct or through any of the following well-known firms:

J. G. CHERRY CO.....Cedar Rapids, Ia.
ENTERPRISE DAIRY & CRY. SUP. CO..Cincinnati, O.
CENTRAL OHIO SUPPLY CO.....Columbus, O.
DAIRYMEN'S MFG. & SUP. CO.....St. Louis. Mo.
E. B. GALLAGHER & CO.....Detroit, Mich.
W. L. KNORR CO.....Pittsburgh, Pa.
CHERRY-BASSETT-WINNER CO.....Baltimore, Md.
CHERRY-BASSETT-WINNER CO...Philadelphia, Pa.
N. A. KENNEDY SUPPLY CO.....Kansas City, Mo.
CHERRY-BASSETT-WINNER CO.....Pittsburgh, Pa.

THE RIGHT KIND OF COLD STORAGE DOORS FIGURE PROMINENTLY IN THE PLANT.



The "STAY-ON" is made right by men who know how, and have studied the requirements of the Ice Cream manufacturer and shipper.

Thats why the "Stay-On" today is the biggest seller, and enjoys the widest distribution.

Get the information from your jobbers' salesman or address below

Canvas Products Corporation
BOX 66
FOND DU LAC, WIS.

"STABILIZER" OR "FILLER."

By Benjamin Masurovsky, Graduate Assistant, Dairy Department, University of Nebraska.

There are several sound reasons for eliminating the term "filler" when speaking of an ice cream mix and its composition. To begin with, the only possible filler used in an ice cream mix is water, and whenever the mix is prepared without the addition of water no filler, whatsoever, is introduced into the ice cream mix. This can be made plainer if we consider the term "filler" as used in the preparation of mixtures of a different nature than ice cream mixes. In the case of a fertilizer mix, the filler which is either ordinary soil or peat is added in such quantities as is required to balance up the bulk. For example:: when a ton of fertilizer is to be prepared according to a given formula, say 2-8-6; i. e. a mixture containing 2 per cent nitrogen, 8 per cent phosphoric acid and 6 per cent potash and if the required chemical composition is fulfilled by 266 pounds of nitrate of soda; 1144 pounds of acid phosphate and 240 pounds of muriate of potash, making a total of 1650 pounds the remaining 350 pounds are placed as filler thus making up the required bulk of one ton.

Similarly, in preparing a certain feed mixture, finely chopped straw or other highly cellulose substance is used as a filler to insure the bulk without affecting the required percentage of protein, carbohydrates and fats.

In preparing tablets of a certain drug the term "filler" is applied to the substance used as a dilutent which enables the pharmacist to obtain the desired strength of drug expressed in percentage. For instance, in the case of aspirin tablets if they are to contain 20 per cent of the active drug, 80 per cent of corn starch or other similar inert dilutent is added as a filler.

In the preparation of an ice cream mix, however, the term "filler" is being displaced by a more appropriate term, viz., "stabilizer" because this additional material does not serve as a balance for bringing about the desired quantity of a given ice cream mix nor is it used as a dilutent but its addition is made primarily to improve or facilitate improvement of the ice cream mix by stabil-

A canvas pail for carrying ice cream is the product izing it. The "stabilizer" as used in ice cream making, functions as an agent by virtue of which a desired condition of the ice cream mix may be secured and maintained for a considerable length of time.

Bearing in mind the lact that ice cream is a dairy product, it is not appropriate to use the word "filler" for, in the case of milk and butter we object to the filled milk and butter, why tolerate the term "filler" in such a dairy product as ice cream. For this reason alone the term "filler" used indeterminably in connection with the preparation of the ice cream mix should be replaced by a more descriptive term, "stabilizer."



NEW PACKAGING MACHINE.

A new packaging machine is on the market making its bid for favor among ice cream manufacturers. It is the Valerius Carton Filler, manufactured and sold by the Davis-Watkins Dairymen's Mfg. Co., Chicago, Illinois. If interested write for details.



Does your business pay? If not, why keep it? Advertise it For Sale in The Ice Cream Review Want Department. Some one may be glad to buy it if they only knew it was for sale.

THE SECRETARY OF THE PACIFIC ICE CREAM MANUFACTURERS' ASSOCIATION PAYS HIS COMPLIMENTS TO "DR." McCANN.

Tacoma, Wash., July 13th, 1922.

Editor Ice Cream Review:

In the July issue of Physical Culture or Torture, which ever way you look at it, there is an article written by one A. W. McCann, who for years has posed as a self appointed authority on foods, drugs, cattle and about everything known.

This article, with the Editor's note, appears to us as about the last word in a line of vicious attacks on reputable manufacturers in the various articles used for human consumption. You no doubt have taken notice of this, and in our opinion it deserves the criticism of every man in the ice cream industry.

Another article appears in the New York Globe and Advertiser of June 1st written by the same man advising the "whole world", and the people of New York and New Jersey in particular, that at last a real ice cream is being made. He knows it is because he was called to build it, consequently he admits such a thing is possible and is made only by the Keystone Ice Cream Co. of Hoboken and little old "Ny Yawk."

It's about time the reputable manufacturers of the country were protected from attacks by this class of so-called writers who try to impress their ideas on the public. You can always get followers for any fool idea and to allow the impression to go out that all the men in the ice cream business are crooks feeding poison to the people does not sit well with us at least.

The Editor evidently believes the prattle this bird spills along these lines as he advises his readers of what happened to Quaker Oats and says, "There is a fortune for some man who will make pure ice cream and advertise it." In our humble opinion if the trash he foists on the public came anywhere near being as pure as the average ice cream product there would be nothing to worry about. They censor moving pictures, etc., why not try a little of it on the publishers of this class of destructive articles. Glance through the pages and see the ads for Prof. Bunk's "Book on Manhood and Marriage," "How to Change Your Complexion in Thirty Minutes," "What's the Matter with Your Prostate Gland," etc.

Believe you will agree that anyone who viciously attacks the Ice Cream industry of the U. S. is attempting to fill a big order. Will be glad to get your views. Possibly we are a little peevish about it, but when men work 365 days a year to build up a business we don't like to have such things happen.

Yours very truly,
BERT H. WALKER.

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TO COVER MORE TERRITORY.

Mr. R. F. Frary, the live-wire secretary of the Michigan Association of Creamery Owners and Managers, has been elected secretary of the Michigan Allied Dairy Association. He will carry these new honors and new duties as easily as an editor could take on an increase in his income. Congratulations are in order, both to Double Secretary Frary and the Michigan dairy interests.

⚜

"Think befo' you speak," said Uncle Eben; "but don't think too long, else you's gwine ter lose yoh turn."

* * *

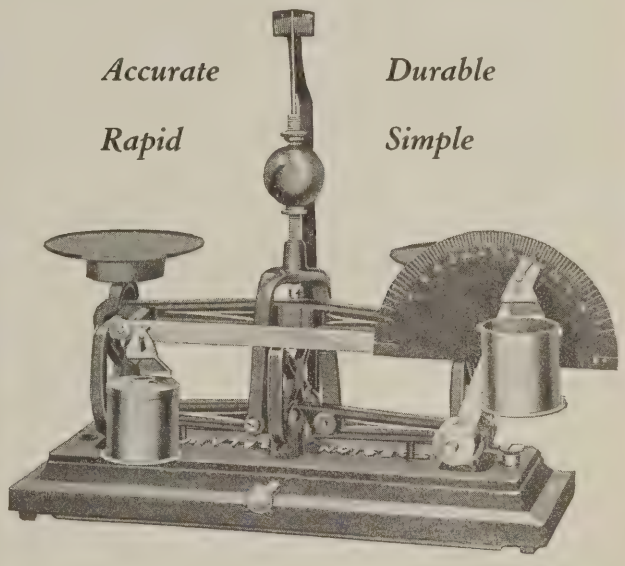
Courtesy is to business and society what oil is to machinery.

Ice Cream Overrun Scale

Eliminates Guesswork and Insures a Uniform Product

Accurate *Durable*

Rapid *Simple*



No. 4600

Graduated dial gives direct readings in percentage of overrun. Determinations speedily made and with great precision. No calculations necessary. No weights required. No cost to operate. No special skill required. Uses only about two oz. of frozen cream.

Designed at the suggestion of the U. S. Dept. of Agriculture. (Dairy Division) and supplied to U. S. Government and prominent ice cream plants for the rapid and accurate determination of overrun or inflation of ice cream.

Container on the left is filled with unfrozen mixture—container on the right with frozen ice cream; the dial pointer moved until scale balances. The percentage of overrun read directly from dial, reading from 0% to 140%.

The two 4 inch weight plates permit the scale to be used for the ordinary weighing of any commodity up to 2 lb. (1 kg.) when weights are used.

Price, complete with 3 containers.....**$50.00**

The Torsion Balance Co.

Main Office: 92 Reade Street, New York City

Factory:
147-153 Eight Street,
Jersey City, N. J.

Branch:
31 West Lake Street,
Chicago, Ill

Branch:
49 California Street
San Francisco, Cal

National Association of Ice Cream Manufacturers

Extract from Report of Proceedings of the Twenty-first Annual Convention Held in the Hotel Radisson, Minneapolis, Minn., October 10, 1921.

(Continued from July issue)

October 12, 1921, Morning Session.

The meeting convened at nine-ten o'clock A. M., President Martin presiding.

President Martin: Mr. Morris, will you report on that Tax Revision Committee?

Mr. Morris read the report of the Committee on Tax Revision as follows:

"Shortly after its appointment the Committee held a meeting in New York City and discussed the several taxation proposals which were then being given publicity. The Committee was of the opinion that we would be in a better position if we should watch tax proposals from the outside and be ready, if any proposals peculiarly harmful to our industry appeared, to oppose them, rather than to become conspicuous in a constantly shifting discussion of a semi-political nature where a prominent appearance might make us a target for attack in the shape of taxation. The Committee favored unqualifiedly the repeal of the excess profits taxes and of the special excise tax on soda and ice cream sales and favored in a general way the substitution of some form of general sales tax. At that time the question of the sales tax was being discussed from so many angles by economists and publicists that no member of the Committee was inclined to tie their attitude of general approval down strictly to any one of the many forms suggested.

"The Committee decided to adjourn subject to the call of the Chairman and to keep close watch from the outside over taxation measures. If the situation should at any time become acute, the Chairman was expected to call a meeting on short notice.

"Aside from the fact that the Committee members have kept in constant touch with the developments of Federal Taxation, there has been no further activity as a Committee."

President Martin: What is your pleasure with the report?

Mr. A. G. Hoefler (Buffalo): I moved it be received and filed.

The motion was seconded and carried.

President Martin: Mr. Nivling, you are on the Cost Accounting Committee. Have you anything to report?

Mr. Nivling read the report of the Committee on Cost Accounting as follows:

"Your Cost Accounting Committee was appointed in April of this year. On account of the close proximity to the summer season we were unable to hold any meetings, and in fact the Committee feel that their work can best be described as inactive.

"Such inquiries as are common regarding the Cost Accounting system have been answered, and many inquiries as to the Cost Accounting forms have been replied to with the suggestion that if the inquirer was not a member of the National Association they were advised to join, because they could secure the Cost Accounting forms at a nominal figure through the Secretary's office.

"In a recent issue of the United States Chamber of Commerce Bulletin on Cost Accounting is the following: 'Nothing in this world is perfect; some waste of time, or money, or material, occurs in every transaction. To discover the causes of waste; to point them out; and to contribute in every way possible toward reducing them is the aim of every accurate form of Cost Accounting.'

"It is almost inconceivable that any business, large or small, can be conducted well unless true costs are known. Each manufacturer should know WHAT is taking place WHILE it is taking place. This means that executives should have daily statements and records, also weekly and monthly statements and records, to compare with previous experiences in his own plant so that he knows promptly any increases in his costs. These figures should show him when some of his expenses are too high; they should enable him to determine any leaks which are occurring, and when his costs are increasing in a department he should see whether the selling prices of his product justify these increased costs.

"Your business is the most important thing in the world to you. If other business men find these facts necessary—that is, I mean, the facts relative to costs, should you not provide yourself with daily, weekly and monthly statements? Many of our manufacturers are doing this. All of our members should know what is occurring day by day in their business. By having these statements coming to your desk you can conduct your business in an intelligent manner. You will know what you are doing as compared with guessing, which you recognize as not business-like.

"The more exact; the more progressive; the more thorough your Cost Accounting records and statements are the more everyone will he helped, from and including the producer to the consumer.

"It is your Committee's thought that each one of our members should install every possible labor saving device that will keep him in touch with the details of his business. We urge each member to know his costs, and assist his competitor to know his. Enlightened competition is a benefit to both the producer and the consumer.

"The Federal Trade Commission in a letter to the United State Chamber of Commerce on this subject says: 'For a Trade Association to set up and induce the use by its members of a scientific and accurate plan of Cost Accounting is not only legal but highly beneficial to the individual members of the Association.'

"The United States Chamber of Commerce also urges Trade Associations to develop such systems for the benefit of members.

"How far our members are using Cost Accounting systems your Committee is unable to determine, but it is fair to assume that all the larger manufacturers have adopted Cost Accounting systems. The sale of Cost Accounting forms as adopted by this Association has been very gratifying, and it is hoped that members have not only purchased these forms but are using them."

President Martin: Mr. Nivling tried to hold an alibi that his Committee wasn't appointed until Spring. They did a lot of work after they were appointed, however, and I want to say to those who are not familiar with the matter, that the Cost Accounting Committee has perfected a very complete form of records of uniform accounting. Those forms can be secured through the Secretary's office at any time. What are they a set?

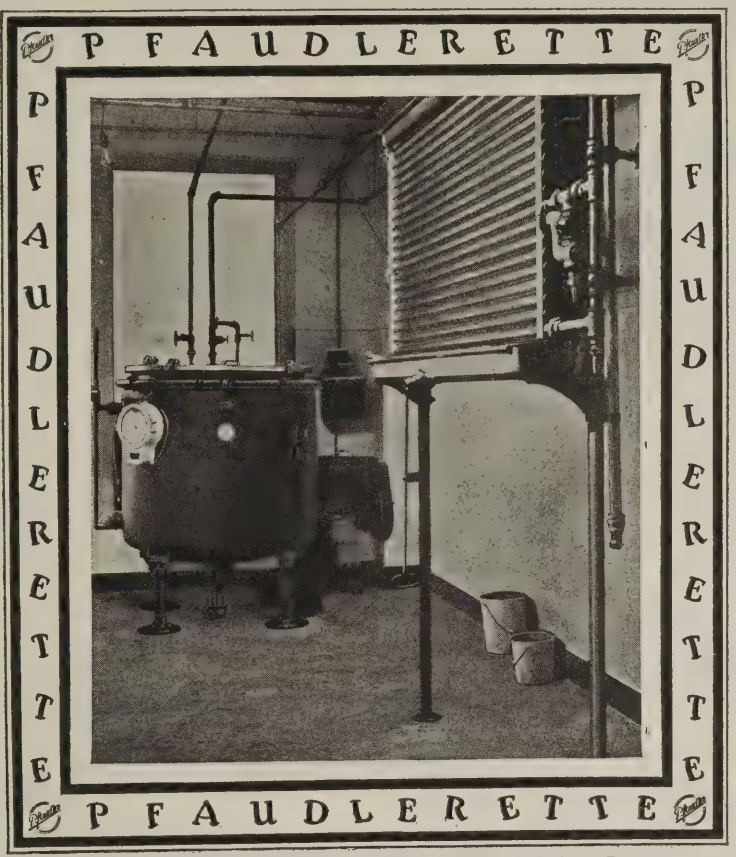
Secretary Loewenstein: Three dollars and fifty cents. That is the cost of the forms.

President Martin: If there are any who have not availed themselves of that opportunity they should take advantage of it, because it is a splendid thing and you will be benefiting very materially by doing it.

(Continued on page 78)

Prosperity follows the dairy cow.

Be sure you attend the National Dairy Exposition, October 7th - 14th, St. Paul - Minneapolis. Our booths Nos. 99, 100, 101.



Pfaudlerette, Milk Pasteurizer, Sibley, Lindsay & Curr Co., Rochester N. Y.—Handling about 125 gallons daily.

Prosperity also follows users of Pfaudler Equipment

Read below how Mr. Baker tripled the output of his plant through the use of the Pfaudlerette.

TRIPLES FORMER CAPACITY

Sibley, Lindsay and Curr Co., is one of Rochester's largest department stores. In conjunction with the store are operated a restaurant, bakery, and cafeteria. Mr. Baker is the man in charge of the dairy supplying milk to these three outlets, handling about 125 gallons daily. Let him tell you what the Pfaudlerette has done for his business:

"We have been using your Pfaudlerette for some time. In fairness to you we must state that the results far exceeded our expectations. *The flavor of our milk has been greatly improved and we are at present selling triple our former capacity, which fact I can attribute only to the improved flavor and quality in our pasteurized milk.* The glass lined tank is certainly valuable in this respect. We can heat in fifteen minutes, and our bacterial counts, from ordinary holding periods are exceedingly low."

SIBLEY, LINDSAY & CURR CO.
Per E. C. Baker, Mgr.

There is really only one sure way of increasing your business, and that is by improving the quality of the products you sell. The Pfaudlerette will do this for you. Mail the coupon for free explanatory booklet.

THE PFAUDLER CO., 217 Cutler Bldg., Rochester, N. Y.
Gentlemen: Send me, without obligation, your booklet, "The Story of the Pfaudlerette." I am interested in the Pfaudlerette for use as—

Pfaudler

☐ Ice Cream Batch Mixer-Pasteurizer.
☐ Ice Cream Aging Tank.

Name.....
Address.....
Date..... I.C.R.-8-22

What is your pleasure with the report of this Committee?

Mr. Horn: I move it be received and filed.

The motion was seconded and carried.

President Martin: Our next number is "The Express Situation," by Mr. F. D. Jones, of Davies and Jones, Washington D. C.

* * *

The Express Situation by F. D. Jones.

Mr. Chairman, Ladies and Gentlemen: I can see that you are endeavoring to crowd your program through this forenoon, so I will cut my speech just as much as I possibly can and still get the facts to you.

The tremendous increase in transportation rates during the past two or three years have tremendously emphasized the importance of transportation as an element in cost. Manufacturers have come to realize that, even though their competitor gets the same rate, an excessive rate can very seriously curtail business, and the public has learned that practical increases in freight rates are naturally passed on to the consumer.

The far greater importance of freight rates and passenger rates so far as the economic and social welfare of the country is concerned has focused the attention of the entire nation upon them and unfortunately in this situation the express situation has been almost entirely ignored so far as the general public is concerned.

Back in 1918 when the railroads went under the control of the Director General of Railroads, the Director General refused to make contracts with the four big express companies, rather to approve the contracts they then had with the railroads. He stated to the express companies, that, if they would consolidate into one company and thereby secure the many economies of unification, he would enter into a contract with them.

As a result the four great express companies—there were really seven, counting the subsidiary companies—merged into the American Railway Express Company with a capitalization of about $34,500,000. The Director General then entered into contract with them. At the time of expiration of federal control the express companies procured the insertion in the Transportation Act of 1920 of a provision authorizing the Interstate Commerce Commission to approve and authorize the permanent consolidation of the express companies, i they felt this would result in economy of operation an would not unduly restrain competition. The Interstat Commerce Commission in 1920 authorized this perman ent consolidation into the one company. As you wel know, while the unification of the express companie may have resulted in substantial economies (the expres companies themselves claim that the unification resulte in economies of approximately $13,000,000 per annum yet, because of war and other conditions, there was a almost complete breakdown in the express service. Th Government was using for war purposes a considerabl part of the equipment which is naturally used for ex press shipments. The personnel of the express company was broken down, both through the higher wages offere in war industries and because of the draft. These an other conditions brought about a complete breakdow in express service.

Typifying that situation, the loss and damage claim of the express company jumped from approximately $3,000,000 in 1915 to over $22,000,000 in 1918. That $22, 000,000 represented about nine per cent of the entir express charges. This situation developed until the ex press company was faced with very grave losess an in 1920 they filed a complaint before the Interstate Com merce Commission asking for a twenty-five per cent in crease in rates. This Association opposed that increase feeling that it was unfair to expect the express shippe to bear the entire loss of the inefficincy of the carrier regardless of what was the cause of that inefficiency and, secondly, because we felt it was grossly unfair t expect the ice cream industry to pay the burden of th terrifically heavy loss and damage claims which resulte from the movement of commodities such as milk, etc. when the loss and damage claims in the ice cream industry were relatively insignificant.

As you know, in cooperation with the various othe associations, we succeeded in holding down that increase to 12.5 per cent. Immediately thereafter the War Labo Board, by two decisions, increased the wages of the express company's employes sixteen cents per hour, forcing upon the company increased costs of about $30,000, 000 per annum, and it forthwith filed with the Commission a complaint asking for a further increase. The Association felt it could not consistently oppose an increas to cover that item and a further increase of 13.5 per cent was granted by the Commission. At the same time the company filed its complaint for a twenty-five per cent increase. It also filed a petition asking for a number of amendments to the official express classification. Two of those amendments were of extreme importance to the ice cream industry. The first increased the estimated weight of ice cream from 100 pounds to 115 pounds and the second increased the weight on the return of empties from sixteen to twenty cents on five gallon containers and from twenty-seven cents to thirty-five cents on containers over five gallons. We also opposed those changes very vigorously, hearings, as you gentlemen probably know, being held all over the country. We succeeded in defeating the increase in the rate on return of empties but were unsuccessful in our attempt to hold down the estimated weight.

Then in the summer of 1920 the express company and the American Association of Railway Executives submitted to the Interstate Commerce Commission a form of contract to supplant the contract which had expired between the railroads and the express company. This contract was finally entered into, provided that out of all revenues received the express company should first pay all its operating expenses; then out of the remainder, two and one-half per cent, which was supposed to guarantee the express company a minimum of six per

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cent on the total valuation of its property used in the express business should be reserved to the express company, balance to go to the railroads. This as you see is sort of a cost plus contract. Previous to that time the revenues had been split fifty-fifty between the express companies and the carrier. The results of this contract have not been entirely satisfactory to the railroads. The best information I can get is that the Eastern railroads who used to receive fifty per cent are now receiving only twenty-seven per cent of the revenue, while the mid-western carriers are receiving about forty and the Mountain Pacific carriers are receiving fifty-three per cent, which is better than ever. The reason assigned for the losses being forced upon the railroads is that the business in the Eastern manufacturing districts is so heavily short haul business and the terminal expenses are so high as to make the operating expenses of the express company very high, and consequently, the railroads are not receiving a satisfactory return, they claim.

On top of that, several months ago an Eastern manufacturer of a patented refrigerator container filed complaint with the Commission that his company was being unduly prejudiced by the estimated weight granted on ice cream moving in the regular tub containers. In view of the fact that the hearings had been held all over the country and the 115 pound weight had been just established by the Commission, the officers of the Association naturally felt that there was not the slightest danger of the 115 weight being increased. Under the new Transportation Act of 1920, however, the Commission has the power not only to fix the maximum beyond which a rate shall not go, but also to prescribe minimums, and on a very incomplete record the examine in this case held that there was an undue prejudic and that it should be removed by increasing the weigh on the regular tub containers to 140 pounds whic would have represented actual weight and practicall effect a rate increase of about thirty pounds. Despit the fact that the examiner's report had already bee entered, after some work the Association succeede in intervening in that case and after filing briefs an arguments and so on, we won. That case has done tw things of great importance to the ice cream industry First, of course, it saved the industry from a possibl thirty per cent increase in rates. Secondly, it established the principle that a patented dry refrigerator containe was entitled to a deduction of twenty-five per cent fro its gross weight because of the refrigeration; and i some practical dry container is invented, or there is on now in existence, that promises to be of tremendou importance to the industry in the future so far as sav ing of transportation costs are concerned.

That covers what has happened in the past two years in the express situation. They have forced upon the industry a rate increase of approximately forty per cent The Association, on the other hand, has successfully combated and defeated proposed increases of approximately fifty per cent.

Now with reference to the present situation: You have no doubt noted throughout the country that there is an insistent demand for the reduction of freight rates. All the shippers' organizations that move their commodities by freight have organized, and particularly through the National Industrial Traffic League, and have put great pressure to bear upon the carriers to reduce rates as a prerequisite of the re-establishment of some industrial condition. The attitude of the carriers up to the past several weeks has been bitterly hostile to any reduction. The attitude of the Interstate Commerce Commission, under the leadership of Chairman Clark, who is the author of the Transportation Act, in the main, of 1920, seemed to be also hostile to any substantial reduction. I saw at least one letter of Chairman Clark in which he resented very bitterly any suggestion on the part of the President or the Secretary of Commerce that rates should be reduced, stating that the Commission was an entirely independent body, responsible only to Congress. President Harding, however, evidently did not feel exactly that way about it and about six or eight weeks ago called upon the Commission in person, suggesting that as he had the power to make suggestions and recommendations to Congress, he assumed it was entirely proper for him also to make recommendations to the Interstate Commerce Commission.

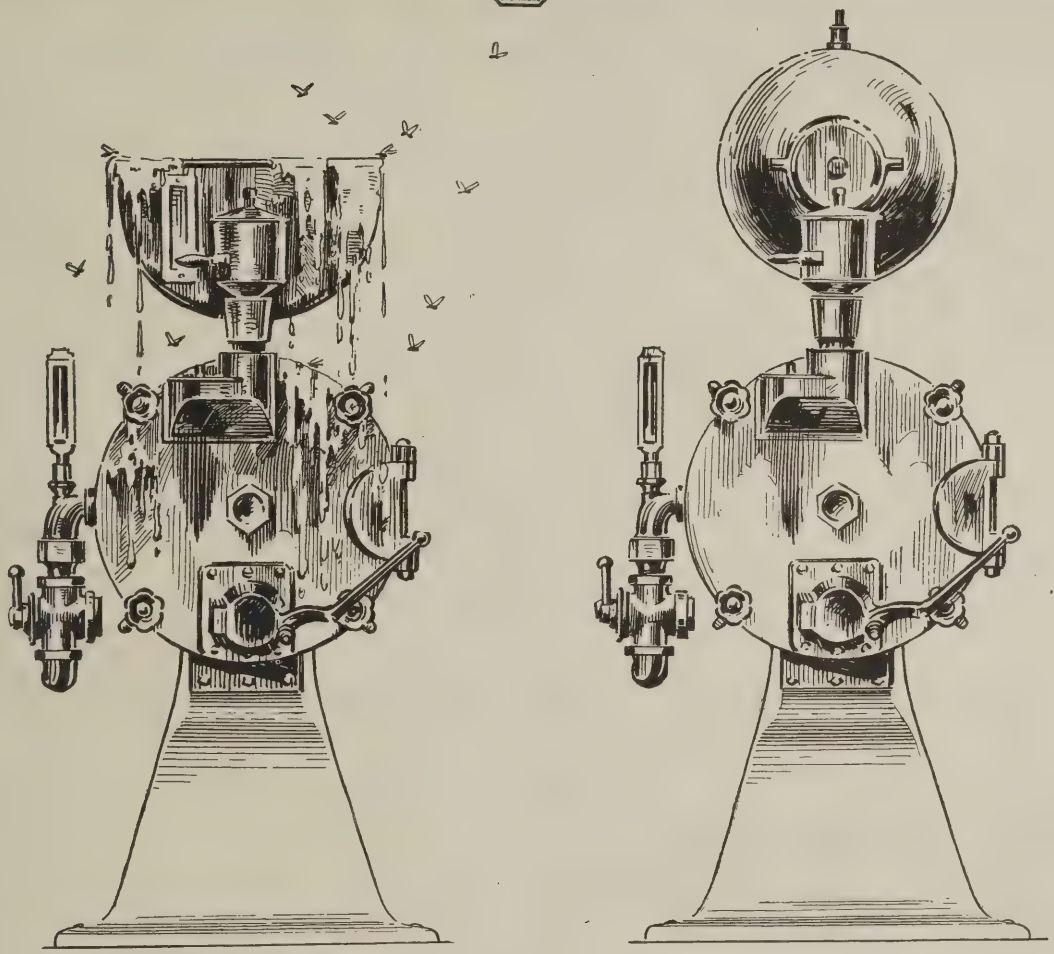
The action of the President, combined with the insistence of shippers' organizations all over the country, has brought about a great change in the situation. Chairman Clark of the Interstate Commerce Commission has also resigned and it is the uniform belief among newspaper men in Washington who are very closely in touch with the situation that there is going to be a substantial reduction in freight rates in the immediate future.

I wrote the express company a week or two ago merely to get their attitude with reference to a reduction in express rates. It seems to me that every reason which applis for the reduction of a freight rate applies with equal force to the reduction of an express rate to industries such as ours which are largely dependent upon express for the distribution of the commodity. I received this letter, however, from Mr. Elliott, the Vice-President. I will just read the pertinent paragraph.

"There is a general feeling among shippers of all

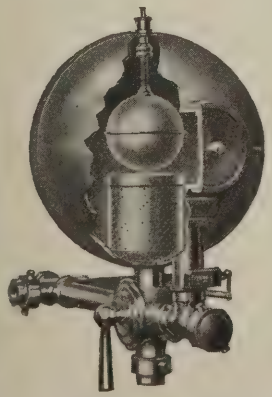


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kinds of commodities that there should be a reduction in transportation charges and we learn that many shippers' associations have been looking for the express company to make some reduction in rates. It is quite impossible to give any consideration to reducing the rate on any commodity by express at this time, because the very high wage paid to employes under orders of the Federal Labor Board has so greatly reduced the amount of the transportation charges actually accruing to the railroad that there is not sufficient left to pay the actual cost of moving express trains.

"It is not unlikely that the railroads will demand a greater revenue from the transportation of express traffic in order to more nearly meet the cost of moving the business.

"I trust that under these circumstances you may conclude that the time is not opportune for asking a reduction in rates on ice cream."

I do not entirely agree with Mr. Elliott's letter. There are some very sound reasons, entirely aside from the general depressed industrial conditions, which are causing the railroad carriers to reduce rates and which should move the express company to reduce rates. In the first place, the express rate increase of 13.5 per cent was granted solely to meet the increase of sixteen cents per hour granted by the War Labor Board on express company employes' wages. Effective August 1st of this year, the War Labor Board reduced the wages of the employes six cents per hour, which meant a reduction of about $8,000,000 a year to the express company, and on the basis of increase granted would of itself warrant us to at least three and a half per cent rate decrease.

Then on top of that there has been a tremendous reduction in loss and damage claims. The situation ran up to $22,000,000 was simply inexcusable on the part of the express company and resulted from the elimination on their part of any check-up system. They have now reduced these loss and damage claims so that in prevailing in 1918, when the loss and damage claims June of this year the reduction over June of last year was sixty-five per cent. In other words, the total number of claims was reduced from over 160,000 to a little less than 60,000. It would seem to me that, where the loss and damage claims under abnormal conditions represented nine per cent of the cost or nine per cent of the total express revenue, when they reduced thier loss and damage claims to such a great extent they would be in a position to reduce their charges for transportation in some substantial way.

Furthermore, there is no doubt in the world that the material cost, the cost for automobiles, equipment, etc., of the express company has been greatly reduced over what it was two years ago. The railroads are asserted to have reduced their costs of operation by robbing express cars on regular. scheduled passenger trains Two Eastern railroads have each claimed that they have saved $2,000,000 each per annum by that one thing.

In addition it seems to me that the capitalization of the express company would warrant very careful investigation. The determination of what should be the captilization of the consolidated express company was arrived at merely as a matter of trade with the Director General and no valuation was ever fixed by the government, and the result is that we may be paying express rates which are in the long run based back upon the capitalization of the company when that captilization is considerably over inflated.

Then there is another factor from a purely transportation standpoint which would warrant a consideration of reductions, and that is the growing competition of trucks.

Now, merely to summarize the situation and then I shall have finished. As a result of these past several years, the ice cream industry and every other industry shipping by express is faced with an absolute monoply of express transportation. That would naturally tend ultimately toward deteriorated service, higher costs and so on, but I think from what I can gather that it must fairly be said that the express company the past year has been making earnest efforts to improve its service and has made improvements which have been substantial. They are arranging to extend the time for the filing of loss and damage claims to six months. They have been holding conferences among their employes all over the country to train them into a knowledge of tariffs, proper treatment of patrons, etc. They have been holding conferences of their motor equipment people with the idea of eliminating unnecessary waste in the handling of the motor service, which is the most expensive part of the express service. They have tremendously reduced the loss and damage claims. They are installing what is rported to be very efficient motor and trailer service in the large cities, such as Chicago, for their transfer business, and as I understand it, though I have no facts on this, their pick-up and delivery service has improved.

Then, secondly, we are faced with this express company contract which is in practical effect a cost plus contract, and which holds all the dangers that a cost plus contract has in the way of inflated cost, and unless this situation is very carefully watched it will tend to increase or maintain a high level of express rates.

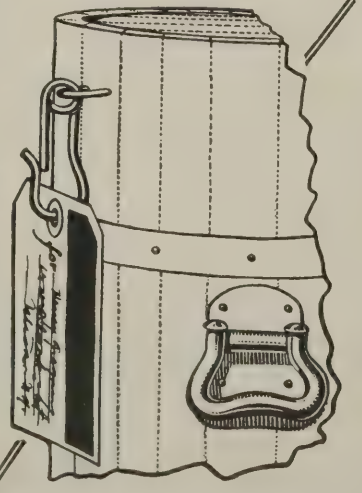
Then, third, this industry is faced with an abnormally high level of rates—forty per cent increase in the past two years. In the face of reduced labor costs to the express company, reduced material cost, greatly re-

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duced loss and damage cost, and the other factors which I have mentioned, it would seem to me that would warrant a reduction.

Then, finally, I think this Association should consider whether it is practicable to work out a limitation which might be imposed upon the class of commodities which can move by express. Just several months ago the express company was advertising the fact that it had successfully moved elephants by express, which seems to me going far beyond the proper function of an express company.

Now a good many of the other industries are taking this matter up with the express company and advise me they are intending to file complaint before the Commission if they cannot get results from the express company. The attorney for the packing industry has been in touch with me several times in the past two or three months, and various other industries are equally interested.

To conclude, it seems to me that there is not a single reason which would apply to the reduction of passenger and freight rates, particularly freight rates, which would not apply to the reduction of express rates, and there are many additional reasons which argue for the reduction of express rates. Moreover, the express company is in a vastly different position than it was a year ago or two. The express company has been declaring dividends for the past four quarters at the rate of six per cent, even under the present depressed financial conditions. The one rate increase in August, 1920, jumped the revenues of the express company $8,000,000 in a single month, and I am sure that there cannot be the slightest doubt that as soon as there is any substantial revival of business on the present rates the express company will be receiving an excessive rate and receiving an excessive return on its capital investment.

Thank you.

President Martin: I am sure we have all enjoyed the message brought to us by Mr. Jones and I want to extend to him the thanks of our Association for the information he has conveyed to us.

In regard to this express situation, I have had considerable to do with express companies in the past and have some knowledge of their business. Mr. Elliott, the Vice-President of the American Railway Express has been a personal friend of mine for thirty years or more, and as I said in my message on Monday, I feel that we can accomplish something by going to Mr. Elliott with a strong committee, after we have compiled accurate data for him showing the loss that we have had in our shipping business, due to the excessive express rates. I feel that he is enough of a business man to see daylight and grant us some relief, and we certainly need it.

Our Secretary wants to call your attention to a ruling of the Interstate Commerce Commission which might affect our industry.

Secretary Loewenstein: Sometime ago the American Railway Express Company petitioned the Interstate Commerce Commission for an increase in the estimated billing weights of kale, lettuce and spinach from Southern points shipped with ice as a preservative. The matter was finally decided by the Interstate Commerce Commission on May 14th. It appears that the billing weight of a bushel of spinach, dried or with ice, was twenty pounds. The express companies petitioned to have the estimated weights advanced so that a three bushel barrel, which was being shipped at sixty pounds, could be raised to ninety-five pounds; a four bushel barrel from eighty pounds to 125 pounds; and a five bushel barrel, or four and one-half, from ninety pounds to 140 pounds.

From the record it appears that the average weight was thirty-three pounds for a bushel of spinach. The Commission decided in that case as follows:

"Estimated weights are commonly used for the conveniences of both the shipper and the carrier, and they should preferably bear some close relation to the actual weights. While the weights proposed are more nearly in harmony with the actual weights than those now maintained, the latter have been in effect since the inception of the industry and the rates have been made with rlation hereto. In a case of this kind, where the practical and only effect of the proposed increases in estimated weights would be a substantial increase in transportation charges, the respondent should show not only that the proposed estimated weights are not excessive, but also that the application of the existing rates to such estimated weights will not result in unreasonable transportation charges to the shipper. This has not been done. We accordingly find that the proposed increase have not been justified, and an order will be entered requiring the cancellation of the suspended schedules."

Now there is a case that bears a very close relationship to the shipment of ice cream by express under estimated billing weight where ice is used as a preservative. The Interstate Commerce Commission you will notice states that the rates have been in effect, since the inception of the industry, which is true on the hundred pound estimated weight of five gallons of ice cream, and the increase in the estimated weights would be equivalent to an advance in the transportation charges. That was also true when the advance in the billing weight was made from 100 to 115 pounds. It did increase the transportation charges on ice cream shipments. They furthermore state that inasmuch as those estimated weights would result in an unreasonable transportation



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charge to the shipper, they should not be allowed. Now, from the records in that case, the Western Weighing and Inspection Bureau found that the average weight of a bushel of spinach shipped with ice was thirty-three pounds, and the express company asked that the billing weight be increased from twenty pounds to twenty-five pounds, an advance of twenty-five per cent. Now then they ask for an advance of fifteen per cent on ice cream shipments.

The actual weight of spinach is thirty-three pounds to the bushel, as against an estimated weight of twenty pounds to a bushel. The billing weight of a hundred pounds of spinach would be five bushels of spinach. That would be an actual shipment weight, according to these estimates, of five times thirty-three pounds, or 165 pounds. The records showed, in the cases at Washington which Mr. Jones handled, that the average weight of a five gallon packer of ice cream shipped by express, in which ice was used as a preservative, was 144 and one half pounds. Therefore, the Commission found that 165 pounds of spinach could be shipped for 100 pounds but 144 pounds of ice cream couldn't be shipped at a hundred pounds but should be billed on a basis of 115 pounds. I have had the matter up with Mr. Jones before and I merely mention these facts to create some discussion in regard to the matter. It is very serious to the ice cream manufacturers. Any number of them with whom I have talked tell me that their shipping business has been practically ruined.

I was present at the rate case that came up here in Minnesota and the evidence of every one of the ice cream manufacturers was that their shipping business had been cut down in some instances to as low as twenty-five per cent. They were selling their ice cream at a lower figure, so that it wasn't the price of ice cream which was the factor, but it must have been the excessive transportation charges. It was shown in the record that locally their ice cream was being sold at the same or a higher price than it was bringing in the country, and their business had increased in the cities, where they were doing a local business with no transportation charges added, whereas in the country their business was absolutely gone.

I think this is something that the Association should take recognition of, and should take some action. It is possible, Mr. Jones, in view of the decision of the Interstate Commerce Commission in the kale and spinach case, which seems to bear a very close relationship to the ice cream case, and in view of the ruling of the Commission, that there might be some prospects of re-opening the classification case.

President Martin: The Secretary has shown some additional light in reference to this spinach case and I am sure that we can accomplish something through the express companies.

We will now hear from Mr. M. D. Munn.

* * *

The Relation of the National Dairy Council to the Ice Cream Industry, by M. D. Munn.

The title assigned to me on the program is rather accurately descriptive, "The Relation of the National Dairy Council to the Ice Cream Industry." The real thing in my mind is, what is the relation of the ice cream industry to the National Dairy Council? I think you men haven't yet realized what your branch of the industry is, and I want to talk about that for two or three minutes.

Do you know what your business amounted to in this country, if the government figures are correct, during 1920? There were 260,000,000 gallons of ice cream consumed. I think that is low, unquestionably, but taking those figures as an illustration, 260,000,000 gallons of ice cream would be about 1,350,000,000 pounds of ice cream; assuming that machine run was five pounds to the gallon and batch run around six pounds to the gallon, dividing it would be about 1,050,000,000 pounds, or a little over ten and a quarter quarts per capita. One quart of ice cream will make about six medium sized plates of ice cream. That is, there was consumed during 1920, on the basis I have stated, about sixty medium dishes of ice cream per capita, or the people of this country had ice cream sixty days or two months out of the twelve months and there were ten months that they didn't have a taste of ice cream.

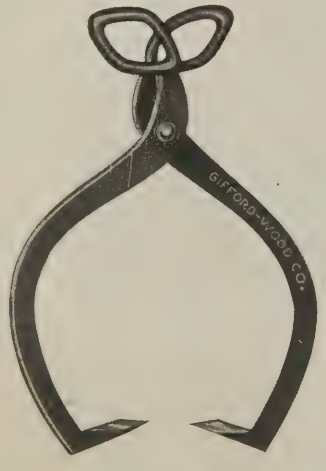
If your ice cream production ran up to 325,000,000 gallons, it would increase that amount fifteen days, or two and a half months, that they had one dish of ice cream a day and nine months and a half they didn't have a taste of ice cream.

There is no branch of this industry that has a greater opportunity to build itself than your branch. Are you doing what you should do to build your business and serve humanity?

Now the National Dairy Council is an organization through which you ought to be working. We spent last year out of the funds of the National Dairy Council upward of $18,000 in advocating ice cream as a food. We received in support from the ice cream industry less than one-third of that, and that entire support came from a few ice cream manufacturers in the city of Chicago and the state of Illinois.

Now you may say it is the fault of the National Dairy Council. Consider that it is part our fault. It is also your fault. The ice cream dealers of Illinois put on a remarkable exhibition down at Springfield last fall, we cooperating with them. The ice cream dealers of Chicago had a very fine display at the Pageant of Progress

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are constructed along scientific and practical lines to conserve ice and salt supplies and keep the ice cream in perfect condition until sold. The manufacturers have devoted thirty years of study and experiment toward the building of the best possible ice cream cabinets for the manufacturing trade. Each particular make of cabinet of the Nelson line is sold with a guarantee and on a plan of "You Must Be Satisfied."



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THE ASSOCIATION OF ICE CREAM SUPPLY MEN — MEMBER



Three Compartment Cabinet



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in Chicago, we cooperating with them in some work, but that is the extent of the work done, excepting what we put out in our publicity with some publicity of this character.

I think I have consumed my fifteen minutes now. Dr. McCollum is here and I want to have him talk to you just a few moments. He will speak in the interest of dairy industry. In the meantime, I thank you for this gracious attention.

President Martin: Mr. Gardiner, who is Chairman of the Research Committee, has a report to make and it may have something to do with what Dr. McCollum is going to talk about.

Mr. Gardiner: Mr. Chairman and Gentlemen, this report is very brief. I will be ready to answer any questions as you may want different facts brought out clearer.

Your Committee on Research Laboratory begs to report as follows:

That a joint conference with a like committee of the International Milk Dealers was held in Washington, Feb. 24, 1921. The need and desirability of research work for our further information and for the benefit of the public was manifest to all present. A report of this meeting has been filed with your Secretary and sent out as a bulletin to your members.

A second joint conference was called for October 11, 1921, in order that a complete report might be prepared for your convention and for the coming convention of International Milk Dealers. Briefly the work of this conference has resulted as follows:

The name to be "American Dairy Research Institute."

That simple office requirements only are necessary.

That a director of the highest scientific attainments be selected.

That a Committee representing our Association by three members and the International Milk Dealers Association by three members would, with the director, take charge of the Institute.

That the three prime objects to be attained would be as follows:

1. A library of all dairy literature, including, of course, ice cream. We question whether the dairy literature of the world has ever been assembled. It must be a great mass when you figure all the publications concerning dairy matters in this country, and probably none of that of Switzerland, England, Germany, Holland, Denmark and probably Sweden has been collected, indexed, read by a scientific mind and made available for the industry. The importance is manifest.

2. Research work on commercial or plant problems. There are many matters that we in our own plants cannot work out and if we did they would fail to get the general publication necessary so that others might be benefited, and, again, a problem worked out and handled in a single, private plant might be discounted by other manufacturers for selfish or other reasons.

3. Fundamental research work on matters relating to public health conducted absolutely free from any possible taint of commercialism. I think Dr. McCollum or any scientific man would soon put you wise to so many of these problems that they could almost at once tell you, and your own judgment would show you, that the sum of money we are naming is not going to be large enough to accomplish anything like the results we wish.

Research work would be prosecuted through those scientific institutions best fitted and by scientists considered best acquainted with the subject matter of the research.

Instead of having large property, your own laboratory, and things of that kind, matters of fundamental research work would be worked out in those institutions of scientific learning where the very best results could be found and whose word would be generally accepted by all the scientists in the country.

The funds necessary should be $50,000.00 a year guaranteed for a period of five years; the two associations each taking their share of this budget.

We have not any thought of engaging a director from his avocation for a limited period. It should be at least a five year story and you could hardly be going strong before the end of the fifth year.

The manner of raising funds has not yet been fully determined and cannot be until passed upon by the proper body of the International Milk Dealers' Association. It may be by a small fraction of a cent per gallon with a sufficient gallonage to raise the necessary amount, or it may be by a straight and direct payment from the treasuries of the two associations.

It is to be regretted that this matter is not today in concrete form for action by this Convention and we respectfully suggest that if agreeable to the Convention, this matter be referred to the Executive Committee of the National Association of Ice Cream Manufacturers.

Now, gentlemen, this matter is one of the great things before this body. It is one of those things which when you approach it you must drop the little commercial idea, you must get on a broader, higher plane, you must realize that you have duties to yourselves, of course, but you also have a duty to your people. That is greater than almost any duty to yourself.

President Martin: I am sure that many of you do not appreciate the work that the Committee on Research Laboratory has done in the interest of our Association. Mr. Gardiner has been untiring in his efforts as Chairman of that Committee.

Mr. Gardiner: I move you, sir, that the report of this Committee be referred to the Executive Committee.

The motion was seconded and carried.

President Martin: I asked Mr. Gardiner to report at this time for I thought it would be well for Dr. McCollum to know that we are striving to do something that is really worth while for our industry, and I would like to ask you, Doctor, if you can give us any suggestions in regard to this work.

Dr. McCollum: I appreciate the opportunity to say a few words on that question. I am very much pleased with Mr. Gardiner's report; it has the right ring to it.

Now I would say that you have available the machinery for getting just the kind of research you want. During the war there was established in Washington, as most of you know, a National Research Council and this National Research Council is still in existence. There are a good many men, scientific men, who have a feeling that that institution was well worth trying to keep alive in peace-time. So many of them believed that and so cogent were their arguments that the Carnegie Foundation gave them a considerable sum of money to build a suitable building in Washington to serve as their headquarters and to take care of the overhead of that institution.

The National Research Council has the whole-hearted support of scores and scores of the ablest scientific men in this country in every field of science—in physics, chemistry, botany, agriculture, plant pathology and what not.

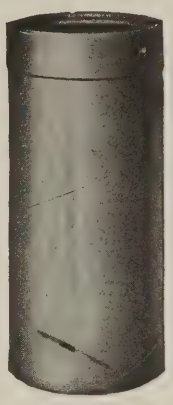
The National Research Council has committees and committees. There are committees of specialists in various fields—in engineering, physics, chemistry, plant pathology and various other lines.

If you want investigation of any kind carried out, take it to the National Research Council in Washington and you will get the best guidance possible. There are



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appeal to the ice cream buyer, for their carrying and keeping qualities, and because they do away with the mussy, unsatisfactory method of unwrapping and slicing the usual brick. And more important still, they protect the dealer against loss by measuring the cream accurately—four quarts from every gallon, instead of the shortage that always results where bulging paper pails are used.

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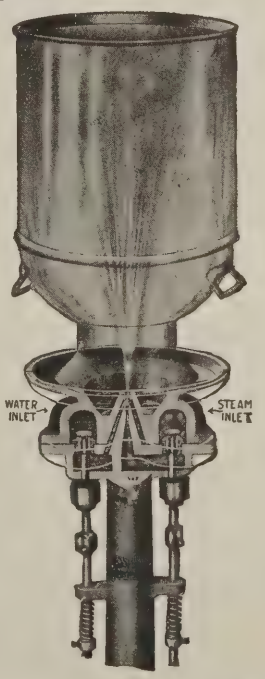
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Note the convenient operation of the valves directing the water and steam. A flexible foot tread, simply by moving the ball of the foot one inch to the right, shifts from water spray to live steam. The rinsing is instantly followed by sterilizing. Nothing could be speedier or more convenient. The hands of the operator are left free to hold the can.

It is low enough in price to make it practical for the smallest plant—large enough in capacity to meet the needs of the plant handling 300 cans per day. A thoroughly practical and dependable piece of equipment at a moderate cost.

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numerous investigators of high order, men who look with a keen vision, who have the ability to stand before a problem and reflect upon its intricacies and see a solution where surprisingly few individuals would ever do so. You have the opportunity through the National Research Council, if you want to furnish them with funds, to get that kind of advice and I would earnestly urge that you give heed to the suggestion which Mr. Gardiner has made. He has given a good deal of thought and attention to this subject.

I just mention these things in order that I may supplement in a way Mr. Gardiner's report and tell you that there is this movement by the National Research Council to assist any industry, but industry must finance its own investigation. Industry will have advantages in having its investigations carried out through this organization that it can gain in no other way.

I thank you.

President Martin. Doctor, we want to thank you again for the additional information.

Is Mr. Ed Sutton present? I understood he had a few remarks to make.

Mr. Sutton: It is a privilege and a pleasure to introduce to this Convention one of the younger men in our industry whom I have known since he was a child and who has come to a time now when he is taking some of the burdens off his father's shoulders.

It is good to feel that the work we have done can be taken up by younger hands who will do it probably more efficiently than we ever did, and give to the public perhaps a much better product than we have ever given them, and that the industry will continue to grow with leaps and bounds upon the foundation that the older men in the business have built. It gives me the great pleasure to introduce to you Allan D. Cunningham.

Mr. Allan D. Cunningham: I have prepared a short paper and I will just read it to you.

The Ice Cream Industry throughout the United States, by means of scientific methods of manufacture, is recognized by the public as selling a wholesome, healthful and pure product.

This recognition by the public is also due to their knowledge of the sanitary type of construction and materials in Ice Cream manufacturing buildings or plants.

By a sanitary type of construction and materials I mean materials that are non-absorbent, fire-resistive, non-wearing, non-deteriorating, dustproof, and waterproof.

Concrete is one of the materials that has become universally known as meeting these requirements, due to the fact that concrete as a structural material has long since passed the state of experiment and is now universally adopted as one of the leading structural materials.

In buildings such as we require for the manufacture of ice cream, due to the varying temperature required, also due to the moisture caused in the various stages from the raw to the finished product, it is an important factor that the structural steel and iron should be protected from moisture which causes oxidation, therefore, a reinforced concrete type of construction is recommended as a serviceable type for our industry.

Due to porousness of concrete in general caused by voids in the completed product which allows seepage through the material, therefore, there are certain portions of buildings for the manufacture of ice cream, that require absolutely waterproof materials, such rooms as packing rooms, refrigerators, icing and shipping rooms, etc.

The floors, stairs, platforms and driveways receive hard wear and usage, and in addition the moisture and liquids will hasten deterioration. Therefore, the wearing surface should be constructed of the best materials obtainable.

In our opinion, the most important unit in a modern up-to-date ice cream factory is the refrigerating machinery which is in reality the heart of the plant. I have special reference to the compressors. We must have the type of compressor which produces a given result under almost all conditions, with minimum horespower per unit of capacity, and with minimum wear and tear on the machinery; hence, minimum maintenance expense.

When I say that the compressor must be of a design which produces a given result under almost all conditions, it certainly applies in an ice cream factory, which in the summer months operates at times at over capacity, and in addition to the ice cream end of the business produces ice in large volume. This condition, as you will see later, places the compressor under a duty of handling two different suction pressures and in this event the lubrication and oiling system must be almost perfect to expect a smooth operation of the machine.

After careful investigation and having inspected several installations and types of machines, we decided upon the two-cylinder, vertical, single-acting, enclosed type, high speed compressors, direct connected to synchronous motors.

In addition to the two old-style, two-cylinder, single-acting, open type machines, we now have two 12½x14½ two-cylinder, single-acting. vertical, enclosed type, high speed construction, with extended crane shaft and solid flange coupling, each direct connected to 125 horsepower, synchronous motors, operating at 150 revolutions per minute. These machines are rated at 65 tons, refrigerating capacity at 15.67 suction pressure and 185 pounds condensing pressure.

The advantage of the minimum engine room space occupied together with the gain of having no friction loss, as with the bolted type, is an item that should not be lost sight of; and furthermore, with the enclosed type compressor you may frost back onto the machine without the trouble and annoyance of stuffing box leakage of ammonia gas, which is almost bound to occur with the open type, and consequently will require closer supervision on this one point.

Some of you here are undoubtedly skeptical on the subject of high speed machines. These compressors operating at 150 revolutions per minute are termed high speed machines, and when compared with the speeds we have used in past years, it may appear to you as an excessive speed, but when you consider the machines operating at a lower revolution per minute have a longer stroke, you will see that the piston speed is no greater.

These machines have double suction connections, whereby we can operate one or more cylinders on any unit in the plant consisting of the brine cooler, hardening rooms or ice tank. Sometimes we run one cylinder on the hardening rooms, one on the brine cooler and the other machine on the ice tank, and at night one cylinder on the hardening room and the other three cylinders on the ice tank. This gives us a very flexible operating condition and maintains a perfectly balanced system.

In the matter of manufacturing equipment, we cannot lay too much stress on the cleanliness and sanitary features of the equipment. The machines and tanks must be so designed as to make all parts accessible for cleaning and sterilizing. Any type of ice cream freezer will make good ice cream if you give it good material to work with, but we cannot pass over the sanitary features, because of its ability to make good cream.

Sanitary pipe lines are of the utmost importance throughout the plant. These lines must be so construct-

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CRYSTAL GELATINE

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Quality

Quality in ice cream is beneath the surface—where the eye can't see it and where only use can prove it.

Efficiency in a cleaner likewise is not a visible quality, but is the product of its use.

The shrewdest buyers among ice cream manufacturers have for many years standardized the use of

Wyandotte Sanitary Cleaner and Cleanser

for all cleaning in their plants because they have always found the sweet, wholesome, sanitary cleanliness it provides efficient, profitable and economical.

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Wyandotte Sanitary Cleaner and Cleanser insures such safe, sanitary protection to quality ice cream that increased demand means larger profits.

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PROSPERITY FOLLOWS THE DAIRY COW. Be sure you attend the National Dairy Exposition—St. Paul-Minneapolis, Oct. 7-14.

ed and installed so as to be readily detached and easily cleaned and sterilized.

Plenty of water and steam are of the utmost necessity for the proper and efficient cleansing and sterilizing of your manufacturing equipment. It has also been found desirable to use a disinfecting solution of some kind. Of course, it is necessary to use a solution which is practically odorless and tasteless and which will have no objectionable effect on the product—a solution of this sort has been successfully made with chloride of lime and water, and just recently machines have been put on the market whereby a desirable chlorine solution has been made by the electrolysis of salt water—and at a cost that is not prohibitive and which enables the manufacturer to use sufficient quantities to most thoroughly disinfect and sterilize his equipment.

It is almost universally accepted by the manufacturer of ice cream, that the best method of handling raw products is the large tank for storage, mixing and standardization—but to those of us who are dealing directly with a large creamery, I think the proper place to prepare your product for freezing is in the creamery, where more expert care and attention can be given it.

I have touched but lightly on the equipment of a modern ice cream plant and in these times of high costs and prices one is apt to be influenced by quantity and cheapness rather than by quality and endurance and add to the first cost enormous upkeep rather than the first cost of a good article and a minimum cost of upkeep.

This paper, I hope will give you food for thought and consideration in building your new plants—or in the reconstruction of your old.

President Martin: We thank you, Mr. Cunningham, for your excellent paper.

The few remarks Mr. Sutton made put an idea into my mind. I think it would be a splendid thing if the program committee in the future would endeavor to get the sons of some of the men on the program, and let's promote these young fellows and get them to the front. As Mr. Sutton said, they are going to follow the footsteps of their fathers and why not bring them in line here and let them handle this Association in the future?

Next on our program is "Refrigerated Delivery," by Mr. J. H. Schindler, Cleveland, Ohio, chairman, Board of Managers, The Telling-Belle Vernon Company. (Mr. Schindler's address was published in the November issue).

Mr. Luick: I believe Mr. Loewenstein said he would like to have me state what our experience has been with refrigerated delivery trucks. We have had one truck in service this year, and our results are possibly about the same as Mr. Schindler states here. We have had no trouble with soft cream and it uses less ice. In other words, it has conserved the ice that we loaded it with because the body is thoroughly insulated and the ice is covered at all times, the ice being drawn from a chute or spout at the side. Our findings are that we like it and our drivers also like it very well. The improvement suggested by Mr. Schindler of trying to build it with a little less weight is a good one. I don't know whether it can be done, but I imagine it can.

I have had offered to me certain wood that is very light indeed, and at the same time is a very efficient insulator and it seems to me that possibly we could use wood of this kind to build the principal parts of the truck, using only the heavier and stronger wood for the frame work.

I would like to have some of the gentlemen who have used refrigerated delivery trucks and have failed to make a success of them state their experience. I think we want both sides of the story.

Mr. Klinenberg: I operated three of those trucks. I didn't have satisfaction with them. I had to take my cream out every night; the cream was soft when the drivers came back and I used more ice than I used on my other trucks. My drivers like the other trucks a good deal better and we are using considerably less ice with the other trucks than we used with these. I would like to get a little more enlightenment on this.

Mr. Luick: I believe I will take the burden of answering some of the criticism. I am not interested in any refrigerator truck, understand; I am not interested in anything but ice cream business.

I do not think it would be advisable to leave the cream in the trucks over night. Manufacturers that handle their business that way I believe would have to change their method or they would find their cream in not exactly that firm condition that ten below zero would put it. We have found that the average temperature maintained in this compartment is about five to ten above, and that will not give the firm ice cream that ten below hardening rooms will. Therefore, if you try to use refrigerated trucks and keep the ice cream in the truck over night, you make a mistake to start with. If you, however, loaded the truck with ice cream that was thoroughly hard, I believe that it would have made its trip and come back with the ice cream still in very good condition to check in. We believe in checking in our loads in the evening.

Regarding the criticism that you used more ice, I can't quite understand that because it isn't logical. In the ordinary truck, as I know it, the ice is exposed to the atmosphere, most of them having only a light wood cover on the top and some of them no cover at all. It



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CARAMALA ICE CREAM is always the smoothest and most firm, in comparison with any other made from the same stock mix and handled under identical conditions.

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The Genuine
MERRELL-SOULE Powdered Skimmed Milk

MERRELL-SOULE SALES CORPORATION
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IT IS EASIER TO GIVE ADVICE THAN TO LEND A HAND.

is very natural that the truck with an insulated cover fitting down tight the ice not being exposed, must conserve the leakage on that ice.

Mr. Klinenberg: We have our bodies built on the same principle. Our ice is covered and our bodies are insulated, one as much as the other.

Mr. Luick: Well, if you are working the other truck under the same conditions, with reference to your packing ice, you should get exactly the same results. I merely made the statement supposing that your trucks were of the average type, and the average type, I believe all the manufacturers will agree, is not thoroughly insulated.

Mr. Gardiner: The gentleman from Chicago has certainly gotten in wrong somehow. A competitor of mine in Baltimore started with a few refrigerated trucks, some of his deliveries being by horses ad others by truck, and now he has a fleet of between twenty-seven to thirty refrigerated trucks and no horses at all. He tells me that he is doing that because of its economy. These refrigerated trucks are saving him in transportation, in ice and in salt and there is no question about the efficiency of the refrigerated truck transportation, provided you start right and keep right. There is no question about it at all in my mind.

Mr. Biedermann: The refrigerated truck has proven quite a success with us. We started out with one, which is a heavy type. We had quite a bit of trouble to start with, but up to the present time we are running ten; we are running four in the country. We have done away with the horses entirely. We ran one down into the country seventy miles this summer. It stays over night and comes back the next day, serving the route on the way in, and we haven't had one report of soft cream.

I haven't got all the data with me, but it takes something like four pounds of ice and a quarter of a pound of salt per gallon on the route. On the old type body we figure it runs considerably higher, about thirty-five pounds of ice and about five pounds of salt. We are going to change them this winter. We figure we have lost thirty-five per cent in meltage on the ice on the route alone on the old type body.

With the refrigerated type body a driver will do twenty-five per cent more work on his route and in a ten-hour day he can make sixty stops, or average 150 gallons a day in the winter-time and in the summer-time he will average 250 gallons and thirty-five and forty stops and get back on regular time.

We are building the bodies in our own factory, making improvements from time to time and experimenting on the different types. I dare say there is quite a bit of improvement to come on the refrigerated type body, but I believe it is here to stay. We have had several complaints with new men; take, for instance, icing the pan. I believe that is the biggest trouble with the brother who just spoke. If it is not iced up properly you are likely to have trouble. If the salt is thoroughly mixed with the ice you get good results.

We have doors on each side, and it is very accessible to the driver; it takes him a very little while to pick out his flavor and get out what he wants.

Mr. Biedermann: We have tried a new scheme; it is on the same order as the refrigerated box. We have built a box that will hold a hundred gallons. This is put on a boat and sent down to Southern Maryland to take care of any picnics or gatherings of large organizations, and we have kept cream five days and still in good condition in the box by re-icing. In case they only use seventy-five gallons, they ship the balance back and get credit for it. We have done that ten or fifteen different times this summer and it worked out very successfully.

Mr. Dixon: In connection with the refrigerated trucks, we have a number of them in our state. They travel a distance of probably one hundred miles. There has been a movement, I haven't heard any decision on it though, for each town these trucks enter, to place a tax of from twenty-five to fifty dollars on each car entering the town, and that, I think, is going to work against the sale of the trucks in our state. If you have seven or eight towns on the route you can readily see what that amounts to.

Mr. George K. Brown: We placed an order early last year for five two-ton refrigerator trucks which were delivered to us along about April. These trucks were operated all through the summer very successfully. We had no trouble with soft cream, neither did we fail to give the proper service to our customers. If I remember correctly, we used about three hundred pounds of ice and seventy-five pounds of salt. Each afternoon, after we made the runs the cream was taken back into the refrigerator and in that way we had no soft cream and the trucks have given perfect satisfaction.

Mr. Olhaver: I would like to ask this gentleman from Washington, D. C., if he figures in the ice that he packs in his pan with his figures to keep the cream on the road at four pounds to the gallon.

Mr. Biedermann: The average per gallon delivered is four pounds of ice and a little over a quarter of a pound of salt. That is the ice to hold the cream in the truck. Our ice runs about thirty pounds.

Mr. Olhaver: We are using both of these systems and we can't get out with any such difference as that.

Mr. Luick: Unless you had been using the old type with insulated covers and sides, you do save ice because of the saving in leakage.

Mr. Olhaver: The other box is insulated, too, and

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"Putting the name across" is never an easy job. People do not make it a point to remember your name when they see it. But if the package is so designed that it will arrest their attention, if it is striking—"different"—they will begin to remember it after seeing it the second or third time. And they will associate your name with your product.

Then, too, your package must deliver its contents in good condition. And only a house that has learned, through long experience how to build the best boxes can do both jobs well.

We have designed and made boxes for exacting organizations in every branch of business. For more than 20 years we have been improving the packing methods of business houses thruout the country.

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The Peerless Paper Box Mfg. Co.
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Any kind of folding box for every kind of business

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Custards ***Flavors***

Maraschino Cherry Custard
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"Acme" Custards	An exact reproduction of the EGG or CHERRY.
Egg or Cherry	Contains all of Nature's delicate FLAVORS and BLENDED COLORS. A delicious Ice Cream of quality distinction. Working sample for 40-qt. freeze, 36 cents.
Bisque Ice Cream	An imitation of the real Walnut or Shelbark with a nutty flavor. Served to social and banquets as a special. Working sample for 40-qt. freeze, 60 cents.
Perfecto (Trade-Mark)	A tested smoother of special value in the making of smoothe and tough Ice Cream. Never fails to give satisfaction.
Concretes	Orange and Lemon Concretes are made from the finest fruits that grow in Northern Sicily.
Extracts (Non-Alcoholic)	36 different kinds of fruit extracts. Special blends of Vanilla.
Colors	Certified colors of all shades, highly concentrated.

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Extracts HANOVER, PENNA. ***Colors***

there is absolutely no difference in the saving of ice. We had to buy five-ton trucks to carry bodies that we figured to put on three-ton trucks, because they are so heavy.

Mr. Luick: My experience has been somewhat different. I use a three and a half ton truck to carry a refrigerated body in which we pack not less than 300 to 350 gallons of ice cream with the packing ice.

Mr. Biedermann: We find that our bodies are weighing 3,700 pounds without anything in them, that is, the body alone. We use a three and a half ton chassis and have no trouble at all with any overload.

We find that the driver can deliver his cream with great speed. He doesn't have to dig it out with the hooks and your packages come out in a very dry condition and very acceptable to your customer.

Mr. Gurdy: I think, all told, we have eleven working trucks of that type. We ice them up and stock them the day before, and take them out the next morning at zero temperature.

They are much lighter than the other trucks. They are not under the rules of insulation as much as most of them would care for, but still they have conserved a good deal of ice. We are not troubled with any soft cream. While they have their disadvantages, they still have a great many advantages. A man does all his work from the sidewalk, and never gets wet.

These new ones comply with the light body proposition and are carrying bodies now they say that will carry 300 gallons. There are probably twenty-five of them in use in Boston and suburbs.

* * *

The annual business meeting of the association members followed, when reports of committees were read and discussed, resolutions passed, and directors elected.

At the directors' meeting the following officers were elected:

President—Charles G. Morris; vice-president, Morden Nielson; treasurer, W. J. Weller; secretary, N. Loewenstein.

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If you want something new that sells like "Hot Cakes"—no additional equipment—just a new, clever way of merchandising, get the facts on

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NEW GLOBE COMPANY PLANT OPENED JULY 20.

Equipped with the most up-to-date ice cream making machinery and housed in a spotless white structure, the Globe Ice Cream Company held its formal opening in its new building recently.

The new company is prepared to supply 12,000 gallons of ice cream daily. The factory will contain a 3500-horsepower transformer, two 500-gallon pasteurizing tanks, six 1000-gallon holding tanks, glass lined, nineteen miles of pipe, six carloads of cork in the walls of the building, and a fully equipped laboratory, where all milk and raw materials are thoroughly tested before passing into the process of manufacturing.

Will E. Keller, president of the company, and A. A. Comey, vice-president and general manager, designed the building and its various interior devices for making and distributing the product.

The company is an independent organization headed by Keller and Comey. Other officers in the company are Marco Hellman, treasurer; J. M. O'Brien, secretary. In addition to the officers named, C. A. Fellows and Carl Leonard constitute the board of directors.

One hundred people are employed by the Globe Company. Each employee must pass a rigid health test every month.



SPOKANE MAN INVENTS DIPPING MACHINE.

Frank Hardy, manager of the ice cream department of the Spokane Bakery Company, recently invented a machine for cutting and dipping ice cream bars that in all tests made of it thus far has proven very successful.

"The machine is run by a small electric motor, and has a capacity of 922 dozen or 11,904 chocolate coated bars in eight hours," was a recent statement by Mr. Hardy to a representative of the Spokane Chronicle. "The ice cream is made into slabs about two feet long and is fed into the cutter, when a knife cuts the ice cream into the proper size. Holders on a belt conveyor automatically attach themselves to the bars of ice cream, dip them into the chocolate coating trough, and deliver them to the wrapping and packing table without being touched by hand. The bars are then wrapped in foil wrappers and packed in cartons."



"I am thinking about going into politics," remarked the young man.

"My friend," responded Senator Sorghum, "you are a taxpayer, a man entitled to vote and a man responsible to the laws of your country. You are already in politics and you couldn't get out of it to save your soul."

Having Trouble Getting Tubs Back?

Let us tell you why it is that

"TAG-BAKS"

have brought tubs back thru all seasons

TAG-BAKS are little tub appliances that avoid a lot of grief and extra expense for Ice Cream Manufacturers.

Our circular tells why

TAG-BAK
182 Ogden Ave.
MILWAUKEE WIS.



Before Contracting For Your

SWEET BUTTER

this season, get a sample tub and prices from

Stricker Bros., Inc.

Makers of Good Butter

220 W. Pratt St. BALTIMORE, MD.

MAKE A BETTER PRODUCT AND SAVE MONEY

That doesn't sound reasonable, does it? Usually to improve your product you must increase your expense.

Every ice cream manufacturer doesn't know how tremendously important the *right sugar* is, if he is to get the results he wants. This is one of the reasons Philadelphia has the reputation of producing the finest ice cream in the country—it is the Franklin home, and we have given the results of many years' experimenting to our ice cream manufacturers here.

Keystone B, at 40¢ a hundred less than granulated, is the sugar you should use. We haven't the space here to tell you why, but we will if you will write us.

The Franklin Sugar Refining Company
PHILADELPHIA
"A Franklin Cane Sugar for every use"

"Atlas" Century Color

will give your Ice Cream that beautiful New York Shade

which cannot be otherwise obtained.

BBLS. per Gal.	KEGS per Gal.	6 GALS. per Gal.	1 Gal.
$2.00	$2.50	$2.75	$3.00

Before placing your next order, let us send you a trial quantity

Manufactured by

H. KOHNSTAMM & CO., Inc.

Established 1851

NEW YORK
83-93 Park Place

CHICAGO
11-13 E. Illinois St.

PAPER VESSELS ARE POPULAR FOR SANITARY CONTAINERS.

Organizing For Group Depreciation Studies

A PLAN to assist manufacturers in the different lines of industry in determining depreciation for tax purposes has been worked out by the Fabricated Production Department of the Chamber of Commerce of the United States. Use of this plan is being urged by the department.

The plan provides that "within the trade association of a given industry a depreciation committee should be appointed, consisting of from five to seven engineers, cost accountants and plant superintendents selected from the department."

The Fabricated Production Department has received the endorsement of the Treasury Department in the following letter from the Honorable C. P. Smith, Assistant Commissioner of Internal Revenue, of co-operatively determined depreciation rates by each line of industry.

Treasury Department, Washington.

Mr. E. W. McCullough, Manager,
Fabricated Production Department,
Chamber of Commerce of the United States,
Washington, D. C.

My dear Mr. McCullough:

Reference is made to your letter relative to your suggestion that collective studies of depreciation be made by the several industries.

In your letter of October 7 you state:

"In connection with its cost education work, this Department has noted much uncertainty on the part of business men as to the proper deductions for depreciation and wide divergence in rates actually taken and allowed in any given industry.

"It has occurred to us that this situation could be considerably improved if each industry could be induced to make a scientific study of its own depreciation situation and determine for itself the typical rates of depreciation applicable to the different classifications of property therein. It is not intended that such rates of depreciation should cover all cases but they would serve as a guide or criterion to cover usual conditions of use and production for a given industry."

The Bureau of Internal Revenue looks with favor upon the investigation and study which is contemplated by your two letters referred to above. The Bureau will not, however, feel bound to any determination as to reasonable rates of depreciation for different industries which might be fixed by this investigation.

Yours very truly,

C. P. SMITH,
Assistant Commissioner.

The advantages of such an investigation and study to determine basic rates of depreciation are fully set forth in the foregoing letter:

First. It will tend to minimize friction between the taxpayer and the Treasury Department.

Second. It will give the business man more definite information than usually exists as to what is properly chargeable by way of depreciation.

Third. It will tend to eliminate cost inequalities that arise from unjustified discrepancies in depreciation rates and depreciation methods.

Group rates for wear out depreciation were successfully established in 1920 by the National Association of Ice Industries in co-operation with the Treasury Department. The following are the rates agreed upon after an exhaustive investigation:

Treasury Department, Washington,
Office of Commissioner of Internal Revenue.

Mr. Leslie C. Smith, Secretary,
National Association of Ice Industries,
136 West Lake St., Chicago, Illinois.

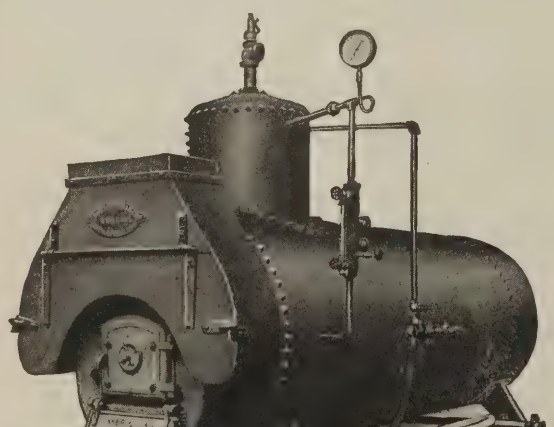
Sir:—You are advised that very careful consideration has been given to the proposal concerning rates of depreciation submitted by the Committee of Depreciation of the National Association of Ice Industries, supplemented by personal interviews, with the result that it has been agreed that the following percentages of the original cost necessary to be set aside each year in a fund for "wear-out depreciation" will be acceptable to this Bureau as a fair and reasonable rate of depreciation:

For wooden natural ice houses and wooden storehouses	6 4/10
Ice houses, harvesting and hoisting machinery, including conveyors, hoists, merrimacs, basin saws, etc., and power plants for same, elevators	9½ %
*Machinery of steam driven manufacturing plants	7 1/10 %
Machinery of electric driven manufacturing plants	7 3/10 %
Frame buildings	5 %
Brick buildings	2½ %
Concrete buildings	2 %
Horses	15 4/10 %
Harness	16 2/10 %
Wagon and other horse drawn vehicles	14 3/10 %
Automobiles	22 5/10 %
Motor trucks	22 2/10 %
Sundry delivery equipment	15 %

*In case of bad water, this figure to be increased up to 7 6/10% as a maximum.

**In case of the Southern States, where a different grade of vehicles and horse is used, these figures become 20% for vehicles.

(Continued on page 100)



Before buying a boiler do not fail to investigate the superior merits of the famous

Leffel Scotch Marine Boilers

built in a variety of sizes from 6 H. P. to 100 H. P., and to meet all requirements of the different State Boiler Laws. This boiler meets in fullest measure and most economical and satisfactory manner every requirement of the trade.

This Company also builds Vertical Boilers in sizes of 2 H. P. and larger.

Complete catalog with information of interest and value on request.

The James Leffel & Company

Box 328. SPRINGFIELD, OHIO

Winter Ice Cream Sales

The way was opened last winter, through the success of Chocolate Coated Ice Cream Bars, to keep your organization and equipment busy, in what previously was a dull season.

This novelty has taken the Ice Cream business out of the seasonal class, and permits the making of greater yearly sales.

Avoid the chance of not being ready this fall, by ordering your Foil Wrappers NOW for delivery when you are ready.

The great attractiveness of Conley Foil Wrappers for Eskimo Pie, or when printed with your own design, aids greatly in the sale of this confection.

Will you get in touch with us at once?

Perfect protection for perishable products.

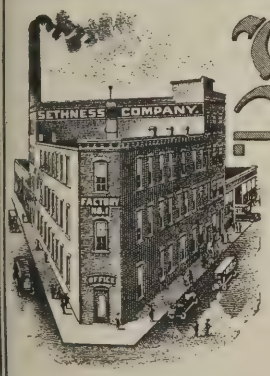
Distinctive dress for all products.

Conley Foil

TRADE MARK

The Conley Foil Company

541 West 25th Street ~ New York City

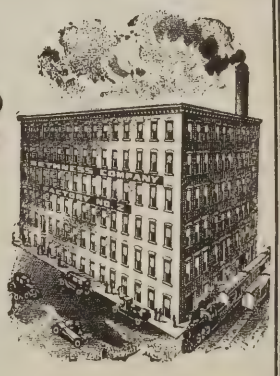


Sethness Company,

Western Branch
DENVER, COLORADO
2910 Huron Street

Cosco

Pittsburgh Office
511 First Avenue
PITTSBURGH, PA.



659 HOBBIE ST., CHICAGO

Operating 75,000 Square Feet for Quality and Service

COSCO BRAND

FRUITS

ICE CREAM CRUSHED FRUITS (BULK)
SOLID PACK FRUITS IN NO. 10 TINS
COLD PACK STRAWBERRIES
C. P. CRUSHED FRUITS IN BULK PKGS.

EXTRACTS

FLAVORING EXTRACTS, ARTIFICIAL
TRUE EXTRACTS
ORANGEADE EXTRACT (FOR ICES, SHERBETS AND PUNCHES)
CONCORD GRAPE EXTRACT (FOR ICES, SHERBETS AND PUNCHES)
VANILLA COMPOUNDS
VANILLA EXTRACTS, PURE
MARVEL PURE VANILLA BEAN EXTRACT
VANILONG
WALNUT FLAVOR
MAPLE COSCO CONCENTRATED
PINEAPPLE JUICE
QUINTOLS
EMULSIONS

COLORS

LIQUID CERTIFIED COLORS
CERTIFIED DRY COLORS
CARAMEL SUGAR COLORING
BUTTER COLOR ANILINE
NEW YORK ICE CREAM COLOR

TRUE FRUIT PASTES
CERTIFIED PASTE COLORS
MARSHMALLOW TOPPING
COCOA
BUTTERSCOTCH SUNDAE
CARAMEL SUNDAE
GELATINE
CITRIC ACID
GUM, PURE INDIA, POWDERED
ICE CREAM POWDER
SOLUBLE SKIM MILK POWDER SPRAY
KREMOLIN R. ICE CREAM RIPENER AND BINDER
VANILLA BEANS
VANILLIN
COUMARIN
GLYCERINE
TARTARIC ACID

SODA FOUNTAIN FRUITS AND PRIVATE LABEL MARSHMALLOW TOPPING FOR JOBBING PURPOSES

It is also recommended that the following line of demarcation be established on which to base the above rates of depreciation.

Wearout depreciation and maintenance are to be separated according to the definition of wearout depreciation, which is that loss of original usefulness which has gone so far on any "Unit of Utility," beyond the ability of repairs to correct, so as to make necessary the complete replacement of that "Unit." By maintenance (synonymous with repairs) is meant the correction of some local defect of a "Unit of Utility" by bringing the defective portion in the easiest way, into practical parity with the general condition of the remainder of the "Unit." By the definition of a "Unit of Utility" is meant a single purposed mechanism or part of a construction, subject to such like conditions of use, that it would naturally be repaired or replaced as a unit.

The depreciation situation of a given industry can be best studied through the trade association representative of the line. If such trade association does not exist one should be formed.

Within the trade association a depreciation committee should be appointed, consisting of from five to seven engineers, cost accountants and plant superintendents selected from the industry.

Such a committee should prepare a questionnaire providing for a listing of the units of utility, the cost of same, estimated scrap value, and years of useful life.

For purposes of illustration the following hypothetical depreciation schedule is given:

Item	Cost New	Estim'd Scrap Value	Yrs. of Useful Life
Five-ton Auto Truck	$5,200	$400	5
Electric Air Compressor, 110 v.	225	15	6
20-ton Steam Shovel	8,250	500	6
Dump Wagon	150	25	10
Centrifugal Pump	250	25	8

Before sending the questionnaire to manufacturers of a given line certain preliminary points should be cleared up, such as:

(a) Method of charging maintenance, renewals and depreciation.

(b) A statement of the elements of depreciation.

(c) Determining of stated conditions of use.

Further comment is made on the above points as follows:

a. **Method of Charging Maintenance, Renewals and Depreciation.** It will not do merely to average the various estimates of useful life provided by the manufacturers of a given line, because the methods of charging maintenance, renewals and depreciation may not be the same. Thus, one manufacturer may charge as maintenance all repairs and partial renewals. By this method the laying of a new roof on a building would be charged as maintenance. Another manufacturer may charge to maintenance only such items as tend to keep the property in the same general condition. The laying of a new roof adds to the life of the asset and accordingly would be charged to the depreciation reserve. The first method gives a high maintenance rate and a low depreciation rate. The second method gives a low maintenance rate and a high depreciation rate. Suppose the first manufacturer charges 2% for depreciation and the second 8%. It will not do to average these rates and set 5% as the guide for the industry. That would not give a true picture of actual conditions.

Before the rates of depreciation can be standardized for an industry the methods of charging maintenance, renewals and depreciation must be standardized.

b. **A Statement of the Elements of Depreciation.** Accompanying the questionnaire should be a statement of the elements entering into depreciation, wear and tear, and obsolescence.

Wear and tear is defined as "that uniform wear-out and decay which repairing is unable to check" and it is dependent upon the amount of use, the amount of care, the quality of the installation and the natural hardships to be overcome.

Obsolescence arises from "an inability to compete in kind, in quality or in cost of desired results with later forms of the same utility." Allied there is that change in demand which displaces the whole life of equipment.

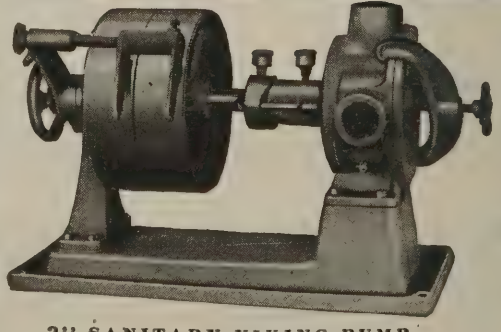
It is important that the Depreciation Committee secure sufficient facts for it to come to a conclusion as to which is the factor, obsolescence or wear and tear, determining the useful life of a given unit of utility. Certain machines are not given the opportunity to wear out, they are replaced so rapidly because of improvements in the art. Clearly obsolescence is here the determining factor.

c. **Determining Stated Conditions of Use.** Guide rates of depreciation for an industry presuppose stated conditions of us,—the number of days of operation in a year, the number of hours of operation per day, a standard of maintenance, external conditions, such as climate and road, etc.

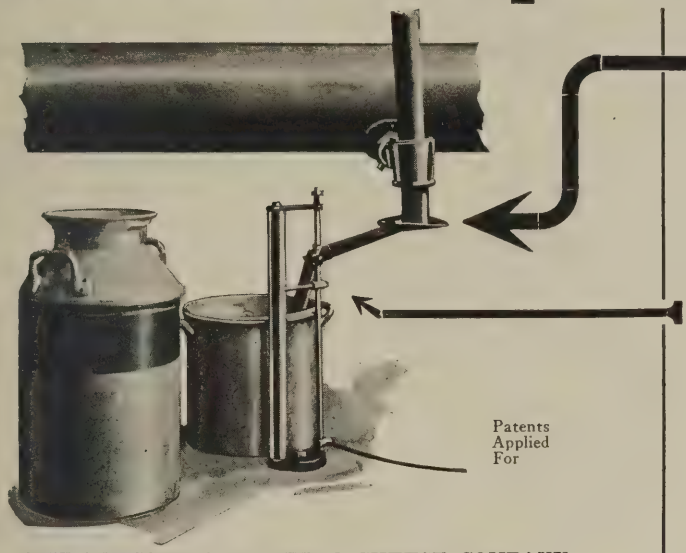
With the normal conditions of use stated, it will be possible to provide for variances thereof upon a scale of percentages. Thus, during the war additional rates of depreciation were allowed for overtime operation, and when depreciation can be based on an incident of production, capacity, or performance, it may be feasible to scale the rate of depreciation for subnormal production.

A study of depreciation by industries will reveal an inadequacy of records and information and, that the

FORTUNE
"NORTH POLE"
Sweet Milk Chocolate Coating
Especially Prepared for
ESKIMO PIES
Ready for Use—Nothing to Add
FORTUNE PRODUCTS TRADE MARK
FORTUNE PRODUCTS CO., 416-422 So. Desplains St. CHICAGO, ILL.

For CREAM

For BRINE
2" SANITARY VIKING PUMP
THE UNIVERSAL PUMP
For Milk, Brine, Water or Foods
VIKING PUMP COMPANY, Cedar Falls, Ia.

Save the Drip when Filling Cans



Patents Applied For

That little drip of cream, lost each time another can is placed for filling under the spout at your tubular cooler or storage tank soon amounts to the labor required to do the filling. You can

Check the Loss
with the
Lorenz Model Drip Catcher

One month's use usually saves enough to pay for the drip catcher. After that it earns a clear profit.

Write today for price and full details of how it works.

Dealers and Jobbers will be interested in this efficiency device.

E. H. J. Lorenz & Co.
Manufacturers
MILK EFFICIENCY EQUIPMENT
Elkhorn, - Wisconsin

THE WISCONSIN BUTTER & CHEESE COMPANY.

Elkhorn, Wis., Sept. 7, 1921.

Mr. E. H. J. Lorenz, Elkhorn, Wis.
Dear Sir:

Please be advised that the Lorenz Model Drip Catcher which you recently installed in our plant at Elkhorn is proving most satisfactory. We were astonished at the remarkable saving that this device showed in its use and we feel that it has paid for itself many times during the short period that we have had it in service. We would be unwilling to dispense with its use for many times its cost if we were unable to get another one.

Yours truly,
THE WISCONSIN BUTTER & CHEESE CO.
(Signed) By J. H. Harris.

ESTABLISHED 1879

Gelatine is the most efficient of all stabilizers for Ice Cream

WHITTEN'S GELATINES Are Standard

Guaranteed to Comply with all National and State Pure Food Laws

STRENGTH, PURITY AND UNIFORMITY GUARANTEED

MANUFACTURED BY

J. O. WHITTEN COMPANY

Main Office and Works

Winchester, Mass.

Woolworth Bld
NEW YORK CITY

20 E. Jackson Boulevard
CHICAGO, ILL.

"THEY CAN BECAUSE THEY THINK THEY CAN."—VIRGIL.

gaps may be filled, it is advisable that each firm keep a property ledger giving a complete depreciation history of each unit of utility. Details concerning the operation of such a plant ledger, together with a suggested form, will be found in the Fabricated Production Department's pamphlet, "Depreciation — Its Treatment in Production." For the time being, the information supplied by the questionnaire may be supplemented by experience tables, and by information gleaned from the manufactures of equipment and from appraisal companies.

Upon a return and digest of questionnaires, schedules should be prepared showing items of utility, cost, scrap value, and useful life. These schedules should be submitted to the manufacturers for criticism. Upon revision a conference should be arranged with the experts of the Treasurey Department that the depreciation data may be checked by them.

When so checked the rates of depreciation should be promulgated as guide rates for the industry, it being thoroughly understood that such depreciation rates shall be merely suggestive and not mandatory and that in the last analysis each concern must determine the depreciation allowance out of its own individual experience.

On the other hand it is confidently felt that guide rates of depreciation so co-operatively determined will minimize friction between the taxpayer and the Treasury Department and will give the taxpayer more definite information than customarily exists as to what is properly chargeable by way of depreciation.

Everybody is going WILD
OVER
GOODY-GOOD!
YOU'RE NEXT
SANI-DAIRY PRODUCTS CORPORATION — CHICAGO
will show YOU why.

KOKOREKA

The ORIGINAL
and BEST

VEGETABLE BUTTER

FOR

THINNING
CHOCOLATE
COATINGS

Write for Free Sample

India Refining Company
McKean & Swanson Sts.
PHILADELPHIA

CHICAGO
222 N. Wabash Ave.

SAN FRANCISCO
203 California Street

GIVING ICE CREAM ITS TRUE FLAVOR NAME.

At the last convention of the Wisconsin Association of Ice Cream Manufacturers, Harry Klueter, Assistant Dairy and Food Commissioner, delivered an address reports of which have been misunderstood by many ice cream manufacturers, so far as the flavoring of ice cream is concerned. In a very good talk, which was highly appreciated, he used these words:

"Now just a word about maple ice cream. There have been some complaints to the effect that maple ice cream could not be successfully manufactured and sold unless the dealers were permitted to use one of the several imitation maple extracts that are now on the market. The definition and standard for maple ice cream says that the product must be made by the use of maple sugar or maple syrup. It does not say that you cannot make an ice cream with some other flavor which tastes like maple if that product is honestly sold, that is to say, if Mapleine is a natural flavoring, as the standard for ice cream requires, then it is permissible to use Mapleine, but the product would not be maple ice cream, but Mapleine Ice Cream. This is only business honesty."

There was nothing said by Mr. Klueter, in the above or in the rest of his address, to lead ice cream manufacturers to conclude that they could not use Mapleine, but some reached that conclusion. So many requests have come to us for information on the subject that we are glad to quote from a letter received from the Crescent Manufacturing Company, manufacturers of Mapleine, as follows:

"If Mr. Klueter is correctly quoted there is nothing unreasonable or impracticable in the position taken by the Wisconsin Commission and nothing which would interfere with the free use of any wholesome and popular flavor in ice cream. Mr. Klueter especially mentions Mapleine as a 'permissible' and therefore wholly legal and proper flavoring for ice cream, provided, of course, that it is not labeled or sold as 'maple.'

"Mapleine need not be sold as maple. It has attained nation-wide recognition as an original and distinctive flavor under its own name.

"It is used for many purposes for which maple is not at all suitable, and as a flavor for ice cream it has become extremely popular because of its own merit.

"In many hotels it is on the bills-of-fare as Mapleine Ice Cream, Mapleine Nut Sundaes, etc., and we are furnishing many dispensers with attractive card signs bearing the legend 'Mapleine Ice Cream.'

"Ice Cream makers have developed a very attractive volume of sales on ice cream flavored with Mapleine identified by a trade name of their own choosing, with no suggestion of either maple or Mapleine. The flavor pleases and consumers want more, their only interest in the ingredient being that it shall be wholesome and nutritious, and the taste attractive.

"Some local ice cream makers sell bricks and other ice cream which they give names like 'Princess Brick,' the flavor or flavors not being mentioned on the wrapper. While a large Western ice cream manufacturer makes week-end specials, a recent one being 'Puritan Brick,' the flavors consisting of Vanilla, Mapleine and Macaroon. This manufacturer announces the name of the brick and the flavors by means of posters which he furnishes the trade, and does not hesitate to feature Mapleine with Vanilla and other flavors on these posters.

"Mapleine harmonizes and combines with so many other flavors in producing new and delicious results that it is one of the most useful as well as the most economical flavors in the ice cream maker's list."

Dunn's Celebrated Gelatines

Guaranteed to Comply With all State and National Pure Food Laws

Specially manufactured and blended for use in the

Ice Cream Industry

Also owners of "COX'S GELATINE" in the "Checkerboard Box"

THOMAS W. DUNN COMPANY

546 Greenwich Street, New York

Canadian Office and Warehouse **55 Cote Street, Montreal**

Retinning Ice Cream Cans

SPECIAL DEPARTMENT

Old Cans Made New at Low Cost

We do refinishing of old ice cream cans in a special department of our plant which devotes its entire time throughout the year to doing this one thing and doing it well.

Sample Can Retinned Free

And we do know how to fix up your otherwise hopelessly rusty old cans so they will be tight and bright and good as new. ***It is not expensive*** and ***pays you a dividend.*** A can retinned by us has a thicker coat of Pure Block Tin than when new.

Send us a sample can NOW. We will repair and retin it without charge and return it promptly, so you can see the quality of our work. Write us when you ship it, so we will know whose it is, and we will do the rest.

OAKES & BURGER COMPANY

Established 1873 **CATTARAUGUS, N. Y.**

Ice Cream Conquering Britain

An interesting communication from England reached us recently when we received the following letter from A. Pompa, editor of The Ice Cream and Soda Fountain Journal, the only publication of its kind in England:

Garibaldi Club,
10 Laystall Street, E. C. I.,
London, England.
3rd June, 1922.

To the Editor of The Ice Cream Review:

This morning Mr. Charles Goeglin, our most up-to-date dispenser-manager over here, showed me the first copy of your wonderful Review that I have ever seen. I must plead ignorance of its existence although I would say that when I founded the Federation and its Journal four years ago I was only aware of the New York journals. I'm glad I went to Selfridge's this morning.



A. POMPA.

Really, you have THE ice cream paper of all and I regret very much not having known of it before.

I beg to enclose one of our Association Booklets and one or two circulars we have sent out from time to time, and would take the liberty of asking you to place me on your exchange list so that we may have each other's monthly Journal. Mine is still a section of the Confectioners' Union, the oldest confectionery paper over here. Started as we were during the war I could not issue a new publication owing to paper restrictions, so had to beg and pray for a section in an already established trade journal. However, this reached the best of the trade so it actually did us more good than harm, especially as regards soda fountain propaganda, because our original members were rather of the street-trading class.

We have moved things over here, without exaggeration. The number of retailers has doubled in two years and is now 60,000. Wholesale plants are opening all over the place and only yesterday the papers had the report of the first soda explosion over here. Why, only last year no paper would have mentioned "sundaes" or "fountain" without explaining to its readers what they were and how they were made.

May I trouble you to insert a request to your advertisers to let me have all the latest catalogues, literature, price lists and illustrations? We want the latest information because the trade is increasing by leaps and bounds and we want the best.

All credit to Gordon Selfridge who planted the first front service fountain here about 12 years ago and has shown others how to sell ice cream and taught the public how to eat it. His dispensers have helped, too.

In August a party of American business men connected with our trade is coming over here to study the ice cream situation and it will be a great pleasure for me to show them around. I have had big correspondence with friends over there and am eager to meet them, especially as my many attempts to make a trip to see things in the States have never materialized.

Would I be too rude to ask you to let me have any spare back numbers of your Review? I am interested in the trade, and in the trade only, and see such a mine of information in all your issues. Thanks in anticipation.

You may make use of me whenever you wish for news, information, messages and so on. We have learnt from the States and are only too pleased to reciprocate.

With all best wishes for further successes and with greetings to all our unknown friends in the States,

Yours faithfully,

A. POMPA,
Secretary and Editor.

The publication is devoted to the improvement of the ice cream industry in England, and should be of great benefit in stimulating the activities of the trade toward increased production and wider distribution.

An idea of the nature of Mr. Pompa's efforts to acquaint his readers with better methods of production may be gained from the following extract from his publication, evidently one of a series of articles on preparation of the ice cream mix:

"Coming more towards ice cream, and leaving the chemical descriptions for another time, we had better get a reminder of what America has classified our trade into. There are nine names for ice cream: Plain, nut, fruit, bisque, parfait, mousse, pudding, aufait and lacto. Then comes ices, which also include sherbets (Italian 'Sorbetto,' and 'Sorbettiera' for freezer).

"Plain ice cream, according to the U. S. A. Pure Food Law, is made from cream and sugar, with or without flavouring, and contains 14 per cent milk fat.

"Fruit ice cream is the above, plus sound, clean and mature fruits and should contain 12 per cent milk fat.

"Nut ice cream contains sound, non-rancid nuts and contains 12 per cent milk fat.

"And so on.

"And now a few words about flavour, body, texture, swell, age, fat content, temperatures, acidity and so on. Ice cream, although a food and a very good and nourishing food at that, is still eaten as a luxury and a refreshment more than as a food. For instance, if you are hungry you think of bread or other food, not ice cream.

McLAREN'S Real Cake (DOUBLE RING) CONES

Nationally Known As A Quality Product

NOW PRICED EXTREMELY LOW

DAYTON OHIO

McLAREN PRODUCTS COMPANY KANSAS CITY MISSOURI

A Letter recently received reads in part:

"The effect of **ALLEN'S ONE PIECE SANITARY CAN LINERS** in our Ice Cream Cans is magical.

Suggestive of Health, Purity and Prosperity, which combined with our own Sanitary Methods of Manufacture insure our product to be Superior to all others.

Our Slogan hereafter will be **A LINER IN EVERY CAN.**"



What an Advertising possibility. Can you afford to miss it?

ORDER FROM YOUR JOBBER OR WRITE TO

The Allen Candy Company

PONTIAC, ILLINOIS

Manufacturers



The name "STERLING"

for our equipment was wisely chosen by the pioneers of our organization, as today it is

"STERLING" in design and construction.
"STERLING" in efficient operation.
"STERLING" in economic performance.

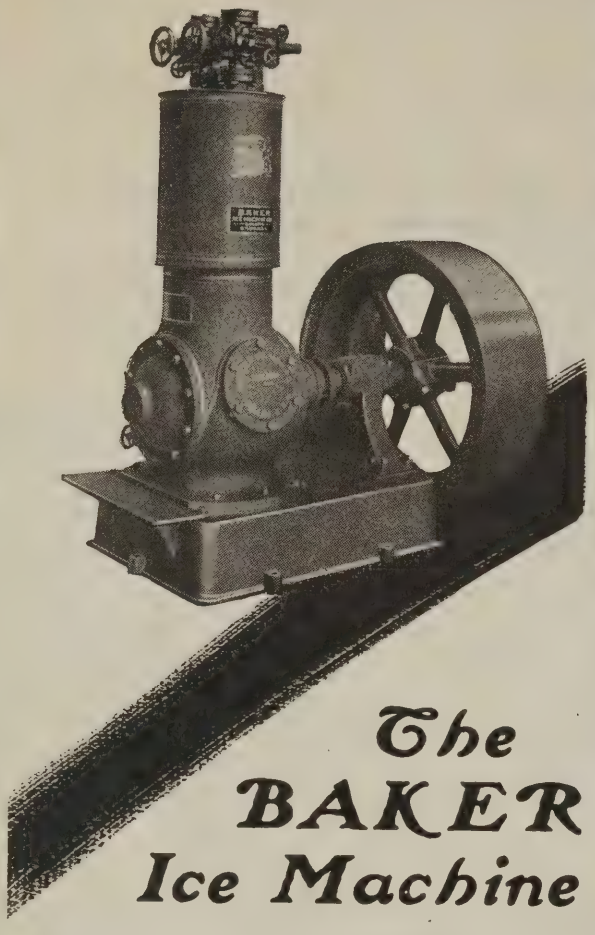
"STERLING" users are legion—and they give voice to their extreme satisfaction of the equipment. Ask a "STERLING" user, then communicate with our nearest representative.

UNITED IRON WORKS, Inc.

KANSAS CITY, MISSOURI

915 Union and Planters Bldg., Memphis, Tenn.
214 Washington Ave., St. Louis, Mo.
719 Wainwright Bldg., St. Louis, Mo.
203 Swope St., Greenfield, Ind.
3407 West 66th Pl., Chicago, Ill.
415 No. Howard St., Baltimore, Md.
513 United Bank Bldg., Sioux City, Iowa
810 Spitzer Bldg., Toledo, Ohio
402 Andrews Bldg., Dallas, Tex.
612 Mayo Bldg., Tulsa, Okla.
1994 Grand River Ave., Detroit, Mich.
113 Fifth Ave., North, Nashville, Tenn.

A PRETTY PACKAGE PROVIDES PLENTY OF PURCHASERS FOR YOUR PRODUCT.



The BAKER Ice Machine

Why is it that so many ice cream manufacturers so frequently select the Baker after a careful comparison of all other makes?

Another question: Why is it that you so rarely see a Baker Machine sold on the second hand market although over 5,000 installations have been made in the past 17 years?

Think it over!

A Slow Speed Compressor Gives Longer Service

If you run a horse at top speed all the time he soon wears out and so it is with an ice machine. The Baker is a slow speed type and can be relied upon to hold perfect temperatures for many years to come. We doubt if you can find anywhere a more economical working machine than the Baker.

Every Ice Cream Manufacturer Should Have Our Free Booklet

This contains useful information that you may want to refer to from time to time. We will gladly send it to you free.

Valuable Free Refrigeration Information

CUT OUT COUPON.

Baker Ice Machine Co., Inc.,
Omaha, Nebr.

Gentlemen:
Please send us your booklet No. 65D.

Name .....

Street .....

City..... State.....

On the other hand, if you are thirsty you'd think of water. But when you are partly both and you have money, you'd think of ice cream. It suggests pleasure more than it does necessity, doesn't it?

"Its flavour depends on the absence of contaminations, purity of ingredients, quality of ingredients and method of manufacture. For instance, a rich cream makes better ice cream than thin, milky cream.

"As already stated the cream should not contain more than ¼ per cent (0.25) of acidity. In fact 0.16 per cent is best as no sour taste is discernable. If it does the cream should be carefully treated with baking soda or viscogen (sucrate of lime), or mixed with 5 to 10 times its quantity of sweet cream. In fact this is better because too much soda or lime may produce a very alkaline and bitter flavour.

"Another great flavour secret is to add not more than half a teaspoonful of salt to the gallon of cream. It is also a well known fact that ice cream tastes better when it has been frozen for 24 hours. It takes about that time for all the flavours of the various ingredients to mingle into one pleasant taste, which is better than having one customer speaking of milk he can taste, another of flour, and so on. So the American system of placing their 'containers' (freezers) in the hardening room for a day or two is not so silly as some of us think or thought. There is always a reason for all they do over there, where they have been studying the trade for as many years as we have months.

"The 'body' is produced by the milk solids and other ingredients used. Ice cream should be firm and mellow, not hard or rubbery. Cream containing 18 per cent fat is the lowest that should be used; 22 per cent is about the best. Then again remember that aged cream makes a better ice cream. It should be kept for a day or two days at a low temperature, say 35 degrees and then used, especially if it has been pasteurized.

"Thick cream will not require much gelatine, cornflour or other binders.

" 'Texture' and 'body' seem the same thing, but there is a difference. Body is used for the whole of the frozen contents of the freezer, texture for the description of the 'grain,' such as smooth, grainy, crystallized, icy, and so on.

"Freezing has more to do with a fine texture than even the ingredients. For instance, freezing without beating or agitation produces an extremely coarse product hardly anyone would buy a second time, however good the ingredients. Freezing too quickly produces an ice cream that is coarse and full of large water crystals. A proper freezing is the one that incorporated about 30 to 40 per cent of air, beats it up with the cream and produces that velvety, smooth, and light article your customers rush for because the water content of the cream, milk, etc., freezes into very small and fine crystals thoroughly interspersed with air bubbles. Gelatine, etc., helps to maintain this smoothness for days after freezing if kept frozen.

"The 'swell' is the increase of the volume of ice cream after freezing. The better the freeze the more the swell and, of course, the better the flavour and the profits. Aged cream produces a better swell than fresh cream.

"The great secret about obtaining a good swell is not a secret. I'll tell you easily. The ice and salt in the tub gradually cool the contents of the freezer. Till a temperature of 34 degrees F. is obtained hardly any air will keep in the cream. But as it gets there and even a little lower, the cream foams up more and starts increasing in bulk, i. e., incorporating air and, what's more, retaining it. Then when it reaches 29 degrees or 28 degrees (the freezing point that varies according to

he proportion of sugar used) it increases in bulk very quickly all the time the temperature keeps at 28 degrees. Perhaps you will ask how long does it keep at 28 degrees? About 5, 10 or even 15 minutes, according to the rate of freezing. It is this point that has to be paid much attention. When freezing by hand one is apt to feel tired and leaves off beating it up and scraping down the sides, but it is a very foolish and a very costly thing to do.

"At 27 degrees the ice cream is well frozen; in fact, it should not be touched any more, otherwise the air will find its way out and you lose the swell. Neither must the ice cream be removed from the container; the warm air will form icicles and spoil the flavour. The container should be repacked with ice and salt so that the contents become frozen harder. After 24 hours the flavour reaches its best point and that is the time to serve it."

An idea may be gained from this what a relatively elementary stage the development of the business of ice cream making is over there, and what a field there is for Mr. Pompa's efforts. The enthusiasm with which he is entering into his work augurs well for the future of the business, however.

An interesting extract, which gives part of the history of ice cream, is contained in another article, and reads as follows:

"Little by little the number of ice cream retailers, mostly manufacturers, in the United Kingdom, has increased to 45,000 and each will state that his sales increase every year and that he is looking forward to a record year in 1922.

"What is the reason for this great increase that makes the ice cream trade similar to that other rage of recent years—the cinema trade?

"And why is it that in the United States, where there are over 4,000 wholesale ice cream factories and nearly 200,000 retailers of the delicacy, the annual output has gradually increased to 300,000,000 gallons? And this is not calculating the great amount that is made at home all over the States.

"The reason is simple. More knowledge of the art of ice cream blending and making.

"With the exception of the frozen or cooled fruit juices served during hot marches to Alexander the Great in Asia Minor and of the milk and water ices that Marco Polo noticed during his journeys to China and Japan about A. D. 1200, it is customary to state that the first mention of ice cream as a national dessert is connected with the marriage of Catherine de'Medici of Florence to the King of France in 1539, when she took with her Italian chefs to make ice cream at her table.

"In those days ice and salt were not used but a freezing mixture was made with saltpetre and water to surround the freezer containing the ice cream.

"Evidently the idea caught on in France because we read of many Italians (and Frenchmen, afterwards) opening smart glaceries or ice cream bars, where the aristocracy were wont to spend part of their time in partaking of the refreshments and strolling in the gardens attached to the bars. The first of these was Procopio Coltelli, who is also credited with the invention of the first mechanical freezer.

"Another well-known Italian was Demirro or Demarco, who became chef to Charles I of England and received an annual pension of £20 (a lot in those days) providing he kept the recipe of ice cream a secret from all others.

"About eighty years ago the so-called Swiss-Italian shops were started in London, the best known being Gatti's in Villiers Street. Italian ice cream became a rage then over here and many fortunes were made by

Mr. F. M. Hosler *Says:*

"I use gelatine in my ice cream because it makes it more palatable, and it adds to the food value. It makes the ice cream easier to digest, and I have used "SX" Gelatine for years, because I have found that it never varies in strength. Its high quality does not change."

Mr. Hosler is President of the Hosler Ice Cream Company, Albany, N. Y. His product has a splendid reputation. He has made a success of his business. The "SX" brand of Gelatine carries its own standard of quality and purity. It is the result of twenty years of manufacturing experience. A shipment to you today will prove why it is used by leading ice cream manufacturers.

Essex Gelatine Company

Manufacturers

40 No. Market Street
Boston, Mass.

Shipments made from warehouses in

Boston, New York, Philadelphia, Chicago, St. Louis, San Francisco

MEMBER

Member of the Association of Ice Cream Supply Men

Rogers Automatic Ice Cream Brick Maker

In years and in achievement, the Ice Cream brick making industry is still young. Some of its longest forward steps are being taken today. One of these long forward steps is already plain in the Rogers' Ice Cream Brick Maker, an automatic machine in which the making of one, two or three color bricks has been completely solved.

There is not a brick making machine in the world today that will make bricks like this one. The Rogers' Brick Maker produces a brick far better than has ever been produced by hand. The division between the colors is distinct and they do not run together.



The Rogers' Automatic brick Maker is a revolutionary proposition in the making of ice cream bricks. It does away with all brick slabs, brick cutting, parchment paper wrapping, and handling, and at the rate of 4 gallons per minute, 960 quarts or 1920 pints per hour, and at this continuous rate delivering boxes purely automatically.

INDIVIDUALS

Probably the greatest revolution in any brick filling machine is the possibility of individual bricks with the Rogers' Automatc Brick Maker. With this machine, individuals can be filled, either 6, 8 or 10 to the quart, which can be removed from the carton and sold or served at any and every occasion.

JOHN W. LADD COMPANY

"National Approved Ladd *Distributors Specialists"*

DETROIT CLEVELAND

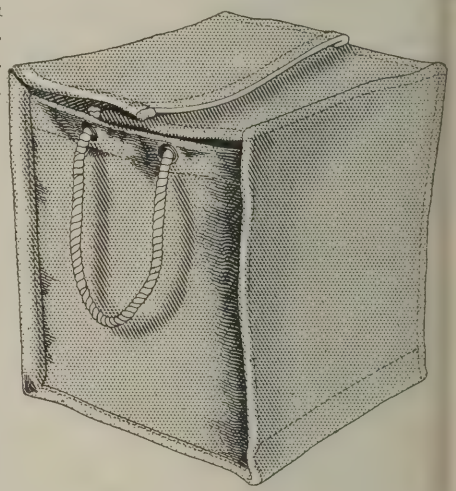
the shopkeepers and also by poorer and less educate Italians who started a livelihood with small barrows Unfortunately many of these were only here to escap the political tyranny obtaining in the various State Italy was then divided in, and to earn a living of som cort. They had no business ideas, no pride in what the did, no ambition to own smart shops, cafes or restau rants, and therefore no idea of studying their trade They just made a sort of ice cream and sold it casuall to children from their street barrows, not always clea or attractive.

"That was very prejudicial to the name of the trad and although it is a thing of the past there are still som persons who dread eating ice cream. Moral: Alway be clean and attractive and try and induce others to b so. It all helps to increase the name and amount o trade."

Mr. Pompa is to be heartily congratulated upon his efforts, and his work should be appreciated by those engaged in the trade across the water, for he is doing much to advance the industry.

THE "I-SAK" CARRY OUT PAIL.

of the Alsak Corporation, Yonkers, N. Y. One of the arguments in favor of this package is that an imperceptible escapement of moisture through the canvas sides causes constant coolness, thus causing the ice to last longer and permitting the use of a smaller quantity. They are made in any size desired and require little storage space when folded.



N. W. ICE CREAM COMPANY BRANCH TO OPEN AT ESTHERVILLE.

Estherville, Iowa is to have another new ice cream factory, in addition to the Hutchinson Ice Cream Company of Spencer, Iowa, is fast nearing completion, and is expected to be in operation soon.

The business of this concern was so large that it was necessary for them to establish a branch plant, and they selected Estherville as the most advantageous location.

You can find the person who will be glad to buy what you wish to sell, by letting your desires be known through an advertisement in The Ice Cream Review.

Specialization in ice cream and milk products enables us to serve you to YOUR advantage. Ours is a "Plan" to economize for YOU. Write — right **NOW!**
SANI-DAIRY PRODUCTS CORP'N, 45th and Evans Ave., CHICAGO

Advertising

By Peabody, in SX, Published by Essex Gelatine Co., Boston.

There is no question but what advertising is the great power of business; that is, the right kind of advertising. For the wrong kind can do as much harm as the right kind can do good. But it is hard to define the "right kind." There is no formula for successful advertising. No one plan can be established with the guarantee that it will work. Conditions vary with every product and with every community. A successful campaign for an ice cream manufacturer in Chicago might be a miserable failure for another in New York. Because of limited space only a few general statements can be made here about this great business-power.

First, there is the appropriation to be considered. And there should be a definite advertising appropriation and only advertising should be charged against this. Too many advertising accounts are convenient things to be charged with homeless items which are not advertising.

"How much shall I, or how much ought I to spend?" you ask. One might as well ask the old question, "How long is a piece of string?" The amount of the appropriation depends upon several things. One thing to be remembered, however, is this: Whatever the appropriation, be sure that it is spent so that it will develop maximum power in producing sales. Don't follow what some competitor is doing or has done. His problems may not be yours.

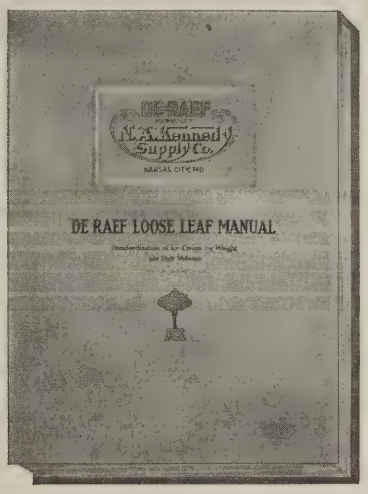
If you advertised last year you have a line on what to spend. If not, you can determine the amount of your appropriation, as many do, by establishing it as from one to three per cent of the anticipated sales volume over the period you expect to advertise. In other words, you expect a certain volume of sales. You know how much or what you can afford to spend for this volume. You know what it will be worth to you. Then begin your campaign on the basis that you are going to make the volume estimated upon.

With the amount determined upon, the next question is,—How shall I spend this? And right here let me say this: That if you do not know anything about advertising, do not attempt to work out your own campaign any more than you would your own case at court, or prescribe for yourself if you were ill. The services of an advertising man will cost you something to be sure, but you will obtain more satisfactory results. And somewhere in your locality is an advertising man who will work on your campaign for just the length of time necessary. Select him as you would an attorney. Be sure that he has had experience; that he has made good on previous work. You don't want a doctor to cut out your appendix just so that he may have a little practice.

There are four general forms of advertising which may be followed. First, are the newspapers in the territory you want to reach. Second, there is the medium of direct-mail advertising. Third, there is the bill board and fourth, there is what we will term dealer-help advertising. If the writer were an ice cream manufacturer he would try to use all four with proper balance. If his appropriation would not permit the use of all four, he would eliminate the bill board and concentrate upon the newspapers, direct-mail and dealer-helps. If he felt

DE-RAEF LOOSE LEAF MANUAL
FOR THE PRACTICAL
ICE CREAM MANUFACTURER
The only manual of its kind published to date devoted exclusively for the Ice Cream Factory

Copyright April 21 1921 Registration No. 618,893



Copyright July 5 1921 Registration No. 620,254

Written in Plain, Intelligent Language for the Practical Ice Cream Factory Manager and Ice Cream Maker from Several Years of Practical Experience Visiting Plants Throughout the States in the Middle West.

De Raef Loose Leaf Manual, circular sent on application to the Ice Cream Department.

Published by
N. A. KENNEDY SUPPLY CO.
KANSAS CITY MISSOURI



The Texas Barrel Company

is still manufacturing the best Ice Cream Tub on the market. Our increased sales assure us of that fact.

We were the pioneer makers of the TALL TUB and all other makes are imitations. While we are improving this TUB all the time, our imitators are content to stand still and hang on.

Specially prepared bottom so constructed as to withstand extremely rough treatment.

Can make immediate delivery.
Write for prices.

Texas Barrel Company
HOUSTON *Box 665* TEXAS

that he was limited to one form he would select the dealer-helps.

First, however, the market must be studied. And right here the writer wishes to point out a common error that is made by many who are unfamiliar with advertising. And that is this: That only in rare cases will consumer advertising force a dealer to handle any given line. Part of the advertising must be directed to and planned for the dealer. For the dealer is the final point of sale. You as an ice cream manufacturer might spend a great amount in advertising your ice cream to the consumer. But if you had not gained dealer good-will, your advertising, or much of it, would be waste.

In the study of the market, then, it must be determined how much sales resistance there is in the consumer-group and the dealer-group. It must be determined how much of the advertising will be directed toward the dealer and how much toward the consumer. If it is decided that all four forms can be used, then it must next be determined to what group the different forms will be directed.

Through all the advertising there must be some continuity, some tie-up. Hit and miss advertising never accomplishes what a well worked plan will accomplish. By the way of illustration, there came to the attention of the writer a case of an ice cream manufacturer who was approached by a salesman who had some dealer help cut-outs to offer. These were very attractive and the dealer purchased five hundred. These cut-outs, however, had no relation to any other advertising that that dealer had done or might do for the season. The dominant feature of this cut-out illustration was a woman holding a plate of ice cream before a parrot, with the woman trying to make the parrot speak the name of the ice cream, for illustration, "say Smith's." Now, if that manufacturer had planned his campaign in advance and it had called for this illustration he would feature it in all of his advertising. The newspaper advertisements would show the parrot, the poster advertising would do the same, the parrot would appear in the dealer-help material and on the letterheads and billheads of the company as well as on the tubs and the sides of delivery wagons. In the newspaper campaign the last advertisement to appear should be worked out or in rough form before first insertion. And from the first to the last there should be a definite line of movement or action; and this applies to the direct-mail campaign. The poster advertising may be more unit advertising; in other words, each poster may be a unit unto itself more than either the newspaper or direct-mail advertisement. In all advertising, however, the one big idea must dominate.

Care must be taken in the preparation of the copy. It must contain selling argument; it must carry sales ammunition. To state simply that "Doe's Ice Cream is Best" is to say nothing. Is there any reason why one should accept such a statement over Doe's signature? If Doe, however, would tell why his ice cream is better, then his audience would be interested and convinced. Take the matter of gelatine. The majority of ice cream manufacturers use gelatine. If Doe in his advertisements was to say that he used in the manufacture of his ice cream the finest gelatine he could buy and named it, say Essex Gelatine, then there would be ample reason for preferring and for demanding Doe's Ice Cream. Again, if Doe were to show a picture of his factory and to emphasize the fact that exacting care is taken for cleanliness in every process of manufacture, unquestionably it would influence. Or to go back to gelatine again, if Doe were to say that gelatine was a product of food value, that it made the ice cream more digestible, and that he used only the finest gelatine, people would feel more kindly toward his product.

As has been said, however, there must be a line of demarcation between the consumer copy and the dealer copy. The dealer copy must sell the dealer on the advantages of handling Doe's ice cream. By way of example, the direct-mail advertising sent to the dealer should illustrate the cabinet that is given; or the sales helps that are given, such as window display material, cut-outs, etc. This copy should place emphasis upon the promptness of delivery or the frequency of delivery. It should mention matters that are of particular interest to the dealer and of no interest whatever to the consumer.

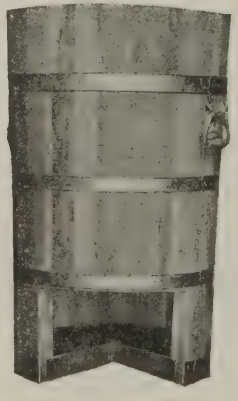
Much advertising is waste. It is waste because the market is not studied, because the copy is not written to meet any definite market. Illustrations are used which mean nothing. There is little of sales ammunition put in either copy or illustration. It is waste because the whole campaign as a unit is not studied out in advance.

Advertising properly used is one of the greatest factors in the upbuilding of a business. But it must be

A Comprehensive Selling Campaign
that will bring you immediate, new, very profitable business on
GOODY-GOOD! ***No royalties.*** Be the first to rip it up in your city.
Sani-Dairy Products Corporation
45th and Evans Ave. CHICAGO

MICHIGAN
White Cedar
is famous for its strength, durability and toughness! We use this wood exclusively in the manufacture of our
LUMBER JACKS
White Cedar
Ice Cream Packing Tubs

Unexcelled material combined with infinite care and skilled craftsmanship.



Will not waterlog and are the nearest possible resistant acid and salt brine.

We are the originators of the Thermos Ice Cream Cabinet
Complete descriptive circulars and prices on request.
Archie J. Verville Company
MANUFACTURERS
Hancock **Michigan**

MERIDALE POWDERED MILK



Jos. Middleby, Jr. Inc.
Established 1870
The Daylight Factory
327-347 Summer St. Boston, Mass.

Messrs. Ayer & McKinney June 3, 1922
39 S, Water St.,
Philadelphia, Pa.

Gentlemen:

It is now four years since we started handling your Meridale Brand Milk Powder, and in addition to the fact that our relations with your concern have been of a most satisfactory nature, we are glad to be able to add that during the period that we have handled your product, we have never had a complaint on the quality of the Meridale Milk Powder.

Yours very truly,
Jos. Middleby Jr. Inc.

39 South Water St. PHILADELPHIA **AYER & McKINNEY** 541-543 W. 22nd St. NEW YORK

Manufacturers of Whole and Skimmed Milk Powder of Quality

DISTRIBUTORS:—Jos. Middleby, Jr., 327-347 Summer St., Boston, Mass. Lee & Saddler Company, Atlanta, Ga. Haines-Carpenter Dairy Products Co. 716 N. 18th Street. St. Louis, Mo. SOUTHERN REPRESENTATIVE:—C. Gibson Ford, 1012 Union Trust Building, Baltimore, Md

properly and intelligently used. In an article of this length full justice cannot be done to the many phases of it. Rather, only a few general suggestions can be given. To sum these up, then, first a definite appropriation must be determined. Second, the market must be studied and the mediums for reaching that market. Third, copy and illustration must contain selling facts. For after all, advertising is salesmanship on paper, and would you permit one of your salesmen to use the empty, banal argument, "This ice cream is the best?" And fourth, if the maximum returns are to be received there must be continuity through all the advertising. It must be founded on a plan which is carefully thought out in advance.—Peabody.

⚜

HUTCHINSON ICE CREAM COMPANY BUYS GRAAF PLANT.

A deal was recently closed whereby the Hutchinson Ice Cream Company of Cedar Rapids, Iowa, came into the possession of the ice cream factory of Estherville, Iowa. They also acquired lots owned by Mr. Graaf adjoining his place of business, where they expect to erect a modern plant some time in fall or winter. This building will be of brick, and will be constructed with a view to future enlargement. It is estimated that the cost will be $30,000.

Ralph Rosseau, who has been in the ice cream business in Estherville for several years, will be manager of this plant, and Leo Sanders, formerly at the Graaf plant, will remain here to operate the new plant.

The splendid railroad facilities of Estherville make this an ideal location for an ice cream factory, and its success is practically assured.

ESTABLISHED 1868

Milligan & Higgins Gelatine Co.

222-224 FRONT STREET
New York

□ □ □

We have built our business on 54 years of satisfaction to our customers.

□ □ □

Quality and Prices always right.

Magnificent New Plant of M. & G. Ice Cream Company Opened at Allentown, Pa.

WHAT is generally conceded by experts to be the finest and most complete, up-to-date ice cream plant in the world was formally opened the week of June 24th, when the mammoth new building of the M. & G. Ice Cream Company, at Allentown, Pa., was thrown open to the public with appropriate ceremonies.

This building has recently been completed at a cost of $600,000, and embodies everything that is modern in structure and equipment. Every detail in this plant, in both factory and office, functions with the highest degree of efficiency for the production of this delicious cream.

The M. & G. Company now has its executive offices and main plant in Allentown, serving all of Eastern Pennsylvania, from Easton to Wilkes-Barre and Scranton, with sub-station at Reading, while the Tamaqua plant takes care of the coal regions, with sub-station at Bloomsburg.

The president of the company, John G. Mealey, and the treasurer, John I. Goade, are both natives of Allentown. Members of the company are: John G. Mealey, John I. Goade, Harvey H. Farr, Oscar G. Tallman, Joseph F. Gorman, John A. Nallin, Edwin O. Bachman, George LeRoy Walker, Carl D. Bauer, and Jacob Mauer.

The M. & G. Ice Cream Company came into existence in 1919. It was on the 24th day of May of that year that ground was broken for the construction of the first plant at Tamaqua. On September 24th, the same year, the first delivery of the famous ice cream was made. From that day on business has increased by leaps and bounds until today hardly a city or village in this section of the state is skipped by the fleet of trucks and teams operated by the company.

The building is three stories high and is of reinforced concrete. It has a frontage on Union Boulevard of 190 feet and 160 feet on Plymouth street. It is truly a sunlight factory, there being used in its construction approximately 12,000 square feet of glass.

To give an idea of the vastness of the factory, the following list of materials entered into its construction, according to the Allentown Chronicle, which also gives an excellent account of the arrangement and operation of the plant.

"Four hundred and twenty-one carloads of material were used, each car holding about 35 tons, or a total of almost 15,000 tons. This includes 30 carloads of cement, stone, and sand for the stone masonry work, and 302 cars of cement, sand, stone, lumber, and reinforced steel for the concrete work, also 34 carloads of bricks, cement, sand, and lime, for the brick work; 12 tons of steel sash, 10 tons of glass and putty, 20 tons of terra cotta, 100 tons of structural steel, 30 tons of miscellaneous iron. There are 30,000 square feet of roofing surface, requiring a total of 70 tons of materials just for the roof. Also, 5 carloads of materials for the heating system, 12 cars of insulation cork, 4 carloads of material for the electrical work, including 10 miles of wire, 9 carloads of refrigeration machinery, 8 carloads of glass lined milk tanks, and 3 carloads of ice cream equipment. There is also approximately 5400 cubic yards of excavation for basement footings, etc. In this modern sunlight factory there are over 5200 panes of glass, or approximately 12,000 square feet of glass.

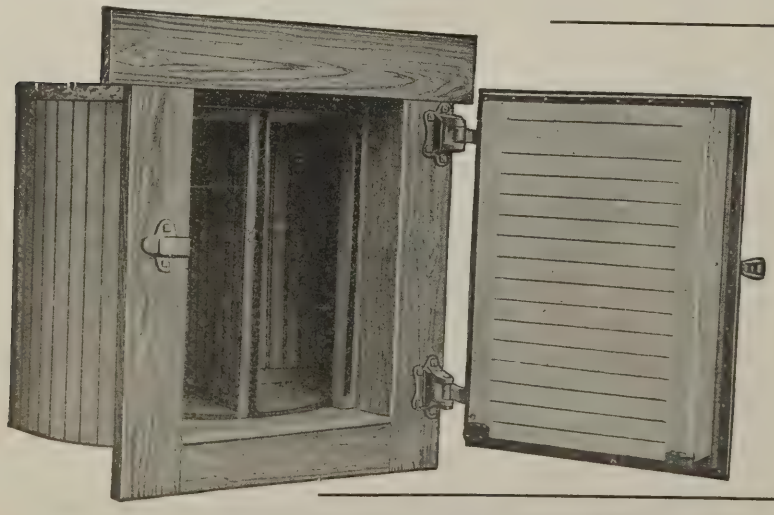
"The floor area is approximately 65,000 square feet, three stories and a basement, also a two story garage building, and cabinet shop.

"The general plan of the building is as follows: On the main floor: engine and compressor room, filling room, hardening rooms, brick room, can washing and sterilizing room, milk receiving room, and shipping platform. On the mezzanine floor: the ice cream freezers and fruit storage room. On the second floor: executive offices, laboratory, mixing room, ice tanks and ice storage rooms. On the third floor: milk and cream rooms, evaporators, and general storage. On the roof: Ammonia condensors, water tank and cooling tower.

"The capacity of the plant is 6,250 gallons of ice cream and 75 tons of ice per day, with a storage plant for 6,000 tons of ice. The hardening rooms for ice cream will have a capacity of 25,000 gallons.

"Milk and cream are delivered from the farms and dairies controlled by the M. & G. Company to the plant in solid car lots, and delivered directly to the M. & G. siding. The milk and cream is then delivered to the milk receiving room where it is tested and inspected and poured into a weighing vat, and then pumped directly into the six 2,000 gallon glass lined storage tanks, which are located on the third floor.

"From the storage tanks on the third floor, the milk and cream flow by gravity to two 500 gallon tanks where the sugar is added. From these tanks the next op-



JAMISON'S

"NOEQUAL" REVOLVING DOOR

is making can-passing easier in Ice Cream Plants and Creameries everywhere.

It passes Ice Cream and Milk Cans back and forth without loss of temperature—and requires but one person to operate when fitted with unloading device.

Standard 5-Gallon sizes in stock.

Send for Catalog No. 10 and Prices

Jamison Cold Storage Door Co.

Formerly
Jones Cold Store Door Co.
HAGERSTOWN MARYLAND, U. S. A.



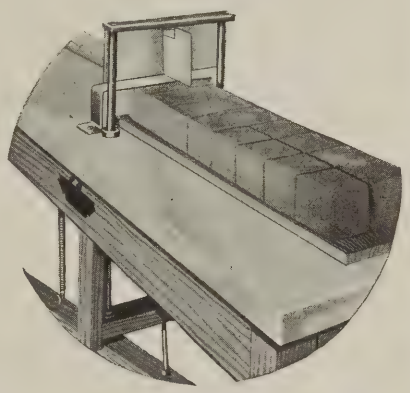
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Will cut any shape that can now be cut with the most expensive ice cream cutter. It will do it just as fast and with only a little practice.

It cuts Eskimo Pies uniformly and the quantity is only gauged by the speed of the operator.

Pints or Quarts require only the omission or insertion of the projecting knife shown in illustration to the right.

Non-rustable table of substantial construction.



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MAKES FOR A BETTER ICE CREAM AND A BETTER ICE CREAM CREATES BETTER BUSINESS

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THE ORIGINAL

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THE FLAVOR THAT MADE PHILADELPHIA ICE CREAM FAMOUS

A GOOD BEGINNING IS HALF THE BUSINESS.

eration is through the evaporator, where the entire mix is boiled under a vacuum, thereby assuring an absolutely pasteurized mix, without developing a boiled taste.

"From the evaporator the mix runs into two 500 gallon glass lined pasteurizing tanks, and from pasteurizing tanks to an 800 gallon per hour homogenizer with 1½ tons pressure.

"From the homogenizer the mix is pumped directly over a surface milk cooler which cools the mix from 135 to 40 degrees. (This surface cooler is enclosed in an air tight room.)

"From the surface cooler the mix flows by gravity to two 2,000 gallon glass lined holding tanks, where it is ready for flavoring previous to freezing.

"From these holding tanks, there is a portion of it drawn off into one 500 gallon flavoring tank where the entire batch is flavored. It is now ready for the freezing operation.

"On the mezzanine floor the freezers are located. There are four 120 quart freezers, and each freezer has a capacity of 120 quarts every 10 minutes. They are the newest in design and construction.

"After the mix has been frozen, instead of emptying the freezers directly into warm packing cans and containers, the M. & G. Company has devised a new system of transferring the frozen ice cream. It goes from the freezers into a glass lined hopper. There is one hopper for each set of two freezers. This hopper is kept cool by refrigeration.

"The cream is now ready for the filling process, which is done under refrigeration. The room itself is large enough to handle the output of three times the number of freezers which are now installed, and in addition to that the brick cutting and ice cream packaging will also be done in this room.

"The filling operation is as follows: After the cans are washed and sterilized in the sterilizing room, they are transferred to the can filling room, which, as previously stated, is under refrigeration. These cans are pre-cooled before the ice cream is transferred to the cans, thereby assuring the elimination of many objectionable features of filling cool ice cream into warm cans.

"Both the freezing and the filling operations can be seen from the outside of the building, inasmuch as the freezers are in sight on the mezzanine floor, and the front of the filling room is insulated with three thicknesses of plate glass.

"The cream is now transferred to the hardening rooms, where it is thoroughly hardened ready for delivery.

"The Sales and Delivery Department of the M. & G. Company has 63 trucks and 21 wagons of the most modern type, together with 52 horses in use, developing a service and delivery most complete in every detail. In addition to the regular daily service for each route, a special delivery service has been inaugurated at intervals of every three hours, together with an all night service, which enables all dealers to be well supplied at all times.

The refrigeration system is the newest and most modern of its kind. There are four large ammonia compressors requiring 700 H. P. Synchronous motors to drive them. There is also to be considered the piping, brine coolers, ice tanks, condensors, etc. In the refrigeration system there are over 8 miles of pipe, and there are 30,000 pounds of ammonia required to charge the system, and one solid tank car of concentrated calcium chloride.

"The water supply comes from two artesian wells, each well drilled to a depth of 300 feet, and throwing 500 gallons of water per minute each. The water used for condensing the ammonia is used over continuously. At this point the one expensive item in the manufacture of ice and refrigeration work is practically cut two-thirds. The water used for condensing is pumped over a cooling tower and is used over and over again. The method of pumping the water from the wells is with an air-lift system. Two large air compressors are used, one electrically driven and the other a steam driven unit. The water is blown to the surface into a large collecting pan and is then throughout the building.

"The two boilers for pasteurizing, heating, etc., are of 150 H.P. capacity each, and the exhaust steam from the different steam driven units in the plant is used for making hot water for washing, flushing, etc."

It is a remarkable industrial achievement, in which the entire ice cream industry should take pride.

GOODY-GOOD! — *a new plan.*

It's going over big in Chicago and will elsewhere. ***No royalties.*** Facts from

SANI-DAIRY PRODUCTS CORPORATION
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Tell us what you want, or what you have that you don't want, and we'll fix up a little Ad for you and insert it in the next issue of The Ice Cream Review.

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TUB HANDLES

When considering the knocks and rough usage subjected to them in daily use. Hence the necessity of selecting a tub handle that will stand all sorts of abuse and be sure to provide a a handy and positive grip.

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Are made of special steel of a toughness that defies destruction

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VANILLA CONTROL

STANDARD VANILLA AND BLENDS

IN every highly specialized industry the laboratory plays an important part. The laboratory makes possible exact buying and manufacturing, without which the highly specialized business does not prosper.

Just consider the importance of the laboratory in the ice cream industry. Crude materials are bought on comparative tests, milk components are bought on a definite fat-and-solids basis and the finished product has a fixed overrun and fat-and-solids composition. Nothing is left to chance. And only by such methods as this is it possible to strike a favorable balance at the close of the year.

Our business, just as highly specialized, if not more so, demands the same control. Crude materials are bought, subject to laboratory approval, processes are checked, and finally, the finished product is analyzed for constancy of composition. And just as the ice cream manufacturer by such methods gives fair value to the public so do we guarantee our products to the manufacturer at all times.

STANDARD VANILLA AND BLENDS

G. R. RYAN MANUFACTURING COMPANY
INCORPORATED
Rochester, New York

I Analyze Your Building Problems

Like a chemist or the attendant in your laboratory studies the various constituents of your product, — so I analyze the requirements of a building to properly house your business,—to place material in kind, quality and price to give a lasting and satisfactory service for every dollar invested.

And,— primarily to provide a plant conducive to efficient factory operation and one that lends itself to a ready and constructive policy of business expansion.

LET ME MAKE A DIAGNOSIS BEFORE STARTING YOUR NEXT BUILDING OPERATION

M. R. CARPENTER, *Architect and Refrigerating Engineer*
72 W. Washington St., CHICAGO, ILL.

Let's Understand Gelatine

By L. O. Thayer.

A SUBSTANCE found in animal bones, tissues and membranes, whose distinguishing characteristic is that of dissolving in hot water and forming a jelly on cooling. It is insoluble in cold water, but absorbs five to ten times its weight, and is soluble in hot water.

What Are Its Characteristics?

Gelatine is the best and foremost example of non-crystallizable substances known as colloids. A colloid is an emulsifier or binder of different liquid elements. it may or may not have viscosity powers (egg whites have none), but it always makes emulsified elements smooth and even in density.

Gelatine is a food with little proteid content, but has a high carbohydrate value, almost equal to sugar, the best carbohydrate known. This gives heat and energy to the body, but does not build tissue.

Gelatine is assimilated by the stomach quicker and with less effort than any food known.

The chief value of gelatine as a food places it in a class by itself. It is a concentrated food sparer, being able to save from waste half of its weight of proteid; twice as effective as any carbohydrate. Thus its value in the daily diet far exceeds its cost, and we might say gelatine is the efficiency export of the digestive process. Its value in hospitals, medical and dietary work has been recognized for years, but with little real knowledge of the scientific reasons here given in outline.

How Gelatine Is Made.

A brief description of the scientific manufacture of gelatine will be necessary to show the extremely difficult operation of converting the natural gelatine from bone, skin and sinews into the finished product.

The operation of making gelatine occupies a period of a month to six weeks, continuously day and night. The raw materials are treated in the vat for many days with a weak solution of pure muriatic acid, to remove the mineral matter, such as phosphate of lime, magnesia and carbonate of lime, leaving the gelatine bearing material intact. When the mineral matter is dissolved, the material is washed many times with pure filtered water, in order to remove every trace of acid.

The stock is then treated many times with lime water. This removes any fats that may be present, loosens the fibres, releasing the gelatine and purifying it. Then the stock is washed many times and is put into the boiling vat. Under constant and controlled temperatures the stock is boiled, which extracts the gelatine. The stock undergoes successive boilings, each succeeding, one under higher temperatures. As each run is made, the gelatine rises to the top and is drawn off. The first run always is the strongest, each successive run showing skimmings of less jelly strength.

The drawing off is transferred to vats in a cooled room where the thin mass congeals. It is then cut into sheets and placed on nets over wooden frames. These frames are put into a long alley into which is introduced a strong current of hot, dry air. This removes the greater part of the moisture in the sheets. Then the sheets go into the grinder, from which comes the granulated gelatine, ready for use.

The process is now completed, except for the important work of testing and grading. Each run is tested by several chemists, independently for chemicals and bacteria. In order that any errors or carelessness in the operation may be discovered, these tests are severe and carefully checked. The plant has its standards of purity, strength and bacteria, to which the product of every run must conform to a hair. Each skimming must meet the strength test of a similar skimming for many previous runs. When the results are verified, the grading is done and the ground gelatine packed into tight barrels and placed in a cool room for storage.

Legal Regulations for Gelatine.

The United States is the only nation that has a definite legal regulation for the purity of gelatine. The allowances by law for chemicals in gelatine are considered severe in other countries; but the purity of gelatine made and sold under this law has improved to such an extent in the last ten years that the gelatine factories now are prepared to, and do, manufacture a product far purer than the law. With one exception, the foreign gelatine houses do not care to meet the United States standards, selling at home only.

The Uses for Gelatine.

Gelatine is used in ice cream, for table desserts, in marshmallows, in candy lozenges, in druggist capsules, fountain toppings, by bakers for icing and fillings, in canned meats and sausages, and sometimes in fruit jellies. All these are considered as food uses. There are many technical uses for gelatine, like films, straw hats, etc.

There is more food gelatine used in this country than all the rest of the world put together. Perhaps England, Canada, France and Germany follow in this order.

The most important outlet for gelatine is ice cream.

ELPAM

(*Imitation Maple Flavor*)

A Specialty Flavor made by a Specialty House for a Specialty Ice Cream.

It cannot be frozen out.

Free Sample to flavor ten gallons frozen cream sent on request.

G. W. Wardrop Co., Inc.

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HAYES ICE CREAM CO.
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Proprietors of "VANOLEUM." The *Original Concentrated Vanilla Flavor.* We warn the trade against worthless imitations having similar sounding names claiming to be "the same as *Vanoleum.*"

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Speed Up
Your Brick Cutting Dept. with a "New Era"

Cuts standard ice cream slabs from molds into quarts, pints or any size desired, as fast as the operator can release the ice cream from the molds.

Can be adjusted to cut slices for Chocolate Coated Ice Cream Bars.

Absolutely Uniform

and unfailingly accurate is the "New Era" Ice Cream Brick Cutter. It's simplicity, speed and accuracy.

Reduces Costs

Our circulars tell all about this simple, practical machine. Get one.

Write us or our nearest representatives for circular and prices.

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J. W. Ladd Company, Cleveland, Ohio. Detroit, Mich.
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A. H. Barber Co., Chicago, Ill., Minneapolis, Minn.
Davis-Watkins Dairymen's Mfg. Co., Denver, Col. San Francisco, Ca.
G. Lessenhop & Sons, Lincoln, Nebr.
J. G. Cherry Company, Cedar Rapids, Iowa.

The New Era Company
146 Merritt St. Oshkosh, Wis.



Probably 90 per cent of all commercial ice cream contains gelatine. It has been used for 40 years and almost generally for 25 years. More than ten million pounds are used in this important industry. Nearly five million pounds are used for table jelly. The candy business consumes nearly three million more pounds, and so it goes.

How to Buy Gelatine.

There is lamentable ignorance about gelatine in nearly every big industry using it in large quantities. Every gelatine man can agree to this statement. Many men handling the colloid know little or nothing about the scientific, chemical or analytical details of this most important article; consequently, they are unable to impart much authentic information to the buyer. There are comparatively few recognized gelatine chemists or analysts, as it is a peculiar specialty in itself. Even these confess to a limited knowledge at present, compared to what ought to be known about this colloid.

When the bureau of chemistry put into effect its regulations for gelatine, only two scientists in the bureau knew much about it. When told by gelatine plant workers that it would be hard to meet the conditions imposed—and almost impossible to do better than the allowances—there was no man capable of declaring that gelatine could be made purer than the law. Yet the purity progress in some gelatine plants has been remarkable, and the development of scientific details and manufacture in the last few years can be characterized by no less an adjective than "wonderful.

There is no longer any excuse for making any slipshod gelatine, and if a concern is not progressive enough to improve its product constantly, it will soon find its proper level.

Since the war forced up the price of gelatine, along with everything else, and the gelatine bills doubled, the big users have come to realize that they must know what they are buying and see that they get value received. There has been more critical buying in the last two years, than all the previous period of gelatine use.

There is a loud and insistent demand for all the gelatine information possible. It may be stated that the sources of information still are meager. The wisest gelatine sharps are in snug, fat jobs and keep their hard-earned data to themselves. It was only two years ago that the Association of Official Agricultural Chemists began to study gelatine, and this organization has yet to produce much light of a practical nature. Those with most knowledge of this article have dug, dug, dug until they are qualified to speak, perhaps more or less superficially.

The writer discovered ten years ago, in his intensive study of ice cream, that the manufacturers knew less about gelatine than any other ingredient, although flavors ran a close second. With the installation of laboratories, and the hiring of more or less capable and experienced chemists, the larger manufacturers have learned a lot about flavors, and are saving money and selling an improved product. This leaves gelatine in a class by itself as an unknown quantity.

The same statement goes for the candy, bakery and packing interests. The table jelly and capsule makers know more about gelatine than all the other trades combined. They have had to dig up information and conduct exhaustive and costly experiments.

The first advice on buying gelatine is to know what you want it for. That may sound fanciful. Of course, a buyer has certain definite ideas about why he uses gelatine, but he must go beyond that and know just what characteristics the gelatine should have for his particular use. That entails study, and study is what

every gelatine buyer needs, if he is to save money and gain satisfaction.

It may be stated off-hand, that gelatine buying in the past has been confined to two points; that buyers could be put into two classes—strength buyers and price buyers. The personal or friendship element has entered more or less into both classes of buying. The buyer on strength has advanced a step over the price buyer. Recently there has been another advanced step noted, and the strength buyer has gone into comparative tests for strength, purity and bacteria. Under this system, if the friendship element is eliminated and the purchase be on a cold dollar and cents basis, the buyer has reached the point where he will get value received, and the obviating of gelatine worries.

The strictly price buyer—he always buys the cheapest—has no hope of satisfaction as long as he continues this policy.

Methods of analysis for purity are now available for any laboratory worker, and a simple jelly test strength is as good as the more complicated. The bacteria test can be performed by any good milk chemist.

In certain trades, clarity is a prime consideration, and every buyer needs to be assured of absolute uniformity. Each consignment upon arrival should be tested against the original sample, for strength, as a matter of self-protection and in order not to disarrange the formula. It is a wise buyer who demands an analysis of the gelatine he buys, and he should make an independent analysis to check up the seller's claim.

It is surprising what satisfaction has resulted in ice cream and candy trades from using a sterile gelatine. No ice cream manufacturer wants to introduce a concentrated mass of bacteria into a mix. He has spent thousands of dollars to keep them out. Gelatine is a media that hatches bacteria quicker even than milk. With bacteria eliminated there, his count is sure to be reduced greatly.

Bacteria in marshmallows causes the formation of gas, and this makes the goods unsaleable. The candy will taste sour or the gas destroy the texture and flavor. Every marshmallow maker heretofore has experienced this trouble in hot weather.

Keep bacteria out of your product by every means possible.

Later on we will give some definite rules for buying gelatine for your particular product, noting the characteristics needed. At this time a simple test will be given in order to determine strength and bacteria.

Weigh carefully one-half ounce of gelatine from each sample; put each portion into a beaker or tumbler holding a pint of cold water; put identifying numbers on the outside of glasses. This makes a 32 to 1 solution—quite weak—and weak enough to prevent low strength gelatines from solidifying. Put the gelatine powder on top of the cold water and let the glasses stand for 15 minutes. Then put the glasses into a bath or double boiler and turn on the heat. By constant stirring the gelatine should dissolve before the water in the bath reaches a temperature of 140 degrees. When the solution is clear and no traces of particles of gelatine can be seen, put the glasses into a refrigerator or entry of the cold room. The stronger gelatine will solidify first.

When the jelly is set, take the glasses out into a well lighted room. Note first the difference in clarity, color and clearness; then with the fingers press down on the jelly from glass to glass. The degree of resistance to pressure will give the comparison in strength. One can become quite expert with a little practice. A real expert can tell the difference to a fifth of a grade,

FLAVOR
WITH B.B.B. VANILLA

Store in your Refrigerating Room. Weeks later you will find Ice Cream with the same pleasing Vanilla Flavor.

SMOOTH—MELLOW

Always the Same and yet

ONE OUNCE

BBB (ARTIFICIAL) **VANILLA EXTRACT**

Flavors 10 Gallons

ICE CREAM

at a cost of

Less Than 4/10c Per Gallon

Do You Want To Improve on Your Present Flavoring?

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STRICTLY ONE OUNCE GOODS

Genuine Mexican Vanilla Bean scientifically fortified so as to impart to your Ice Cream that refined subtle flavor and aroma of Genuine Aged-in-Wood Vanilla Extract and give desired strength.

JUST WHAT YOU WANT ISN'T IT?

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Ship at once....Gals. B. B. B. Vanilla Extract. We have been looking for just such a Vanilla Extract as here described.

PRICES.

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In Barrels	$5.00
Half Barrels	5.25
10 Gallons	5.50
Single Gallons	6.00

Name .....

Address .....

Date .....

and that's as close as the most complicated of mechanical or polariscope devices can come.

For the simple yet conclusive bacteria test, just allow these glasses of jelly to remain on top of your desk, covered up, and examine them twice a day. In holding the glass between you and the light, you will see, in most gelatine, little white spots in the jelly. They are bacteria developing.

In some gelatines these colonies can be detected in six hours. This indicates a gelatine containing many millions to the gram. It is very bad, as the bulk of these bacteria are B. Coli. A gelatine may go twelve hours before showing signs of colonies. This means a bacteria content of perhaps five million to the gram. If a sample is clear up to twenty-four hours, it means three million, roughly; if good for thirty-six hours, it means two million.

As you examine the glasses from time to time, you will note that the growth of colonies has a marked effect on the solidity of the jelly. By shaking the glass you observe that the jelly is rapidly turning to liquid, meaning by this that the strength of the gelatine is being eaten by the bacteria. Who wants to buy a gelatine that cannot hold its strength until your goods are on the market?

Gelatine Value in Ice Cream.

Strange as it may seem to some, the ice cream industry cannot be classed as a whole when it comes to advice on buying gelatine. That is; what would be a proper brand and grade for a manufacturer in Seattle. for instance, might not do for a manufacturer in New Orleans.

It is true that all ice cream manufacturers require gelatine for the same purpose, viz: as a binder, smoother and stabilizer. Climatic conditions, mix conditions, and selling conditions, vary so that one cannot advise universal buying of one particular grade of strength.

If the plant is in a section where the summer heat is moderate, never above 80 degrees, one can use a weaker grade gelatine with satisfactory results. If the plant is in a section where the heat is excessive and of long duration, the strongest gelatine procurable is the only grade to use. Heat causes a softening of ice cream and when it softens the mass will slump. We will find this true in hot cities even when the best of care is taken in icing up the cabinets. Now a real strong gelatine will hold up ice cream after it softens, better than any other one thing. The stronger it is the better will the ice cream hold up. This fact is not generally known.

If in the mix the total solids content is above 35, a weaker grade gelatine can be used—aside from climatic and sales conditions. The lower the total solids content, the stronger should be the gelatine. You can see this quickly by realizing that the more water in the mix the more work is there to do for gelatine. Let us qualify this statement a bit, for fear someone may be misled. If you make a mix high in solids and use sweetened condensed, or a heavy condensed in large proportions, you will get "sandy" ice cream, which we hear so much about. In this case, a super-strong gelatine in larger quantity must be used. Recent experiments have shown that even a great proportion of sandiness caused by milk sugar in excess, mainly, can be overcome by using five ounces of a very strong gelatine. A weak gelatine cannot stop five per cent of sandiness under these conditions; a super-strong gelatine can stop seventy-five per cent.

The use of gelatine in preventing crystallization in ice cream shows that it forms a film around each icy particle. We all know that water tends to freeze in tiny crystals. The gelatine makes of each crystal a capsule, and if the film is thick and strong enough, the icy bit will get past the palate and tongue before melting. This is called smooth ice cream; that's the kind all are hopeful of producing.

If your product is sold in gallon, two-gallon and sizes smaller than five-gallon cans, the quicker it will be sold in each place. Then a weaker grade of gelatine can be used. If you sell nothing except fives and tens, which necessitates icing one or more days, you need a strong grade to prevent crystallizing.

If you ship for long distances and in a section like Fresno—from which the good Lord deliver us—where the temperature flirts with the top of the glass, the strongest gelatine made is none too good. Any big shipper should be careful of his gelatine strength.

So much for purity, bacteria and strength. It is feared that there may be some hesitation as to knowing just what to do about strength. To summarize this: If in doubt buy a stronger grade. It will do you no harm and for other reasons will improve your product. By using two and one-half ounces to the batch in winter ice cream, and three and one-half ounces in summer, of a strong grade, you will be able to meet all conditions not abnormal. It is wisdom to use less amount of a strong gelatine than six ounces of a weak grade.

If you are buying the best gelatine, don't let anyone get to the public with such worn-out ideas as Dr. Wiley nurtures—that it is a "filler," and "adulterant," and "aid to air-blowing" or a "stretcher." Several newspapers this summer have had such fool articles. If you are not afraid to carry home a half pound occasionally for a table jelly—and you could eat no dessert with more profit to yourself—then let no one attack your gelatine.

(Continued on page 122)

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Ice Cream Cabinets
Refrigerators - Coolers
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Quality - Service - Price
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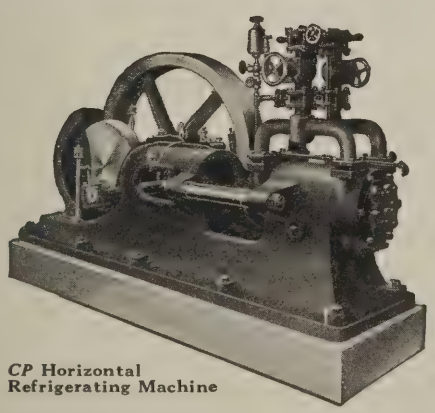
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1. **Extraordinary Uniformity of Delft Gelatine**
   Goods standardized packed and sealed at the works, delivered to you in perfect condition in original sanitary barrels of special construction.
2. **Highest Strength and Purity**
   Not only meets the requirements of State and National Pure Food Laws, but is even purer than any of them demand.
3. **Absolute Freedom From Liquifying and Harmful Bacteria**

No tariff changes will curtail supplies, nor affect present reasonable prices.

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Harold A. Sinclair



CP Horizontal Refrigerating Machine

An Over-Strong Refrigerating Machine

The ***CP* Refrigerating Machine**, in both horizontal and vertical types, is built over strong in every wearing part and extra heavy throughout. Our 25 years' experience in building refrigerating machines for the ice cream industry has taught us that the demands on the refrigerating machine in the ice cream plant are unusually severe and only an over-strong machine will stand up year in and year out.

That the ***CP* Refrigerating Machine** does give satisfactory service in the ice cream plant in spite of the varied and arduous requirements, hundreds of ice cream plant operators will testify.

Write for New Refrigerating Machine Book

THE CREAMERY PACKAGE MFG. COMPANY

CREAMERY MACHINERY
MILK AND CREAM HANDLING MACHINERY
CHEESE MAKING MACHINERY

SALES BRANCHES—(Write to nearest one)

Chicago, Ill., 61-67 W. Kinzie St.
Boston, 138-140 Washington St. N.
Buffalo, N. Y., 133-137 E. Swan St.
Kansas City, Mo., 1408-10 W. 12th St.
Minneapolis, Minn., 318-20 3d St. N.
Philadelphia, Pa., 1907 Market St.
Portland, Ore., 6-8 N. Front St.
San Francisco, Cal., 699 Battery St
Toledo, Ohio, 119 St. Clair St.
Waterloo, Ia., 406-8 Sycamore St.
Omaha, Neb., 113-15-17 So. 10th St.

ICE CREAM MAKING MACHINERY
REFRIGERATING SYSTEMS
DAIRY MACHINERY AND SUPPLIES

ADEQUATE REFRIGERATING MACHINERY PREPARES FOR THE SEASON'S RUSH.

A strong gelatine will give a creamier, smoother and more uniform composition to the mix.

Too much gelatine can be used in a mix; too much makes a gluey, sticky, product. Rather cut down the gelatine content. If you can use 15 pounds instead of 22 pounds to the 400-gallon mix, you will get all the best characteristics of a strong gelatine, and the product will taste lively and roll down the gullet in a delicious trickly that brings the eater one step nearer paradise.

Prepairing Gelatine for Ice Cream.

For many years gelatine has been prepared with little variation in ice cream plants, and the method generally employed has fallen short of the best results. In small plants the gelatine has been weighed for the batch; then it was soaked in cold water for thirty minutes; then the can containing the gelatine has been immersed in a cold water bath and the steam hose stuck in. While the water was being heated, the dissolving gelatine is stirred. When showing clear and with no lumps or particles, the gelatine was known to be ready for the mix. The only variation has been dissolving in warmed milk in order not to change the standard of the mix. So far this crude method has been all right if the temperature of the bath has not risen above 150 degrees.

The large plants have used a double kettle or special gelatine mixer, in order to save time. This, too, has been all right.

If the gelatine liquid has been poured into a vat of cold mix, then a wrong method has been pursued, for an incomplete emulsification has resulted. The warm gelatine should be put into the warm mix just after pasteurization has been completed. Then run through the homo. The gelatine can do its full work, and it will be mixed evenly throughout the mix.

The new idea of pasteurizing and homogenizing the whole mix has brought up another question in preparing gelatine. I was asked about this by several concerns, all anxious to do the right thing, as there seemed to be a sharp difference in opinion among gelatine men; and the only way to settle it was to go through a series of experiments. The problem is now settled.

When the pasteurizer is filled with the mix ingredients, and still cold, sprinkle the required amount of dry gelatine on the top. The finer the mesh the better. Give 15 minutes for the gelatine to soak before turning on the steam. The agitation, of course, will aid in soaking, and with the coil or paddle of the pasteurizer working the time for soaking can be cut down to five minutes. The gradual heat applied in the pasteurizer will give a perfect cooking for the gelatine. If there is no time to be lost, soak the gelatine for fifteen minutes outside the vat and pour in when the heat is first turned on.

There can be no doubt that this is the ideal method in large plants for introducing gelatine, and the full value of the colloid will be extracted.

A MALE AND A FEMALE.

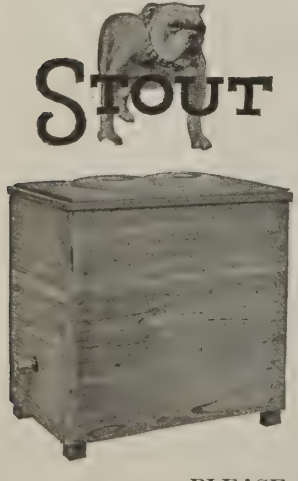
The story is told of early Chicago that, when the present fine system of parks was begun, one of the city fathers did not understand about the gondolas or Italian boats for the little artificial lakes. He had never seen a gondola. "Gondolas may be all right," he said, "but why be in such a hurry to buy a whole flock? Why not get a male gondola and a female gondola, and let Nature do the rest?"

Some people expect too much of Nature. She puts a hard shell on the nut to make it keep till sprouting time. She does up the orange in a water-proof wrapper. They were intended to stand some exposure to the elements. Milk was not. It was intended to pass directly from the producer to the consumer, from the mother to the young animal, without ever coming in contact with the air. The minute it does come in contact, even going from the udder to the milk pail, and even if no particles get into it, except from the air, it is tainted. That's why it needs to be pasteurized and sealed in sterile bottles. Nature doesn't make milk bottles or gondolas.

Other people lean the other way. They think they can beat Nature at her own game. There have been experimenters who thought they could make some kind of jelly and put life into it, but so far life has come only from life. Now speaks up Mr. Ford, who doesn't propose to make life but he proposes to make a "tin cow." That is, he proposes to make a machine that will make milk from certain raw materials.

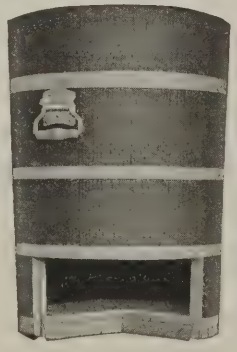
Some people expect too much of Nature and some appear to think her works are easily duplicated.—The Milk Salesman.





Schroeder Perfection Cabinets and Tubs

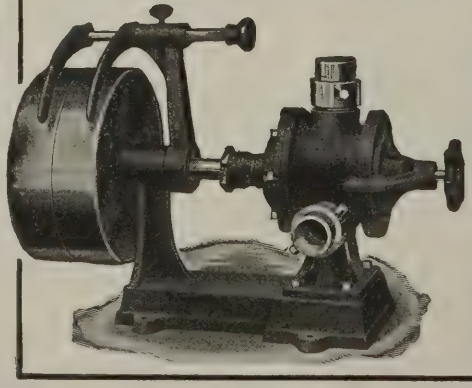
The Stoutest Line



Satisfaction and Prompt Shipments

Stout Manufacturing Company
371 Broadway — Milwaukee, Wis.

Taber Creamery Pumps



are the most sanitary because they are entirely dissectable. Demand a Taber Pump from your jobber. If he cannot supply you we will sell you direct. Address:

Taber Pump Company
297 Elm Street
BUFFALO, N. Y.

Powdered Milk Market Report for July, 1922

By Bureau of Markets and Crop Estimates, United States Department of Agriculture.

Prices Paid for Raw Material Delivered During June, 1922, F. O. B. Factory.

Geographic Sections	Whole Milk			Buttermilk per gallon	Skimmilk per cwt
	Price per CWT	Butterfat Basis	Allowance 0.1 p. c. fat		
New England	1.47	3.5	....	...	..
Middle Atlantic	1.42—1.71	3.5	4—5	...	20
South Atlantic	1.50	3.5	4	...	..
E. North Central	1.40—1.60	3.5	4	¾	..
W. North Central	1.25—1.72	3.5	3—4	¾—1 ½	..
South Central	....	...	....	...	..
Northwestern	1.55—1.63	3.5	4	...	..
Southwestern	1.52	3.5	4	...	15—15 ¼

Manufacturers' Wholesale Selling Prices During May.

The wholesale prices given below are based on reports of manufacturers covering actual sales made to jobbers, wholesale grocers, and similar buyers on basis of cash or short time credit with freight included to distributing point in each section.

Prices in the column headed "Range of Prices" are the highest and lowest reported by all firms. Those given under "Bulk of Sales" are the highest and lowest reported by different firms as the "bulk of sales" prices.

Geographic Sections		Whole Milk Powder		Skim Milk Powder		Buttermilk Dried	
		Range of Prices	Bulk of Sales Prices Fresh Goods	Range of Prices	Bulk of Sales Prices Fresh Goods	Range of Prices	Bulk of Sales Prices Fresh Goods
N. E.	Case	54	54	33	33	11 ½	11 ½
	Bulk	23 ½–27	23 ½–27	7 ½–11	8–11	6 ½–10 ½	7–10 ½
M. A.	Case	30–54	30–54	15–33	15–33	11 ½–12	11 ½–12
	Bulk	23–27	23–27	7–11	7–11	5–9 ½	6–9 ½
S. A.	Case	54	54	33	33	12	12
	Bulk	26–27	26–27	7 ¾–11	8 ½–11	7–10 ½	7–10 ½
E. N. C.	Case	32–54	32–54	33	33	11	11
	Bulk	22–27	22–27	6 ¾–11	7 ½–11	7–11 ¼	7–11
W.N.C.	Case	54	54	33	33	10 ½–12	10 ½–11 ½
	Bulk	26–27	26–27	6–11	8–11	3 ½–10 ½	3 ½–10 ½
S. C.	Case	54	54	33	33	.....	.....
	Bulk	26–27	26–27	7 ¾–11	9–11	7–11 ¼	8–10 ½
N. W.	Case	58	58	36	36	.....	.....
	Bulk	28	28	5–12	5–12	8–11 ½	9–11 ½
S. W.	Case	58	58	20–36	20–36	11 ½	11 ½
	Bulk	28	28	6 ½–12	6 ½–12	7–11 ½	7–11 ½

NOTE: Bulk goods includes that sold in barrels and drums. Case goods includes that sold in tin containers.

NOTE: Skimmilk powder for export trade was reported sold at 10-11 ¼ c per lb. F. A. S. Atlantic Seaboard, and 7 ½ c per lb. F. A. S. Pacific Seaboard.

New England (1)—Maine, New Hampshire, Vermont, Massachusetts, Rhode Island and Connecticut. Middle Atlantic (2)—New York, New Jersey, Pennsylvania. South Atlantic (3)—Delaware, Maryland, Dist. of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia and Florida. East North Central (4) Ohio, Indiana, Illinois, Michigan and Wisconsin. West North Central (5)—Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska and Kansas. South Central (6)—Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, Oklahoma and Arkansas. Northwestern (7)—Montana, Wyoming, Idaho, Washington and Oregon. Southwestern (8)—Colorado, New Mexico, Arizona, Nevada, Utah and California.

(Concluded on page 125, first column)

PROSPERITY FOLLOWS THE DAIRY COW. Be sure you attend the National Dairy Exposition—St. Paul-Minneapolis, Oct. 7-14.

Condensed and Evaporated Milk Market Report

By Bureau of Markets and Crop Estimates, U. S. Department of Agriculture.

Manufacturers Wholesale Selling Prices of Condensed and Evaporated Milk (June).

The wholesale prices given below are based on reports made by manufacturers covering actual sales of condensed and evaporated milk to jobbers, wholesale grocers and similar buyers, delivered at manufacturers' distributing points on basis of cash or short time credit. Foreign prices are given as F. O. B., or F. A. S., points of export in section in which sales were made.

Geographic Sections	Sweetened Condensed, Bulk, Per Cwt. Unskimmed	Skimmed	Unsweetened Evaporated, Bulk Per Cwt. Unskimmed	Skimmed
New England—				
Range	9.00	4.00—5.59	8.50	2.80
Average	9.00	4.55	8.50	2.80
Mid. Atlantic—				
Range	9.00	3.60—5.59	6.00—12.00	2.20—6.60
Average	9.00	4.52	8.34	3.22
So. Atlantic—				
Range	8.50—9.00	4.00—5.57	....	2.45—2.80
Average	8.75	4.76	....	2.63
E. N. Central—				
Range	8.00—9.00	4.00—6.00	6.50—9.00	1.90—5.50
Average	8.75	5.03	7.56	3.80
W. N. Central—				
Range	9.00	5.00—6.50	7.05—8.33	3.88—4.44
Average	9.00	5.57	7.69	4.16
So. Central—				
Range	9.00	5.25—5.57	....	....
Average	9.00	5.41	....	....
No. Western—				
Range	9.00—10.50	5.25—7.00	....	4.00—4.95
Average	9.50	6.23	....	4.48
So. Western—				
Range	9.00	5.25—5.57	....	....
Average	9.00	5.41	....	....
United States—				
Range	8.00—10.50	3.60—7.00	6.00—12.00	1.90—6.60
Average	9.00	5.07	8.01	3.57

New England—Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, Middle Atlantic—New York, New Jersey, Pennsylvania. South Atlantic—Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida. East North Central — Ohio, Indiana, Illinois, Michigan, Wisconsin. West North Central—Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas. South Central—Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, Oklahoma, Arkansas. North Western—Montana, Wyoming, Idaho, Washington, Oregon. South Western—Colorado, New Mexico, Arizona, Utah, Nevada, California.

CONDENSED AND EVAPORATED MILK MARKETS FEATURED BY DULL SUMMER DEMAND.

The same relative inactivity which featured condensed and evaporated milk markets for several months previous continued during July, and prospects for any materially improved demand are so slight that many of the trade who have held a more or less confident attitude are beginning to lose some of their optimism. Export demand, upon which canned milk manufacturers have come to depend to a large extent as an outlet for surplus domestic production, has become less of a factor each month. Buying for relief purposes, which constituted such a support especially to the evaporated milk market, has practically ceased, and no additional orders seem to be in sight. Domestic demand in England is reported as somewhat heavier, but American manufacturers have as competitors an increasing number of European factories which are able to lay down the goods at a lower cost and consequently get the business. Except for brands which are widely known through extensive advertising, foreign demand is not expected to absorb very large quantities of American made goods in the very near future. Latest export figures are for the month of June and indicate a slight decrease under May and quite a heavy decrease under June, 1921.

Surplus Milk Goes Into Butter and Cheese.

Condenseries, however, have had at least one favorable condition during the past few months which has helped considerably to offset the dull demand for canned milk. Prices of both butter and cheese have been such that it has been possible to divert surplus milk into one or the other of these products, and as result the production of condensed and evaporated goods has been held as low as was consistent with good business practice. These outlets have been fortunate not only because of the lighter demand which has featured both condensed and evaporated milk markets, but because of the upward tendency of costs of manufacturing. Seasonal advances in prices of raw milk are practically at hand, and in the case of condensed milk, sugar is over a third higher in cost than it was in the spring. The latter has been of considerable influence in divesting trade demand to evaporated milk on account of the lower prices at which this class of goods could be sold.

Light Summer Demand From Ice Cream Manufacturers.

The summer demand from the domestic trade for condensed and evaporated milk has not been up to ex-

(Concluded on page 125, second column)

MANUFACTURERS UNSOLD STOCKS OF CONDENSED AND EVAPORATED MILK

Includes all stocks held by manufacturers which were not sold or under contract for delivery on unfilled orders.

Commodity	Total Unsold Stocks July 1, 1922		Comparison of Unsold Stocks For Same Firms Reporting			% Inc. or Dec. July 1, 1922 over July 1, 1921
	Firms	Pounds	Firms	June 1, 1922 Pounds	July 1, 1922 Pounds	
Condensed Case Goods	12	16,324,599	11	21,012,705	16,318,073	— 44
Condensed Bulk Goods	34	16,215,202	34	9,171,333	16,210,504	— 19
Evaporated Case Goods	35	84,233,607	32	108,695,220	84,222,711	— 41
Evaporated Bulk Goods	15	350,968	15	359,327	350,968	— 50
Total	56	117,124,376	56	139,238,585	117,102,256	— 39

UNFILLED ORDERS FOR CONDENSED AND EVAPORATED MILK

Includes the amounts of each commodity for which orders have been received by manufacturers whose orders were in excess of their unsold stocks.

Commodity	Total Unfilled Orders July 1, 1922		Comparison of Unfilled Orders For Same Firms Reporting			% Inc. or Dec. July 1, 1922 over July 1, 1921
	Firms	Pounds	Firms	June 1, 1922 Pounds	July 1, 1922 Pounds	
Condensed Case Goods	2	183,246	2	.....	183,246	..
Condensed Bulk Goods	1	228,750	1	421,625	228,750	..
Evaporated Case Goods	8	1,195,659	7	1,314,693	1,049,859	— 24
Evaporated Bulk Goods	..	.....	..	.....	.....	..
Total	8	1,607,655	7	1,736,318	1,461,855	+ 2

MONTHLY POWDERED MILK MARKET REPORT.

(Concluded from page 123)

Manufacturers' Total Stocks of Powdered Milk.

Includes all stocks held by manufacturers reporting whether manufactured by them or purchased from others; whether on their own premises; in storage; or in transit (unsold) for warehouse consignment; and whether sold or contracted for sale but not delivered.

TABLE I.

Total Stocks of Powdered Milk Products.

Commodity	Code	Pounds July 1, 1922	Pounds July 1, 1921
Whole Milk Powder	Case	110,434	393,090
	Bulk	1,269,262	854,980
Skim Milk Powder	Case	194,479	245,481
	Bulk	7,484,849	11,039,889
Part Skim Milk Powder	Case	.....	.....
	Bulk	113,160	38,229
Cream Powder	Case	.....	.....
	Bulk	51,466	112,478
Dried Buttermilk	Case	20,000	150,000
	Bulk	442,048	2,267,762

Manufacturers' Unsold Stocks of Powdered Milk.

Includes that portion of stocks reported in Table 1, not covered by current sales or future delivery contracts.

TABLE II.

NOTE—Bulk goods includes that sold in barrels and drums. Case goods includes that sold in tin containers.

Unsold Stocks of Powdered Milk Products.

Commodity	Code	Pounds July 1, 1922	Pounds July 1, 1921
Whole Milk Powder	Case	110,434	393,090
	Bulk	538,588	128,980
Skim Milk Powder	Case	133,101	245,481
	Bulk	3,341,739	8,016,419
Part Skim Milk Powder	Case	.....	.....
	Bulk	13,160	9,229
Cream Powder	Case	.....	.....
	Bulk	.....	42,478
Dried Buttermilk	Case	15,000	145,000
	Bulk	183,456	1,261,804

EXPORTS OF CONDENSED AND EVAPORATED MILK FROM THE UNITED STATES.

	Condensed Pounds	Evaporated Pounds
Total—June, 1922	4,816,770	10,889,522
Total—June, 1921	8,060,056	13,640,173
Jan.-June (inc.), 1922	35,005,074	83,953,157
Jan.-June)inc.), 1921	49,376,657	81,995,917

EXPORTS OF POWDERED MILK FROM THE UNITED STATES DURING JUNE, 1922:

Total exports June, 1922	822,625
Total exports June, 1921	733,577
Jan.-June (inc.), 1922	4,610,082
Jan.-June (inc.), 1921	2,735,869

CONDENSED AND EVAPORATED MILK MARKETS FEATURED BY DULL SUMMER DEMAND.

(Concluded from page 124)

pectations. The ice cream trade especially has taken far less quantities of goods than condensing firms had anticipated. This is explained partly through the fact that powdered milk is being more widely used in the manufacture of ice cream, and also because of the relatively cool summer which has featured various consuming sections of the country.

Summarized figures from manufacturers indicate that condensing operations have been carried on conservatively and that due consideration has been given to the anticipated and actual dull summer demand from all classes of trade. While total stocks on July 1, as indicated in the accompanying tables, reveal a moderately heavy increase over June 1, it must be borne in mind that this date followed closely upon the heavy producing season. It is to be noted also that while total stocks on July 1 were heavier than on the first of the previous month, unsold stocks were lighter. A comparison of total stocks July 1 this year and last shows a decrease of about 26 per cent. Therefore, from the statistical standpoint, markets were perhaps in better shape on July 1 than they were June 1.

TELL YOUR "WANTS" BY AN AD IN THE CLASSIFIED COLUMN OF THE ICE CREAM REVIEW.

PROF. BAER'S INQUIRY DEPARTMENT.

(Concluded from page 16)

use any extra milk serum solids, but I am suggesting below, in table two, a general formula, using about 2 per cent extra serum solids. I presume you are familiar with the calculations of butterfat and solids, but if you have any difficulty in figuring out the ingredients of your mix, I shall be glad to assist you in this matter if you will give me the composition of the ingredient you intend to use.

Table One.

Ingredients	Fat	Serum Sol.	Total Sol.
14.0 lbs. sugar	.....	.....	13.30
.5 lbs. gelatine	.....	.....	.47
85.5 lbs. milk and cream	14.0	6.36	20.36
100.0 lbs.	14.0	6.36	34.13

85.5 = 41 lbs. 30% cream and 44.5 lbs. 4% milk.
85.5 = 58 lbs. 25% cream and 27.5 lbs. skimmilk.

or

Table Two.

Ingredients	Fat	Serum Sol.	Total Sol.
14.0 lbs. sugar	.....	.....	13.30
.5 lbs. gelatine	.....	.....	.47
2.0 lbs. skimmilk powder	.....	1.9	1.9
83.5 lbs. milk and cream	14.0	6.25	20.25
100.0 lbs.	14.0	8.15	35.92

You stated in your letter that you were going to use a tub freezer and desired to connect the freezer with a brine pump and freeze with brine instead of salt and ice This makes a very satisfactory method of freezing. You should have a good centrifugal pump and have the brine at a temperature of eight or ten degrees F. while freezing.

Relative to the matter of using skim milk powder or condensed milk, we have found that either one will give satisfactory results. Many factories prefer to use skim milk powder and others will use condensed milk.

* * *

Dear Sir:—Will you please advise how I can increase my swell and do away with coarse cream to a certain extent. I have been using butter and straight milk with sugar and gelatine and find that my percentages have been as follows: Butterfat, 15 to 16 per cent; M. S. N. F., 5½ per cent; sugar, 13 per cent, and gelatine .05 per cent. I have been using Meloine, and freeze it as soon as cooled and thickened. A few times it has set around several hours because machinery would not work good but could see no noticeable difference. After pasteurizing and emulsifying milk, butter and sugar, I cool and mix gelatine and powder at once. Giving it about 30 minutes to age before starting to cool. Do you suppose it would help much to hold it cold for a few hours before adding powder and gelatine and getting ready to freeze. How much do you suppose it would help if I increase the milk solids not fat to about 9 per cent with powdered skim and cut the sugar to about 10 or 12 per cent. What percentage of milk solids not fat would you recommend with a 14 per cent butterfat requirement? E. W. P.

Reply: It appears from your letter that you have trouble in securing a satisfactory overrun and that you also have some coarse ice cream. Both the unsatisfactory overrun and the lack of smoothness in your product is due to the freezing of your mix too soon after processing. I am sure if you could see your way clear to hold your mix at least twenty-four hours, preferably forty-eight hours, before freezing, you would not only get a satisfactory swell in your product, but you would also get a much smoother cream. You might improve your formula by reducing the butterfat content to 14 per cent and the milk serum content to 8 per cent with skim milk powder. I would not reduce the sugar content, but leave that 13 or 14 per cent.

I am sure with these suggestions you will be able to improve your product a great deal but if you have further difficulty, I shall be glad to hear from you again.

* * *

Dear Sir:—Our ice cream mix has 11 per cent butterfat, 26 per cent solids. Total solids, 37 per cent; sugar, 13 per cent; gelatine, .5 per cent.

Ice cream is not as smooth as we desire. Will powder (give name and per cent) and improver give this result? J. H. S.

Reply: We have your letter of recent date stating that you have trouble in securing a smooth ice cream. You stated also that your mix tested 11 per cent fat and 37 per cent total solids. I see no reason why you should not get a smooth kind of ice cream from this mix and do not believe it will be necessary to use any improvers to get this result. Your trouble may be in not ageing the mix properly or in not carrying out the process of freezing correctly.

I suggest if you continue to have this trouble that you write to me again telling me just how you make up your mix and explain also how you carry out the freezing process. With this additional information I can locate the trouble.

* * *

Dear Sir:—Will you please tell me the analysis of the following mix, and what changes to have 100 per cent overrun: Eight qts. 22 per cent cream, 2 qts. whole condensed sweetened milk, 3 qts. whole milk, 3 lbs. sugar, 1 oz. Talbo powder, 1 oz. vanilla powder. F. S.

Reply: You will find below, in Table One, calculations showing the per cent of ingredients in your mix:

Table One.

Ingredients	Fat	Serum Sol.	Total Sol.
8 qts. or 16.6 lbs. 22% cream	3.65	1.16	4.81
2 qts. or 5.5 lbs. condensed	.41	1.4	4.00
3 qts. or 6.5 lbs. 4% milk	.26	.56	.82
2 oz. powdered vanilla	.....	.....	.....
3.0 lbs. sugar	.....	.....	2.85
31.6 lbs. mix.	4.32	3.12	13.48
Per cent	13.6	10.0	39.5
Per cent sugar	16.5	.....	.....

If I should criticise your mix I would say that the total solids were too high due to too large an amount of sugar. This large amount of sugar lowers the freezing temperature and makes it more difficult to freeze, and consequently the overrun does not come as easily as if you had a smaller amount of sugar. I am suggesting in Table Two a fifty pound mix which I would like to have you try. If your process of freezing is carried out correctly you should have no difficulty in getting 100 per cent or better overrun.

Table Two.

50 lb. mix for 11 gallons of ice cream—100% overrun.

Ingredients	Fat	Serum Sol.	Total Sol.
3.80 lbs. sugar	.....	.....	3.61
.25 lbs. or 4 oz. gelatine	.....	.....	.23
8.00 lbs. sweet condensed	.64	2.16	6.00
27.00 lbs. 22% cream	5.94	1.89	7.83
11.00 lbs. 4% milk	.44	.94	1.38
1½ oz. vanilla powder	.....	.....	.....
50.00 lbs	7.02	4.99	19.05
Per cent	14.0	10.0	38.0

I shall be glad to have you write me telling me what results you have obtained.

Derycote
PAINT YOUR PERSONALITY ON YOUR PACKAGES

After Dog Days

is a brilliant elastic colored enamel made especially for Dairy and Ice Cream service

Handling or transportation will not cause it to chip or crack. Hot or cold water, salt, ice, brine, washing powders, etc., will not dim its lustre or impair its protective qualities. Made in 24 colors, as well as black and white or in your standard shade if our regular colors don't suit. Write for our color card and ask for a sample.

None too early to get ready for tub and can painting.

Best time to test out Derycote — *economy* and *service.*

Cheap price alone means *neither.*

Nor a high price, either.

Derycote means *real economy* and *service* at a *fair* price. Derycote *brilliance* is a by-word with those who *value* the *appearance* of their tubs and cans from an *advertising* standpoint.

Derycote Endurance and Covering capacity more than offsets its slight difference in first cost, to say nothing of its *final saving* in repair and replacement expenses.

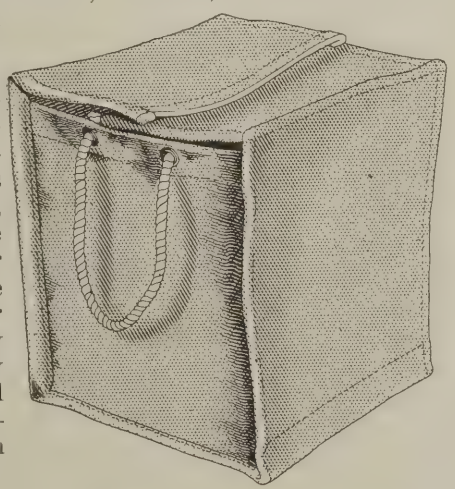
Write NOW for sample of Derycote, stating color, or place a sample order under our money back guarantee.

THE ASSOCIATION OF ICE CREAM SUPPLY MEN MEMBER

THE NATIONAL PAINT and VARNISH COMPANY
CLEVELAND, OHIO, U. S. A.

THE "I-SAK" CARRY OUT PAIL.

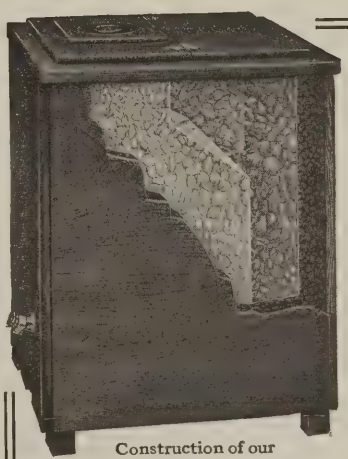
A canvas pail for carrying ice cream is the product of the Alsak Corporation, Yonkers, N. Y. One of the arguments in favor of this package is that an imperceptible escapement of moisture through the canvas sides causes constant coolness, thus causing the ice to last longer and permitting the use of a smaller quantity. They are made in any size desired and require little storage space when folded.



HOWARD BLACK LOSES HELPMATE.

Just as we go to press news reaches us that Mrs. Howard Black, good wife of Howard W. Black, popular representative of the Widlar Co., Cleveland, Ohio, died on Friday, Aug. 4th. Two children, a boy and a girl, are left motherless. Mr. Black's many friends will learn of his loss with sorrow.

Don't worry, they haven't started to pay ice cream makers bricklayer's wages yet.



Construction of our "ZERO" Brick Cabinet

100% Refrigeration

In thousands of stores the country over Grand Rapids Ice Cream Cabinets are demonstrating year in and year out that it pays to use the **best** equipment made.

In these superior cabinets only the finest of insulating materials are used. Our special manufacturing process (which takes full advantage of the scientific principles governing refrigeration) insures the effectiveness of these materials. Workmanship of a type that is rare outside of the world's furniture center adds much to the long life of **Grand Rapids Ice Cream Cabinets of Quality.**

Investigate. You will find that it costs no more to install cabinets guaranteed to provide 100% refrigeration than it does for less efficient cabinets. Further, you will learn how this refrigerating efficiency brings about several important year 'round economies.

Grand Rapids Cabinet Company

Successors to CHOCOLATE COOLER COMPANY

55-59 Alabama Avenue N. W. GRAND RAPIDS, MICH.

New England Sales Office and Warehouse,
Merrow Bros. Inc., 44 N. Market St., Boston, Mass.

South Eastern Sales Office and Warehouse,
Cherry Bassett Winner Co. } 33 So. Charles St., Baltimore, Md.
} 1918 Market St., Philadelphia, Pa.

Central Sales Office and Warehouse,
Cherry Bassett Winner Co., 1139 Penn. Ave., Pittsburg, Pa.

North Western Sales Office and Warehouse,
A. C. Black, 515 Lumber Exchange, Minneapolis, Minn.

WASHINGTON — MAINE

News From Far and Near

CALIFORNIA — FLORIDA

Fairhope, Ala.—A new farmers' co-operative creamery recently begun operations here, manufacturing ice cream, butter and cheese.

Tucson, Ariz.—A new plant for manufacturing ice cream and similar products is about to open for business. B. T. Davis and F. E. Somarindyck, recent arrivals here, are the members of the firm which will be known as the Tucson Purity Ice Cream Co. A large quantity of machinery has already been brought to Tucson and installed in the company's location. All of the equipment is of the most modern type and no expense is being spared to provide for perfect sanitation and cleanliness.

Santa Ana, Cal.—The Excelsior Creamery Company has just completed a new and modern plant. New machinery has been installed, an ice plant added and the business enlarged generally. One of the features of the new equipment is the fact that all vats are lined with glass. The ice cream freezing equipment will produce 3000 gallons daily. Twenty-six trucks will be maintained and repaired in the large completely equipped garage and machine shop which is adjacent to the new plant.

Santa Rosa, Cal.—Gustaf Swanberg, manager, and S. Harrison, assistant manager of the Acme Ice Cream Co. of San Francisco, announced during a recent visit here that plans for establishing a branch plant in Santa Rosa are completed.

Chicago, Ill.—The Bowman Dairy Company has purchased the two-story building on Erie Street, which they have heretofore occupied under lease.

Angola, Ind.—E. E. Spade, proprietor of the Angola Ice Cream Company, has increased the efficiency of his plant by installing a refrigeration plant.

Lafayette, Ind.—The Chamberlain Ice Cream Company is constructing a new brick and concrete factory here, with two stories and full basement. The new plant is to be modern in every detail of construction and equipment and will be completed within a short time. L. M. Ellis is president, L. H. Balfe is vice-president, and W. C. Coffroth is secretary-treasurer of this company.

Sullivan, Ind.—Edsil and Claude J. Bostick, of this city, have bought the plant of the Sullivan Ice Cream Company and plan to improve it.

Chariton, Ia.—The Chariton Ice Cream Company, lately incorporated for $35,000, bought the Douglas Ice Cream Company.

Estherville, Ia.—The Hutchinson Ice Cream Company has bought the ice cream manufacturing equipment from F. H. Graaf.

Muscatine, Ia.—Leu & Stein, ice cream manufacturers, have moved to their new building, recently erected.

The new plant, a two-story structure, is modern in every respect and is said to have a capacity of 1,000 gallons of ice cream a day.

Miller, Ia.—The Miller creamery reports the shipment of four cars of butter during the month of June and an unusually large ice cream business.

Shenandoah, Ia.—George Louie, proprietor of the Dairy Store, plans to extend his ice cream and butter making business within the next few weeks. He is at present unable to make enough ice cram and butter to supply the local demand and will install additional modern machinery which will enable him to meet the demand and supply new business.

Kingman, Kans.—The Beatrice Creamery Company has purchased the business of the Kingman Ice and Creamery Company here, and will build a new $15,000 plant, construction of which is to begin soon and be finished by the first of next year.

Marlboro, Mass.—A $50,000 organization, to be known as the Marlboro Co-operative Creamery Company, is being organized here for the purpose of handling the surplus market milk in the producing districts of neighboring large cities. It is proposed to start a large ice cream factory and manufacture ice cream

Baltimore, Md.—L. Rosenfeld, a manufacturer of ice cream factory equipment, is planning the erection of a one-story brick addition to his plant to cost about $18,000.

Butler, Pa.—The Rieck-McJunkin Dairy Company, an ice cream and dairy plant, remodeled here at a cost of about $50,000.

Flint, Mich.—The Detroit Creamery Company is contemplating the location of a branch plant in Flint, according to C. B. Burr, state manager for the company, who was in Flint recently. It is the plan of the Detroit company, he says, to manufacture butter and ice cream here, besides establishing a milk route. The Detroit Creamery Company has plants, including condensaries, in several southeastern Michigan cities.

Miles City, Mont.—The Western Creamery Company's local plant, which opened early in June, now has a capacity of 50,000 pounds of butter a week, according to Manager F. R. Merrill, who also reports that a large quantity of ice cream is being turned out daily.

Carthage, Mo.—A new wholesale ice cream business has been launched in Carthage by the Carthage Ice & Cold Storage Company, which has completed the installation of equipment and now has the ice cream plant in operation. M. C. Allegeier is in charge of the new branch.

Kansas City, Mo.—After overpowering two employes, two bandits robbed a safe in the office of the Purity Ice Cream Company here recently, taking $1,400.

Marysville, Mo.—The Jersey Ice Cream business is now open for business in Everhart Ice Plant Building.

Rochefort, Mo.—James Grossman has bought the ice cream business of Joseph Cowden.

Troy, N. Y.—One of the most up-to-date ice cream plants of the smaller type to be found anywhere has been started in Troy this summer. H. E. Wagar is owner and manager. The chief equipment of the plant consists of two 300-gallon mixers and holding vats, a viscolizer and two freezers equipped with batch measures.

Greensboro, N. C.—The Arctic Ice and Coal Company have lately installed new machinery consisting of three 80-quart freezers, a 600-gallon mix tank, and a 900-gallon increase in storage tank capacity.

Raton, N. M.—The Raton Creamery Company has just completed the installation of a large quantity of new equipment, including a six-ton refrigerating plant and a hardening room with a capacity of 600 gallons. The plant now has a capacity of 1,000 pounds of butter and 100 gallons of cream per day, and the cost of the new equipment will run over $11,000.

McConnellsville, O.—Geo. W. Hughes, a local citizen, has purchased the necessary machinery for the manufacture of ice cream.

Newkirk, Okla.—Newkirk has an ice cream factory, or rather it has a branch of a Ponca City concern, the Ponca City Milk and Ice Cream Company. The branch here will be known as the Midwest Creamery Co., and C. C. Shidler is the local manager.

The capacity of the factory is 300 gallons of ice cream or sherbert per day. They will sell the product both at wholesale and retail.

Altoona, Pa.—Permits were issued recently to a contracting firm for the erection of the last of the group of buildings that will comprise the completed plant of the Caum Ice Cream Company at Fifth Avenue and Ninth Street.

Brownsville, Pa.—Russell Thomas has resigned as manager of the Brownsville plant of the I. N. Hagan Ice Cream Company.

Chambersburg, Pa.—The Hershey Creamery Company recently purchased the local plant of the Cumberland Valley Creamery and Dairy Company. The plant will continue to manufacture ice cream and other dairy products under the management of Harold Fogelsanger, formerly manager of another Hershey plant.

Greenville, Pa.—Henry Hunsicker has leased part of a building and started making alterations for the installation of an ice cream plant.

Kittanning, Pa.—The Kittanning Pure Milk Company has installed a new brine freezer.

Oil City, Pa.—Earl E. Lesh and Fred L. Sherick, who formerly owned the milk business known as Lesh's Dairy, have sold out and are going to start in the ice cream business. The new concern will be known as Lesh & Sherick.

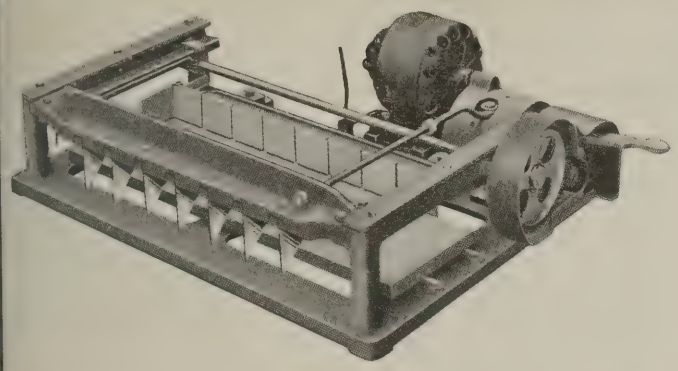
Portage, Pa.—The Nelson Ice Cream Company, which leased a building and began operations but a few weeks ago, now has a capacity of more than five hundred gallons of ice cream daily.

Reading, Pa.—The Reading Ice Cream Company, located at Tenth and Greenwich Streets, has made extensive improvements to its plant.

Sunbury, Pa.—That the ice cream business has increased 500 per cent in two years, dealers in this territory recently asserted to be their belief.

Breckenridge, Tex.—The Dillingham Ice Cream Co. will build a new ice and cold storage plant with capacity of about 65 tons per day.

Wichita Falls, Tex.—The Peoples Ice Company is planning the addition of an ice cream factory to their present ice manufacturing and storage business.



Power Drive Also

The R & D Better Brick Cutter with automatic power drive is *by far* the fastest brick cutting machine sold today. It costs less than any other power driven machine too. Guaranteed and sent on trial.

Write about it TODAY

REICHEL & DREWS

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Wolfhounds

J. WILL CARPENTER, Pres.
Haines-Carpenter Dairy Products Company, St. Louis, Mo.
OTIS B. WITTE, Secretary
N. A. Kennedy Supply Company, Oklahoma City, Okla.



Thanks for the nice things you said about me, also for the picture of the babies and myself, which appeared in the last issue of the Review.

And to think that in this same issue our handsome President's face was to be seen! It seems that wonders will never cease. Just as all the Wolf Hounds were about to give up the search for J. Will, up he pops, smiling his same old smile. It looks as if Bill hasn't a worry in the world. Wonder if he has been in Milwaukee looking over that wonderful new building of the Review's. From the twinkle in Bill's eye, one would think that perhaps our friends Olsen and Slater had taken him to their private cellar to look over samples of printers' ink (?). However, scout Bill was able to come out of the cellar shouting, "Look out for the Wolf Hounds this year! Be ready for the biggest time ever at this year's convention." Great words, Bill! Now that you have opened the campaign, we are all in line to push forward and make this the BANNER YEAR of all. Wolf Hounds, shout the big news along the line.

By the way, in your travels keep a weather eye open for our lost member, who has been missing for about six months. Last heard of him, he was headed north, trying to sell condensed milk to a burlesque troupe. (Shame on you, Fred, old scout! C. R. H. is the one to look after that bunch.) Boys, find him before convention, as things would be mighty quiet without Fred.

Boys, when in Kansas City, look up Carl Zimmerman. I think you may find them together, and perhaps Pete Miller, Jim Nelson, Frank Wright and Cutner are with them. If so, their absence will be explained, although I did think African Golf was banned during the summer months. Expect that I was mistaken.

Now, boys, remember that the writer is the chairman of the Wolf Hounds' entertainment committee this year, and wants to please you all, so if you have any suggestions to offer regarding the big show this year, write at once and tell me. Do not delay, as it takes time to arrange our entertainment, and can't be taken care of in a week. Remember, boys, "THIS YEAR BIGGER AND BETTER THAN EVER" is the word.

Yours with a boost,

C. R. HAUK.

FANCY ICE CREAM FORMS
(Imported and Domestic)

Featuring

Hallowe'en and Thanksgiving

Leaves, W/Stem, Lace Papers
Imported Fruits and Pulps

SCHALL & CO.

81 Barclay St. 16-18-20 W. Broadway
NEW YORK

SODA MENUS

Effective Advertising For Ice Cream Manufacturers

OUR menus are popular among ice cream manufacturers who give them to druggists and confectioners with the manufacturer's trade-mark or advertising slogan printed on them. This is a sure and inexpensive means of advertising the ice cream manufacturer as the menus come to the attention of the customers of the retailer.

These menus are **especially** for the Soda Fountain. They are not hotel menus nor restaurant menus, but are printed and embossed in colors on the highest grade of stock and reproduced from original drawings for the use of Soda Fountains exclusively.

Samples Free on Request.

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HIGH grade work at reasonable prices. Send us a sample of what you want and we will quote you prices.

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THE OLSEN PUBLISHING CO., Fifth & Cherry Sts., Milwaukee

NEWS ABOUT SUGAR

Items of Interest for the Ice Cream Manufacturer

Continuance of Railroad Strike May Cause Sugar Shortage.

As yet, the railroad strike has not interfered to any appreciable extent with the shipments of sugar, but if it continues for the next several weeks, it may hamper the distribution of this and other commodities, particularly in view of the complications offered by the coal strike, and may operate to depress the raw sugar market, according to a recent statement in "Facts About Sugar," by a refinery traffic official who had made a careful survey of the situation.

It is generally accepted that unless signs of an early settlement of thestrike is effected, the government will extend its system of priorities to apply to the movement of all important foodstuffs, including sugar, which will mitigate conditions as far as these commodities are concerned. A condition which causes the situation to look serious is the fact that trade stocks at important jobbing centers throughout the eastern and central states are very low. Such cities as Buffalo, Cincinnati, Louisville and others that serve important sections were reported this week to be very short of sugar, and with most of the refiners oversold from four to six weeks, there appears to be little hope of an immediate remedy for the situation. Reports reached New York recently that at certain points jobbers were already limiting their distribution to retailers, but this seems to be occasioned rather by the difficulty in obtaining shipments from refineries than by lack of transportation facilities.

Cuban Stocks Low.

Havana, July 28.—A survey of the supply situation by a well informed member of the sugar trade leads to the conclusion that the balance of unsold stocks of the past season's crop left on the island probably is not more than 350,000 long tons. This is aside from stocks held by such companies as the Cuban American, United Fruit, Atkins interests, and others that have direct refinery connections that will absorb their sugars.

Knowledge of the fact that available unsold supplies have been reduced to very narrow proportions, coupled with reports that refiners in the United States are still in need of raw sugar, has lead to a very optimistic feeling among holders, who are anticipating higher prices on the balance of their supplies and are looking for four cents a pound and better.—Facts About Sugar.

* * *

The Demand for Sugar.

Anyone who had suggested six months ago that the supplies of sugar available in Cuba and the United States would be insufficient to meet the requirements of the American market throughout the year would have made himself an immediate candidate for inquiry as to his sanity, says "Facts About Sugar." This trade journal's prediction at the end of 1921 that the heavy carryovers then on hand would be absorbed during the year 1922 was generally set down in trade circles as an altogether unjustifiable display of optimism. Yet the majority of estimates appearing at the present time predict that importations of full duty paying sugars will be needed before the end of the year, a possibility that "Facts About Sugar" pointed out in its review of the situation published in June.

From January 1 to July 15 Cuba shipped over 3,900,000 long tons of sugar, states an article in a recent issue of this journal, a greater quantity than the total shipments for any full year prior to 1922. Not all of this has come to the United States, as direct shipments of raws to other countries have amounted to more than 1,000,000 long tons and exports of refined from the United States have accounted for more than 650,000 tons additional. Thus, Cuba's shipments destined for consumption within the United States have amounted to roundly 2,200,000 long tons.

Shipments from the insular territories of the United States, together with small receipts of full duty paying sugar, have amounted to roundly 700,000 tons during this same period, while the distribution of beet and Louisiana sugar within the country is estimated at a slightly larger quantity, making a round total of 1,400,000 tons from domestic sources and 2,200,000 tons from Cuba, or a total of 3,600,000 tons. Deducting stocks and afloats leaves approximately 3,300,000 tons, raw sugar value, distributed in six and a half months, or over 3,000,000 tons in terms of refined.

Where has all this sugar gone? Has it passed into consumption, or are large amounts held for speculative purposes and therefore still to be offered on the market? How long will the present record breaking rate of absorption continue? What are the factors that have led to the great increase in consumption, assuming that the sugars distributed actually have been consumed? These are questions that are being eagerly discussed by the sugar trade and the answers arrived at are factors affecting the course of the market.

As pointed out in our summary of distribution for the first half of the year, the amount of sugar passing into channels of consumption during that period was roundly sixty pounds per capita. While it is obvious that not all this sugar was consumed within this period, there is no evidence of any abnormal accumulation of stocks in distributors' hands. In fact, trade stocks are abnormally low in most parts of the country, owing to inability to obtain prompt shipment from refiners.

While considerable quantities of raw sugar were purchased by operators during the early months of the year, most of these apparently have been sold at good profits during the rapid rise of prices in the past two months. Stocks held for speculative purposes at the present time can hardly be of sufficient extent to exercise an important influence in the market.

The anticipation that demand from the distributing trade would show a marked falling off after July 1 has not been realized thus far. The call for sugar is as insistent as ever and most of the refiners are as far oversold as they have been for the past three months.

Of the explanations advanced to account for the increase in consumption the ones having the most valid basis appear to be the abundant crops of all kinds of fruits which have led to an unusual volume of home canning, the increased consumption of soft drinks and ice cream, the prevalence of home brewing, and the general improvement in the industrial situation.

For the remainder of the year available supplies from domestic production and Cuba can hardly amount to more than 1,750,000 long tons, even though we count on

(Concluded on page 132)

The Social Position of the Dairy Cow

"Remember You are Speaking to a Lady."

NO ONE will accuse the Dairy Cow of being a social climber, yet she has during the past twenty-five years advanced so rapidly in the social scale that a few words on the subject might be interesting.

It is not so many years ago, and quite within the memory of the last generation, that the cow was sort of an outcast. To say that she stood next to the horse does not mean very much. She was a necessary evil on the farm and in the large family of the small town, and anyone who could depend upon a small boy to drive the cow to pasture in the morning and to drive her home at night had license to have a cow; not that she gave much milk, but because there was no other way to get fresh milk.

The worst herd to be found anywhere today was superior in average yield to the milk cow of a generation ago and her unproductiveness was reflected in the treatment she secured at the hands of her master.

George F. Parker in a recent issue of the Saturday Evening Post gives us a vivid picture of the Dairy Cow of pioneer days. She was generally a small creature and had her calf to feed besides supplying her milk to many hungry children. Because of the poor quality and the small quantity of the milk these cows gave, every farmer had to keep several where now one would serve.

If she failed to breed within any given year, regardless of her past history, she was fattened and killed and her meat was distributed in the neighborhood to be eaten fresh or it was packed for summer use as corned beef.

The vicious cow was more common than she is today. Added to the occasional case of bad temper was the awful exposure to cold, heat, floods, insects and the brave struggle for forage. Worst of all was the carelessness or brutality of boys or hired men, or more frequently of cross, tired women with peevish children waiting impatiently for the milk while it was still warm. Almost uniformly the milking was done outdoors, without shelter for animal or human, and the cow suffering perhaps from an over-full udder which demanded relief, with teats cracked from the cold or torn by briars or by struggles in the brush when seeking food, was expected to bear the roughness of treatment from a coarse, freezing man or an ignorant learner, and then to stand, thus exposed and treated until the milking process was over.

There are still vicious cows to be reckoned with and there always will be, perhaps, and they will provoke brutal treatment from man, but the gentleness of the cow herself, her humbleness and good behavior, her productiveness, her part as foster mother of the human race, have won over mankind to a state where she shares in



Slogan of the 1922 National Dairy Exposition.

PROSPERITY FOLLOWS THE DAIRY COW. Be sure you attend the National Dairy Exposition—St. Paul-Minneapolis, Oct. 7-14.

the affections of those who have her in charge. "Remember you are speaking to a lady," might well be placarded in the dairy barns throughout the country to remind the farm-hand of the present social position of the dairy cow.

The methods of gathering and saving the milk were formerly dirty and discreditable; in these days they would not be countenanced. It was collected in a way as primitive as in patriarchal days when men wandered with their flocks. There were of course exceptions. The really good, efficient farmer took the best care of his cows in the matter of shelter and food as well as in methods of handling and milking and cared for the milk and butter in cool cellars or wells or spring houses. In such cases the animals were afforded the same good housing provided for the horse, the money profit being multiplied many fold; but these cases were exceptional and the status of the average dairy cow was way below par.

Has the cow advanced the social position during the present generation? Attend the National Dairy Exposition and see what a change has come over man's attitude toward the dairy cow. A million dollar exposition of a billion dollar industry. Cows valued at many thousands of dollars each, curried and brushed and watered and fed by lackeys whose sole duty is to attend to the physical needs and comfort of "Bossy." Stalls and barn equipment almost fit for humans. Machinery for milk products that run up into the millions.

The automobile put our horse shows practically out of business, but can and will anything supplant the dairy show? Not as long as there are no worthy substitutes for milk and butter, and who knows but the time may come and soon—when ladies of refinement—social leaders—will consult with proper authorities in matters of dress before appearing at the Dairy Exposition. Verily, say we, the dairy cow has advanced her social position, and she deserves it.



NEWS ABOUT SUGAR.

(Concluded from page 130)

the distribution of the whole Louisiana crop and 80 per cent of the coming beet crop before the end of the year. This will permit a monthly distribution in the domestic market of slightly more than 300,000 tons, or less than 70 per cent of the rate of which distribution has proceeded during the earlier months of the year. This is a lower proportionate rate than usually has prevailed during the latter part of the year, but an important factor to be reckoned with, and one that apparently has been overlooked in most of the estimates recently published, is the brake which rising prices apply to the use of sugar. With sugar retailing at eight cents a pound the rate of consumption naturally will be materially less than with a price of five cents a pound.

Present indications are that a pinch in raw supplies may be felt during the latter part of August and the month of September, before the new crop of Louisiana and beet sugar comes upon the market. This may give an opening for the importation of full duty paying sugars, but we believe that various influences now at work, particularly the rise in prices, will check demand to some extent and that predictions of 15-cent sugar before the end of the year, such as have recently been heard, are premature. We trust that they will prove to be entirely unwarranted. Nobody who has the welfare of the sugar industry at heart desires to see a repetition of 1920.

GROTHE REFRIGERATOR BODIES NOW BUILT AT ST. LOUIS.

The John J. Grothe Co., Inc., main office and plant at Woburn, Massachusetts, builders of the Grothe refrigerator bodies, have recently established a building branch at St. Louis, Missouri.

The branch is located at 7th and Cass Avenue. Frank L. Ruzicka is in charge and will build Grothe refrigerator bodies under the supervision of the home plant.

Mr. Ruzicka is an old established and reputable body builder and well qualified for this work. All bodies built at the branch are guaranteed the same as if built at the home plant.

In regards to the St. Louis building branch, A. B. Mackay, general manager of the John J. Grothe Co., Inc., states:

"The work of the Grothe organization is to make possible the economical and efficient delivery of ice cream. Ice cream manufacturers everywhere are fast recognizing the invaluable advantages of refrigerator body delivery, it reduces and saves labor, conserves packing ice and salt supplies, and keeps the ice cream in perfect condition at all times. The Middle West ice cream manufacturers will now have the same advantage to put their delivery on an up-to-date, paying basis as the manufacturers in other parts of the country are now doing. It is the intention of the John J. Grothe Co., Inc., to place branches in Cleveland and Minneapolis in the near future."



LONDON GETS NEW FAD.

American Ice Cream Soda Has Reached There at Last.

Eight years ago there were perhaps a half-dozen ice cream soda fountains in London. Now there are hundreds. Signs everywhere: "American drinks served." One of the large department stores has a good sized room in which ice cream soda is sold. And we noticed that out of the 200 persons there was only one other who looked like an American. The manager told us, "At first the English people could not understand combining ice cream with a soda, because they said the soda was bitter. It was even ridiculed. But they drank it, and now it is growing more and more popular. Not only in London but in the provinces. They like the sort of bitter taste, and when we tried to put a little milk or cream in the ice cream soda when it was mixed, as you Americans do, they abjected to the milk and cream, saying that they liked the bitter taste. We serve all sorts of things in exactly the same way as the American fountains do, and we have all sorts of new combinations." We asked, "Do you sell chewing gum?" He answered, "To Americans only."—London Letter.



A CORRECTION.

In the July issue of The Ice Cream Review we carried a report of a visit of an Ice Cream Review representative to the Sessions Ice Cream Factory at Fond du Lac, Wis. In this article it was stated that they were using a Baker ice machine of 15-ton capacity which was actually operating at the rate of 18 tons. This was an error. The machine is a York of 20 tons and has been in operation at this plant for the last six years doing at least 25 tons refrigerating duty and running continuously 24 hours per day during the summer months.



You can get somebody to sell you anything you want if you use "The Ice Cream Review" Want Department.

Are You Prepared for an Opportunity Like This

WANTED—Experienced plant superintendent for large ice cream manufacturing plant on the coast. Must have practical experience and knowledge in the latest methods of ice cream mix and freezing. **Must know condensed milk thoroughly** as applied to manufacturing of ice cream. Must have the best references. This is a big job. Only capable men need apply. Address: R-265, Ice Cream Review. 4-22

This Ad appeared in the April issue of The Ice Cream Review. It goes to show that the "Big" opportunities are open to those with a thorough knowledge of subjects relating to ice cream making other than just being able to draw a satisfactory product from the freezer.

You can get a thorough knowledge of all the ins and outs of condensed, evaporated and powderedmilk from

Prof. Hunziker's Book

CONDENSED MILK AND MILK POWDER



Have a copy handy for ready reference. Much of the information therein can be applied in the conduct of present day ice cream manufacture. It gives you a better understanding of qualities and values of the goods purchased to make up an economical and trade getting mix.

Price
$5.75

Sent Postpaid on Receipt of Remittance

Send for a Copy Today

The Olsen Publishing Company
Fifth and Cherry Sts. **MILWAUKEE, WIS.**

NEW McCORMICK CATALOG.

"Modern Plants" is the title of a most interesting—and very beautiful—catalog just gotten out by The McCormick Company, Inc., dairy and ice cream plant architects and engineers, of Pittsburgh and New York.

In this book are shown plans and a group of modern dairy and ice cream plants into which convenience, efficiency, appearance, durability and economy have all been successfully embodied. All of these plants, of course, were planned and designed by them.

The catalog is remarkably valuable to the dairy and ice cream trade in that it shows exterior and interior views of many of the most prominent plants in the country.

The McCormick Company is to be congratulated, not only for its initiative in issuing the book—the first of its kind ever provided for the trade—but upon this handsome and elaborate method of presenting a comprehensive expose of their service and the wide scope of their architectural and engineering work, of which they may well be proud.

This catalog will be sent prepaid, upon request, to any dairy or ice cream manufacturer who may be interested in modern plants.



MEMPHIS TO HAVE LARGE NEW ICE CREAM PLANT.

The Clover Farm Dairy Company, with L. N. Larned as general manager, is planning the erection of a large dairy and ice cream plant at Memphis, Tenn., on the corner of Union Ave. and Walnut Street. Three units of the plant will be constructed at once, but the plant is eventually to consist of five units. The milk plant will be the first unit. The building will be of brick and reinforced concrete with three stories and basement, and will have a capacity of 60,000 quarts of milk, 4,000 pounds of butter, and 2,500 gallons of ice cream. Filling, pasteurizing and freezing rooms are to be finished in white tile, and the milk storage room will have its own refrigerating plant.

The power plant of the firm is to occupy a separate building also and will contain two 150-horsepower boilers and a 150-ton refrigerating plant. It is later planned to erect a separate ice cream plant and garage and wagon shed.



PICANINNY FREEZE.

"Eat seeds 'n all" is the friendly admonition to the purchaser of a dainty new ice cream confection put on the market under the trade name "Picaninny Freeze." It is a slice of ice cream shaped like the slice of a watermelon and the "seeds" are of chocolate. It is wrapped in wax paper and retails for five cents.

We got first hand information about it when the Mansfield Ice Cream Co., Milwaukee, sent over a basketful of the dainties to the Review office. They tasted so good we had to go and see them made. In the Mansfield plant they are being put out without coming in contact with human hands. "Picaninny Freeze" is surely something new again, and the Mansfield folks report a splendid demand.



FRIEND DIXON SUFFERS LOSS.

A brief note from A. E. Dixon, secretary of the North Carolina Ice Cream Manufacturers Association and vice-president and general manager of the Carolina Ice Cream Co., Fayetteville, N. C., gives the information that "a disastrous fire and chaotic conditions" keep him mighty busy. His many friends will hope for early normal conditions and a still bigger business.

BUYING TRUCKS ON A MONTHLY PAYMENT PLAN.

A very unique and practical plan for selling trucks on the deferred payment plan has been announced by the Commercial Truck Company of Philadelphia. Instead of trying to work out a plan which lays a burden on the buyer, thus compelling the thrifty buyer to disregard it, this new plan is made to appeal to all buyers. The terms are low, unusualy so, with ample time for the purchaser to pay for the trucks, a small first payment, and either no carrying charge or a very small one. The time payments are part of the regular terms and the company is quite as ready to sell on deferred payments to the responsible individual or company as they are to sell for cash. There are no special insurance requirements and the purchase of trucks and equipment under this plan in no way affects the buyer's credit. The deferred payment plan covers the chassis, battery, C. T. body and all equipment. Ten per cent of the purchase price is required with order and 10 per cent at the time of delivery. This leaves 80 per cent of the purchase price to be spread over 12, 18 or 24 months. Time payment plans are usually a thing that the manufacturer does not want to broadcast and wants to offer it only where it is absolutely necessary to get the business. The Commercial Truck Company is going at it just the other way and is quite willing to take all of their business on time payment if that is more convenient for the buyer.



CONFESSIONS OF AN ICE CREAM TUB.

"I am an old tub. I have worked many years; started business in Indiana and moved to Kentucky in my young days. The man who owned me died; and his wife used me many years. A corporation came along and bought me, and now I work every day and Sunday, too. In the old days when a hoop broke I was thrown aside in an out-of-the-way place, waiting for a cooper to come around. Those were lonesome times—lying in a pile of has-beens. It is different now; I go day and night. Sometimes I go to a swell drug store, then to a wedding, then to the Country Club. In the summer time I get to go to picnics and church suppers. Never an idle day; if a hoop comes off, anyone around the place picks up the Gilmour Wire Hoop Machine and puts a hoop on me, and I am ready for the next trip.

BELOW ZERO TEMPERATURE WITH SALT AND ICE.

A new folder just off the press describes the Grothe refrigerator body for ice cream trucks. It describes the construction of the different types of bodies and also gives the details of a test made at the Buffalo show last November in which it was proven that a below zero temperature with salt and ice is possible. In fact a temperature of 5.8 degrees Fahrenheit below zero was reached. A copy of this interesting folder will be mailed free to readers of the Ice Cream Review. Address John J. Grothe Co., Inc., Everett and Union Sts., Woburn, Mass.

"I heard the boss say the other day that since he got the Gilmour Wire Hoop Machine he does the same amount of business with one-third less tubs. I am sure glad he got one of those machines, for now I can do just as good work as any new tub."

The above communication by Old Tub was recently received at this office, and thinking it might interest other ice cream manufacturers like Old Tub's boss, we're passing the information on. A picture of Old Tub will be found in the Gilmour Hoop Machine Company's advertisement elsewhere in this issue.

ICE CREAM IN HEADLINES IN ADVERTISERS PUBLICATION.

That ice cream is coming in for its share of publicity is evidenced by the articles that have recently appeared in such magazines as the "Nation's Business" and "The World's Work" pertaining to the activities and ideals of the Association of Ice Cream Supply Men. Occasionally we see a bit of publicity in the "Saturday Evening Post," "System" or "World's Work," "The Geographical Magazine" and the city dailies, "Philadelphia Public Ledger," "New York Tribune" and many others.

Just recently in "Printer's Ink" was published an article about ice cream featuring the "orange crush" special flavors and their method of advertising and increasing the consumption of ice cream.

It reads as follows:

Orange-Crush Climbs Aboard the Ice-Cream Special.

New Uses for Beverage Flavors Create Broader Markets.

The consumer, be he ever so humble, likes to appear a connoisseur. And for the connoisseur nothing ordinary or commonplace will do. That is why we have automobiles with special racing motors, de luxe editions and special blends of smoking tobacco. Logically enough, wide-awake business cashes in on the desire inherent in most people to possess something different as soon as or sooner than they can afford it.

Few manufacturers are keener about supplying their customers with new products and different products than are the ice cream makers. Not so long ago there were three standard flavors of ice cream—strawberry, chocolate and vanilla. On special occasions raspberry, coffee and banana ice cream came to the fore. The immediate popularity of these "specials" started a race in creating new frozen novelties to meet the growing demand for desserts that were different.

In recent years the ice cream manufacturer has catered to this demand by featuring "specials" with euphonious names for holiday or week-end consumption. He has added new products which have increased his total gallonage and which, as a rule, have brought higher prices than the three standard flavors which for years have sold week in week out without much attention.

The Orange-Crush Company, Chicago, manufacturer of soft drinks, is one of the newest entries into the ice cream field on a national scale. This company will not attempt to manufacture ice cream, but will license certain manufacturers to make ice cream, ices and sherbets flavored with Orange-Crush, Lemon-Crush and Lime-Crush compounds, putting the prestige which its "Crush" beverages have established behind its new plans in a campaign of national advertising.

In its first national announcement the Orange-Crush Company told the ice cream manufacturer and the consumer the story of the opportunity to feature new "specials" as follows:

Here is a real piece of appetite news:

Delicious ice cream, ices and sherbets flavored with genuine Ward's Orange-Crush — also the companion flavors, Lemon-Crush and Lime-Crush — are now being made in nearly every principal city and town in the United States and Canada by one exclusively licensed ice cream manufacturer.

These are the same flavors, especially prepared for frozen products, which have made the drinks, Orange-Crush, Lemon-Crush and Lime-Crush, the largest selling citrus-flavored beverages in the world.

In some places special bricks of varying combinations will be featured. In other places, the "Crush" flavored ice cream, ices and sherbets will be obtainable in bulk. Watch for signs and local newspaper announcements in your community.

Although this is the first national announcement, frozen products made with these flavors have been sold in an ever-increasing number of places during the past three years. Perhaps you are already acquainted with them. If not, you have a treat in store for you.

The same first-quality ingredients used in preparing the "Crush" drinks are used in the "Crush" ice cream flavors. Fruit oils and juices from oranges, lemons or limes are delicately compounded by the exclusive Ward Process with U. S. certified food color and cane sugar. Purity is scrupulously guarded.

National advertising will continue steadily through the spring and summer months and into the fall. At the same time the company will advertise through its manufacturers and retailers with a vast amount of window posters, movie slides and the usual dealer helps. Each week for twenty-six weeks a unique brick or bulk special will be featured composed of frozen delicacies made with "Crush" flavors such as "Tropical Orange Crush Brick" and "Lime Crush Temptation."

Local advertising, carefully planned and scheduled to sell these specials, is made available to the local ice cream manufacturer. In other words the local ice cream manufacturer has a different novelty ice cream or sherbet to feature every week during the ice cream months and fresh advertising to help him put his selling message across. The reader of the advertising, while he learns of frozen dishes that he probably has never tasted before, is impressed from the prominence given the words "Orange Crush" with the fact that it is the established beverage company that stands behind them. The older products are, in this way, helping blaze the trail for the new venture by standing sponsor for them.

In Miss Lulu Bett, Grandma Bett is for plain "vanilly" without reservations because it "sits better." But Grandma Bett is not typical of the present-day ice cream consumer. She is a survival of the Rutherford B. Hayes period, when ice cream was an event and there were only three flavors. Today we, as a nation, eat somewhere around 300,000,000 gallons of ice cream a year—a per capita rate of a little more than a dish a week the year 'round.

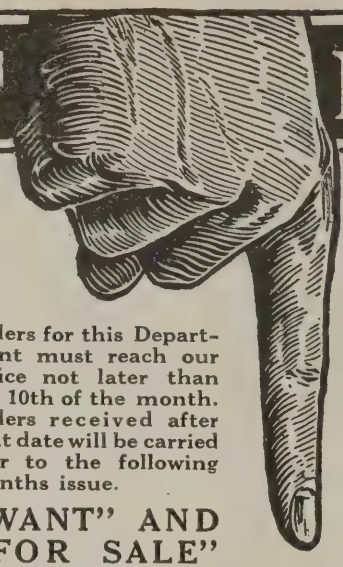
Naturally the manufacturer would like to see each of us averaging three or four or more dishes a week. To this end he is advertising ice cream as a pure food and featuring specials with their appeal to the individual who wants something new and different. Ice creams, ices and sherbets made with the "Crush" flavors is the Orange-Crush Company's composite answer to the manufacturer's cry for greater gallonage, its own desire for more sales and the public's demand for something "special."



LIVE ONES.

The folks who are pushing "Babe Ruth" chocolate coated base ball sales are going at it like experienced business men. They believe in carefully planned publicity, and keeping at it. Co-operation doesn't stop with the dealer—they go further and join hands with other progressive folks who are pushing the ice cream industry to the fore. They are new members of the National Association of Ice Cream Manufacturers and the Association of Ice Cream Supply Men. They will exhibit at Cleveland. The Elite Chocolate Coated Base Ball Co., El Paso, Texas, are the people behind this popular product and they report a most favorable reception among the best ice cream manufacturers of the country because of the merit of their product and their advertising policy. At the Pageant of Progress in Chicago early this month their exhibit attracted very favorable attention and their premium plan of giving away real base balls, autographed by Babe Ruth, made a distinct hit.

WANT DEPARTMENT



Orders for this Department must reach our Office not later than the 10th of the month. Orders received after that date will be carried over to the following months issue.

"WANT" AND "FOR SALE"

Notices will be published at the rate of 2 cents per word, cash with order. For blind address 15 cents extra.

NOTE: Names and addresses of advertisers using blind addresses cannot be furnished direct from this office. The advertiser can be reached only by using the key number and addressing your reply care of "The Ice Cream Review."

NOTICE.

The Ice Cream Review disclaims any responsibility for the reliability of parties advertising in the Want and For Sale Department, nor for the truthfulness of statements made in such advertisements. In answering such ads, ask for references if parties are unknown personally, before sending money. Our subscribers are requested to assist us in keeping unreliable parties from advertising by reporting any suspicious dealings.

HELP WANTED

THE TREMENDOUS SUCCESS of the recently invented confection, "ESKIMO PIE," has demonstrated the wonderful possibilities of protective patents and trade-marks for novel confections. Patents procured, trade-marks registered; 22 years' experience. Instructions and terms on request. Robb, Robb & Hill. 920 McLachlen Bldg., Washington, D. C., and 1385 Hanna Bldg., Cleveland, Ohio. 2-22tf

If you want help for your factory, the quickest and cheapest way to locate same is through The Ice Cream Review Want Department.

EMPLOYERS!—Men, men, men—the crying need of the day! If you need any men in your business today, read the following ads and see if you can use any of these. The fact that these men are advertising here stamps them as unusually progressive. Write them and give them a chance to sell their services to you. "Ice Cream Review," Milwaukee, Wis. tf

WANTED — Experienced man to make fancy and decorated ice cream for private trade. Steady work the year around. Write P. O. Box 117, Milwaukee, Wis. 8-22

WANTED — A practical man to take financial interest in a very modern and up-to-date ice cream plant, doing a wonderful business, which business compells to expand. In one of the best cities in the United States, located in the middle west. Must have good practical experience and capable of managing the productive end of the business. These chances are few and far between. Give references. Address: R-308, Ice Cream Review. 8-22

WANTED—To manufacture by dairy specialty manufacturers of international reputation patented articles on royalty basis or will purchase good patent outright. Send complete information with blueprints. Address: R-309, Ice Cream Review. 8-22

POSITION WANTED

POSITION WANTED — By an experienced ice cream maker. 12 years experience. Understand viscolizer, homogenizer and York machine. Best of reference. Address: T. L. Pearson, Box 826, Laurel, Mississippi. 8-22

POSITION WANTED—University graduate in dairy manufactures with several years experience in plant and department management desires position as manager or assistant manager of production with large ice cream firm. Familiar with modern methods and equipment. Available after September. Address: R-303, Ice Cream Review. 9-22

POSITION WANTED — As manager of ice cream plant, possessing proven executive ability, thoroughly familiar with both manufacturing and distribution. Well educated, plenty of energy. Give full particulars in first letter. Address: R-311, Ice Cream Review. 8-22

POSITION WANTED — By ice cream maker, thoroughly experienced in all details of manufacture, refrigeration, etc. Married man, not afraid to work; capable taking full charge medium size plant. Address: R-312, Ice Cream Review. 8-22 8-22

POSITION WANTED—As Southern representative for ice cream supply firm by man thoroughly acquainted with conditions in the Southern ice cream industry; for a number of years close to Southern manufacturers. Address: R-307, Ice Cream Review. 8-22

FOR SALE BARGAINS

FOR SALE—Wholesale ice cream plant in city of 20,000 population, 4 railroads, large territory, located in heart of city, largest ice cream business in territory. Up-to-date plant. Also butter business locally and sub creamery within forty miles in dairy belt. Will sell both plants. Address: R-238, Ice Cream Review. 3-22tf

FOR SALE — Will sell my share in creamery and ice cream factory in one of the best towns in Minnesota, 5,000 population. Good shipping facilities. County seat. You will have privilege of buying the whole thing. Address: R-304, Ice Cream Review. 8-22

FOR SALE—Perfection, factory overhauled, forty-quart batch ice cream freezer with brine box and pump as good as new; never used after overhauled; this freezer has only froze about twelve thousand gallons ice cream and is the latest model, with new scrapers and everything in A No. 1 shape; regular price, $800; will sell for $500 cash. Lake Pepin Co-operative Creamery Association, Lake City, Minn. 8-22

FOR SALE — Confectionery and ice cream parlor, in one of the best cities in Michigan, population 6,000; only two soda fountains in the city, and doing a good business. Reason for selling, have two stores. Will sell on reasonable terms. For particulars write: B. Mazzolini, St. Johns, Mich. 8-22

FOR SALE—Ice cream plant of 70,000 gallons annual output in good Indiana city. Will sell either one-third interest to experienced ice cream man or the entire business. Plant is new and modern, storage rooms, compressor etc. Poor health of manager is reason for selling. Address: R-306, Ice Cream Review. 8-22

FOR SALE — Small modern ice cream plant in city of 5,000 people, on three railroads, in good territory. Plant is now in operation. Situated so that steam, hot water and rent are very cheap. Owners ice business requires all his attention. Searcy Ice Company, Searcy, Ark. 8-22

Exceptional Opportunity

To earn big commissions by selling a REAL fuel and oil saver, which at the same time INCREASES POWER. Nationally advertised, well and favorably known. If you are acquainted with engineers in plants wherever power and refrigeration are used, write us. Give references and what mechanical experience you have had.

Box 502 Wellston Sta. St. Louis, Mo.

FOR SALE—One 40-qt. ice cream freezer, belt driven, Cherry design, in good working order for $200.00 cash or terms. Phone Joliet 4520. Flint Sanitary Milk Co., 410 Collins St., Joliet, Ill. 9-22

FOR SALE—Second hand 40-qt. vertical combined ice crusher and ice cream freezer with direct motor drive; motor is 2 H. P. alternating A. C, single phase, 60 cycle, 220 volt, Century Electric. This outfit has been used very little and for practical purposes is as good as new. Price $150.00. Address: R-302, Ice Cream Review. 8-22

FOR SALE—One Type C Sealright ice cream filling machine No. 617. W. F. Campbell, 84 Main St., Nyack, N. Y. 8-22

FOR SALE—One hand power Sealright filling machine. $125.00 freight paid. Address: R-310, Ice Cream Review. 8-22

MACHINERY AND SUPPLIES AND BOILERS, NEW AND SECOND HAND—Electric Motors, Engines, Pumps, Pipes and fittings, Valves, Belting, Shafting, Bearings and Pulleys. Money Saving prices. Harris Machinery Co., Minneapolis, Minn. 12-20tf

FOR SALE—Three new Cherry model "I" 60-quart freezers; motor driven. Rich Ice Cream Co., Buffalo, N. Y. 3-21tf

FOR SALE—Cottage cheese in one, two or five tub lots, shipped date of make. Rock Lake Creamery, Lake Mills, Wis. 1-21tf

FOR SALE—12 Babcock tester, 8-10-12 bottle size; 1 Jensen bronze sanitary pump, 1¼ in. connections; 1 Trahern iron pump, 1 in. connection; 1 continuous double disc ice cream freezer, 100 gallon capacity, with counter shaft and pulleys; 1 Ventura 18 in. wall suction fan (new); 1 12 bottle Troemner cream scale. The Bennett Creamery Company, Ottawa, Kans. 8-22

FOR SALE—1 vertical open top, blue enamel tank, 47 in. O. D. x 50 in. high, 375 gal. $300.00 each. 1 horizontal blue enamel 6 ft. 9 in. O. D. x 6 ft. long, 2-30 inch rings, 1,342 gal., $350.00. 4 vertical closed top 6 ft. 0 in. O. D. x 7 ft. 6 in. high, 2-36 inch rings, 1,575 gallons capacity, $400.00 each. Chas. S. Jacobwitz, Buffalo, N. Y. 5-22tf.

FOR SALE—First grade unsalted butter. Get our prices. Golden Belt Cry. & Ice Co., Hays, Kansas. 9-22

FOR SALE — Creamery Package ice cream brick mould releaser. Good as new. Used only one year. Price $125.00 F. O. B. Milwaukee, Wis. Reason for selling, installed Mojonnier automatic brick filler. The Geo. C. Mansfield Co., Milwaukee, Wis. 8-22

FOR SALE—Giant ice crusher, 20 ton, belt drive, excellent condition. $120.00 or best offer. Address: R-294, Ice Cream Review. 8-22

FOR SALE—Meyer refrigerated body, 5 ton, used one month. Refrigeration works perfectly. $700.00. Rich Ice Cream Co., Buffalo, N. Y. 7-22tf

FOR SALE—A Creamery Package concentrator or condenser, brand new. Capacity 4,000 to 4,500 lbs. per hour. Offered at a very liberal concession for immediate sale. Address: R-300, The Ice Cream Review. 8-22

FOR SALE—New Era brick cutting machine, used about a year, in excellent condition. Reason for selling, installing Mojonnier packaging machine. Also viscolizer, 60 gallons per hour capacity, used less than six months, excellent condition. Surplus equipment, and priced for quick sale. Also 200 5-gallon shipping tubs, old, but with lots of service left in them. Priced right. Address: The Crowell Company, P. O. Box 556, Waterloo, Iowa. 8-22

FOR SALE—Miller 80-qt. motor drive freezer and twelve 40-qt. freezers, various makes, both belt and motor drive, one Manton-Gaulin belt drive homogenizer, practically new, cheap. Cans, tubs, cabinets, vats, Manning can washers, ice breakers. Send for complete list of bargains in equipment. Philadelphia Retinning Co., North Philadelphia, Pa. 8-22

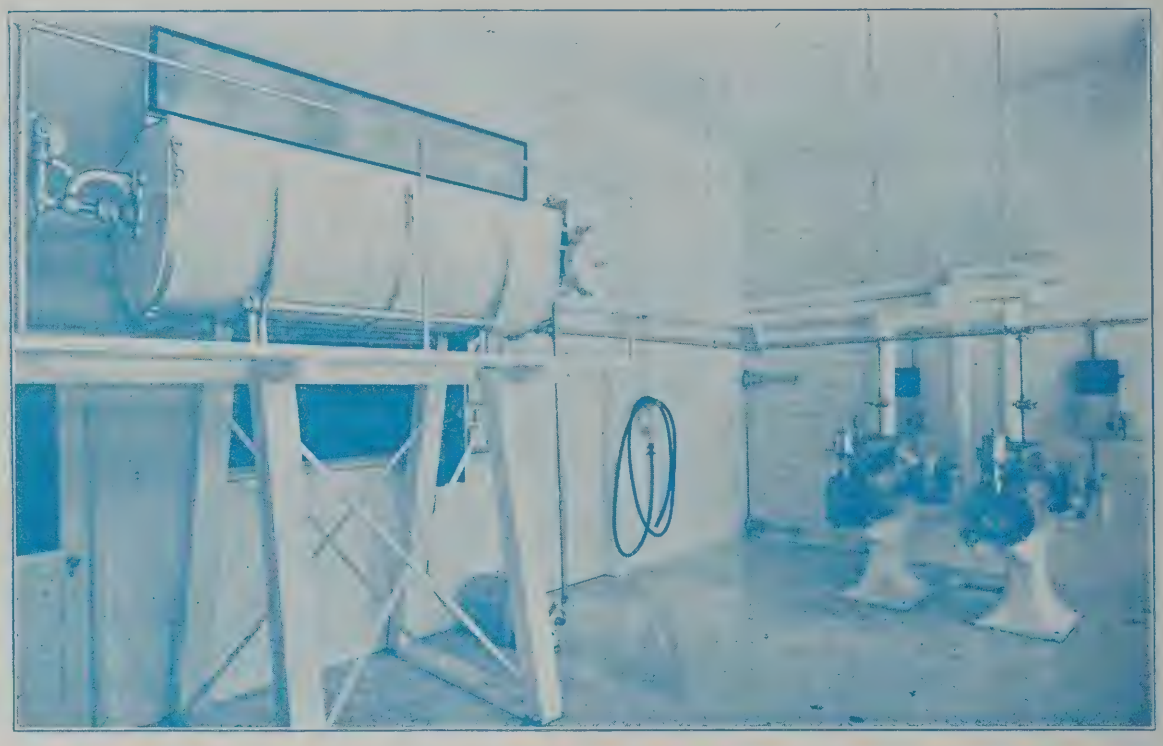
WANTED

WANTED TO LEASE—Ice cream plant with refrigerating machine. Must be fairly equipped and in a town with a good shipping point. Address: R-305, Ice Cream Review. 8-22

The ICE CREAM REVIEW

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Librarian
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URBANA, ILL





An installation of Cherry Freezers and Batch Mixer in the plant of the Better Maid Ice Cream Co., Alameda, Calif.

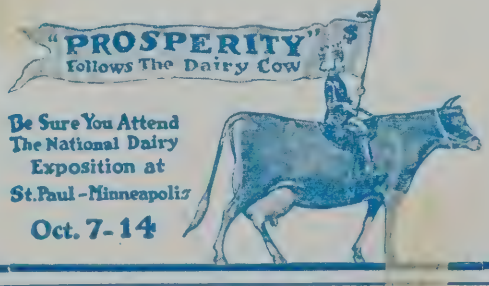
We Do Not Tell

an automobile manufacturer how to produce cars, nor the ship-builder how to make motor boats, nor a baker how to bake bread.

Our business is to produce superior ice cream plant equipment designed to give you maximum results at a minimum cost.

In hundreds of plants scattered from coast to coast both in the United States and Canada you will find Cherry Freezers and Cherry Batch Mixers employed in the manufacture of the very finest grade of ice cream.

An interview with us long enough before your next equipment requirements to allow ample time to study your needs and offer suggestions, we believe would be worth your while. You will find, as we know the experience of others has proven, that an installation of Cherry Ice Cream Equipment in your plant will be one of the most profitable and satisfactory investments you have ever made.



J. G. CHERRY COMPANY

CEDAR RAPIDS IOWA

St. Paul, Minn. Tama, Iowa. Peoria, Ill.



The Sixteenth Annual National Dairy Exposition

ST. PAUL and MINNEAPOLIS

Oct. 7th to 14th, 1922

TWO MILES OF MACHINERY

THE output of hundreds of great manufacturing plants has been gathered in one grand ensemble for the inspection of the milk dealer, the butter maker, the ice cream maker, the cheese maker, the dairyman and other manufacturers and distributors of dairy products.

Here in the short space of one week —under one roof—you can inspect and compare the latest, up-to-the-minute types of every machine known to the dairy industry.

Here you will see the largest churn in the world, the biggest bottle washer, the most efficient ice machine, and every marvel of the dairy world.

Here you will see machines that will increase your output, improve your product, and reduce your expenses. You will have an opportunity of conferring with nationally known dairy engineers and with operators of great dairy plants. Any one of the many new ideas you will get from a visit to this great Exposition may be worth hundreds of dollars to you.

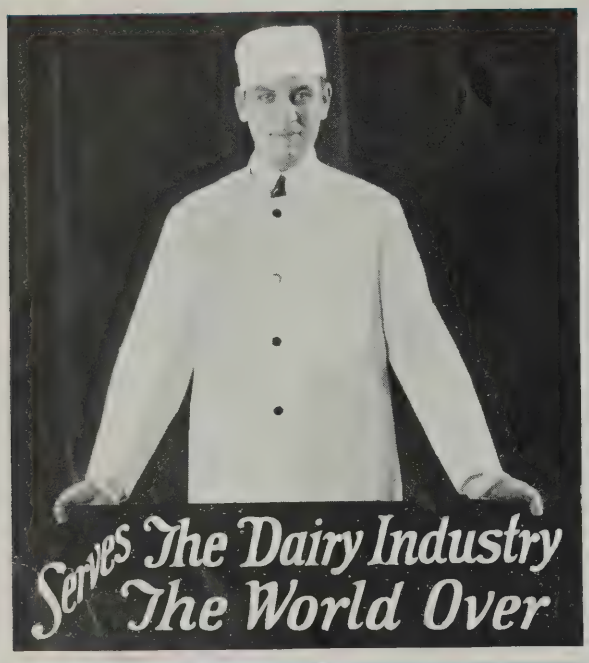
Concurrent with the Exposition will be great conventions of milk dealers, creamery men, and others who will discuss matters of interest to the dairy industry and who will be addressed by national leaders.

Prepare now to go with your associates. Bring your family and enjoy the open-handed hospitality of the Northwest Country—the Vacation land of America.

Reduced fares on all roads during the Exposition.

Prosperity Follows the Dairy Cow

Hitch Your Ice Cream



FOR every operation in your plant, there is available Davis-Watkins equipment endorsed by the leading ice cream and milk plants of this nation and foreign countries. It is distributed direct to you thru a growing network of branches. Wherever you are, there is within easy reach a Davis-Watkins' service engineer to serve you.

See Our Exhibit at the Shows

Take advantage of the reduced fares and attend either the National Dairy Exposition at St. Paul - Minneapolis, October 7 - 14, or the convention of Ice Cream Manufacturers, Cleveland, October 16, 17 and 18.

An exhibit of Davis-Watkins equipment will be on display at both shows. Be sure to drop in and pay us a visit.

Clip and Mail to Nearest Sales Branch

ICR

Date . . . . . .

Gentlemen:

We are considering new equipment in our ice cream plant as follows:—

. . . . . .

. . . . . .

Please quote us price and send us data on location of your equipment nearest us.

Firm Name . . . . . .

Attention of . . . . . .

Address . . . . . .

City and State . . . . . .

A Partial List of Davis-Watkins Equipment

Ice Cream Cans
Ice Cream Freezers
Progress Vats (I. C. Mixing and Aging)
Progress Homogenizers
Myers & Burt Ice Cream Bricker
Myers & Burt Ice Cream Tub Packer
Eskimo Pie Maker
Valerius I. C. Carton Filler
Progress I. C. Can Washer
Milk Cans
Milk Can Washers
Davis Rotary Fillers and Cappers
Case Fillers
Davis Pasteurization Equipment
Economy Pasteurization Equipment, (flow type)
Progress Tubular Coolers
Multiple Tube Heaters and Coolers
Direct Expansion Coolers
Receiving Vats
Progress Milk Filters
Air Compressors
Glascote Tanks
Pressure Bottle Washers
Bottle Washers (Miscl.)
Progress Sanitary Fittings
Milk Pumps
Bottle Cases (Wood and Galv.)
Water and Brine Pumps
Disbrow Churns
Progress Vats (Ripeners, Batch Pasteurizers)
Starter Cans
Progress Buttermilk Machines
Progress Past. Vat (Cage type Agitator)
Babcock Testers
Weigh Cans
Davis Butter Cutter
Minnetonna Butter Makers
Minnetonna Butter Printers
Davis Emulser
Complete Brine Outfits

Look
of your e
functionin



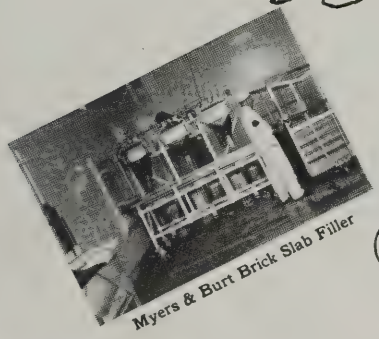
D

ant to a Guiding Star

star nearest you on the map below. There you will find a branch of the Watkins organization ready to serve you thru wise counsel on the selection whether it be a single machine, or the planning and erecting of a smooth high production efficiency, Davis-Watkins equipped throughout.



gress Freezer, Ammonia or Brine



Myers & Burt Brick Slab Filler

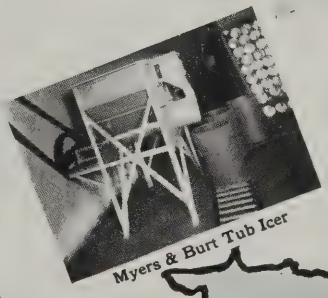




Dairymen's Memphis Ice Cream Can



Progress Milk Can Washer



Myers & Burt Tub Icer



WATKINS DAIRYMEN'S MFG. CO.

710 West Jackson Blvd., Chicago

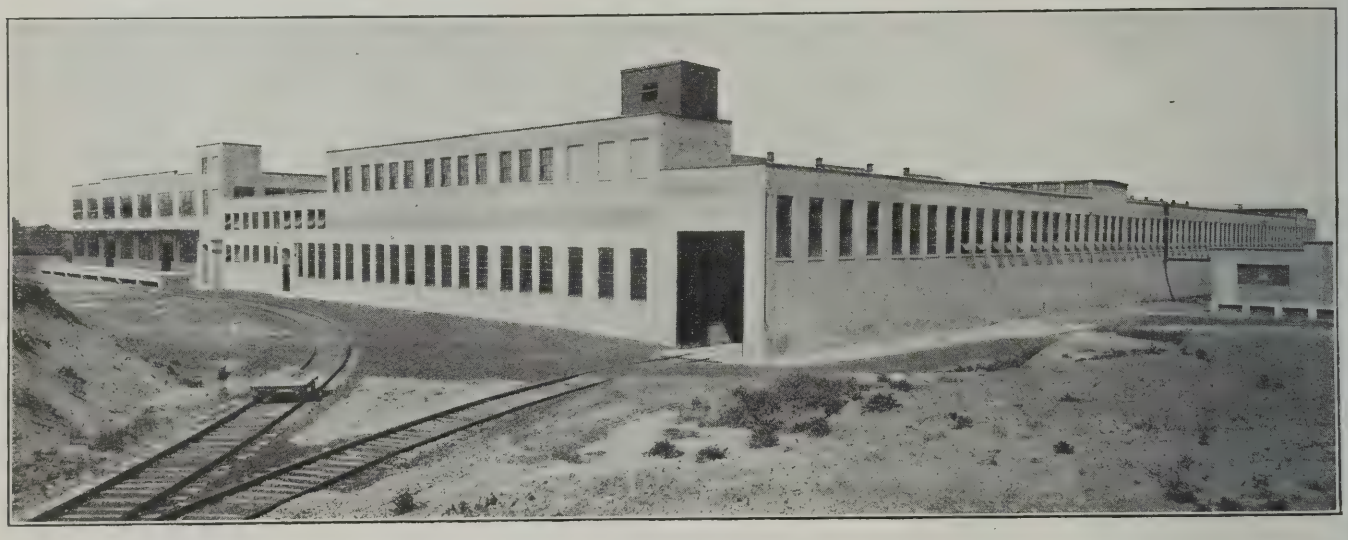
Y, 122 Morgan St.
8 Main St., Charlestown
Y, 727 N. Y. Life Bldg.
HIA, 1539 Race St.

DAIRY EQUIPMENT — DAVIS WATKINS — DAIRYMEN'S MFG. CO.

DENVER, 1649 Blake St.
SAN FRANCISCO, 242 Jackson St.
SEATTLE, 326 Railway Ex. Bldg.

nd This Coupon for Helpful Data

"U. S. GEL"



WORLD'S LARGEST INDIVIDUAL GELATINE FACTORY

UNITED STATES GELATINE CO.

MILWAUKEE, WIS.

U.S. Gelatine is produced in the World's Largest Gelatine Factory, which means Uniformity, Purity, Strength at the Right Price. Stock used in the manufacture assures a bright, clean, odorless Gelatine. Its use means a smooth, high quality and superior texture Ice Cream.

Visit Our Booth at the National Exposition in Cleveland—Oct. 16-21

LET US SEND YOU SAMPLES AND QUOTE ON YOUR REQUIREMENTS

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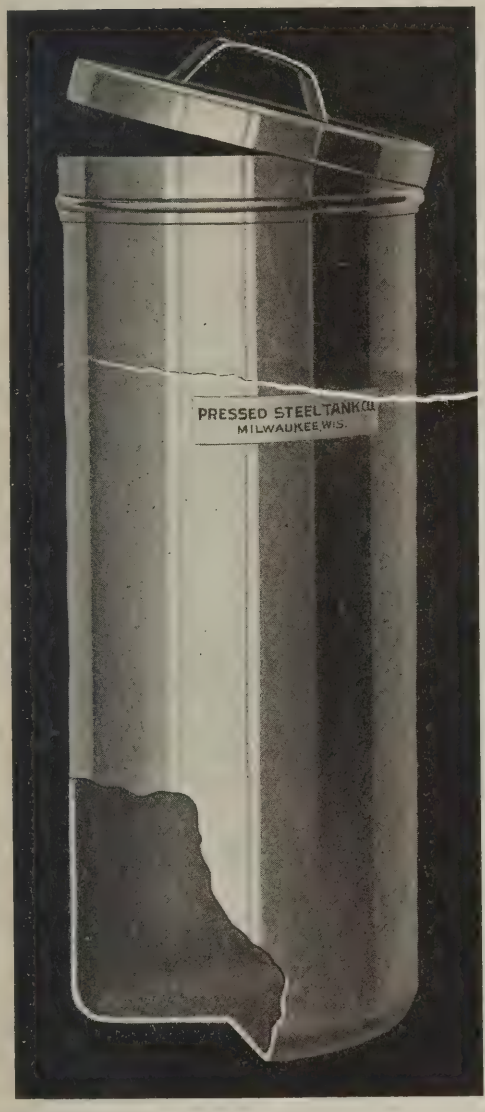
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Seamless Steel Ice Cream Cans



Bottoms furnished either Round Corner or Flat as shown in illustrations.

No crevices or sharp corners, inside or outside. No solder or lead used in construction as in pieced-up cans. ***Drawn from a single flat plate of flange quality steel*** and double coated with pure tin.

Drawn from No. 14 U. S. gauge steel the bottom stays full thickness to provide for hard usage while the sidewalls are drawn out to No. 16 U. S. gauge. Compare illustration. (B-C.) The drawing process hardens and toughens the steel making it almost impossible to dent the can.

Seamless steel cover flange is "shrunk" on to can and welded all around. No place for brine to lodge.

Handle lugs and bottom protection buttons are electrically welded to can.



Standard Sizes—10, 12, 20 Quart.

Covers fit all sizes. Cans and covers made with or without handles. Name pressed into can and cover if desired.

Nothing to come apart when retinning. No trouble from short measure due to improper re-assembling, which is probable with the pieced-up cans.

These cans are built for REAL SERVICE
Free you from trouble---AND THEY LAST

WRITE FOR PRICES

PRESSED STEEL TANK COMPANY

MILWAUKEE, WISCONSIN

CHICAGO OFFICE
208 So. La Salle St.

NEW YORK OFFICE
Woolworth Bldg.

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A GOOD POINT TO CONSIDER IS THE SERVICE OUR ADVERTISERS GIVE.

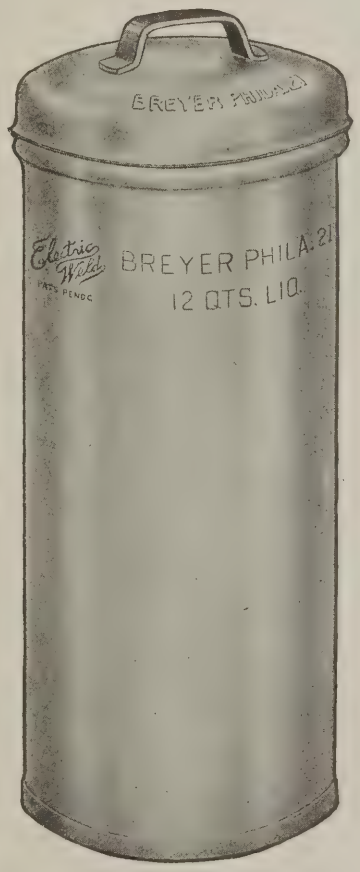
"This is the Can We Want"

Wrote a large ice cream manufacturer across our advertisement in "The Ice Cream Review" with an arrow pointing to this can. This is one of many similar letters received from all sections of the United States.

Electric Weld rivetless-solderless ice cream cans are used in all parts of the country.

No Solder

This is the can you will want, too, for the low cost and economical can service



PATENTED

No Rivets

This is the can backed by the strongest GUARANTEE

Visit our booths 143 and 180 at the National Dairy Exposition, Oct. 7-14 ST. PAUL - MINNEAPOLIS

We will exhibit at booth No. 5 National Association of Ice Cream Manufacturers CLEVELAND OCT. 17-21

Electric Weld cans have made many loyal friends for us. One customer's repeat orders total

50,000 Electric Weld Cans

JOHN WOOD MFG. CO. Conshohocken, Pa.

(OFFICES AND WAREHOUSES)

CHICAGO OFFICE (320 E. North Water St.) CLEVELAND OFFICE (2041 Warren Rd., Lakewood, O.) BOSTON (60 Pemberton Sq.)
BROOKLYN Bush Terminal Bld. No. 5) OAKLAND, CAL. (335 Cypress St.)

The
ICE CREAM REVIEW

PUBLISHED THE FIFTEENTH OF EACH MONTH BY

THE OLSEN PUBLISHING COMPANY

H. P. OLSEN, President and Manager E. K. SLATER, Secretary and Editor

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FIFTH AND CHERRY STS. MILWAUKEE, WISCONSIN

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OFFICIAL ORGAN

Ice Cream Division Indiana Manufacturers of Dairy Products
North Carolina Ice Cream Manufacturers' Association
South Dakota Ice Cream Manufacturers' Association
North Dakota Ice Cream Manufacturers' Association
Oklahoma Association of Ice Cream Manufacturers
Louisiana Association of Ice Cream Manufacturers
Wisconsin Association of Ice Cream Manufacturers
Mississippi Ice Cream Manufacturers' Association
Nebraska Association of Ice Cream Manufacturers
Michigan Association of Ice Cream Manufacturers
Southern Association of Ice Cream Manufacturers
Kansas Association of Ice Cream Manufacturers
Association of Ice Cream Manufacturers of Iowa
Arkansas Ice Cream Manufacturers' Association
Texas Ice Cream Manufacturers' Association
Poodle Dog Association of Iowa
National Order of White Caps
The Nebraska Cornhuskers
Michigan Dairy Boosters
Oklahoma Wolfhounds
Kansas Jack Rabbits
Hoosier Wild Cats
Texas Longhorns
Missouri Mules
Bndger Flyers
Dixie Flyers

SEPTEMBER 1922

BULLETIN OF EVENTS

National Dairy Exposition, Minnesota State Fair Grounds, Minneapolis--St. Paul, Minn., October 7-14, 1922. W. E. Skinner, Secretary, Ryan Hotel, St. Paul, Minn.

Association of Ice Cream Manufacturers of Pennsylvania—Sixteenth Annual Convention, Harrisburg, October 9-10-11, Penn-Harris Hotel. J. W. Newman, Secretary, York. Pa.

National Exhibition, Association of Ice Cream Suppy Men, Cleveland, Ohio, October 16-21, 1922, headquarters Hotel Winton. Robert Everett, 1328 Broadway, New York, Secretary.

National Association of Ice Cream Manufacturers. 22nd annual convention, Cleveland, Ohio, Hollenden Hotel, October 16th, 17th and 18th. N. Loewenstein, 155 N. Clark Street, Chicago, Secretary.

Pacific Ice Cream Manufacturers' Association—Annual Convention, Davenport Hotel, Spokane, Washington, November 13, 14, 15, 1922. Bert H. Walker, Royal Ice Cream Co., Tacoma, Wash., Secretary.

Ice Cream Manufacturers Association of West Virginia—Annual Convention, Huntington, Nov. 20-21. C. F. Jamison, Huntington, Secretary.

Southern Association of Ice Cream Manufacturers, annual convention, New Orleans, December 5, 6 and 7. J. W. Clopton, Secretary, Decatur, Ala.

Oklahoma Association of Ice Cream Manufacturers—Annual Convention, Oklahoma City, Dec. 18, 19 and 20. 1922. S. P. Lay, Tulsa, Secretary

SEVERAL questions of vital interest to ice cream manufacturers are discussed in this issue of The Ice Cream Review, many of the contributions coming from ice cream manufacturers. In a recent issue we raised the question relative to building up a home demand for ice cream. We called attention to one ice cream manufacturer, who, after three years' effort, has failed to get the local retailers to handle his product in spite of the fact that he makes good ice cream. This is not a hypothetical case. We are quite familiar with the circumstances. The man is a hustler, makes good ice cream and has built up a splendid demand for his product in adjoining towns. The retailers, with one exception, have refused to give up handling cream from outside plants which they handled before he started making ice cream. He has worked with them for three years and they hang to the brands of ice cream they have always handled.

You will also find a number of communications in which the subject of freezing the mix is discussed. Some very valuable information is brought out in this discussion. Several pages are also devoted to the question of why the viscosity of the mix increases with ageing.

We hope that our readers are getting benefits from these discussions commensurate with the effort and expense we put forth to bring them to light. It is not the easy way to edit a trade publication but we believe that it is helping to build the industry.



IN JUST a few days now it will be time to pack your grip and make that trip to the National Dairy Exposition in the Twin Cities, and from there to Cleveland to attend the annual convention of the National Association of Ice Cream Manufacturers and to see the wonderful exhibit of machinery and supplies put on by the Association of Ice Cream Supply Men. We realize this is going to take you away from your business for a few days, but if you will do this you will have a better and bigger business a year from now than you will have if you just shut yourself up in your shell and stay at home.

Mossbacks always have hard shells. Moss can't grow where there is no shell. Don't let the shell grow and then there will be no temptation to stay in it. It is well to keep in mind the biggest and most prosperous ice cream manufacturers in the country are the ones who have the convention habit. They didn't wait until they were big either before getting the habit. Look up their records and you will find that they have been attending ice cream conventions ever since ice cream conventions were invented.

There is nothing extraordinary about this fact either. The men who go to conventions grow big and their business grows with them. Don't stay away from conventions and shows because your business is small; don't stay away because the big fellows seem to be the ones who are most active in the various trade associations. Their activities have helped them to grow big and they know that it pays them to be active. Be one of them.



JUST because your business is comparatively small is no reason why you should not avail yourself of the opportunity and co-operate with the National Dairy Council to boost for the industry and at the same time build your business bigger. Some folks think that in order to work with the National Dairy Council it is necessary to contribute money for which one gets no direct returns. This keeps many disinterested because they feel they can't afford to "donate."

It is unfortunate that such an impression prevails. True, contributions are made by many far-seeing men in

the business who believe in "indirect" returns as well as direct returns, but the National Dairy Council is in position to help the non-contributor build up the demand for his products. The men back of it realize that as they increase your business they are boosting the dairy business just that much. The Council has dairy advertising material, in variety and abundance, which is available to you at a definite price which you can buy and pay for just as you would purchase any other commodity. There is something in stock that will apply to your business. You can help the ice cream industry by doing more business in your plant. If you haven't tried it, do it.

⚜

ALL progressive ice cream manufacturers believe in advertising. They know that good advertising, backed up by quality ice cream, has not only developed their business but it has had not a little to do with the wonderful development of the ice cream industry. Some manufacturers are good buyers of advertising, they know the kind of advertising that will get results.

Buying advertising is almost an art. Some men make the mistake of buying advertising that appeals to their peculiar notions of advertising rather than being guided by the experience of others. If they can see their ideas in print they are happy and they think they are advertising. If they call upon an advertising man to get up some literature for them they tell the advertising man just what they want and how they want it.

A man thus inclined, in order to be consistent, should tell his family doctor just what to prescribe when he calls him on a case. True, many men nowadays know exactly what they want in a doctor's prescription, but they are usually in pretty good health when they call the doctor. In case they are calling him for a legitimate purpose they put their case in his hands and abide by his judgment.

When you buy advertising from an advertising man, in whom you have confidence, you can get your money's worth only by getting the benefit of his advertising experience. He knows what attracts favorable attention, he makes it his business to study advertising. He knows what constitutes "human appeal" and he knows how to combine the 26 letters in the alphabet in the most effective way. Of course, if you are a better judge of advertising than he is you can profit best by requiring him to carry out your ideas. In such case you do not need his services. The ice cream business needs more advertising and while we are about it let's give it more effective advertising.

⚜

THE months ahead are convention months, not only for men interested in various lines of dairying, but for men in most lines of business. They get together to exchange ideas and make acquaintances. They discuss new developments in the industry in which they are interested and agree upon business policies. While a large number of subjects come up for discussion at these various trade conventions, the two big problems which are always uppermost are QUALITY and SERVICE.

If you doubt this, just sit down and make a list of the many problems incident to your business and then see how many items on your list may be properly classified as QUALITY OR SERVICE problems. Give the right kind of quality and the right kind of service to your customers, both in buying and selling, and your business will "blossom like the rose." Possibly you will find that all your business problems may be properly classified under these two heads. We believe you will.

⚜

MANY ice cream manufacturers will soon reach the close of "the season" in their business. They will call in their cabinets and packers and do everything possible to cut down on expenses. They will stop all advertising and lose just as little money as possible between the close of this season and the opening of next year's season.

Other manufacturers will fight harder than ever to push the sales of ice cream. They don't have a closed season in their business. True, they may not sell as much ice cream when cold weather comes, but they keep right on making and selling ice cream. They believe that ice cream is a food, not a fad; they believe that it is good for folks to eat in the winter months; they believe this so thoroughly that they tell other folks about it and instead of shutting up shop and waiting for another "season" to open they keep right on doing business. Anyone can sell good ice cream in hot weather, but it takes a real business man to sell ice cream in cold weather.

⚜

AT THE Wisconsin State Fair, which was held here recently, the ice cream men of the state joined hands with other dairy products manufacturers and put on an exhibit in the dairy building which was a credit to everybody connected in any way with it. A corner of the exhibit in one of the big display refrigerators was set apart for the ice cream exhibit and attracted much favorable comment. Different ice cream dishes were shown in papiermache and a mechanical life-sized boy eating an ice cream cone was easily the center of attraction. Placards and advertisements emphasizing the deliciousness and food value of ice cream helped to carry the message to State Fair visitors. There are lots of ways of advertising ice cream and oftentimes it can be done most effectively through the co-operation of a number of manufacturers.

⚜

AN ICE CREAM expert made the statement at a recent convention that practically all bacteria in ice cream comes from milk, cream and the butter used in the mix; that is providing the other ingredients are high grade. Buy the very best gelatine and other ingredients and you need not worry about poor quality so far as those ingredients are concerned. He says that experiments have proven that using good gelatine does not materially increase the bacteria count. Good gelatine is practically free from bacteria in spite of the fact that it is such a good medium for bacteria growth. This is just another evidence that in order to make a good quality of ice cream the best materials must be used.

The Cleveland Convention and the National Exhibition

All roads will lead to Cleveland, Ohio, next month when the National Association of Ice Cream Manufacturers meet in their annual convention and the Association of Ice Cream Supply Men hold their national exhibition.

Cleveland is on the principal travel highway from New York to Chicago, within a night's ride of the Atlantic ocean and the Mississippi river. Steamboat lines connect Cleveland with every port on the Great Lakes. Many delegates can avail themselves of the privilege of using combination rail and steamship tickets, thus making the trip most enjoyable.

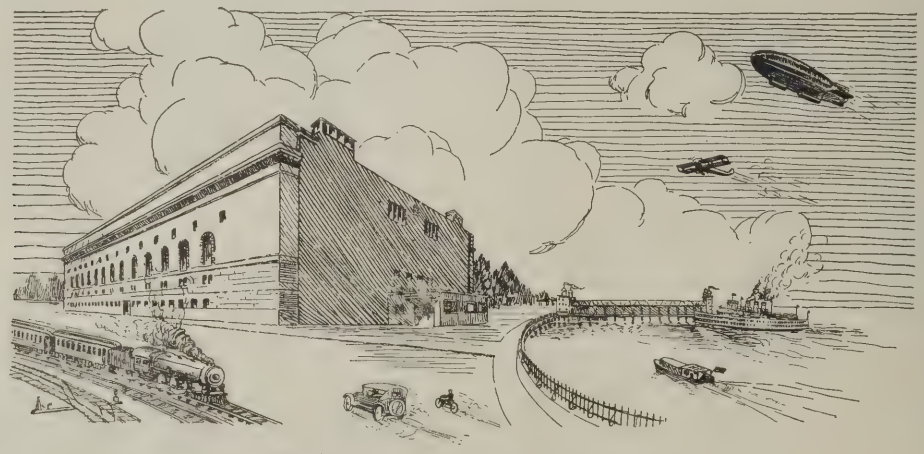
Cleveland has 90 hotels. There are more than 5,000 rooms in modern fire-proof hotels and convention delegates can secure a combination to suit all purses. The hotels are centrally located and no delegate need feel that he must put up with inconveniences. Reservations have been heavy at the leading hotels but the Cleveland Committee promises that everybody will be nicely taken care of.

We hope that readers of The Ice Cream Review will go to Cleveland in large numbers. Many of our readers have the convention habit, but there are many who let business keep them at home when they could, by planning ahead of time, attend the convention with profit.

In these days of business uncertainty and rapidly changing conditions, it is most important for all business men to keep abreast of the times, to learn how their business might be effected and to prepare to meet the situation successfully. The many problems confronting the business world today cannot be solved by the individual, they can only be solved by collective thought and action; constructive co-operative ideas must be brought out and business conventions do this very thing.

There never was a time when business organizations and business conventions were more essential to the healthy growth of business. Acquaintances are made at the conventions and ideas exchanged and friendships established that are profitable to all. The man who thinks it does not pay to attend his trade conventions simply doesn't know the real value to be gained from such conventions. The men who go are the men who know and they keep on going year after year.

Delegates to the annual convention this year will enjoy the privilege of visiting what will probably be the greatest display of ice cream machinery and supplies ever staged. The opportunity to learn facts first hand about the latest and best in the equipment and supply line will repay any ice cream manufacturer for the expense incurred attending the convention.



Municipal Auditorium, Cleveland.

Largest Exhibition Before 1922 Outdone.

Nearly 1,500 men and women associated in some way with the great ice cream industry of the continent are still recalling to mind the great Buffalo Exposition of The Association of Ice Cream Supply Men held the last day of October and the first five days of November, 1921.

Visitors came to inspect this display from twenty different state and four Canadian provinces. The Show was not only the greatest in size ever held until then, but was eminently a success in all its other features.

The various trade publications of the ice cream industry characterized the Show, for instance:

"No event of greater interest to the ice cream industry of the country has even been known."

Largest Until Then.

"The largest exhibition of ice cream making essentials ever known, which came to a successful close November 5th in Buffalo."

"One of the most successful exhibitions ever given."

"It was successful in many ways and in respects not expected."

"The Buffalo Exposition was the best in all particulars ever held by the Association."

In fact, it was generally admitted that the Buffalo Exposition gave the industry its own truest idea of its real size and possibilities that it had ever had. This was admitted by both ice cream manufacturers and supply men who have been developing equipment and furnishing supplies to the industry for a decade or more.

Cleveland Bigger.

The Buffalo Exposition, however, large and successful as it was, was only a regional exhibition of The Association of Ice Cream Supply Men, promoted primarily as a service to the ice cream plants of the eastern section of the country.

The great national exposition at Cleveland, on the other hand, is what its name implies, a great educational and sales display promoted for the benefit of ice cream manufacturers from coast to coast, at once a great exchange for ideas, plans and methods, and a great industrial fair, through which no ice cream manufacturer can possibly walk without profit to himself.

A number of altogether new pieces and types of equipment and apparatus were displayed at Buffalo, intensely interesting every ice cream manufacturer there. It is expected that the Cleveland Exposition will be a place of introduction to the industry again this year

(Concluded on page 128)

NATIONAL ASSOCIATION OF ICE CREAM MANUFACTURERS
INCORPORATED

CHARLES G. MORRIS, President
New Haven Dairy Co. New Haven, Conn.

N. LOEWENSTEIN, Secretary
155 North Clark Street Chicago, Illinois

The Twenty-Second Annual Convention of The National Association of Ice Cream Manufacturers

Will Be Held at Cleveland, Ohio, Hotel Hollenden, October 16, 17, 18, 1922

Chicago, August 16, 1922.

Work on the program is progressing in a very satisfactory manner. At this writing the subjects to be discussed stand about as follows:

"How May We Stabilize Business for 1923?"
"Problems of Distribution."
"What are the Best Methods of Advertising Ice Cream?"
"Problems of Suburban Delivery."
"Investigations in the Manufacture of Ice Cream, by U. S. Department of Agriculture."
"Patents, Copyrights, Trade Marks and Licenses."
"Ice Cream Shipments via Express."
"Present Day Problems in the Industry."
"Still Air Hardening, Blast Hardening, or Air Circulation Hardening?"
"The Manufacture of Brick Ice Cream."
"Cost Accounting."
"Brief Resume of the High Lights of the Convention."

We hope to be able to send a copy of the completed program to you with our next letter, and right now we want to impress on every Ice Cream manufacturer that we are going to expect him to come prepared to say and do something that will contribute to the success of the meeting. Ample discussion will be had of all the subjects on the program.

Application has been made for reduced railroad fares.

If your hotel reservations have not yet been made, please make use of the enclosed blank at once. We want all Ice Cream manufacturers to be taken care of in a satisfactory manner, and if you send in your reservation now it will be handled in a manner to meet with your entire approval. Please act promptly.

We feel we can honestly say that the three days of our Convention will be the most profitable you will ever be able to spend at any meeting. Come with your mind made up to enter into the discussions—get acquainted with your fellow manufacturer. He may have solved the very problems that are bothering you, and he will be glad to tell you all about it.

The social activities will also be very enjoyable. You are promised an all round good time.

"Every man owes a part of his time to the upbuilding of the industry to which he belongs."—Theodore Roosevelt.

No one can fail to appreciate the wisdom of this statement, but apply it, in this particular instance, and make up your mind to support the Convention with your presence.

* * *

"The Substance of His House."

A writer has given the above title to one of his recent works and it seems quite apropos for this bulletin, the real subject of which is

"Co-operation."

Co-operation is ancient. It came next after competition, the essential condition of savagery, and it is the one thing which more than anything else has lifted the human race above the brute. It started as a simple measure of defense. It has grown to a most complicated matter of community action for aggressive measures of betterment. The widest possible co-operation is essential to civilized man today, for there are vast problems confronting the world in general and our industry in particular which must be solved.

Since the early ages, long before history begins, men have co-operated for common protection and have thus found strength instead of weakness, peace instead of war. They soon learned that co-operation meant organization and organization meant strength and security. The individually weak sought the strength of organized numbers, and the individually strong, seeing possible disaster to themselves in disaster to the weak, sought self-preservation through the protection of all.

Common need may drive them together, but the basis on which men must actually co-operate is the ground of common understanding and the world must look to co-operation to rehabilitate it. In industry as well as in affairs national and international the hope of progress lies in co-operation.

In the field of human relations as regards commerce and industry men have advanced a long way from where they were when first the need of co-operation was experienced, but they still have far to go. It is only in a limited way that they dare trust each other as yet. Most men will stand considerably more confidence and trust than they get.

Co-operation is undoubtedly the road to industrial harmony, but to obtain this all unfair business practices must be eliminated. Substituted therefore must be a system devised as the result of intelligent co-operative effort, under which men will play the game as they do golf or baseball or tennis—to win, but to win under the rules, as a gentleman. Such a system, far from interfering with production, will stimulate it and build up sound co-operative competitive relationships. Conditions likely to cause disputes will be anticipated before they have an opportunity to develop into problems dangerous to the stabilization of the industry as a whole.

Therefore, we may well say that co-operation is the **substance of our house.** The annual meeting of a trade association helps us to conserve our substance and reach a ground of common understanding with our fellow men, thus automatically solving our common problems and presenting a united front to our common enemies, whether they be individuals or conditions.

If ever there was a time when co-operation was needed in our industry it is the present. Meet your competitor with a smile, play the game with both feet on the ground, and if your competitor is not a member of this Association, induce him to join, as a first evidence of your intention to co-operate with him. Also invite him to come to our forthcoming Convention, where he will be cordially welcomed. And don't forget to come to the Convention yourself.



NOTICE!

On January first, 1922, the John Schroeder Lumber Co., Milwaukee, Wis. took over the plant of the Wisconsin Woodworking Co. at Two Rivers, Wis., and since that time has been actively engaged in the manufacture of ice cream tubs, candy pails, butter tubs, pickle kits, and other woodenware products. The production of the plant has been over-sold to date as the company has found a ready market awaiting these new Schroeder-Perfection Products.



OKLAHOMA DATES SET.

The 1922 convention of the Oklahoma Association of Ice Cream Manufacturers will be held in Oklahoma City December 18, 19 and 20, at the Lee Huckins Hotel. Mr. S. P. Lay, Tulsa, Oklahoma, is secretary-treasurer.

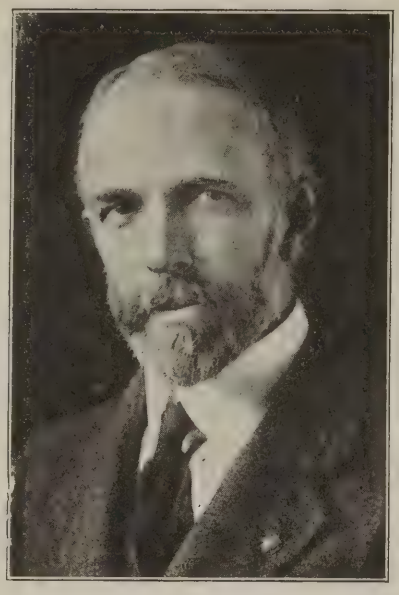


WEST VIRGINIA CONVENTION.

The 1922 convention of The Ice Cream Manufacturers Association of West Virginia will be held in Huntington on Nov. 20 and 21st. Mr. C. F. Jamison, Huntington, West Virginia, is secretary-treasurer.

Officers and Members of Executive Committee

National Association of Ice Cream Manufacturers



CHARLES G. MORRIS,
President.



MORDEN NEILSON,
Vice-President.



N. LOEWENSTEIN,
Secretary.



WM. F. LUICK.



FRED. N. MARTIN.



W. M.. B. SINE.



E. C. SUTTON.

Annual Convention Cleveland, Ohio October 16-18, 1922

They Want To Meet You There

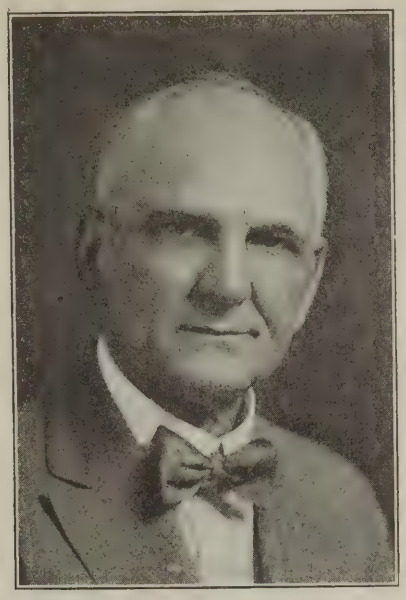
Directors at Large



ALEX G. HOEFLER,
New York.



DAVID H. SCHLEGEL,
Pennsylvania.



E. E. REICK,
Pennsylvania.



ASA B. GARDNER,
Maryland.



BERT WALKER,
Washington.

National Association of Ice Cream Manufacturers



J. W. NEUMAN,
Pennsylvania.

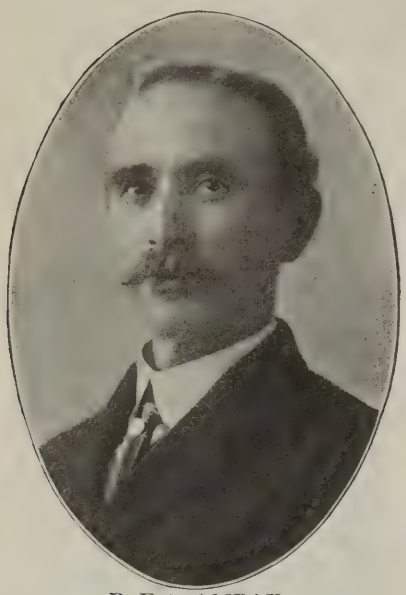


CHAS. A. ODOM,
Georgia.

Annual Convention Cleveland, Ohio October 16-18, 1922

They Want To Meet You There

DIRECTORS REPRESENTING STATE ASSOCIATIONS



D. F. SOLLIDAY,
Oklahoma.



L. J. NOAKER,
Ohio.



D. D. SMITH,
Wisconsin.



B. T. PERKINS,
Kansas.



J. J. McDONALD,
Michigan.



A. M. THORNTON,
Louisiana.



A. E. DIXON,
North Carolina.



W. S. WILCOX,
Iowa.



W. A. SCHWINDELER,
Illinois.

The National Dairy Exposition

Our folks who are planning to attend the National Dairy Exposition on the Minnesota State Fair Grounds, midway between St. Paul and Minneapolis, will be interested in the following description of St. Paul and its opportunities for pleasant side trips. The St. Paul Association of Commerce contributed the following:

St. Paul considers itself fortunate in having secured permission to act as host to the 1922 National Dairy Exposition. When you arrive in St. Paul to attend the National Dairy Exposition we also want you to see all that you can of St. Paul and we feel confident that you will more than enjoy all that you see. And in order that you may better understand and appreciate our city, we wish to outline briefly some of the reasons which make St. Paul the leading city of the Northwest, as well as point out some of the principal points of interest which we hope you may visit.



In the Heart of the Downtown Section, St. Paul.

St. Paul was incorporated in 1854 and the orignal site of the city was on the banks of the Mississippi River, not far from the present location of the magnificent Union Station which is now practically completed. At that time river traffic was one of the large factors in the city's development. And from that time, until the present, St. Paul has been actual head of navigation of the Mississippi River. Although for years comparatively little use has been made of the river commercially, there is every indication that such traffic may be renewed in the near future.

With the development of the railroad industry in this territory, St. Paul became and has continued to be the railroad center of the Northwest. Today there are nine large railroad systems operating twenty-three lines running out of St. Paul. A number of these lines have headquarters here in St. Paul and in the operation of the trains, shops, etc, employment is provided for thousands of people. On Jackson street between Fourth and Fifth streets, you may see the largest exclusive railway office building in the world.

Jobbing has been one of St. Paul's largest industries since the city's earliest days. In the vicinity of the Union Station, about Smith Park, and extending as far as Tenth street, may be seen one of the great jobbing districts of the country. From these houses, goods of all kinds are supplied to the Northwest and in some cases to the entire country. The states particularly served by St. Paul jobbers are Minnesota, Northern Michigan, Wisconsin, Iowa, North Dakota, South Dakota and Montana. When one realizes that it is farther from St. Paul to the western boundary of Montana than it is from St. Paul to Florida, some idea of the extent of the territory served by St. Paul may be gained. Many of the larger jobbers have their own factories and manufacture a large proportion of the products that they handle. It is the ideal of St. Paul jobbers to give service and through unexcelled products, organizations which have been slowly and carefully built up, and with the best of railroad facilities, St. Paul jobbers do serve.

As a manufacturing city, St. Paul ranks well toward the fore. However, the numerous manufacturing concerns are not centered in any particularly locality but are found in many sections of the city. Meat packing is the largest single industry of this kind. South St. Paul is not only the largest meat packing center in the Northwest, but it is also the fastest growing livestock

ADEQUATE REFRIGERATING MACHINERY PREPARES FOR THE SEASON'S RUSH.

market in the world, while the new Armour plant, located at South St. Paul is the finest and most modern plant of its kind in the world. Swift & Company have also for many years operated a large plant which compares favorably with the new Armour plant. The various companies provide guides for guests who desire to inspect the plants, and a trip through one of the packing plants is well worth while. There are many large manufacturing plants in the city and St. Paul leads the Northwest in the production of fur goods, coke, hoisting machinery, cigars, rubber goods, food products, advertising novelties, refrigerators, gloves, hats, law books and shoes. One of the most rapidly growing manufacturing centers will be seen in going out University avenue. This district, known as St. Paul's Midway Industrial District, contains some of the finest industrial plants in the country.

It follows quite naturally that with its importance as a railroad, jobbing and manufacturing center, St. Paul should also be a leading retail center. There are probably very few cities regardless of size where better or more complete retail stores can be found than are found in St. Paul. On Sixth street, Seventh street, Robert street and Wabasha street, are located many of the larger retail and department stores, while most of the downtown section is occupied with retail stores of all kinds.

Although the business upon which St. Paul depends for its prosperity is largely centered in the downtown district, yet there are other portions of the city which should be seen in order to obtain a proper conception of the city as a whole. St. Paul covers in all fifty-five square miles of territory. Throughout the city are many parks, drives, and special points of interest which are more than worth the small effort required to visit them.

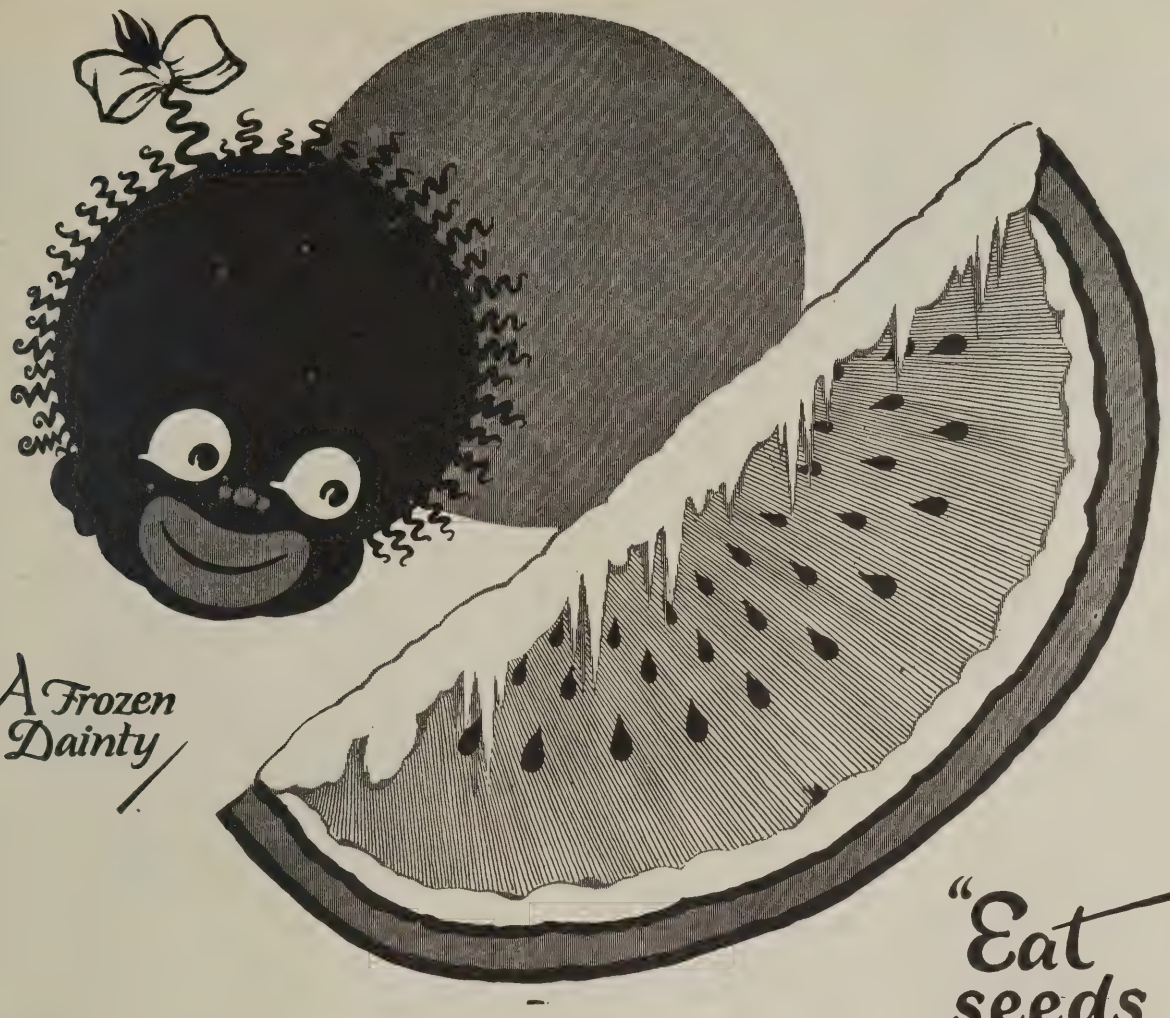
Starting almost from the downtown district and in fact from St. Paul's Cathedral, which, by the way, is one of the finest cathedrals on the continent, is Summit avenue. Summit avenue is the longest fine residence street in America and for almost four miles from the Cathedral on the east to the Mississippi River on the west, is one continuous line of fine St. Paul homes. Running both north and south from Summit avenue along the edge of the bluffs overlooking the Mississippi river is the River Boulevard Drive. Few equally beautiful drives can be found anywhere. At the southern end of the River Boulevard is historic Fort Snelling, which is now headquarters for the 3rd Regiment of the 7th Army Corps Area.

In the northwest corner of the city is Como park. With Lake Como, the fountains, gardens, conservatory and wild animal range, Como park offers much of actual interest in addition to its beauty. Farther to the north and east is Phalen park located upon the shores of Lake Phalen. Whatever lack of wild animals or conservatories there may be at Phalen is more than made up by a fine large bathing beach and an excellent eighteen hole golf course. Just a short distance southeast of St. Paul's downtown district, lies Indian Mounds Park. Here at a high elevation overlooking both the city and the Mississippi Valley to the south, are numerous large Indian mounds constructed years ago when the red men were still rulers of this region. Just below the brow of the hill at Indian Mounds park are located the Minnesota State Fish Hatcheries, from which millions of small game fish are distributed to all sections of the state. There are numerous other parks and drives throughout the city which limited space forbids mentioning. During the summer months many of the parks have regular evening band concerts, as well as other special attractions and entertainment.

There is an unusual opportunity for all kinds of entertainment in St. Paul. The theaters offer programs to suit every taste, whether it be the legitimate, vaudeville, or motion pictures. A particular effort should be made to see the Capitol theater. In appointments, decorations and programs presented, this motion picture house is unexcelled anywhere in the country. Some of the hotels and the various restaurants and cafes throughout the city provide dancing, special entertainment and similar forms of amusement during Exposition week.



Phalen Park, St. Paul.



A Frozen Dainty

"Eat seeds 'n all"

The New Sensation

Here's a winner for school days. The "kiddies" go wild over this new luscious, ripe pink slice of ice cream, half-moon shaped like a slice of watermelon and dotted all through with irresistible milk chocolate seeds — and they "eat seeds 'n all."

Over two hundred of the leading ice cream manufacturers in the United States and Canada have already been licensed to manufacture Picaninny Freeze.

One manufacturer writes: "We have been marketing Picaninny Freeze for ten days, averaging three thousand dozen a day. We have already received our first big value from this new product."

Another manufacturer writes: "We like to make Picaninny Freeze, it handles so easily and quickly and is so clean. We also like the long profit in Picaninny Freeze. It is a winner."

5¢

Representative ice cream manufacturers in territory not already closed are invited to request complete information, which will be forwarded immediately on receipt of letter or wire addressed to

PICANINNY FREEZE COMPANY OF AMERICA

103 West Washington St., Chicago **45 W. S. Temple St., Salt Lake City**

Picaninny FREEZE

(TRADE MARK REGISTERED)

Manufacturers licensed by the PICANINNY FREEZE COMPANY OF AMERICA, Inc., Salt Lake City, Utah.

COPYRIGHT 1922

"Picaninny Freeze--Eat Seeds 'n All"

OUT West, in Salt Lake City, lives a well-known cartoonist who has spent years in turning out ideas on the spur of the moment, any time the bosses wanted them. He worked for several years on the New York-American Journal under the famous Hearst editor, Arthur Brisbane. During another period he served as utility man for Judge; his drawings have graced the pages of that magazine from front to back cover. The late Elbert Hubbard knew his worth and made a personal friend of him, inviting him to the home of the Roycrofters in East Auburn, New York, to illustrate a series of magazine articles. Besides all these achievements, John S. Sears, the cartoonist under discussion, was associated for a number of years with the Borgfeldt Company of New York, manufacturers of the Kewpie Doll, and originated on his own hook, the nationally famous Skookum character.

But Jack Sears is never content with past achievements. His association with Brisbane, Hubbard, Borgfeldt's and others, and his training and experience as a cartoonist, have given him an ear that is tuned to the public pulse. A few months ago his "sixth sense" prompted him that the public was ripe for a five-cent ice cream package that could be marketed under a new fresh name. He set to work and conceived the idea behind the popular new frozen dainty, "Picaninny Freeze," which is rapidly sweeping the country in its wave of popularity.

This was less than four months ago. Today "Picaninny Freeze" sales run into the millions a day and this frozen confection is manufactured under license in more than 100 towns and cities from the Atlantic to the Pacific, from Canada to the Gulf of Mexico, and also in the Hawaiin Islands, by as many leading ice cream manufacturers.

The detailed story of this success is one of a good product and a distinctive advertising campaign.

While his idea was still in the rough, Mr. Sears took it to an advertising agency. A number of men who were experienced in the manufacture of ice cream were then called into consultation and this combination worked out the program which has put Picaninny Freeze where it is today.

Picaninny Freeze is a delicious bar of ice cream, representing a slice of watermelon, dressed up in holiday clothes. Strawberry ice cream, ripe-pink in color, half-moon shaped like a slice of melon, and dotted all through with irresistible, mellow milk chocolate seeds, is the winning combination used in this five-cent wonder seller. The slogan of the campaign is—"Eat seeds 'n all." Everything connected with the manufacture and sale of Picaninny Freeze has been patented, trade-marked and copyrighted.

These ice cream bars are individually wrapped in attractive, three-color wax-paper wrappers. They are sold from corner grocery stores, at amusement stands and parlors, drug stores, at amusement resorts, and from unique watermelon-shaped carts and strap carriers at depots, ball games, or wherever people congregate.

The first try-out for Picaninny Freeze was made in Salt Lake City. A teaser campaign consisting of three small ads featuring the slogan "Eat Seeds 'n All," commenced three days before the day of introduction. On the fourth day the Picaninny Freeze Company of America broke with a 60-inch ad over the name of the local manufacturer. On the same day a showing of posters, window streamers in the windows of dealers carrying Picaninny Freeze, counter cards and other dealer helps, went up simultaneously. From the outset the sale of Picaninny Freeze was tremendous, even greater, in fact, than either the licensors or the licensees had most optimistically expected. Before the end of the first week, the entire output of the manufacturer's plant had been more than doubled. This was late in April of this year.

With this start to encourage the patentors of Picaninny Freeze, a small handful of salesmen was sent out to win manufacturers. Naturally the first half-dozen or so contracts were hard to secure. Among the many obstacles which stood in the way of the immediate success of this new frozen dainty were the flooding of the market with hundreds of new brands of frozen dainties and also the fact that Picaninny Freeze was introduced at the peak of the ice cream season, when manufacturing plants in every section of the country were already groaning under the task of meeting the normal summer demand. In a great many instances, manufacturers felt that they had no facilities for producing a new product.

But these obstacles had no terror for the Picaninny Freeze salesmen. In less than one hundred days more than 125 ice cream makers, representing in nearly every instance, the leading manufacturer in every city, had become enthusiastic licensed makers of Picaninny Freeze. In the majority of cities where introduced, the Picaninny Freeze Company give the licensee exclusive rights for a period of years.

The royalties for the manufacturing rights are based on large production and consequently are very small. Of these royalties, not less than 40 per cent goes for continuous advertising to be placed in the territory of the manufacturer, over his name. Another ten per cent is reserved for legal protection for the manufacturer and the parent company.

The advertising campaign has been of a very distinctive nature. In most cases only one newspaper in a town has been used. Where the appropriation has permitted, poster advertising has also been used, and in every instance the dealers have been well supplied with attractive three-color window streamers, as well as with

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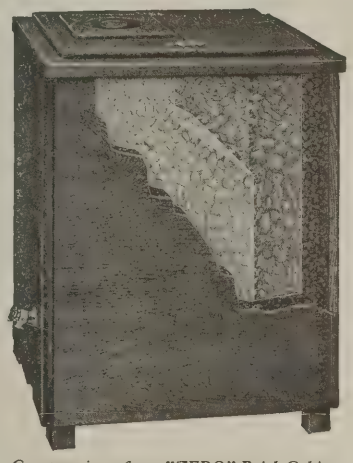
"IT CAN'T BE DONE"
one man said. His competitor proved to him it **could. Which** man would you rather be? I guessed right the the first time.
Walk—Ride—Write—Wire—Phone
SANI-DAIRY PRODUCTS CORP'N, 45th and Evans Ave., CHICAGO

"A Pocket Full of PEP"
The Dairy World
A Journal for the Dairy Industry
3 Month's Trial 25c
Then, if you like it, get it every month by sending one dollar once each year. Sit right down now, and write us "Here's 25c in stamps—let me try The Dairy World." It's Pocket Size—and full of PEP. You'll like it.
THE DAIRY WORLD
Room 860—508 S. Dearborn St., Chicago, Ill., U. S. A.

Make Our Exhibit Your Headquarters
at the Cleveland Exposition



Style No. 5



Construction of our "ZERO" Brick Cabinet

GRAND Rapids Ice Cream Cabinets are the choice of a majority of the prominent ice cream manufacturers of the country because they have proven them to be the most efficient, durable and economical cabinets the market affords.

If you are not yet using Grand Rapids Ice Cream Cabinets in your business, be sure to see the line while you are in Cleveland. Investigate for yourself our exclusive, scientific methods of construction that produce results that are far superior to those achieved by other makes.

The special attention of the trade is directed to the fact that there will be shown in our exhibit something new and decidedly interesting.



Style No. 4

SEE

Grand Rapids Ice Cream Cabinets

Spaces Nos. 24, 25 & 26

AT THE NATIONAL ICE CREAM INDUSTRY EXPOSITION AT CLEVELAND

GRAND RAPIDS CABINET COMPANY

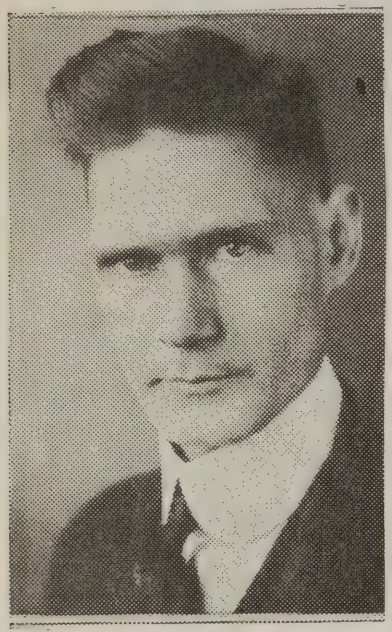
55-59 Alabama Ave. N. W. *Successors to Chocolate Cooler Company* **Grand Rapids, Mich.**

NEW ENGLAND SALES OFFICE AND WAREHOUSE, - MERROW BROS. INC., 44 N. Market Street, BOSTON, MASS.
SOUTH EASTERN SALES OFFICE AND WAREHOUSE, - CHERRY-BASSETT CO., 33 So. Charles Street, BALTIMORE, MD.
CENTRAL SALES OFFICE AND WAREHOUSE, - CHERRY-BASSETT-WINNER CO., 1139 Penn. Ave., PITTSBURG, PA.
NORTH WESTERN SALES OFFICE AND WAREHOUSE, - A. C. BLACK, 515 Lumber Exchange, MINNEAPOLIS, MINN.

OUR NEW SOUTHERN CORRESPONDENT.

Mr. Craddock Goins, Atlanta, Georgia To Furnish Readers of The Ice Cream Review Regularly With News of the Southern Ice Cream Industry.

We have a real treat to set before readers of The Ice Cream Review. Said treat will be of special interest to our Southern readers, but of real interest to all. Mr. Craddock Goins, of Atlanta, Georgia, a newspaper man of wide experience and well known among southern ice cream manufacturers will act as our Southern correspondent and will keep Ice Cream Review readers posted on developments in that rapidly growing important ice cream section of our country.



MR. CRADDOCK GOINS.

When this business arrangement was concluded we naturally wanted to tell our readers something about Mr. Goins. We asked him to tell us something that we might use as a basis for a story. He wrote "ye editor" a personal letter which contains so much sparkling evidence of Mr. Goins' peculiar ability as a newspaper man that we are going to let you read extracts from it. This privilege will afford the reader a better idea of what to expect from his pen than anything we might write. Contributions from Mr. Goins relative to ice cream matters in the "Sunny South" will be found elsewhere in this issue. Here are the extracts:

"As a partner in industry, Mr. Irving S. Cobb, would say, I was "practically born and raised" in the South; but it would be difficult to qualify me as a Southerner in the sense that people north of the Smith & Wesson line generally accept the application, as no one in my long and otherwise honorable line of ancestry ever owned a slave or took part in a lynching.

I never had a real, bona fide negro mammy, as the old negress who gave me my early education in the escapades of Br'er Rabbit and the Tar Baby had a husband regularly employed by my father and regularly paid in American dollars, which further operates against my standing in that highly colored classification around which is centered so much romance and fancy, especially the latter.

In spite of this handicap, I succeeded fairly well in my early pursuit of life, liberty and happiness until I went to a southern college to learn that the term "dam yankee" were two separate and distinct words. Later I did enough newspaper work in the north to understand that all of the fighters do not live in Georgia, Florida, Alabama, etc., and the further fact that a gentleman in Hoboken or Kankakee is strangely similar to a gentleman in Mississippi; and that hospitality is something not confined by sectional boundary.

I developed an early love for the ice cream manufacturing industry, and it is a firm conviction of mine that the people below the Ohio river are destined to create a real ice cream-consuming nation.

The people of the south are of the best type of the Caucasian strain. I don't believe there is a better stock of pure-bred Americans anywhere, and I say this with all due homage to the character and thrift of that hardy race that explored our great West and to the astute New Englanders who were careful to make a great deal of money out of the slave traffic before discovering the evils of human subjugation.

Government statistics show that the South leads the nation in percentage of men physically fit, and basing my opinion upon the general understanding that a sound body and a sound mind go together, I believe that the South's business men are prepared to overcome the obstacle of scattered populations and seize upon their natural resources, which are the greatest in the world, with the same energy and intelligence that other sections have so remarkably improved lesser opportunities.

The ice cream people of the South are beginning to take their business more seriously. I remember when a certain prominent ice cream manufacturer used to be spoken of in his community, in a Southern city, in a facetious way, such as "that ice cream feller." Today that gentleman is recognized by his neighbors as one of the most prominent citizens of his city.

The ice cream business of the South is building because the ice cream manufacturers, themselves, are applying to their efforts the same kind of policies and business ethics as that of other legitimate business enterprises.

It is my firm belief that the time is not far distant when the Southern ice cream manufacturers, with their remarkable natural advantages, will be producing ice cream at a rate more than double their present output. The people of the South are beginning to appreciate the food values of milk products. They are beginning to appreciate the ice cream manufacturing industry and its contribution to human satisfaction.

My identification with the ice cream industry began three years ago, and the story leading up to my ice cream connections is something that I don't like to dwell upon.

It was after failing at seven successive attempts to make a living in the usual business lines after leaving college that I accepted the suggestion of a college president and proceeded to drive to drink most of the city editors from Atlanta to Chicago, in successive turns.

I did not take my newspaper work seriously until one day a city editor in Charleston, S. C., in a moment of forgetfulness, strode to my desk and said, "That was a darn good feature story you just turned in."

With this first word of praise that I had ever heard concerning my ability at any thing, there was, then and there, impressed upon me the dismal fact that I was doomed to follow the trail of printer's ink, a trail that has enriched me only in a store of experience and a multitude of musings upon things that might have been.

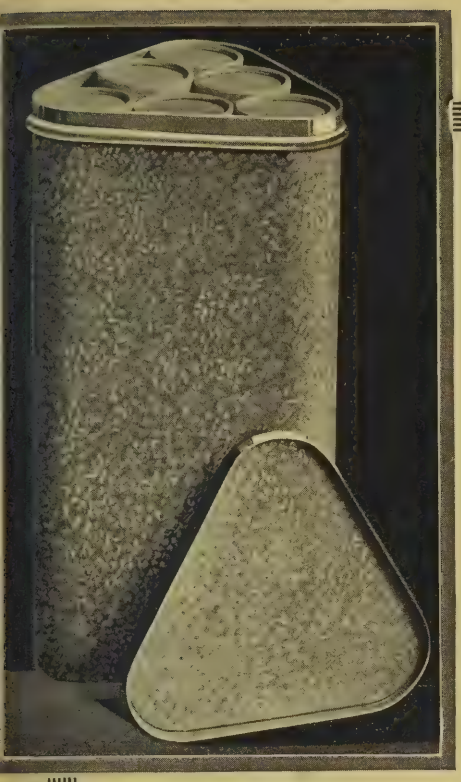
Not even the highly colored imagination that comprises my sole qualification in industry can enable me to find one solitary achievement in my thirty years to mention now. Probably the only act that gives me any claim to success in life was that when last June a year ago I married the nicest little Georgia peach in the Cracker State."

⚜

Approximately 750,000 men in this country are engaged in making, selling or repairing automobiles.

The first road building policy ever conceived in the United States was inaugurated in Kentucky in 1821.

No fewer than 20,000 motor busses are operated in the congested and undeveloped areas of the principal cities in this country.



Triangular Packer

for filled Sealright Containers

A PRACTICAL, simple, durable, efficient device to facilitate shipping, delivery and handling of Sealright Paper Containers filled with bulk ice cream. Keeps cream in containers in perfect condition. Requires minimum amount of space in tubs and cabinets—has greater holding capacity with increased icing space over that of the square brick cave. It's a decided improvement at about the same cost—an indispensable factor in the distribution of bulk ice cream in cylindrical paper containers. It's the connecting link that perfects the method.

for Standard Tubs and Cabinets

Serves Two-fold Purpose

In the Cabinet At Retailer The Triangular Packer is far superior to the square brick cave for holding cylindrical containers. It increases holding capacity, icing space and makes for a more easy selection of any size or flavor. No ice cream can is required. Packer remains in the cabinet. When empty, merely refill. Will seldom require washing as no cream can come in contact with Packer. No complicated lifting devices—no parts to get out of order or become lost. Its simplicity makes for greater efficiency.

In the Shipping Tub As a holder for filled containers in the shipping tub, the Packer is ideal. Note how ice entirely surrounds Packer in the tub. Ice cream remains in perfect condition in the containers until destination is reached. Where retailer does not have cabinet, Packer remains in tub. For country shipments and local deliveries this Packer makes a fine shipping proposition for the delivery of filled cylindrical containers.



Order Through Your Jobber—Or Write Us

OAKES & BURGER CO.

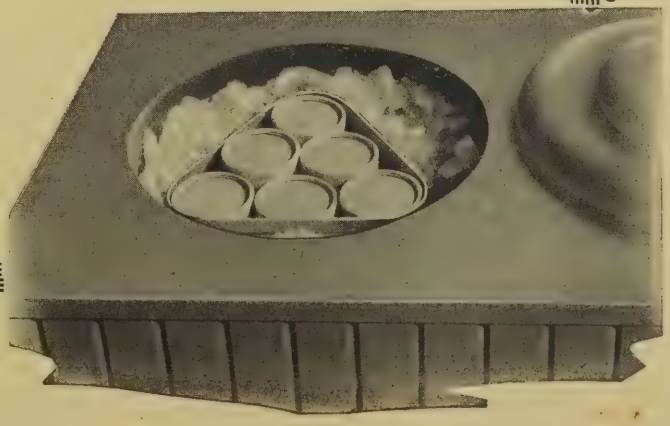
Established 1873

CATTARAUGUS - - - - - - NEW YORK

Maximum Refrigeration

Note ample icing space around Packer when in tub or cabinet. Note, further, how all containers in the packer come in direct contact with the sides of the packer. All containers receive maximum refrigeration from this direct surface contact. Further, note air spaces between containers in packer. This means still greater refrigeration efficiency. Containers continually and entirely surrounded by cold air—not a solid, dense mass as with bricks.

Cover and yoke have been removed to give better view of containers in the Packer. Retailers do not remove yoke when selecting filled containers. Merely life cover and all containers are easily reached.



The Seal



Largest Manufacturers in the World of
Cylindrical Liquid-Tight Paper Containers

ight-Way

Increases Sales of Bulk Ice Cream

A GREATER and more regular consumption of bulk ice cream in the homes throughout the entire year constitutes your most potential and fertile field. The Sealright-Way provides the means of getting your product from your retailers to the homes in an efficient, practical, sanitary, economical and satisfactory manner. It perfects and completes your distribution method. It eliminates the expensive brick system. It enables retailers to handle your product more efficiently and profitably. It keeps and delivers ice cream in perfect condition. Adopted in 44 states, it is proving itself the greatest stimulation to "Carry-Home" Sales ever known to the industry.

Get All the Facts at These Exhibits

National Dairy Exposition—St. Paul - Oct. 7-14 - Minneapolis—Booth No. 192
Association Ice Cream Supply Men—National Exposition—Booths Nos. 13-14
Cleveland—October 16-21 incl.

At these two important events Sealright Liquid-Tight Paper Containers and Sealright Filling Machines will be on display. The Sealright-Way and its relation to greater sales possibilities for your business will be explained to you in detail. As last year, our exhibits will be attractive, comfortable, and inviting —the same cordial welcome will await you. Our corps of representatives will go into the whole proposition with you —their experience with and observation of the Sealright-Way for the past year will prove of interest and value. We shall look for you.

October 16-21 incl.--ICE CREAM WEEK--Cleveland

THE ASSOCIATION OF ICE CREAM SUPPLY MEN
MEMBER

Sealright Co. Inc.

FULTON, NEW YORK

COCOA

For Chocolate Ice Cream

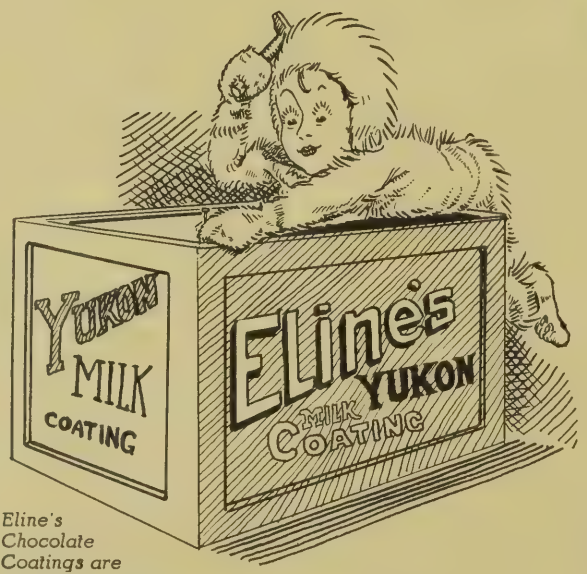
Use

Eline's

INCORPORATED

Dutch Process Cocoa

Its distinctive flavor and goodness will appeal to your trade. There's a difference. Send for a sample and convince yourself.



Eline's Chocolate Coatings are unusually good for dipping ice cream products.

MEMBER

Eline's

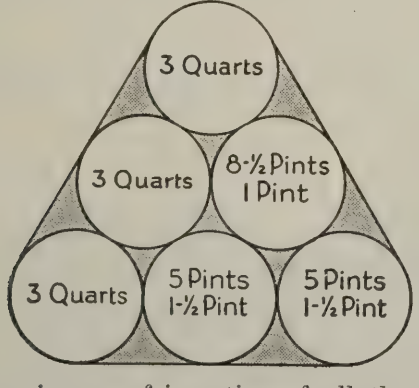
MILWAUKEE, WISCONSIN



TRIANGULAR PACKER.
For Holding Filled Cylindrical Containers in Shipping Tubs and Cabinets.



It is interesting to note how the adoption of the cylindrical paper containers for the distribution of bulk ice cream has brought forth new equipment related thereto. Right in line with this comes the Triangular Packer, made by Oakes & Burger Co., Cattaraugus, New York. It is made of heavy galvanized iron, is simple, durable, and practical. Twenty-two inches high and eleven inches in diameter, it is designed for standard shipping tubs and standard cabinets. It makes a fine shipping proposition and is especially efficient for use in cabinets. The triangular shape permits of a larger icing space, both in tubs and cabinets. It facilitates handling of filled containers by retailers, and allows for increased holding capacity as compared with the ordinary square brick cave. Illustration below shows popular combination arrangement of sizes. Note, also, how all containers come in direct contact with surface of Packer and are entirely surrounded by "cold-air" spaces, thus



assuring maximum refrigeration of all the containers. The Triangular Packer is regarded as a necessary feature by ice cream manufacturers using cylindrical paper containers.

⚜

Tell us what you want, or what you have that you don't want, and we'll fix up a little ad. for you and insert it in the next issue of The Ice Cream Review. You just stay at home and wait for results. You'll soon have your hands full.

Coppersmith Work!

We take particular pride in the beauty of the coppersmith work that goes into the Manning Batch Mixer. The interior of the vat presents a smooth, polished surface that is easy to keep clean and sanitary.

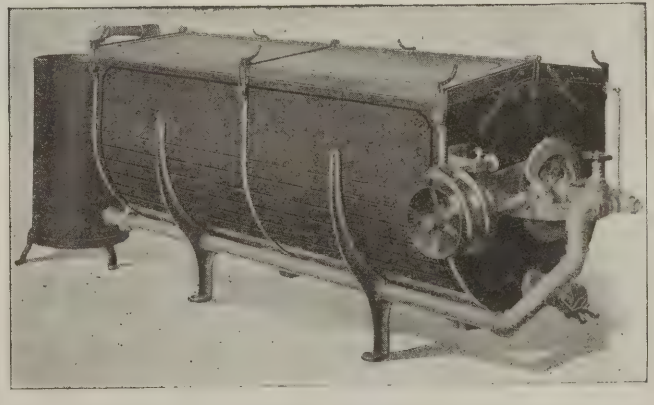
There are few seams but where seams must occur, they are double seamed and soldered smooth. The tinned copper used in the Manning is the best that can be bought and is guaranteed to give maximum service.

Manning coppersmiths are skilled workmen but, what is more, they take a personal interest in every vat they help to build.

MANNING EQUIPMENT

MANNING MANUFACTURING COMPANY

Rutland Vermont U. S. A.

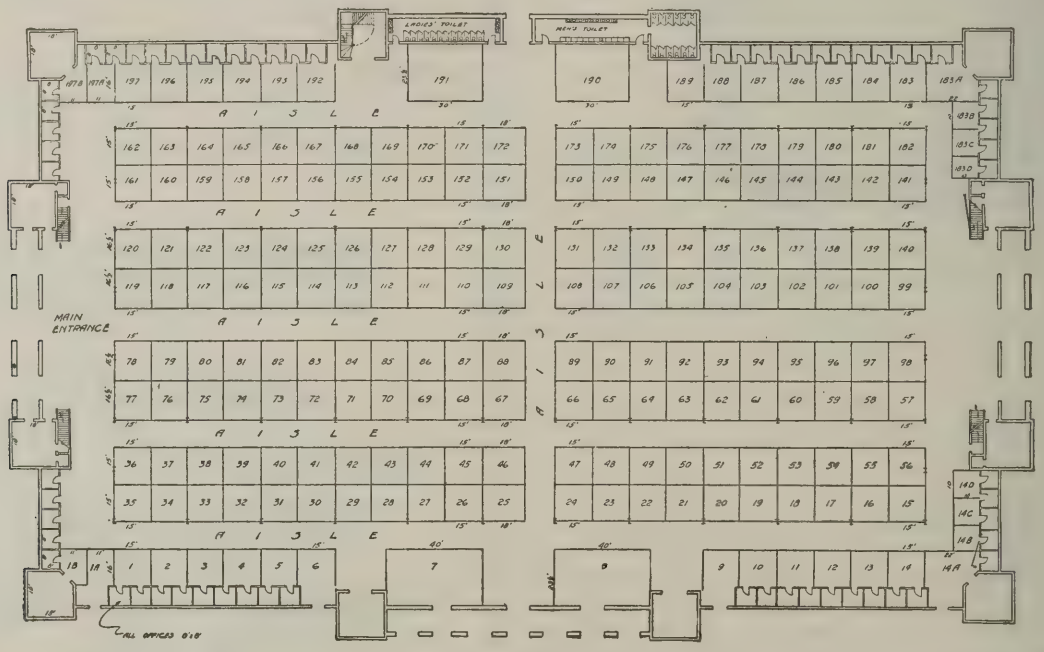


The First Cost,—
Low As It Is,—
Is Practically The Last!

List of Exhibitors National Dairy Exposition

St. Paul, Minneapolis October 7-14, 1922

Name	Address	Location
Abbott Laboratories, 4753 Ravenswood Ave	Chicago, Ill	240—241
Allman Gas Engine & Machine Co., 461 Canal St.	New York, N. Y.	3—
American Linseed Co.	St. Paul, Minn.	326—327
Anheuser-Busch, Inc.	St. Louis, Mo.	10 — 11
Anker-Holth Manufacturing Co.	Port Huron, Mich	320—322
Armstrong Cork & Insulation Co	Pittsburgh, Pa	230—
Arnold, A. H. & Bro., 710 W. Jackson Blvd	Chicago, Ill.	151—153—170—172
Atlantic Bottle Co., Inc., 90 West Broadway	New York, N. Y.	28 —
Baker Ice Machine Co., Inc.	Omaha, Neb.	13 — 14
Barber, A. H. Creamery Supply Co., 300 W. Austin Ave.	Chicago, Ill.	104—105—134
Beaverland Corporation, The	Lowville, N. Y.	308—
Berney Bond Glass Co., 50 Church St.	New York, N. Y.	188—
Blue Valley Creamery Co., 700 S. Clinton St.	Chicago, Ill.	255–256—257
Bristol Co., The, 53 W. Jackson Blvd	Chicago, Ill.	30—
Buffalo Foundry & Machine Co.	Buffalo, N. Y.	137—138
Buhl Stamping Co	Detroit, Mich.	24 — 47
Burrell, D. H. & Co.	Little Falls, N. Y.	106—108—131—133



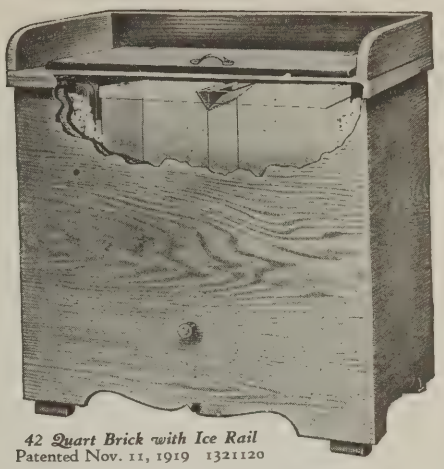
MAIN FLOOR PLAN

California Central Creameries, Inc., 277 Broadway	New York, N. Y.	244—
Canadian Government Agency	St. Paul, Minn.	217—219
Carman Supply Co., Inc., 143 West 17th St.	New York, N. Y.	319—
Champion Milk Cooler Co	Cortland, N. Y.	316—
Cherry, J. G. Company	Cedar Rapids, Iowa	109—113—126—130
Cherry-Bassett-Winner Co., 1918 Market St.	Philadelphia, Pa.	114—125
Chicago Dairy Produce, 136 W. Lake St.	Chicago, Ill.	183—D
Collis Products Co.	St. Paul Minn.	305—
Crane & Ordway Co	St. Paul Minn.	185—
Creamery & Milk Plant Monthly, 327 S. La Salle St.	Chicago, Ill.	183—B
Creamery Package Mfg. Co., 61 W. Kinzie St.	Chicago, Ill.	67— 88
Cream Production Co., The	Port Huron, Mich	183—184
Curtis Pneumatic Machinery Co.	St. Louis, Mo.	343—
The Dairy Record	St. Paul, Minn.	14–D
The Dairy Supply Co	Minneapolis, Minn.	39—
Davis-Watkins Dairymen's Mfg Co., 710 W. Jackson Blvd.	Chicago, Ill.	154—169
Dayton Moneyweight Scale Co.	Dayton, Ohio.	314—
Defiance Pressed Steel Co., The	Defiance, Ohio.	309—
De Laval Separator Co., 29 E. Madison St.	Chicago, Ill.	63— 66 & 89—92
Des Lauriers Metal Products Co	St. Paul, Minn.	329—330
Dickerson, The F. G. Co., 549 W. Washington Blvd	Chicago, Ill.	239—
Dickinson, The Albert Co., 35th St., at California Ave.	Chicago, Ill.	302
Doering, C. & Son, Inc., 1375-79 W. Lake St.	Chicago, Ill.	61—½ of 94
Dominion Chemical Co., 1545 Kingsbury St.	Chicago, Ill.	2—
Electric Milker Corporation, 703 Tower Bldg	Chicago, Ill.	9—
Electro Chemical Co., The	Dayton, Ohio.	311—
Elyria Enameled Products Co.	Elyria, Ohio.	25—46
Emerson Drug Co., 327 N Wells St.	Chicago, Ill.	306—
Empire Cream Separator Co	Bloomfield, N. J.	17—54
Engineering Co., The	Fort Wayne, Ind.	12—
Farmer, The, Webb Publishing Co., Publishers	St. Paul, Minn.	346—
Ford, J. B. Co.	Wyandotte, Mich.	27—44

(Continued on page 124)

NELSON (Patented) Ice Cream Cabinets

"CONFESSED THE BEST WHEN PUT TO TEST"



42 Quart Brick with Ice Rail
Patented Nov. 11, 1919 1321120

are constructed along scientific and practical lines to conserve ice and salt supplies and keep the ice cream in perfect condition until sold. The manufacturers have devoted thirty years of study and experiment toward the building of the best possible ice cream cabinets for the manufacturing trade. Each particular make of cabinet of the Nelson line is sold with a guarantee and on a plan of "You Must Be Satisfied."



Brick Cabinet
Also for Eskimo Pies



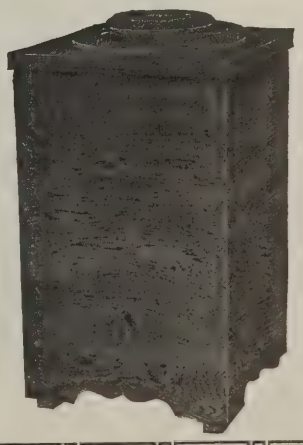
This Proposition Will Interest You

Any responsible ice cream manufacturer—particularly wholesale ice cream manufacturers and dealers — may order from 1 to 100 Nelson patented Ice Cream Cabinets, place them in practical use, and after 30 days, if not entirely satisfactory, return at our expense for freight, both ways.

Can any manufacturer offer a more liberal or fair proposition? You owe it to yourself to thoroughly investigate the price, merits and construction of the Nelson Patented Ice Cream Cabinets before making any further purchase.



Three Compartment Cabinet



C. NELSON MANUFACTURING COMPANY

2308 Division Street
St. Louis, Missouri

A PRETTY PACKAGE PROVIDES PLENTY OF PURCHASERS FOR YOUR PRODUCT.

Freezing the Mix

An Important Question Discussed by the Men Who are Making the Ice Cream

THE freezer may be said to be the foundation of the ice cream business; the business grew on the idea of making a cool, refreshing dainty food by freezing it, and on that basis it has continued to grow. Of course, today a great deal of attention is paid to other details of the business because of competition and state regulation, but the freezer still plays a very (if not the most) important part in the ice cream business.

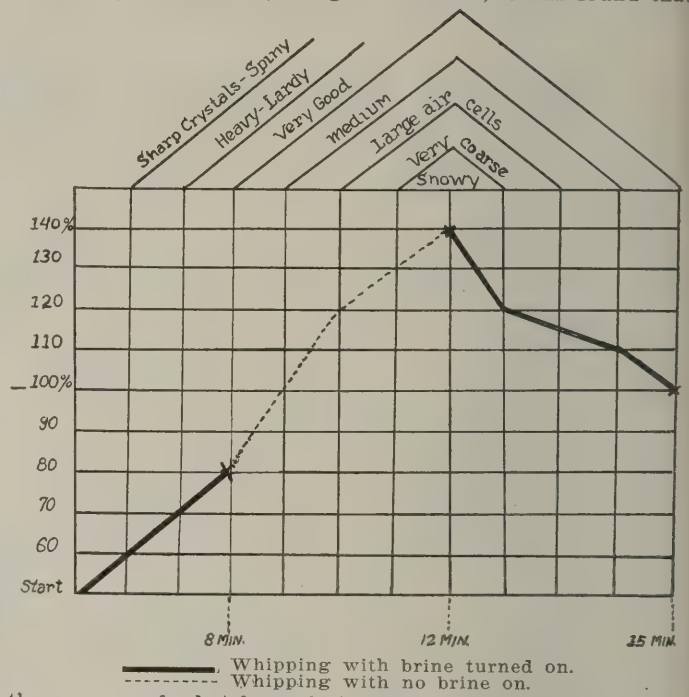
Perhaps two of the most important points to be taken into consideration when freezing are the temperature of the brine and the age of the mix, for upon these depend the texture of the ice cream and the amount of overrun obtained. It was with these facts in mind that we asked several ice cream manufacturers:

"What difference do you experience with a low temperature brine on your freezer, reducing your cream to the proper temperature, then turning off the brine, whipping up to the desired overrun in a shorter space of time than is ordinarily required with a temperature brine?

"What difference do you experience in freezing cream from a freshly homogenized or viscolized mix as compared with one that has been aged 24 to 72 hours?"

The replies follow.

We have found it bad practice to draw a freezer which has been frozen and then whipped up with the brine off. It is possible to whip a mix up, providing it is of right viscosity, to a high overrun, like whipping cream, without the use of any refrigeration. In order to have a product which will freeze firm and hold up, it must be chilled during the process of freezing. The mix containing the average amount of fat and total solids will usually reach its peak in swell when around 27 degrees or 28 degrees F. To shut off the brine and then whip up prevents the batch from reaching this necessary temperature. It will likely warm up considerably more in the process and be of an uneven consistency, causing large air cells or pockets. This, when put away in the hardening rooms or packed may settle or shrink, leaving the cans partly full. The practice of whipping up often leads to too high an overrun which cannot easily be controlled. In fact, by actual tests, using this method, it was found that



the overrun of a batch would increase as much as 20 per cent while being drawn from the freezer. Freezing with a medium temperature brine and then killing the overrun to the desired amount, and throttling the brine valve to maintain that overrun, makes a much more satisfactory product in every way, although it takes a trifle longer. Since following this procedure we have experienced no trouble from poor consistency or with sinking in cans. Herewith is enclosed a chart showing the variation of texture in relation to overrun during process of freezing with brine on and off. This experiment was made on several batches, using freshly made mix, with which it was hard to get the desired amount of overrun. A Miller 40 quart Pyramid freezer was used with 10 degree brine. Samples were taken at every 10 per cent range in overrun, using a Mojonnier tester, and then set away in the sharp room for 48 hours before inspections were made.

The samples taken at 60 per cent overrun showed sharp spines and crystals throughout. At 80 per cent, the ice cream was very heavy and soggy. At thos point the brine turned off and the process of whipping up continued. From here the overrun increased rapidly with a tendency to become more sloppy. At 100 per cent, texture was not so good, there being present many small air cells. At 120 per cent, there were many large air cells which increased to a coarseness at 130 per cent. At 140 per cent, the batch in freezer was quite sloppy. The texture of this sample when hard-cream was very heavy and soggy. At this point the brine was turned on again, after which the consistency of the batch thickened quickly as the overrun dropped. At 100 per cent, consistency of the batch was very thick and would hardly run out of the freezers. The hardened samples from this batch were very fine in texture, being both smooth and creamy and the air cells were small and even.

These results show that the cream taken at 100 per cent at the end of the freezing process was of better quality than that of 80 per cent. What little time that can be saved by the whipping up process is of little importance compared to the improvement of both quality and yield, taking only a few minutes longer to freeze.

A mix freshly pasteurized and homogenized is usually not ripe enough to obtain a good overrun and is quite apt to be of poor texture when hardened. This is evidently due to the temporary hardening of the protein bodies of the mix, etc., brought about by the high heat of pasteurization, which affects the viscosity and retards the incorporation of air in the batch. When frozen without sufficient overrun, the ice cream is of a heavy, soggy texture when hardened, and if whipped up to the desired overrun would come out of the

(Continued on page 105)

Tempro Food Box

for Preserving and Transporting

Ice Cream and Eskimo Pie

Neat, Light, Handy, Efficient and Sanitary.

Ideal for Tourists, Domestic Uses and House Delivery.



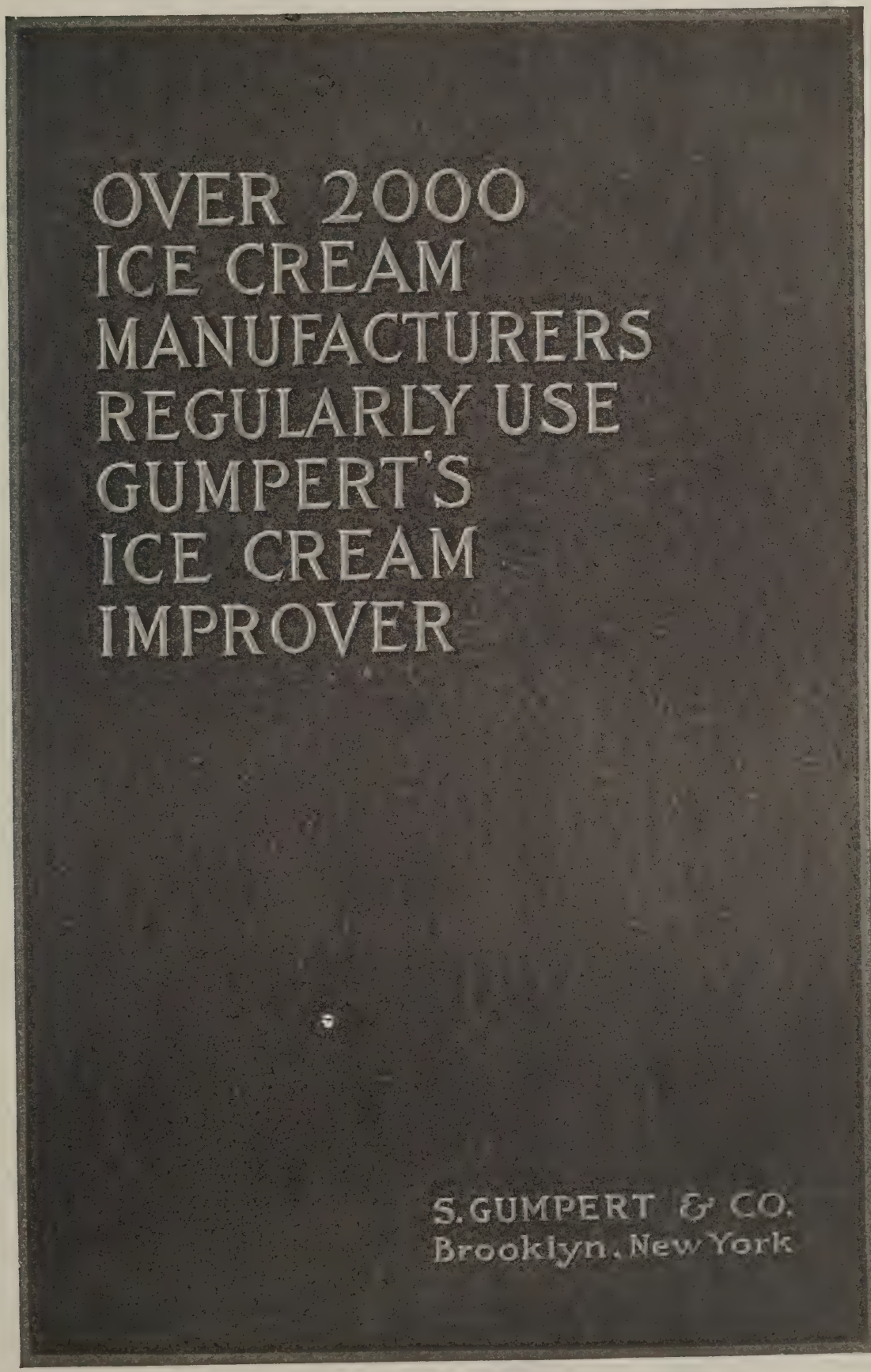
Patent Applied For.

The Pure Cork Box

Prices and Particulars on request.

UNITED CORK COMPANIES

LYNDHURST, - N. J.


OVER 2000
ICE CREAM
MANUFACTURERS
REGULARLY USE
GUMPERT'S
ICE CREAM
IMPROVER
S. GUMPERT & CO.
Brooklyn, New York

Getting the Business in Your Own Home Town

"How I Would Do It" by Prominent, Successful Ice Cream Manufacturers and Supply Men

IN AN editorial in the August issue of The Ice Cream Review we told of a visit to an ice cream manufacturer in a medium sized town who is trying to build up a business on a quality basis. This manufacturer is confronted with the difficulty of selling his ice cream in competition with six other plants in his own home town. His business is about three years old and previous to the time he began operations the town was without an ice cream factory for many years. While the brands that are shipped into the town are good they are no better than the local manufacturer's product. This particular manufacturer enjoys a good business in the neighboring towns and wants to know how he can induce his local dealers to handle his ice cream.

Readers were requested in this editorial to give their opinions and suggestions as to how this local trade may be procured. Letters were sent to prominent ice cream manufacturers and supplymen asking them to send in their suggestions, and replies were received from practically every state in the Union. Here is what some of them would do, as told in their own words:

Give Them Super-Service.

The fact there are six different brands of outside cream being sold in his town would indicate that the dealers are somewhat jealous, and are not buying from outside companies fully for the reason that they do not like the local manufacturer, for if this were true, it is very probable that there would not be as many as six different outside concerns represented.

If we are to understand that the local product is of good quality and the personality of the man is not such that would actually drive away business, we would take it that a rilvalry between the different fountains has been caused for some reason or other, and which should be obliterated.

This could be accomplished we believe, in the following manner.

First, by using the proper selling methods and convincing the local dealers that his cream was as good or better than that bought outside, show them the advantage of the service he could render. (We take it for granted since you do not mention anything about prices, that both local and outside are the same). Then appeal to their home town pride, which incidentally is usually of some effect.

Because a dealer usually buys what his customer asks for, let the ice cream men advertise direct to the consumer.

After he has convinced the dealers that he can serve them in the way of quality, price and service, and besides have a demand for his cream from the consumer, then go about to eliminate any rivalry that may exist as mentioned above.

Endeavor to convince the dealers that the fountain across the street is not a competitor but a co-operator. Let him preach the gospel of "eat more ice cream." He can show the dealers that with the support of the local fountains he could advertise more extensively and not only create a demand for his own brand of cream, but to educate people to buy more of it, because they eat more of it. Let him cooperate with his customers by making special flavors for certain Sundays and show them that he is in position, and will increase their fountain business. A druggist or grocer does not hesitate to handle a product which is also handled by his competitor if there is a demand for it.

It may be that these plans have already been tried, although the writer is inclined to believe that there is something wrong with the man personally or with his business methods if they are not successful.

* * *

COMPETITION PROBLEM.

Beginner at Disadvantage.

The conditions as stated are to be found in every town of medium size and are conditions that have to be confronted by every manufacturer who attempts to start an Ice Cream Factory in a small place.

As a rule these small town factories start in a very modest way with a limited amount of equipment and are not prepared to make a high grade product. The dealers on the other hand have been using Cream from factories in the larger near by cities who have all modern and improved machinery for the manufacture of high grade cream. These dealers can detect the difference in the quality of the manufactured product from the small manufacturer.

The greatest hindrance to the success of the small manufacturer is the disloyalty of the consuming public of the town of the small manufacturer who will patronize the dealers that buy from the outside manufacturer and in a good many cases will insist on their buying away from home and will patronize only the dealers that do buy out of town. We have been fighting this very same thing for ten years and have not entirely eliminated outside buying although practically so.

We did not make much headway at it until we bought all modern machinery and now successfully compete with any and all manufacturers and are able to hold our own with them.

Starting the manufacture of Ice Cream as a side line to the Ice business it has come to be the largest part of our business.

We sum up our success as follows. A high grade uniform product, efficient service, honest and well directed advertising and personal effort.

* * *

Take Notes and Compare.

The matter may have several angles to it. Not knowing the local conditions, it is rather difficult to give you much serviceable information.

The manufacturer in question may not be personally popular in his community, he may not maintain a clean and sanitary plant, even tho as you say, he manufactures a good product.

It does look as tho a man manufacturing an Ice Cream on a par with the other creams shipped in there, is justly entitled to the local business, or at least a large percentage of it. It does not appear to us as being a matter of adver-

(Continued on page 34)

TAG HOOKS
Save Dollars

Why use expensive, untidy, time-losing strings or wires while tagging your tubs or pails of ice cream?

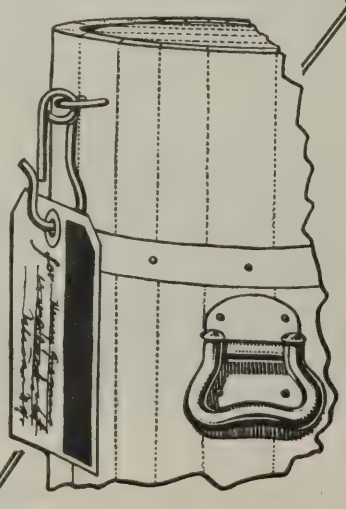
SNAP 'EM ON

and use our rust-proof tag hooks.

SAVE TIME—Figure the cost of strings or wires. Then think of the value of a man's time while tying the tags on your tubs.

CAN'T RUST

Our new type of hooks are made of SPECIAL SPRING BRASS. They sell at $1 95 per hundred, including staples. Besides a 10 per cent discount in lots of a thousand or more. Samples on request.



DALY BROS.
SCHENECTADY N. Y.

HOMOGENIZING THE MIX AT 4000 LBS. PER SQUARE INCH

Many ice cream manufacturers find that best results are secured by homogenizing the whole mix at a pressure of 4000 lbs. per square inch. The only Homogenizer which will permit this pressure and keep it uniform is the Gaulin Homogenizer. This machine is equipped with the Gaulin Spring Homogenizing Valve which permits high pressure and maintains it with no danger from breakdowns.

Visit the 1922 National Dairy Exposition and see the Gaulin Homogenizers in the exhibit of The Creamery Package Mfg. Company.

MEMBERS CHICAGO COAL MERCANTS ASS'N

PEOPLES FUEL & SUPPLY COMPANY
ARTIFICIAL ICE
49TH PLACE AND SO. RACINE AVENUE
EDWARD KLINENBERG, Pres.

PHONES | YARDS 0444 BOULEVARD 9264

CHICAGO, August 1st, 1922.

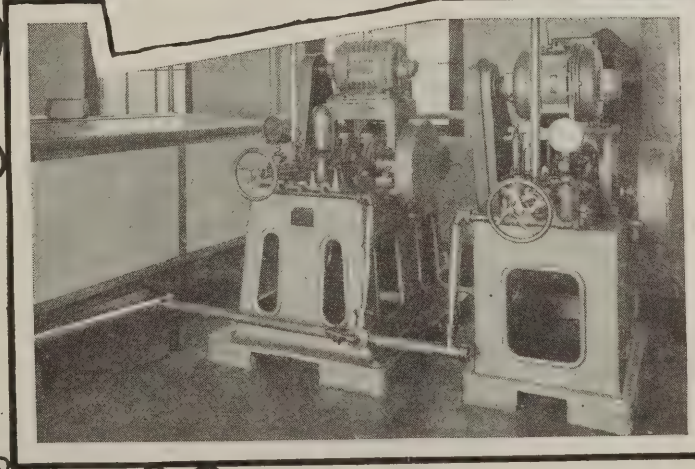
The Creamery Package Mfg. Co.,
#61 West Kinzie Street,
Chicago, Illinois.

Gentlemen:

When we started in the ice cream business about two years ago, we felt that we had to make about the best ice cream in the city if we were going to succeed. We were very careful therefore, to select an Homogenizer that would produce the high quality of cream we wanted, and we decided that the Gaulin Homogenizer would best suit our requirements. We discovered that we could submit the mix to a pressure of 4000 lbs. per square inch. As far as we were able to learn this was the only Homogenizer that would give this pressure and keep it uniform.

Because of the excellent service we received from the original machine, we installed another Gaulin Homogenizer this spring. Both machines are giving splendid service.

Yours very truly,
Peoples Fuel & Supply Company
President.

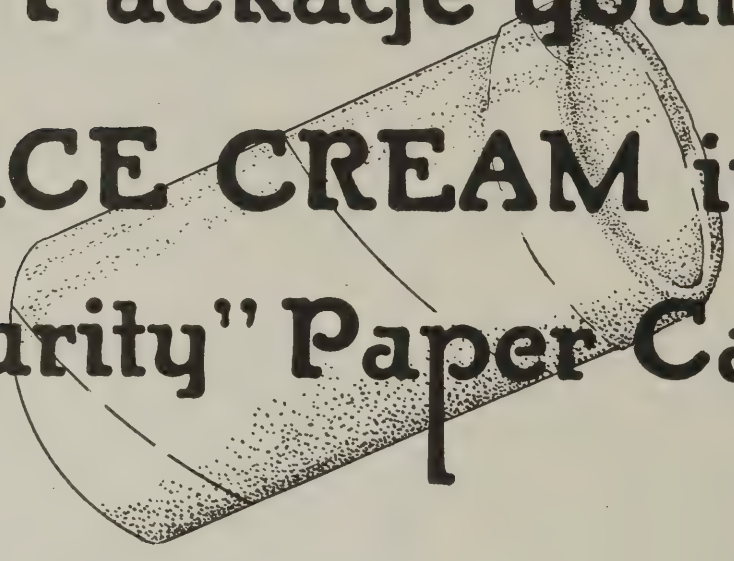


MFG: BY THE
MANTON-GAULIN MFG. CO.
BOSTON
DISTRIBUTED BY
THE CREAMERY PACKAGE MFG. COMPANY

SALES BRANCHES (Write to Nearest One)

Chicago, Ill., 61-67 W. Kinzie St.
Boston, 138-140 Washington St. N.
Buffalo, N. Y., 133-137 E. Swan St.
Kansas City, Mo., 1408-10 W. 12th St.
Minneapolis, Minn., 318-20 3d St. N.
Philadelphia, Pa., 1907 Market St.
Portland, Ore., 6-8 N. Front St.
Omaha, Neb., 113-15-17 So. 10th St.
San Francisco, Cal., 699 Battery St.
Toledo, Ohio, 119 St. Clair St.
Waterloo, Ia., 406-8 Sycamore St.

Package Your ICE CREAM in "Purity" Paper Cans



From the freezer to the home in the original container is the "trend" of the times in the ice cream business. The possibilities of the paper container for the pogressive ice cream manufacturer have just begun to be realized.



Note the "lock crimp" of the bottom and side wall.

Strong and Leakproof

The method of constructing "Purity" ice cream packages adds unusual strength and dispels the possibility of leakage thru seams, side walls or bottoms.

That the package method of merchandizing is correct finds no better assurance than its ever increasing application by the most prominent and successful concerns in practically every line.

How the "Purity" package finds application in the ice cream industry is interestingly told in the letters from many users we have bound in booklet form.

Write for copy of booklet on packaging ice cream.

The Purity Paper Vessels Co.

Baltimore, Maryland

Has the Ice Cream Industry a Problem?

WITH the production and sale of ice cream increasing steadily from year to year, the average ice cream manufacturer is reluctant to believe that the industry is faced with any particular problem. If he were asked whether the industry recognized any particular problem, he would probably answer "No" with much emphasis.

On first thought, the negative answer with the performance of the ice cream industry behind it might seem logical, but does second thought bear out the fact? With the power of advertising behind ice cream, we have been educated to know that ice cream is a food and not a delicacy. Taking ice cream out of the delicacy class and putting it into the class of food products was a wonderful move, but how much of a food product is ice cream?

Why Not Saturation?

How much competition does ice cream give such food staples as bread, potatoes or meat? Is ice cream used with as much frequency as any of the staples I have just mentioned and when we answer that question we can most emphatically say, "Ice cream has not attained its rightful place as a food product." Potatoes, bread and meats have reached the saturation point. Has ice cream? IT HAS NOT! Then the ice cream industry has before it the problem of saturation.

The ice cream industry should get saturation to the extent attained by the other staple foods and, though the problem is a gigantic one, it can be done. Saturation is the ultimate aim. How small the ice cream business of today is when compared to its possibilities! Despite its healthy condition, it can only be regarded as an infant industry.

A Selling Fallacy.

I believe that the most important end of the ice cream industry is out of the hands of the ice cream manufacturer in more than 99 per cent of the cases. This end is the control of distribution. No matter how we consider the subject, as long as ice cream is consumed at the soda fountain in the corner store, it is only a delicacy. Saturation can never be brought about through consumption of ice cream at the soda fountain—it must come through home consumption, and the problem would seem then to get ice cream into the home, the same as the baker gets his bread there.

Does the baker put an immense bulk of bread into the corner store to have it dished out in pints, pounds, or what-not? No, but the ice cream manufacturer sends out the greatest percentage of his product in big bulk CANS. Ice cream gets to the corner store and then the manufacturer loses track of it. Is that a safe basis on which to lay the foundation of a permanent industry with the ultimate aim of reaching the saturation point?

"Pinch, Pipeful and Toothful."

Let us take as an illustration the tobacco industry. Suppose the tobacco manufacturer handled his product in the same way ice cream is handled. Assume that he sent fifty or one hundred pounds of tobacco to the corner store, to be sold by the pinch, pipeful or toothful. Where do you suppose the tobacco industry would be? Knowing what we do about the methods of tobacco distribution, the illustration cited for the tobacco manufacturer seems ridiculous.

Now, if you are in agreement as to the ridiculousness of the illustration, then doesn't it seem to you that the actual merchandising of ice cream is just as ridiculous? When ice cream is in the corner store and is put out in cones, sundaes and in sodas, isn't it sold on the basis of the "pinch, pipeful or toothful?"

Understand I do not advocate in any way abandoning the sale of ice cream at the corner store for cones, sundaes and sodas. This consumption is great and always will be, but I do say with much emphasis that ice cream will never be regarded as a food product, as long as its greatest consumption is at the soda fountain.

I claim further that as long as the greatest amount of advertising and selling effort is put on the sale of ice cream at the soda fountain the cart is before the horse.

Packaging Made Milk Industry.

As a further illustration, I believe that the case of the dairy industry can be cited to advantage. Twenty years ago package milk was an unknown quantity. The tank wagon came around to the front door and poured the milk from the faucet into the measure and from the measure into the pitcher, pan or other receptacle which the housewife had brought to the door at the sound of the milk wagon gong. Or, if the milk was delivered early in the morning, the milk was poured into whatever receptacle had been set on the steps. To say nothing of the inadequacy of this system of milk delivery, it was entirely unsanitary.

The growth of the package end of the milk business is a matter of common knowledge, but do you really believe that the milk industry would have been an industry today, had it not been for the individual package service? Therefore, I say that it was the package alone which made the marketing of milk an industry in place of the peddling business that it was for such a great length of time.

The Answer for Ice Cream—

The ice cream manufacturer has an even more difficult situation than the milk industry had, because with the bulk tank wagon deliveries of milk, the deliveries were made on the house to house basis, whereas the ice cream manufacturer's deliveries stop at the corner store.

Then the ice cream industry has the problem of getting ice cream into the home with the same degree of regularity as milk, bread, meats and potatoes and, until that time comes, there can be no saturation.

—Is Purity Paper Cans.

The answer to the ice cream manufacturer's problem is PACKAGED ICE CREAM and the answer to the packaged ice cream problem is in PURITY, the ORIGINAL PAPER CAN, with the famous "locked-crimp" top and bottom construction, as made by The Purity Paper Vessels Company, Baltimore, Maryland.

The Purity Paper Vessels Company will be more than pleased to discuss with you the new possibilities of PURITY PAPER CANS as the ideal ice cream package. You will then be ready for a bigger and better business next season and one step closer to saturation.

W. R. Lenderking, Vice-Pres.

THE PURITY PAPER VESSELS COMPANY.

Associate Member

National Association of Ice Cream Manufacturers

TELL YOUR "WANTS" BY AN AD IN THE CLASSIFIED COLUMN OF THE ICE CREAM REVIEW.

tisement, inasmuch as the cream seems to be popular in nearby towns.

We would suggest that the manufacturer familiarize himself with sanitary conditions in his competitors' plants, compared with his own, and then produce his product with less bacteria than his competitors and sell his goods on that basis; inasmuch as you say the quality, which we presume you refer to as meaning butter-fat and solids content, seems to be on a par with his competitors'.

Sometimes things have to be brought to bear on the local dealers through the local organizations, such as the Chamber of Commerce, Manufacturers' Association, Church Societies, etc. Sometimes the price of a local product is far below that of similar goods shipped in from other towns and that sometimes makes the dealer suspicious that the local product is not as good as the foreign product.

If I were the local manufacturer, I would make every effort to get my product in every church, lodge, and social entertainment held in my community, in order to acquaint my friends and neighbors with the quality of my Ice Cream and their opinions brought to bear on the other dealers will, in our opinion, force them into line.

* * *

Employ A Salesman.

My interpretation of the question asked is how an ice cream manufacturer can sell his product to retailers in his own town when he has competition of five other brands of ice cream—all brands being as nearly on the same basis as far as quality is concerned as could be.

I believe it would be policy for this manufacturer to go to all the retailers handling ice cream, learn of their complaints they have to offer in the way of service, and quality of the ice cream they are using. Then learn of the good points that these five distributors are using. I would then return to my office and decide on a plan whereby I could excel the other distributors on those points offered as complaints by those already using another brand of ice cream and I would then try to better the already satisfactory service rendered by the five other competitors.

I would then go to the various dealers, using my personal acquaintance with them and if I could not sell them myself I would employ the service of a good salesman and permit him to use his superior knowledge of salesmanship and eventually gain the confidence of these customers and procure the business.

By no means would I cut the price to gain this business.

* * *

Start an Advertising Campaign.

If I were in a position of that kind I would first throw my factory open to the public on certain days inviting them to our plant through the local newspapers. I think if this party could get the local people to ask for his brand of ice cream that the local merchants would soon take it on. If he has a first class ice cream factory and keeps same in first class sanitary condition he is entitled to at least 75 per cent of the local business.

I would also take this matter up with the local Chamber of Commerce or some organization of that kind which is organized for the one purpose of looking after local conditions. I would also start a newspaper advertising campaign and in a way try to influence the people to ask for his particular brand of cream. If his price is anywhere near the price of the shippers that are shipping into his town he has a good talking point on the ground that his delivery to their door saves them the expense of telephoning and paying transportation charges on the cream.

We, being shippers of ice cream find it very hard to ship into a town where there is a local manufacturer. In the first place there seems to be a tendency for dealers and consumers to want to use local made ice cream and they always holler to us about saving the express charges and furthermore only having to buy just as they need it. I think this man who you speak of in your letter has many good talking points to argue against the local dealers who insist upon shipping in their ice cream.

* * *

Put in Retail Department.

This is probably the experience that most every other manufacturer would be up against were he to start in business now or had he started in the last two or three years. The dealers settle upon a source of supply and they build up their retail trade on that particular cream. They have had relations, many of them, for a period of several years with their manufacturer and they don't like to take over a new product in the face of their experience with their present product. They have been on very friendly terms with the manufacturer who has been supplying them, at least the dealers of any repute and who are worth while having. The representative of that company calls on them regularly and in that way he is held in line.

We can hardly advise anyone how to get this business except to appeal to the dealers' sense of duty to the home manufacturer if there is any particular feeling of loyalty to their dealers home town. Then these dealers will use his product even though it were considerably lower in quality than his competitors. That is about the best way of approaching the retailers in their home town as far as we can see.

If they persist in ignoring him, he might force them to buy his product by putting in a retail department at his plant and retailing his ice cream at 10c or 15c per quart less than the going price. He could well afford to do this and by handling bricks and other original packages could probably show as much profit out of it as the wholesale business he would get from the dealers would show him.

* * *

From One With Experience.

I have been in the ice cream business and experienced the same difficulties as the party to whom you have reference. There were six or eight consumers, that is, retail dealers, in our town, and only one of them used our cream. There was another manufacturer of ice cream in the same town, who got all the rest of the business with one exception, and that dealer had his product shipped in.

If I should have this same problem confront me again, I would do all the buying I possibly could from the different retail dealers in the town and try in every possible way, without too much expense, to improve the quality of my cream, build up a closer friendship if possible with these dealers and try to get the Commercial Organizations or Chamber of Commerce — whatever it might be called, to boost for that town and for its manufactured products.

I know of a small town in south central Minnesota, where there is one manufacturer and ten or twelve retail dealers, all of whom are buying from their home factory.

(Continued on page 92)



STOP COLD-AIR LEAKS WITH

WIRFS WATERPROOF "AIRTITE" CUSHION GASKET

FOR REFRIGERATORS AND COLD STORAGE DOORS, AIRTIGHT SECTIONAL COOLING ROOM AND REFRIGERATOR-JOINTS, RAILWAY COACHES, DWELLINGS AND ALL OTHER PURPOSES REQUIRING AIRTIGHT, DUSTPROOF, WATERPROOF, OR NOISELESS MEANS OF CLOSURE-CONTACTS

MADE IN 3 SIZES; (ANY LENGTH)



No. 1 LARGE No. 2 MEDIUM No. 3 SMALL

SIMPLY TACK ON— TURN THE CORNERS! (SEE CUT)

REGULARLY FURNISHED WITH BLACK RUBBERIZED CASING; CAN ALSO BE HAD WHITE RUBBERIZED CASING.

GET SAMPLES AND PRICES, STATING QUANTITY NEEDED.
WILL SAVE YOU MANY DOLLARS.

E. J. WIRFS 105 SO. 17TH ST., ST. LOUIS, MO.

W. P. ABEL A. C. ABEL R. A. ABEL

THE IMPRUV-MIX Co.



Perfects Quality

Yes! *Mr Ice Cream Manufacturer, we will be at the* **Cleveland,** *Ohio, Exhibit, held October 16th to 21st inclusive, 1922.*

OUR BOOTH NUMBER IS 34
NEAR THE MAIN ENTRANCE

Stop in to see us :: We bid you welcome



In spite of backward season, this has been our Ice Cream Improver's BANNER YEAR. IMPRUV-MIX has made many new friends.

New friends, whom we have not had the pleasure of meeting—and the older ones too—

from EVERYWHERE – COME IN!



LOOK FOR A-BEL
LET'S GET BETTER ACQUAINTED!

A MANUFACTURER, who has used 12,000 pounds of Impruv-Mix this year, said, that he considered, our product, as the best find of his many years of convention experiences.

(It was back in 1916, at Atlantic City, N. J.)

HOW ABOUT YOU? Impruv-Mix is a Sales Stimulator. IT'S NOT TOO LATE

The Impruv-Mix Co. MEMBER 403 W. 24th Street, New York

Small Refrigerating Machinery

And its Application to the Ice Cream Industry. By F. B. RILEY, S. B. Member American Society Refrigerating Engineers, Toledo, Ohio.

Progress demands the constant forging ahead in ideas and methods—standing still, is the first step in going backward. We demand as necessities today the luxuries of yesterday. The evolution of a mechanical device or article proceeds slowly, perhaps, but the final outcome is usually a simplified article, devoid of freakish outline or weird engineering practices.



F. B. RILEY.

There have been no new discoveries in mechanical refrigeration, or refrigerants, for a great many years. We have wandered at times from the beaten paths in search of better refrigerants, or simpler mechanisms but in the end have returned to known and proven principles and time and money have been lavished in an attempt to simplify existing devices, rearranging parts, refining first this detail and then finally assemblying these various parts into a sturdily built modern refrigerating machine that departs in no essential from the best practices known to the refrigerating world today.

There are **four** distinct phases or topics that must be discussed while considering the use of small refrigerating machines in connection with retail ice cream cabinets;

1st.—The Ice Cream Cabinet and Soda Fountain.
2nd.—The Delivery Truck.
3rd.—The Refrigerating Machine.
4th.—How the use of the Machine affects the merchandizing of the Ice Cream.

You men who have been associated with the Ice Cream Industry since its early days know the trials and tribulations that beset any industry in its infancy. You have seen this business grow from small beginnings to a great National Industry that is well managed and well financed. You know the crude apparatus that was used in your first small factories and you have seen amazing changes in the technique of your industry. You have wonderful factories now where cleanliness and efficiency are the watchword—you have great refrigerating machines and every modern appliance to help in the manufacture of your product. The best is none too good in selecting the equipment for your plants.

You have progressed from the one horse shay to the five or six ton refrigerated truck—But, you are still carrying around the same old ice and the same old salt in the same little bucket that you did thirty years ago and you ram it down with the same old shelally and grumble in the same old way about the cost of this service. Every Manufacturer, so to speak, is in the same boat, all are icing up the pop and ginger ale, the coca cola, soda water, milk and cream, the drinking water and frequently the back bar where the sandwiches and luncheonette articles are kept nice and cool for the tired business man.

If it were merely to cut the cost of the ice and salt used in icing up your cabinets and soda fountains, I would say frankly, there would be no insistent demand for some better method of caring for this most disagreeable and costly part of your business. The cost of the ice and salt will seldom average more than seven to eight cents per gallon of cream troughout the year,—however, the great insisent demand is **not** merely to lower this cost of salt and ice but the cost of the delivery service in general, including interest on invested capital, depreciation on trucks, cans, cabinets and other service equipment and labor, but to keep your product in better condition **after it leaves your factory door.** This is the real meat of the nut.

The Ice Cream Cabinet.

We will first discuss the average ice cream cabinet as we find them throughout the country. Except in one or two isolated instances I have not found it a practice to use more than 1 and one-half to 2 inches of ground or sheet cork for insulating purposes. The cabinets are skinned down to the least possible use of materials,—perhaps, as some may say, because the space is limited in the average store where these cabinets are to be placed,—yet some of the manufacturers that have been loudest in their condemnation of the Soda Fountain Manufacturer who uses an inch of cork and an inch of marble for insulation, have been the worst offenders, if I may use that word, when it comes to a good, sound well insulated cabinet of their own construction.

There may be some manufacturers who use more

At present low prices for retinning Ice Cream Cans you can make a very decided savings over the purchase of new cans.

Take advantage of this service, have your rusty cans retinned instead of junking them and buying new cans.

Our price for retinning a five gallon Ice Cream Can is seventy-five cents and ten cents for Covers—about one third the cost of a new can.

Use your old crates in shipping us your rusty cans. Just mark your tags—

MANITOWOC PLATING WORKS
MANITOWOC, WIS.

We will do a most satisfactory job and get your cans back to you promptly.

PURE — HIGH GRADE
GELATINE
AND
Quick Action Ice Cream Powder
Special Double Strength Ice Cream Powder
Pure Powdered Gum
Ripener Powder
QUALITY — UNIFORMITY — SERVICE
St. Louis Gelatine Company
St. Louis **Missouri**

Baird Refrigerator Body



Baird Refrigerator Body.
250 gallon capacity,
on a 2-ton
White chassis.

Perfect Refrigeration, Light Weight with Unusual Durability, plus very Favorable Prices, give Baird Refrigerator Bodies their High Standing

DISTINGUISHED authorities on refrigeration and vehicle construction have helped in the designing of Baird Refrigerator Bodies.

This, plus other expert research, and our use of the finest materials obtainable, make Baird Bodies the best refrigerating vehicles produced.

Baird construction of ice-cream bodies provides a 3-inch thickness of perfect insulation on the top, bottom, and all sides of the ice-cream compartment. Genuine waterproofed Balsa covered with galvanized Toncan metal, forms the lining. Vehisote panels, coated on the inner side with indestructible waterproofing, form the outer covering of the body and furnish an unequalled exterior surface for finish and painting.

Result: *a degree if refrigeration throughout daily use not equalled by any other delivery body made.*

Two-inch angle-iron edge and corner re-enforcements, and the use of bolts and brace rods, give Baird Bodies a stability and endurance that put them in a class by themselves.

PRICES range from $675 to $1100, according to size.

WILLIAM F. BAIRD CO.

Executive Offices: 401 Chamber of Commerce

BOSTON, MASS.

Factory: Winchester, Mass.

than three inches of cork in their cabinets, if there are, I have not come across them yet. Why is it that you all use from six to 12 inches of sheet or block cork in your hardening room insulation and then use only an inch and a half or two inches of cork in your retail cabinets. —surely not because it saves you money, because if this were so, you would use the same insulation in your hardening rooms. The real reason is, I believe, that we are all of us more or less imitative and we hesitate to branch out and do the things that we feel are right to do because competition does not do thus and so. You did not all simultaneously equip 100 per cent with motor trucks, but you all use them now, if not exclusively, at least they form a great part of your delivery equipment.

There is more real reason for using four or more inches of good cork or its equivalent in your cabinets than in your hardening rooms. You are trying to maintain, relatively, the same temperatures in your cabinets that you do in your hardening rooms and in a way that cannot be compared in efficiency or cost with the mechanical refrigeration of your hardening rooms. You put loose covers on your cabinets, frequently they are uninsulated, and the lids are invariably uninsulated and frequently poorly fitting, due perhaps to swelling and warping.

For successful machine operation and by this we mean economical and efficient refrigeration, you must begin by making a good well insulated cabinet. Four inches of cork should be the minimum insulation on the sides and bottom and 3 inches for the cover. The lids, should be tight and well insulated as there will be no necessity of removing the cover for icing as it can be fastened tight to the cabinet body, or frame. A splendid cabinet with four inches of cork board insulation can be made and the width kept within 24 inches, and still have sufficient room for the coils of the refrigerating machine.

It is not only possible to handle your bulk and packaged ice cream in much the same way as milk or cream is handled, but we believe that the time is right at hand when practically every manufacturer will modernize this branch of his industry or fall behind in the procession. We realize that you are not going to scrap all of your present equipment of trucks and cabinets, but as you replace this equipment, in some part, at least every year, you can begin with the new methods and gradually you will replace all of the old equipment with the new,—it is time to begin now to modernize this most important part of your merchandizing plan,—viz. the handling of your product from your factory door.

You must think not only to make a better cream but how **to keep it better,** how to get it into the home in better or more usable form,—in other words you must do some constructive thinking in the designing of your cabinets and the insulation of them. The business of your City will eventually gravitate to the man or Concern that puts up the best product and keeps it best after it leaves his **factory.** Your responsibility should not cease at the factory door. It is not merely the first cost of an article that should interest us, **but,** the cost of doing without it.

The sleeve or cylinder for a five gallon package should be one-half inch in diameter greater than the packer itself,—it should be high enough so that the brine which surrounds this cylinder should come well above the level of the ice cream can which is inside of the cylinder. This will prevent the top of the cream from becoming soft. An oval cylinder, or sleeve 19x10 inches wide and 24 inches high will contain two five gallon packers. We suggest the use of direct expansion wherever possible in the cabinets and fountains and the coils, of course are to be submerged in the brine which surrounds the sleeves containing the ice cream packer. It is our suggestion to use a perfectly dry sleeve so that it will be a clean sanitary quick operation to deliver ice cream to the retail store and take out the empties.

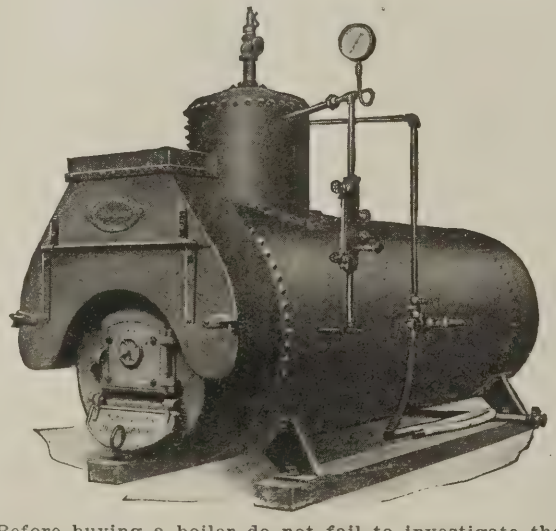
Soda Fountain Construction.

The design of ice cream cabinets is a matter entirely in the hands of the individual Ice Cream Manufacturer and you can use any desired thickness of insulation, but when it comes to the design of the soda fountain, you have an entirely different proposition on your hands.

A number of fountain manufacturers already have excellent refrigerated fountain designs and you will find them ready and willing to cooperate with your customers in the selection of a design that will be entirely satisfactory when connected up in series with your refrigerated holding cabinets. As fountain manufacturers come to realize that the future of their business is going to depend on the production of well designed, well insulated fountains, I believe that you will get the heartiest sort of cooperation in standardizing designs suitable for mechanical refrigeration.

The one great drawback to a rapid and universal equipping with mechanical refrigeration is the fact that not one in fifty fountains now in use are suitable for connection to a refrigerating machine. The fountains are not only too poorly insulated for economical refrigeration but it would be a physical impossibility to place coils in the ice cream compartment with an almost entire reconstruction of the fountain itself. The equipment of fountains will be gradual, as old ones are replaced, or new fountains are put into new shops. Never less than four inches of cork board insulation should be used for insulation,—a less quantity will mean high

(Continued on page 84)



Before buying a boiler do not fail to investigate the superior merits of the famous

Leffel Scotch Marine Boilers

built in a variety of sizes from 6 H. P. to 100 H. P., and to meet all requirements of the different State Boiler Laws. This boiler meets in fullest measure and most economical and satisfactory manner every requirement of the trade.

This Company also builds Vertical Boilers in sizes of 2 H. P. and larger.

Complete catalog with information of interest and value on request.

The James Leffel & Company

Box 328. SPRINGFIELD, OHIO

The following is a partial list of the clients we are now serving

Alfred Pure Ice Cream Co.
Alta Vista Creamery Co.
Amsterdam Ice Cream Co.
Benham Ice Cream Co.
Berkshire Ice Cream Co.
Best Ice Cream Co.
George K. Brown Co.
Brown Ice Cream Co.
Buttercup Ice Cream Co.
Campbell Ice Cream Factory
The Carry Ice Cream Co.
The C. G. Carlson Ice Cream Co.
Carpenter Ice Cream Co.
Cascade Creamery Co.
Cline Ice Cream Co., Athens, O. Charleston, Hinton, W. Va.
The Crane - Ohio Ice Cream Co., Columbus, Sabina, Lancaster, Zanesville, O.
C. A. Connor Ice Cream Co.
The Crystal Ice & Storage Co.
Detroit Creamery Co.
Dolbey Ice Cream Co.
Donofrio Confectionery Co.
Erie County Milk Asso.
Galliker Ice Cream Co.
Gloria Ice Cream Co.
Harding Cream Co. Omaha, Des Moines
Hazelwood Company
Hendler Creamery Co.
Hines Ice Cream Co.
The Hutchinson Company
Hydrox Company
Imperial Ice Cream Co. Parkersburg, Clarksburg, Fairmont, Grafton, Wheeling, Huntington, W. Va., Ashland, Ky., Cumberland, Hagerstown, Md. Staunton, Harrisonburg, Winchester, Va. Steubenville, O.
International Ice Cream Co.
W. H. Irvin Ice Cream Co.
Ives Ice Cream Co.
Missouri Valley Creamery Co.
The Montauk Ice Cream Co.
Montei Ice Cream Co.
Geo. C. Mansfield Co.
National Ice Cream Co., San Francisco, Cal.
National Ice Cream Co., Louisville, Ky.
H. L. Neuman Co.
The New Haven Dairy Co., Waterbury, Meriden, Hartford, New Britain, New Haven, Conn.
New Orleans Ice Cream Co.
The Noaker Ice Cream Co.
Page Dairy Co.
Piper Ice Cream Co.
Purity Ice Cream Co.
Rieck-McJunkin Dairy Co., Pittsburgh, Charleroi, Butler, McKeesport, New Castle, Pa.
Rochester Ice Cream Co.
J. D. Roszell
Royal Ice Cream Co.
Seattle Ice Cream Co.
Sidebottom Pure Ice Cream Co.
Steffen-Bretch Ice Cream Co.
Supplee Wills - Jones Milk Co.
Smith and Clark Co.
Terry Dairy Co.
Trojan Ice Cream Co.
Waldorf Ice Cream Co.
Wheats Ice Cream Co.
Yellowstone Creamery Co.
Youngstown Sanitary Milk Co.



MOORES & ROSS
The Cream of All Creams

ASK anybody in the Columbus district who makes fine Ice Cream and its a safe bet the first answer will be "Moores & Ross."

For eight years their organization and ours have teamed together in advertising and selling and the results speak for themselves.

To go the second mile when only one is asked—to give you the essence of more than thirteen years experience in selling and advertising Ice Cream in every part of the country and under every market condition—is an *ideal* not an *idea* in BARKER, DUFF & MORRIS Service. From the creation of art work and preparation of copy to the formation of sales and advertising plans covering an entire year's time, the service is based on consistent knowledge of conditions in the Ice Cream business.

If we are not serving a client in your territory we should like to serve you.

Barker Duff & Morris

Ice Cream Advertising Headquarters
323 FOURTH AVENUE, PITTSBURGH, PA.

BARKER DUFF & MORRIS
Pittsburgh - Penna

We should like an outline of your 1922 Advertising Plans.

Name _____

Address _____

Bacteria Control

Address of MR. E. G. EMERY, of Royal Dairy Products Co., Bellingham, Wash.

THE title of this paper was handed to me by another gentleman in the shape of a little package and I did not know anything about it until I received the command to prepare it.

Chemistry is really my occupation and bacteriology is really a side issue, that is as to dairy products. I have no interest in disease bacteria. It is necessary to be more or less descriptive, and I have taken the liberty of having a little touch of history first and then description and one or two little points I hope will be of interest.

Bacteriology as a science is comparatively new, practically all of the work having been accomplished since 1860 and by far the greater portion since 1890. In reviewing bacteriology historically four distinct factors are to be considered. A very brief mention of a few items of these factors may prove interesting.

FIRST the history of the miscroscope, for its perfection, necessarily antedated the development of this science.

SECOND the theory of spontaneous generation.

THIRD the germ theory of fermentation and decay, and

FOURTH the germ theory of disease.

Regarding the microscope and the discovery of bacteria. The philosophers of ancient Greece suspected the existence of living beings smaller than are visible to the naked eye but it was not until the seventeenth century that the microscope was sufficiently perfected to allow such organisms to be seen. The first record of such observation was that made by a Dutch lens maker in 1683, who constructed and used a lens sufficiently powerful to enable him to see bacteria in various decaying substances and his drawings were sufficiently accurate to enable scientists today to identify with a considerable degree of certainty the organisms he saw. Another hundred years found microscopes perfected to the point where bacteria were being classified and the class characteristics studied. Still another hundred years brings us to 1883 when the methods of culture and staining of bacteria, such as are used today in a modified and improved form, were introduced.

The theory of spontaneous generation existed in ancient times and the middle ages and it was commonly believed that many forms of life simply sprang into existence from their common environments such as frogs and ducks emerging from the mud of ponds and streams; vermin from all kinds of decaying organic matter. Not until about 1668 was this idea seriously questioned, when an investigator, by placing a screen over a jar containing meat, noticed that magots did not develop in the decaying meat, when the flies were kept away. Later it was noticed that decaying organic matter swarmed with bacteria which led to the natural assumption that they spontaneously formed as a product of the dead cells. Supposed proof of such development was furnished by boiling some meat or vegetables, whereupon it was frequently found that organisms developed.

It was assumed that boiling was sufficient to kill all organisms and that their development in the boiled matter proved the contention of those who believed in spontaneous generation. We now know that some common species of bacteria may not be destroyed at this temperature and that the spores which they form are not, and these spores await a proper time for their development and then blossom forth to function.

The germ theory of fermentation and decay was, after many years of controversy among scientists, finally and firmly established by Pasteur. He succeeded in showing that, among other things, alcoholic fermentation was due to yeasts and the souring of milk to bacteria and since that time the evidence has grown until now we know that putrifaction, fermentation and decay in general are due to the growth in micro-organisms and in most cases the particular forms responsible have been isolated and studied. These facts aided also in the development of

The germ theory of disease which has determined, largely the direction and magnitude of the growth of modern sanitary science. As this last phase of the subject is not of direct interest, we will pass to a closer consideration of the bacteria themselves, and their control.

Bacteria are a single cell organism—the lowest and simplest form of plant life. Although there are countless varieties they are divided into three groups, according to their form, the bacilli being rod shaped, the cocci are round like balls and the Spirilla are spiral shaped. The names apply to the forms of the individual cells which may grow in clusters, chains or other definite form and serves as one means of identification of the organisms.

Bacteria multiply by just increasing in size a cell wall forms, dividing the original cell into two new organisms, which are called daughter cells, and which may break apart forming two simple rod shaped cells, or may, where the division of cells takes place in one place in one plane, continue to form chains. The Cocci, or ball shaped type, contract in the middle, where the

(Continued on page 45)

A Magic Transformation

A better description in so few words
is hardly possible for our process of

Retinning Ice Cream and Milk Cans

But differing from magic, the results
of the sanitary triple coating process
are lasting. : : : :

Send us a sample can for retinning and let us show you what we can do and how profitably for you.

SANITARY TINNING & MFG. CO.
3753-63 E. 93rd Street CLEVELAND, O.

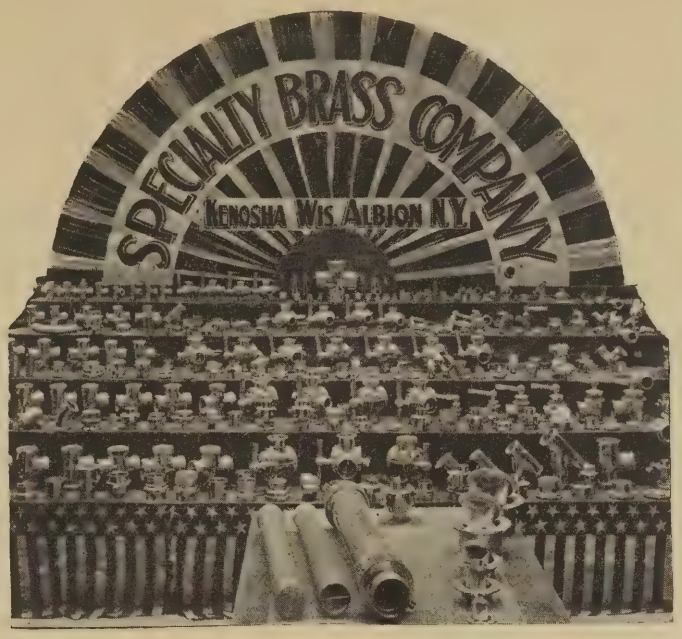
You Should Have

THE BOOK OF ICE CREAM

By Walter W. Fisk

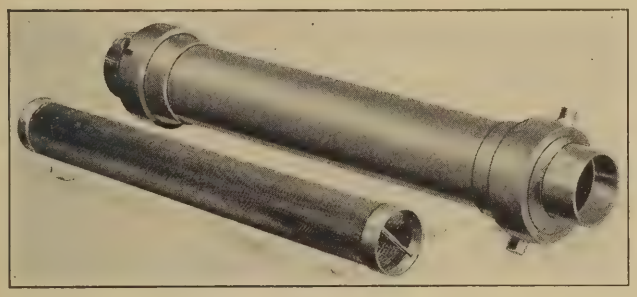
This book containing
300 pages—illustrated.
PRICE $3.25
Send your order to

THE OLSEN PUBLISHING CO.
210 SYCAMORE STREET MILWAUKEE, WIS.



SANITARY FITTINGS FOR EVERY REQUIREMENT

The "Specialty" line of Sanitary Fittings includes fittings for the most unusual requirements. Each fitting passes rigid inspection before shipment and only the best material is used. We welcome a comparison of our products.



THE SETTE
STANDARD SANITARY FLUSH GATE

Opens and closes like an automatic valve. Cannot leak. Removal of assembly pin releases valve stem and leaves the "throat" free for a thoro cleaning. The smoothness of design, finish and snug fit allows for no pockets in which old milk can lodge and contaminate the daily supply.

"SPECIALTY"
SANITARY MILK STRAINER

This Sanitary Milk Strainer fits right into any system of standard sanitary piping. It strains the milk without impeding the flow. Eliminates all trouble from "foaming" and affords protection to homogenizing equipment and assures a cleaner product.

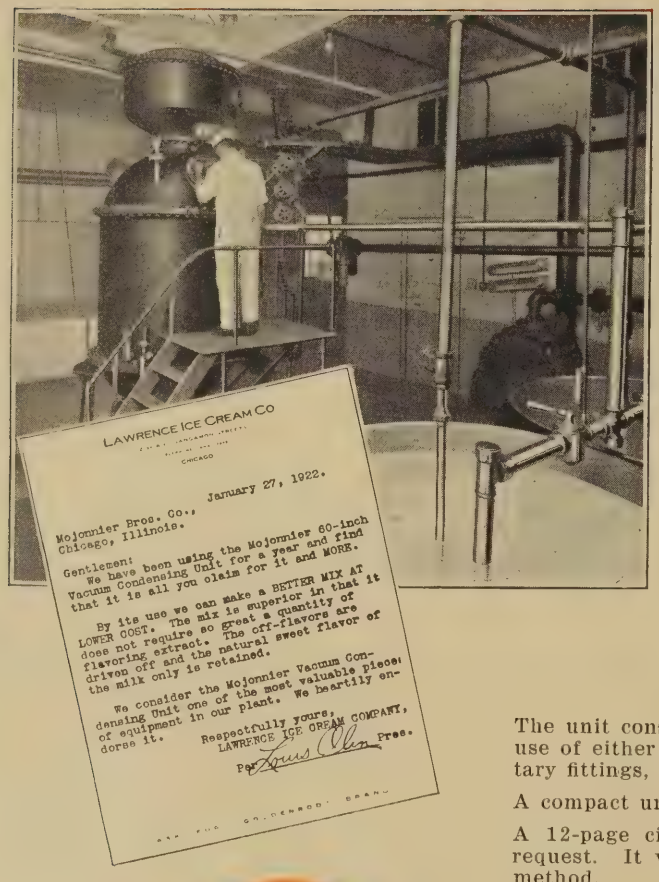


Ask your dealer for "Specialty Brass" Fittings.
Send for descriptive circulars.

SPECIALTY BRASS COMPANY

KENOSHA, WIS. -:- ALBION, N. Y.

Mojonnier Means



LAWRENCE ICE CREAM Co

CHICAGO

January 27, 1922.

Mojonnier Bros. Co.,
Chicago, Illinois.

Gentlemen:

We have been using the Mojonnier 60-inch Vacuum Condensing Unit for a year and find that it is all you claim for it and MORE.

By its use we can make a BETTER MIX AT LOWER COST. The mix is superior in that it does not require so great a quantity of flavoring extract. The off-flavors are driven off and the natural sweet flavor of the milk only is retained.

We consider the Mojonnier Vacuum Condensing Unit one of the most valuable pieces of equipment in our plant. We heartily endorse it.

Respectfully yours,
LAWRENCE ICE CREAM COMPANY,
By Louis Ahn Pres.

The Mojonnier Vacuum Condensing Unit Standardizes the Flavor

1st. It uses fresh milk products.
2nd. It eliminates heating and reheating or pasteurization and repasteurization.
3rd. It eliminates any off-flavors by vigorous ebullition under vacuum.
4th. It eliminates any possibility of cooked flavors. No product used is heated in excess of 145° F.
5th. It seals in the good flavors.
6th. Less flavoring is necessary since there are no off-flavors to neutralize.

And in Addition It Soon Pays for Itself, Because—

1st. **It effects a saving as high as 12c per gallon of mix.**
The chief reasons for this saving are that fresh milk direct from the producer is used, no product is handled twice, and during the months of peak production butter prices are the lowest.

2nd. **It solves the surplus problem.**
During the period of low production, surplus milk can be converted into sweetened condensed milk or other condensed milk products for which there is a ready market.

The unit consists of the following: Vacuum Pan with all pipe fittings for the use of either or both live and exhaust steam, Hot Wells, Vacuum Pump, sanitary fittings, and all accessories necessary for a complete condensing unit.

A compact unit, requiring small amount of space. Simple to operate.

A 12-page circular giving complete details and technical data furnished on request. It will pay you to investigate and compare costs with your present method.

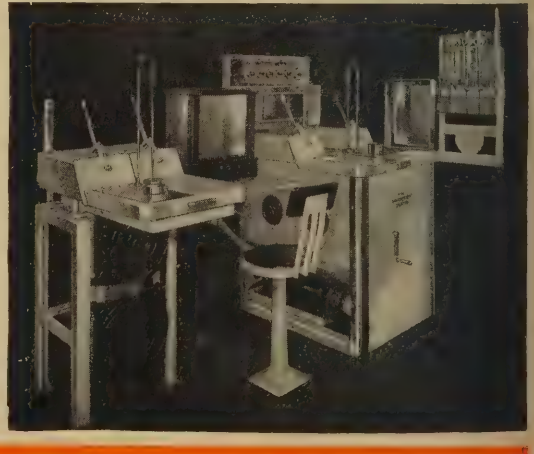


The Mojonnier Milk Tester Standardizes the Butter Fat and Total Solids

1st. It enables you to test your raw materials.
2nd. It enables you accurately to standardize your ice cream mix.
3rd. It enables you to put out a uniform product.
4th. It prevents loss from too low overrun caused due to insufficient solids not fat.
5th. It prevents "sandiness" and other defects due to high solids not fat.
6th. It is the only effective means of control of your mix.

The Hydrox Company state their Mojonnier Tester pays for itself in a month. Many others who keep accurate records and know, report the tester pays for itself many times over.

Write for descriptive circular.



Look for me and other Mojonnier Dairy Exposition to be held at St. Paul— at the National Exposition for the Ice Cream Industry

Standardization

The Mojonnier Packaging Machine Standardizes the Package

1st. It fills an accurately measured amount. No overweight or underweight.

2nd. It fills any size or shape carton. Quarts, Pints, Individuals, Carry-Home Pails or Round Containers.

3rd. It fills either one, two or three layers.

4th. It eliminates air pockets.

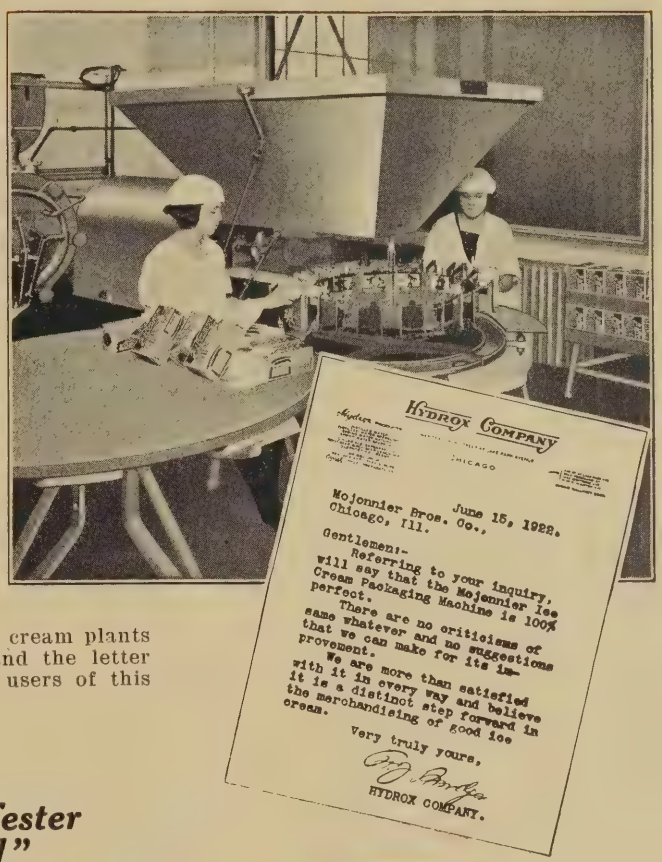
5th. It eliminates a large amount of labor, chiefly the following: pouring into molds, dipping, cutting and wrapping.

6th. It saves time and expense.

7th. It insures a sanitary package. Human hands do not touch the ice cream at any time.

8th. It improves flavor and texture. The frozen product is not exposed to the air after filling.

9th. It prevents loss of ice cream.



The Mojonnier Packaging Machine is now in use in over fifty ice cream plants thruout the country, where it is giving universal satisfaction and the letter illustrated above is only one of many received unsolicited from users of this machine. It will do the same for you.

Write for circular giving complete details.



The Mojonnier Overrun Tester Standardizes the "Swell"

1st. It insures standard amount of overrun.

2nd. It prevents loss thru low overrun.

3rd. It maintains quality thru prevention of excessive overrun.

4th. It is built for the freezer room, being steam proof and water proof.

5th. It is accurate, enabling close control of the finished products.

6th. It is durable. Built to last a lifetime, all delicate parts being well protected.

7th. You obtain the per cent of overrun while the ice cream is still in the freezer.

Each per cent of overrun equals .4c per gallon of mix. An average increase of 10% overrun on 100,000 gallons per year represents a saving of $4,000.00.

In use throughout the country by the smallest as well as the largest manufacturers.

Write for circular.

Mojonnier Bros. Co.

MILK ENGINEERS

739 W. Jackson Blvd., Chicago, Ill.

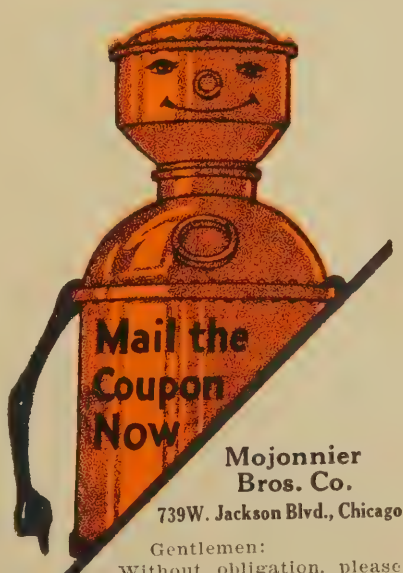
NEW YORK
490 Sanford Ave. (Flushing)

ATLANTA
3 Bonaventure Ave.

ST. LOUIS
4931 Margaretta Ave.

SEATTLE
513 Pioneer Bldg.

COLUMBUS, OHIO
123 E. Frambes St



Mojonnier Bros. Co.
739W. Jackson Blvd., Chicago

Gentlemen:

Without obligation, please send me complete information on the apparatus checked below.

- ☐ Vacuum Condensing Unit
- ☐ Packaging Machine
- ☐ Milk Tester
- ☐ Overrun Tester

My Name .....

Firm Name .....

Address .....

City ..... State .....

Standardizing Apparatus at the National Minneapolis, (Booths 34-35) Oct. 7-14 and Cleveland, (Booths 67-68) Oct. 17-21.

If Quality Counts

YOU WILL USE---

MICHAEL'S MEXICAN
THE ORIGINAL
VANILLA POWDER

Philadelphia Type shows the bean in the finished ice cream and is adapted for use in Philadelphia and French ice creams.

New York Type does not show the bean in the finished ice cream and is adapted for use in districts where the showing of the bean is an objection.



DAVID MICHAEL & CO.
INCORPORATED
MILLERS AND MANUFACTURING CHEMISTS
GUMS AND FLAVORING EXTRACTS
RIDGE AVE., GREEN & CLAY STS.
PHILADELPHIA



BACTERIA CONTROL.

(Concluded from page 40)

division wall occurs, breaking at that point into two separate balls, or like the Bacillus, forming chains or clusters. The general characteristics of the foregoing groups are true of the Spirilla, occasionally the rod, or Spirilla type may multiply lengthwise.

The size of the bacteria average about one twenty-five thousandths of an inch, which of course means that 25,000 placed end to end equal one inch. It is their power of multiplication by division, as mentioned, that is significant. Their minute size would make them harmless enough if it were not for their extraordinary power of multiplication. This power of growth and division is almost incredable. Some species, under favorable conditions, grow so rapidly as to divide every half hour, or even less. In one day one bacterium would produce over 17,000,000 descendants, and in two days about 281,500,000,000. This number, if it were possible to gather them together would fill a pint measure solid, and would weigh about a pound. At the end of the third day, if nothing happened to check their growth, the total descendants of one bacterium would equal forty-seven trillion and would weigh 16,000,000 pounds, or 8,000 tons. But of course this could not happen in reality, for long before the descendants reached even into the millions, their rate of multiplication is checked by either a lack of food or by an accumulation of their own excreted products, which are injurious to them. Nevertheless these facts go to illustrate what an unlimited power of multiplication these organisms have and this shows that in dealing with bacteria, we are doing business with forces almost infinite in extent. This power of growth is chiefly due to the fact that bacteria feed on highly organized food already in condition for absorption. Other more highly organized plants, have to make their own foods, from simple substances, water or carbonic acid gas from the air, which accounts for their slower growth.

The rapid growth of bacteria, in such masses, in food substances is certain to produce chemical changes in them, as portions are removed and absorbed by bacteria for their nourishment, and again replaced by their products of their activity. It is thus shown how, for instance milk changes from fresh form to the curdled, and perhaps foul smelling mass, as it gets older, or how we suffer from disease when bacteria feed on the body tissues and poison us with their excreted products, which find their way into the blood stream.

There are some species of bacteria which form spores. These are usually of the putrefaction type. The contents of the organism collect in one end, after which the body of the bacteria commonly breaks up and the oval or spherical bodies are set free. These are the spores. They are the resting forms and their functions of adversity. They may be dried for months, or even years, without losing their power of growth. They may be heated to a temperature considerably above boiling water, without injury, for if they are later brought into proper conditions for growth, the spores germinate and develop new organisms, like the original that produced them. They are evidently designed by nature as a safeguard against the extinction of bacteria of that class. It is thus seen that any pasteurizing process will fail to kill spores, and since most bacteria which produce off flavors and other undesirable conditions and changes in milk or cream, are spore formers it becomes evident that some control over these species should be exercised.

To complete this passing description, it may be said that regarding the need for oxygen, which is necessary for all life, bacteria are divided into three classes:

(Concluded on page 60)

Speed Up
Your Brick Cutting Dept. with a "New Era"

Cuts standard ice cream slabs from molds into quarts, pints or any size desired, as fast as the operator can release the ice cream from the molds.

Can be adjusted to cut slices for Chocolate Coated Ice Cream Bars and Picaninny Freeze.

Absolutely Uniform

and unfailingly accurate is the "New Era" Ice Cream Brick Cutter. It's simplicity, speed and accuracy.

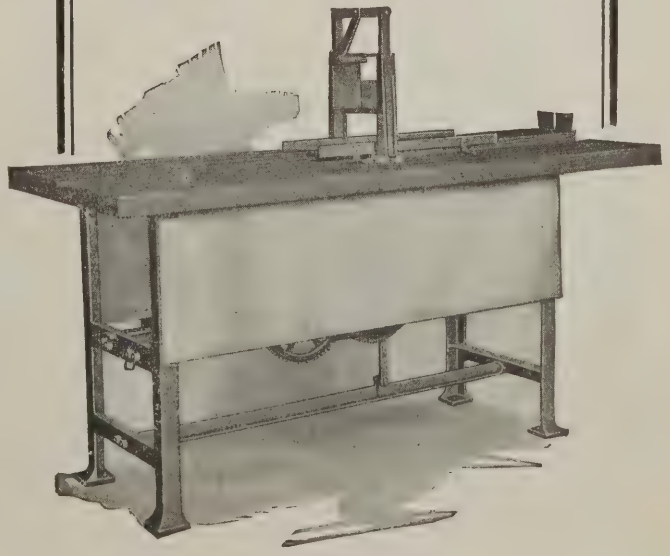
Reduces Costs

Our circulars tell all about this simple, practical machine. Get one.

Write us or our nearest representatives for circular and prices.

Cherry-Bassett-Winner Co., Baltimore, Md. Philadelphia, Pa. Pittsburg, Pa.
Wright-Ziegler Co., Boston, Mass.
J. W. Ladd Company, Cleveland, Ohio. Detroit, Mich.
Meyer Dairy Equipment Co., St. Louis, Mo.
A. H. Barber Co., Chicago, Ill., Minneapolis, Minn.
Davis-Watkins Dairymen's Mfg. Co., Denver, Col. San Francisco, Ca.
G. Lessenhop & Sons, Lincoln, Nebr.
J. G. Cherry Company, Cedar Rapids, Iowa.

The New Era Company
146 Merritt St. Oshkosh, Wis.



Observations

Address by WYN B. MORRIS before Pacific Association of Ice Cream Manufacturers.

I WILL get out in the open and look and talk to all sides at once. My topic, as usual, was picked for me by my amiable friend Bert Walker, and I learned I am again to give some observations probably along the lines that I talked in Portland last year. The subject fits as easily as an old shoe and I do not have to stick to my text and I do not have to read any paper. All I have to do is to chat along and try to amuse and entertain.



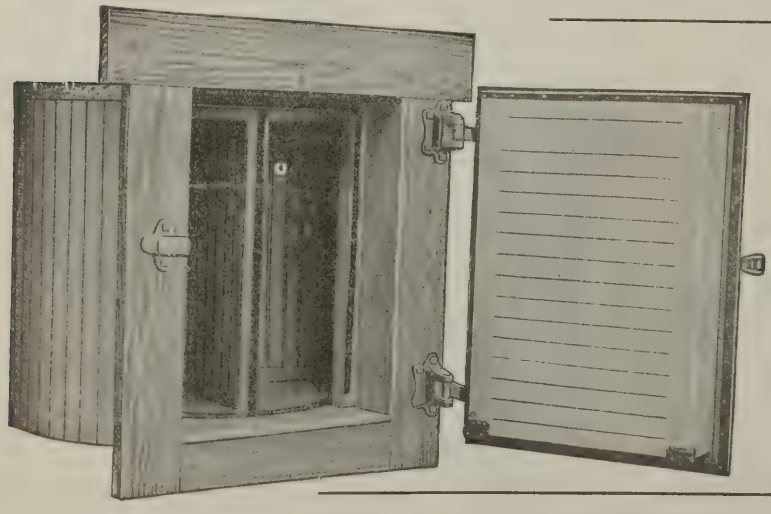
WYN. B. MORRIS

This is the third time I have attempted fate by addressing the Pacific Ice Cream Manufacturers' Association by firing a speech at them. Aside from the loss of copious perspiration I have suffered nothing from those attempts. My family rather figured it was brave of me to attempt a third talk before you. Each time in the past I have wired them that things were going well and they have hopes tomorrow morning. (Applause and laughter.)

I well remember my first appearance before this association in Spokane. I was programmed to speak immediately after the lunch adjournment, and I might say in passing that lunch meant nothing in my young life. I sat in the back part of the room waiting to be called and feeling my speech oozing quietly away from me moment by moment and I was wondering whether I should sneak out the back door or jump through a window, and right when I was at the lowest ebb of my enthusiasm in came Fred Martin's daughter and tore off a perfect corker of a speech, and right after that the Chairman called on me.

There is no more bewildering thing than to follow a good speaker on the program and as I went down the aisle I felt like the young attorney the story tells about. He had just hung up his shingle in the little town and there had preceded him in some way the reputation that he was a silver-tongued orator, which he was not. The town was soon to celebrate its anniversary and he was to make the speech of the occasion. He prepared the speech and memorized it and spoke it over to himself and in the stillness of his room he stood before his mirror, even as you and I—and orated for the occasion. He planned to get off the big speech on the big day and when the time arrived it found him very nervous. It found him seated on the bunting-covered platform with all the prominent men of the town about him and out before him the audience waiting for his speech. He stepped out and began. "Ladies and Gentlemen, forty years ago this was a howling wilderness," but the speech had left him. Bracing himself, he said again, "Ladies and Gentlemen, forty years ago this was a howling wilderness," and still nothing would come, but again, shaking himself together and taking a most dramatic attitude, he said, "Ladies and Gentlemen, forty years ago this was a howling wilderness—and I wish to God it was now." (Laughter.)

I know his embarrassment, but even then I was not quite so much emmarrassed as the minister in our town who was suddenly called on to preach a funeral sermon. The other minister was away or had had tire trouble (laughter), or anyway, was not there, and this young minister was called upon suddenly to make the funeral address. He had had very little information and was even ignorant of the sex of the departed, did not know whether it was a man or woman, and he knew the time would come in his talk when he must refer to the departed—when he must say something that would require this information. In his desperation he looked down in front of him and saw a mourner and he stopped a minute and leaned over to him and whispered "brother or sister?" and the mourner said "cousin," (laughter) leaving him high and dry and hung up. Last year when I was in Portland I made bold enough to say that in the course of my travels I met many ice cream manufacturers. I pointed out what I thought were some of their little fallacies and foibles, and I told them they did not get far enough away from their business and seek relaxation at times; that they were too much cluttered up with details and did not play enough, and rashly and very unwisely indeed I said, "Why don't you play golf?" and I want to say in passing that advice was taken. When I appeared at Portland last May George Burt and John Williams dared me to come out and play golf, and to my surprise the fourth member of



JAMISON'S

"NOEQUAL" REVOLVING DOOR

is making can-passing easier in Ice Cream Plants and Creameries everywhere.

It passes Ice Cream and Milk Cans back and forth without loss of temperature—and requires but one person to operate when fitted with unloading device.

Standard 5-Gallon sizes in stock.

Send for Catalog No. 10 and Prices

Jamison Cold Storage Door Co.

Formerly
Jones Cold Store Door Co.
HAGERSTOWN MARYLAND, U. S. A.



TYPE B
Foot-Power Filler

Sealright—a Practical Filling Machine for the Round Container



The Sealright Filler, with the Sealright Containers, forms the finest combination on the market for speedy and thoroughly satisfactory work. The machine is compact and fits in anywhere. It automatically packs bulk ice cream in one or or more flavors without the necessity of the cream being touched by hands. Bulk cream in packages is what the people want. Be a leader in your community and win popular favor by supplying bulk cream in the Sealright Package.

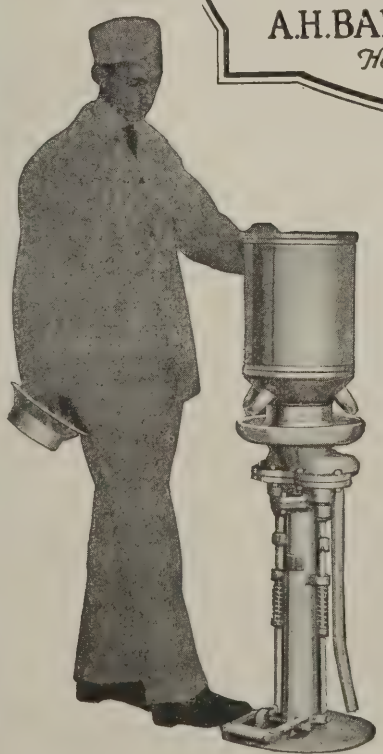
Sealright Containers

appeal to the ice cream buyer, for their carrying and keeping qualities, and because they do away with the mussy, unsatisfactory method of unwrapping and slicing the usual brick. And more important still, they protect the dealer against loss by measuring the cream accurately —four quarts from every gallon, instead of the shortage that always results where bulging paper pails are used.

BARBER

IF you want to keep closely in touch with the latest developments in equipment and supplies for your business, you have only to keep your name on the Barber mailing list. As large distributors, we keep fully informed on new machinery and improvements brought out by the various manufacturers, and the things which are practical and worth-while are quickly passed along to our customers. This, with our Chicago and St. Paul locations, and our excellent shipping facilities, is a great convenience and valuable to the dairy industry throughout the Middle West.

A.H. BARBER CREAMERY SUPPLY CO.
Home office: 300 W. Austin Ave., *Chicago*
TWIN CITY OFFICE: 2490 UNIVERSITY AVE., ST. PAUL



Danforth Jet Rinser and Sterilizer

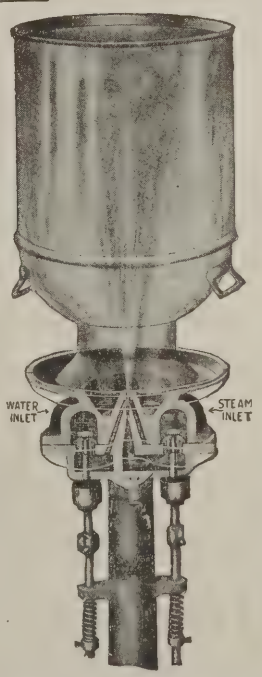
A can steamer, to be satisfactory, must be fast—thorough—and convenient in operation.

The Danforth steam jet is located directly beneath the orifice. The action of the jet breaks the water into a fine spray and greatly accelerates its speed. The water is heated by the steam as it passes through the ejector.

Note the convenient operation of the valves directing the water and steam. A flexible foot tread, simply by moving the ball of the foot one inch to the right, shifts from water spray to live steam. The rinsing is instantly followed by sterilizing. Nothing could be speedier or more convenient. The hands of the operator are left free to hold the can.

It is low enough in price to make it practical for the smallest plant—large enough in capacity to meet the needs of the plant handling 300 cans per day. A thoroughly practical and dependable piece of equipment at a moderate cost.

Price, painted gray, $45; galvanized, $50



that party was that amiable and accomplished after dinner speaker, Joe Dunne. (Laughter.)

If I may be permitted to drop into the vernacular of the street, I'll tell the world that Joe got far away from his business that day.

He had in his wisdom selected a pair of trousers for that event which had undoubtedly seen better days. As the affair was a simple afternoon function Joe evidently calculated that there would be no lady players on the golf course, and he did not discover until he was well out from the dressing room that the seat of these trousers and the main portion of the trousers had decided to part company. (Laughter.)

Mr. Dunne: That is a fact, too. (Laughter.)

Mr. Morris: I can see yet Joe addressing the ball, looking around to see if anybody was looking, with one hand clasped at that unmentionable point before he struck, and I must say that he had a beautiful flow of language at his command. (Laughter.)

Never again shall I speak rashly of golf to my friends. Jack Simonson hauled me over a course when I was over in Yakima, and I firmly believe that perhaps George Weatherley and our good friend Martin and perhaps Bert Walker will take up golf, and if such shall emoe to pass, I say now, "Oh, Lord, let thy servant depart in peace, because I have seen it all." (Laughter.)

Bert said to talk about everything. Seems to be the keynote of many conventions to talk about everything, and I have no particular objection to it. All I can say is that I have no ready-made form of publicity, but if I can leave one thought with you I have accomplished the purpose I want to accomplish. That is summed up in this one sentence. If you will give the same amount of thought to advertising that you give to production, accounting, delivery, or any other major portion of your business, you will be successful. You will do it later if you are not doing it now.

Let me illustrate in this way. I have a good friend in Pennsylvania who is an ice cream manufacturer. He is not a big manufacturer, and quite likely he never will be. He has in his possession the finest collection of cut-outs, signs, cards, posters, that ever adorned a stockroom. Every salesman that comes along unloads a certain portion of his stuff on Bill. It does not follow at the end of the year that he is an advertiser, because his balance sheet shows that he spent so much for advertising, and when I kid him about being an advertiser he froths at the mouth. Now, then, Bills says to somebody around the plant, "Joe, let's get out some of this advertising junk—" and it is junk by that time—and Joe, who knows as much about advertising as I do about breeding pelicans, say, Joe starts out some Monday morning in May and works two hours putting out his advertising junk. The advertising campaign for 1922 is accomplished. (Laughter.)

It is precisely as though my friend Bill had said, "Well, it is cold tonight, Mary," and he goes down to the basement, and shovels four shovelsful of coal into the furnace and says, "Well, we will be warm all winter now."

And I have another friend who has another system. His beginning is to take a three or four inch card in the local newspaper and change the type about three times a week and along comes the program of the ball or the labor movement or the high school and he falls for that. The hotel register prints names around it and his name is there, and along come the ladies with the Beautiful Back Yard proposition, and my friend falls for a full page. At the end of the year he has spent a large sum of money and when I kid him about being an advertiser he also froths at the mouth.

He can hardly expect people to cry for his ice cream with that kind of advertising. He is a darned smart fellow; you could not beat him in a horse trade. He knows what he is doing when he buys machinery, and he knows what he is doing when it is his accounting system, but he knows nothing at all when it comes to advertising.

I have another friend and I had no intention of reading from the paper until it was suggested to me yesterday, but this friend was a doughboy, in the Spanish American war. He got out of that small-bore war with a lot of experience and nothing else. He now owns seven ice cream plants, that is, he did own seven last week, it may be nine now. (Laughter).

At the National Convention he had a special paper prepared and sent me a copy of it and I want to read a part of it to you. He was not there but he had a friend read it for him and it was printed in one of the trade papers. He gives the same proportionate amount of thought to his advertising that he does to any other part of his business.

"Now from what I can observe there is no reluctance on the part of the public to eat ice cream every day in the year if it is offered to them. Every formal dinner, even if served on the coldest winter night, includes ice cream, every hotel continually includes it in its menu and when your wife or my wife plans a dinner party the weather has nothing at all to do with what she serves for dessert.

"Just sitting back and saying 'It can't be done' doesn't seem just right and so with the idea of trying an experiment at one of our branches three years ago, we decided to distribute some of the advertising appropriation for that particular plant over the lean months, as we found the hot weather gave enough momentum in the summer to carry sales along without the additional acceleration that advertising furnished. We started that advertising with the waning of the season and kept increasing gradually until spring business started, when we let down. We made our product just a little richer, gave just a little better service, saw to it that the stock in dealers' hands did not get old, coarse and grany or flavorless, as ice cream will get when kept too long. We also made special flavors to add variety and tempt the jaded appetite.

"To call attention to these specials, we used window streamers and window display even in the coolest weather of the year at the expense of being considered weak-minded. We also had a series of direct-to-the-consumer advertising in the form of announcements, in which was suggested new flavors and novelties in which ice cream could be served in the home, hot sauces, recipes, etc. Our order clerks scoured the papers for notices of lodge, church and other affairs.

Before Contracting For Your

SWEET BUTTER

this season, get a sample tub and prices from

Stricker Bros., Inc.

Makers of Good Butter

220 W. Pratt St. BALTIMORE, MD.

Wood's Gelatine

Guaranteed Food Products

Gelatine
India Gum
Kreamine
Fairy Cream Powder
Yum Yum (Ice Cream Flavor)
A-XXXX Vanilla
Grinders of Cocoa

The Most Complete Line on the Market

Write for Price List

W. B. Wood Mfg. Company

Manufacturing Chemists

ST. LOUIS, MO.

"When we took stock at the beginning of the summer season, we found that we had kept more of our organization together than in the previous years; the milk producers were in a sweeter frame of mind, and best of all, dealers were in line and more enthusiastic.

"The following year we tried it out on a second plant, let up on advertising a little at the first plant, but not on the service, and we carried two of our plants through without red figures. Last year, with the help of the weather man, five of our plants increased their sales sufficiently to overcome the usual red figures.

"This fall we have started the campaign on a more elaborate scale.

"I want to stress a little bit the effect of winter advertising on our dealers. They quickly realized that we were out to do something and after a while they took hold too and did their part. Instead of getting listless and indifferent in their service, the winter months found many of them on their toes and when spring came we had team work that accelerated our summer business.

"And another by-product of our advertising which we had not foreseen has been the effect on our own employees. The growing business keyed them up too. They had to live up to the advertising and instead of the rather perfunctory service which they had heretofore given during winter months, why we got pretty enthusiastic work and thereby we kept our organization together through what we commonly called the dull season.

"We haven't been niggardly about spending money, but we haven't been wasteful. Big advertisements cost money but big advertisements have the habit of starting people to think and what we wanted was to get them to think about our ice cream. We also made every possible effort to have the newspaper advertisements kick out of the page. Outside of the big city dailies the general run of advertising is often pretty plain stuff and we figured that clean type, good pictures and a general air of smartness was worth all it cost.

"We are very well satisfied with the results and hereafter I believe we shall stop bothering about the weatherman and go about our business of thinking up ways to make the consumer hungry for ice cream. At the same time we shan't overlook the very important thing of making it possible for him to get it when he has the notion. Thereby we shall help along the general cause of increased business in winter months as well as help ourselves and so far as I have observed this is what we are in business to do.

"I haven't preached a doctrine I don't follow. I haven't preached at all in fact—and this talk is in no sense the imparting of any secret of success. I've tried to tell, in my own way, that ice cream sales can be increased in winter and the proof is the fact that we've done it and expect to keep on doing it."

That is all I want to read out of his paper. He has made a wonderful success of winter business and as I said at the beginning, one of the principal reasons is that he is giving as much time and attention to his advertising as he is to the other branches of his business.

Two merchants were talking one day. One said, "I believe in advertising," and the other one said, "Yes, I advertised yesterday for a night watchman and burglars cleaned me out last night." (Laughter.) It pays to advertise; they all say it.

I should be very negligent, of course, if I did not say something about the cordiality of the welcome that has been accorded me at this convention.

Three years have made me feel at home and that early period of embarrassment has gone. This year has been a little different than other years, but I do not see any gloom present among the gentlemen of this organization. From what I can see it is quite a convention. I am looking forward to coming here year after year. Some day perhaps we shall have a prohibition law in these great United States. It has not reached here yet, I am free to say. (Laughter.) It seems to me to have been a very splendid convention and that everybody has had a fine time and have gotten lots of benefit from the convention. There just lit into my mind an eight line sentence which seems to describe this convention as well as anything else. A little bit of a poem which is found at the end of "Trilby." It seems to fit a gathering like this. It runs:

"A little work, a little play,
To keep us going, and so, Good Day.
A little joy to match the sorrow
Of each day's going, so Good Morrow.
A little trust, that when we die,
We will reap our sowing, and so, Good Bye."

INFERIOR TO NONE
A HIGHLY CONCENTRATED VANILLA
Made of Mexican Beans and Fortified
Will Not Freeze or Cook Out.
THE IDEAL FLAVOR FOR CONFECTIONERY OR ICE CREAM
VAN-MUL
3 drams (10 cents) Flavors 100 lbs. Candy; ¼-oz. (5c) Flavors a 5½ Gal. mix of Ice Cream.
Can be made into an extract by adding warm water—1 pound making 2 gallons.
Price—Per Pound
1 pound Bottles.....$5.00
5 pound Bottles.....4.50
6-5 pound Bottles.....4.25
Special Contract Price Order Now
Guaranteed to please or money back
Downey-Turnquist & Co.
Soda Water Flavors True Extracts
27 W. Illinois Street Chicago, Ill.

ICE CREAM VALUABLE FOOD, SAYS ILLINOIS 'U.'

Urbana, Ill.—Ice cream is not only a "delicious and dainty dessert, but is a very valuable food as well," says a recent statement from the University of Illinois.

"It contains the muscle-building proteins," the statement continued, "the energy-producing fat and sugar and the bone-making minerals of milk in higher concentration than they are present in milk. It also contains cane sugar, another valuable energy producer.

"Carefully prepared ice cream is wholesome and highly nutritious. Make it at home or buy it already to eat.

"Use ice cream not as an occasional confection, but often as a refreshing, cooling, hot-weather food."



The "Perfection" Imprint on Your

Ice Cream Cartons, Can Liners and Butter Cartons

is your assurance that the Buying Public is going to get the correct impression of the quality of goods that you have put in your package. INSIST on the best, it COSTS NO MORE

Write for Booklet

CHICAGO CARTON COMPANY

4433 Ogden Ave., Chicago

NEW YORK, 516 5th Avenue
CINCINNATI, Gwynne Bldg.

CHICAGO CARTON COMPANY

DALLAS, 601 Elm Street
DENVER, 1526 Blake Street
SALT LAKE CITY, 355 Pierpont Ave.

Echoes From the Last National Convention

Address of FRED N. MARTIN

In listening to the remarks made by my friend Wyn Morris, I could not help but draw a little picture to myself about our genial president. Mr. Morris remarked that Joe was playing golf, and that there was some hope for George Weatherly and Bert Walker and even myself in that regard. I could not imagine Joe on a golf course in a kiltie suit. (Laughter.)



FRED. N. MARTIN

That recalls an incident—I only told Joe this yesterday but I want to mention it here. We were out to the Boulevard Inn three years ago when our convention was held here, and a little entertainment was put on by the Supply Men for our benefit. Among the features was an Orpheum troupe of bathing girls. I think there were some twenty in number and it required one suit-case to take their costumes out. (Laughter.)

Mrs. Dunne, during the evening, become very much concerned about her husband. I met her in the main room and she seemed to think that I knew where Joe was, and she said, "Where is Joe?" And I said, "I am not going to tell you." And she said, "I want to know where he is," and I said "It is a secret." Naturally a woman's instinct became uppermost and she was still more curious and said, "I want to know where he is" and I told her then I would tell her providing she would keep it confidential, which she agreed to do, and I think she did. I said, "Joe is upstairs in the room directly above us and they are attiring him in a Hawaiian costume," and she said, "My goodness, I am going home right away." Joe was attired in that costume. (Laughter.)

I am supposed to tell you something with reference to the doings of the National Association. I want to say here, gentlemen, that many of you manufacturers do not appreciate the value of the National organization. As I was saying not long ago to a friend of mine here, if it were my privilege to be a banker, and I had a customer who was an ice cream manufacturer and in a period of stress he needed a little change, I would propound several questions to him before I would accommodate him. One of them would be to learn if he was connected with an organization covering his industry as well as a national one, and if I found that he was not providing himself with that insurance he would never get a dollar.

Your organization, both local and national, is the insurance to your business, and it is as important that you carry that insurance as that you carry any other form of insurance, fire liability, or automobile insurance.

As you know, we are here to exchange ideas and gain knowledge of our own industry. We can accomplish more in one of these meetings than we can possibly accomplish in five years actual work working out our own solutions. The exchange of ideas is much more valuable to us than the exchange of dollars. You and I could exchange dollars forever and still have the same dollar when we were through, but if we exchange ideas we each have two ideas when we complete the transaction and it is easy to see the value when you look at it in that light.

As to the national association, it was my great privilege—and I consider it a very great honor—to have held the position of president of the national organization. I owe it to my friends in the west who went sixty-two strong from the north-west to Chicago, adorning themselves with the colors yellow and blue which are the colors I use in my business, and with the bird, a martin, on display. My friend here even took it up with Washington, D. C., to get the real bird.

It was astonishing to those people from New England and eastern states to see us come that way and the next morning they in turn adorned themselves with a black card boosting the other fellow, but we were successful, and I feel that we had as successful a meeting this year in Minneapolis as we ever had before at the meetings of the national association.

In reviewing the work of the National Association for the past year we had many things that were done in the interests of all of us. Our industry was very much benefited.

* * *

Among the functions of the National Association during the past year was the handling of a number of cases where it came to our attention that substitute fats were used. Action was taken by the association in the matter. The firms were warned first, in case they refused to de-

CLARKSON BRAND ★ TRADE MARK ★ GUARANTEED

CHICAGO
NEW YORK
PHILADELPHIA
BUFFALO
ST. LOUIS
MILWAUKEE
LOS ANGELES
SAN FRANCISCO

Clarkson Gelatine Works

Manufacturers of

FOOD GELATINES

Write Us Regarding Our Supreme Pure Food Gelatine
No Better Stabilizer

Superior in Purity *Odorless and Tasteless*
Economical in Price *Uniformity Always*

WE GUARANTEE TO SHOW YOU A SAVING

The New 80-Quart Capacity U.S. Heavy Duty Freezres



If You Want a Freezer In a Hurry We Can Ship You One From Stock

The 80-Quart U.S. Heavy Duty Freezer is ***growing rapidly in popularity,*** and will be one of the main features of our exhibit at the coming National Dairy Exposition in Minneapolis, the first week of October.

All U. S. Heavy Duty Freezers from the 50-quart capacity freezer up are now built along the same modern lines, with all the latest improvements.

The New 40-Quart

U.S. Heavy Duty Freezer

This has been developed especially to meet the demands of the small manufacturer for a high class freezer at a moderate price. It is of good construction, fit to meet all ordinary demands, and stands in a class by itself.

WRITE US FOR DETAILS AND LITERATURE IF YOU ARE INTERESTED IN BUYING NOW

REPRESENTATIVES AND DISTRIBUTORS IN ALL PARTS OF THE UNITED STATES AND CANADA

May we not arrange to have one call on you?

U. S. FREEZER & MACHINE CORPORATION

201-209 North 11th St. 29 **Brooklyn, N. Y.**

PROSPERITY FOLLOWS THE DAIRY COW. Be sure you attend the National Dairy Exposition—St. Paul-Minneapolis, Oct. 7-14.

sist and the matter was taken up with the State Food Commission in the locality in which they were located and it did not take long to have them quit using substitutes.

Another thing the national is going to do the coming year, and a committee has been already appointed and a survey has been made on the following matter. I made this recommendation that it be done, to the new president, that a survey be made of the shipping business to ascertain the exact volume of decrease we have had in our shipping. I believe that the compiling of that information will be astounding to the members of our industry, because the shipping business has very materially decreased, due to the exorbitant rates we are now paying.

My Recommendation was that this information, which will be true in every particular, be prepared and presented to the officers of the express companies and that we use that means of getting a reduction in rates. Since then I have had the opportunity of talking with one express official, a man who occupies a very prominent position, and he led me to believe, if it was handled in that way it would get results, and we could be assured the National Association is going to do everything it can to bring that about, which of course will be a wonderful asset to our industry.

They are also going to take up and ascertain a uniform depreciation. We attempted that last year but we got started rather late and that part of the work was not completed.

I know all of you who belong to the National Association are aware of the fact that the National Association two years ago brought out and developed a uniform accounting system. All members of the National Association are privileged to send to the Secretary and get those blanks. They are very complete and we can all talk in the same language if those blanks are used in compiling and keep our records. That is a wonderful asset and it is really amusing. My Secretary was telling me in Chicago at this meeting that there was one firm in Texas that was so fearful that they would not get those blanks that they sent in money to get a ten year's supply. (Laughter.)

I think that I have conveyed to you in a general way the methods of the National Association functioning in our interest and the work that they are continually doing and I beseech of you, any of you that are not members of the National Association, that you secure blanks from our Secretary here who is provided with them, and that you make application. The cost to you will be so small that you will not notice it at all. You all know it is weight that counts, increased membership, additional weight, and prestige that will be given our national organization.

I might say a recent court decision that I received just before I left home is going to give trade associations a very much larger scope than they previously had. A decision has just been handed down by District Judge Carpenter of the Federal Court of vital importance to all trade associations. The court denied for want of equity the Government's petition for an injunction against the association of linseed oil crushers. The Government charged that a conspiracy existed to restrain inter-state commerce and to add to and enhance and fix prices and was decided against by the Court. No doubt this will be in print and can be had and any of you that are desirous of doing so, it will be well for you to note the matter and get a copy of that decision.

That is one of the most important rulings ever made with reference to trade associations.

I am through with my remarks about the National Association and anyone who desires any further information after I am through with this talk, as to the further functioning of the National Association, I would be glad to discuss the matter with them.

I am now going to diverge a little and it might seem that in a way I am promoting something for myself personally in the matter that I am going to tell you. In my paper at the National Association I made mention of the fact that the ice cream industry had progressed more rapidly in the last five years than it had in the previous history of the industry, making mention of the fact that our present day methods of freezing would soon be obsolete as we would do away with the use of ice cream freezers. I made no further statement but that reference did not seem to pass over the heads of many. It promoted considerable discussion and I was asked a good many questions and I did not expose what I had in mind.

The fact is, in that respect, I own a basic patent and I have been working on the process for the past eighteen months. It is reversing the principle of the patent for drying milk. Instead of drying it we are going to freeze it. It makes one of the finest products you can imagine. It gives better control of the overrun, and does away with the icy ice cream, reduces the expense of the manufacturer from sixty-five to seventy per cent and does away with one third of the packing can equipment and it is a very simple method to operate. In fact, I could go into any plant in the city here and in fifteen minutesI could demonstrate to you the process in a crude way. You can imagine what it is going to do to the industry. It is going to be a blow, of course, to the ice cream freezer men, but it is going to make us better products and I am going to picture something to you a little later in my talk.

But by the way, I am glad to give this information out. It is a western convention and I thought it would

N BUYING YOUR MILK . . . . .
AND CREAM TEST BOTTLES . . .
DOES ACCURACY COUNT? . . . .

DOES STRENGTH COUNT . . . .
AND THE ABILITY . . . . . .
TO WITHSTAND . . . . . .
TH STRESS AND STRAIN . . . .
OF THE CENTRIFUGE TESTER? . .

DOES ESTABLISHED REPUTATION
OF THE MANUFACTURER COUNT?

DOES THE FACT THAT . . . . .
THE KIMBLE GLASS COMPANY. .
IS ONE OF THE LARGEST . . . .
MANUFACTURERS OF CHEMICAL .
AND LABORATORY GLASSWARE .
IN AMERICA INDICATE . . . . .
ANYTHING TO YOU . . . . . .
REGARDING THEIR ABILITY . . .
TO MAKE UPSTANDING . . . . .
ACCURATE, DEPENDABLE . . . .
CREAMERY GLASSWARE? . . . .

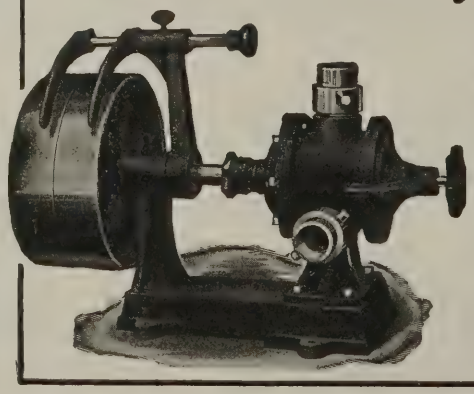
IF IT DOESN'T, SHOULDN'T IT?.

Order from your jobber or Write us direct

Kimble Glass Company

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Taber Creamery Pumps



are the most sanitary because they are entirely dissectable. Demand a Taber Pump from your jobber. If he cannot supply you we will sell you direct. Address:

Taber Pump Company

297 Elm Street

BUFFALO, N. Y.



Gelatin users!

Write Swift & Company today

Complete information and samples are ready for you on a line of gelatins so excellent that they have won, in less than two years, a nation-wide demand.

Made by Swift & Company not simply up to established gelatin standards, but up to the Swift standard of quality and uniformity.

In grades to meet your requirements.

At prices that are most reasonable.

Exceptional Quality; quicker deliveries

Stocks are now kept in 12 cities. The nearest of these is your source of supply for these gelatins. Unusually quick deliveries are possible to any city or town in the United States.

Hundreds upon hundreds of ice cream makers and candy makers are now using Swift's Gelatins.

Impelled by the belief that Swift & Company, with all its resources, ***should*** be able to make and market a superior line of gelatins, they got the facts; they judged the gelatins for themselves.

To get samples

Whether you use large or small quantities of gelatin; whether you are in the market right now or not, you are invited to write for complete information and samples of this line. Or, upon request, a representative will call.

Address Dept. 6 C.

Swift & Company

Chicago

THE ASSOCIATION OF ICE CREAM SUPPLY MEN · MEMBER

be better to let it emanate from the west and not give it out while I was in the east.

While I was in Chicago I found still further progress was being made along the lines of cutting out expense for their industry the same as this process will do, and that was this: There is a man who has developed a new soda fountain. We have all had lots of fun with regard to iceless fountains. Some friends of mine who are going to assist in the financing of this new fountain took me out to show it to me. The fountain I saw was a ten foot fountain, three inches higher and six inches wider than the ordinary fountain. One of the patented features of it was the cabinet in the fountain. It had fourteen syrup pumps, double arms, and the lids in the packing box were made like this. (Indicating.) That is, there were fifty gallon ice cream compartments in the cabinet of this ten foot fountain. The files were directly back of one another. To reach the rear can he lifted a lid this way (indicating); to reach the further can he lifted the lid this way (indicating). You can see how readily such a fountain can be worked. The real feature of the fountain is this. It had a miniature ice machine, as I would call it. I presume it was twelve inches wide, fourteen inches high, and about four inches thick, double cylinders about that size (indicating), the base possibly twenty-four inches long, eighteen inches wide and four inches deep, that was the ammonia receiver and contained two pounds of ammonia. The machine was running from an electric light cord and the cabinet was piped from that machine which it was operating on. The machine had not been stopped for ten days. They had a watchman there, the men who were going to put the money up were satisfying themselves what could be done with it. The room, about twenty by fourteen, an ordinary little fountain room, they had a stove in that room and they were maintaining a temperature of from seventy-five to eighty degrees constantly. That, of course, was to test the energy that the machine would produce and how it would keep the ice cream. I saw it after it had been in continuous operation without a shut-down for ten days. The ice cream was then in the finest condition. The same ice cream was in the cabinet. I believe it is the intention that they are going to market those machines, that fountain and machine complete, for fifteen hundred dollars.

See what a revolution this is going to bring to our business. Here is a fountain that will contain fifty gallons of ice cream properly refrigerated at all times. It is another short cut to cut out delivery expense. No doubt there are places where fifty gallons of ice cream will last a dealer a week. Others would consume that much in two or three days but it will cut the delivery service in two.

With the use of refrigerated delivery boxes it means that no ice or salt will be used.

We will give a hard blow to the ice and salt men if this is worked out, which we think it will be. That means your plant would act as a pump and force a spray into a room holding the ice cream and it is put out by actual weight and you can put it on the wagon and immediately send it out. Could you imagine a more drastic change in our industry than I have told you about.



BIG CALIFORNIA FIRM BEGINS CONSTRUCTION OF PLANTS.

The Consumers Milk Company, a $500,000 corporation recently organized in Los Angeles, Cal., has begun the erection of their first plant, which is at Long Beach, Cal. The Long Beach plant will cost approximately $50,000 and will have a capacity of 3,000 gallons of ice cream daily, besides taking care of a large fluid milk business. Although construction of the plant has only just begun and it will not be ready for operation until October first, the firm has contracts for the daily sale of 15,000 gallons of ice cream. The building will be a first-class 50 by 110 foot brick structure and will be equipped with the best possible modern machinery. E. S. Acres, a very successful local business man, is to manage the plant.

Construction of a plant in Los Angeles, the estimated cost of which is $250,000, is soon to begin. This plant has already contracted a daily market for 6,000 gallons of milk.

The officers of this firm are: O. R. Lee, Los Angeles, president; C. H. Osborne, San Bernardino, vice-president, and Homer Lawton, Los Angeles, secretary-treasurer; and the officers with E. S. Acres, Long Beach, and W. H. Rapson, Corona, constitute the board of directors.

Mr. Lee, president, was formerly manager of the Centralia Creamery Company which has large plants through the south and southwest and was identified with the Columbia Products Company in the northwest; Mr. Osborne is manager of a large farming company and a former professor at the Michigan College of Agriculture, and Mr. Lawton is connected with a large Los Angeles hotel, having formerly been manager of other hotels and restaurants.



Tell us what you want, or what you have that you don't want, and we'll fix up a little ad. for you and insert it in the next issue of The Ice Cream Review. You just stay at home and wait for results. You'll soon have your hands full.

"Apply it as you would a paste---
It does away with DRIP and WASTE"

DOES NOT CONTAIN GRAPHITE
CHAINOLENE
LUBRICANT

Will add life to your **Roller** and **Link Belt Chains** and **Gears.**

IT'S SOMETHING DIFFERENT
Sold on Trial

CHAINOLENE MFG. COMPANY
1018 S. Wabash Ave. Chicago, Ill.

B-K
Bacili-Kill

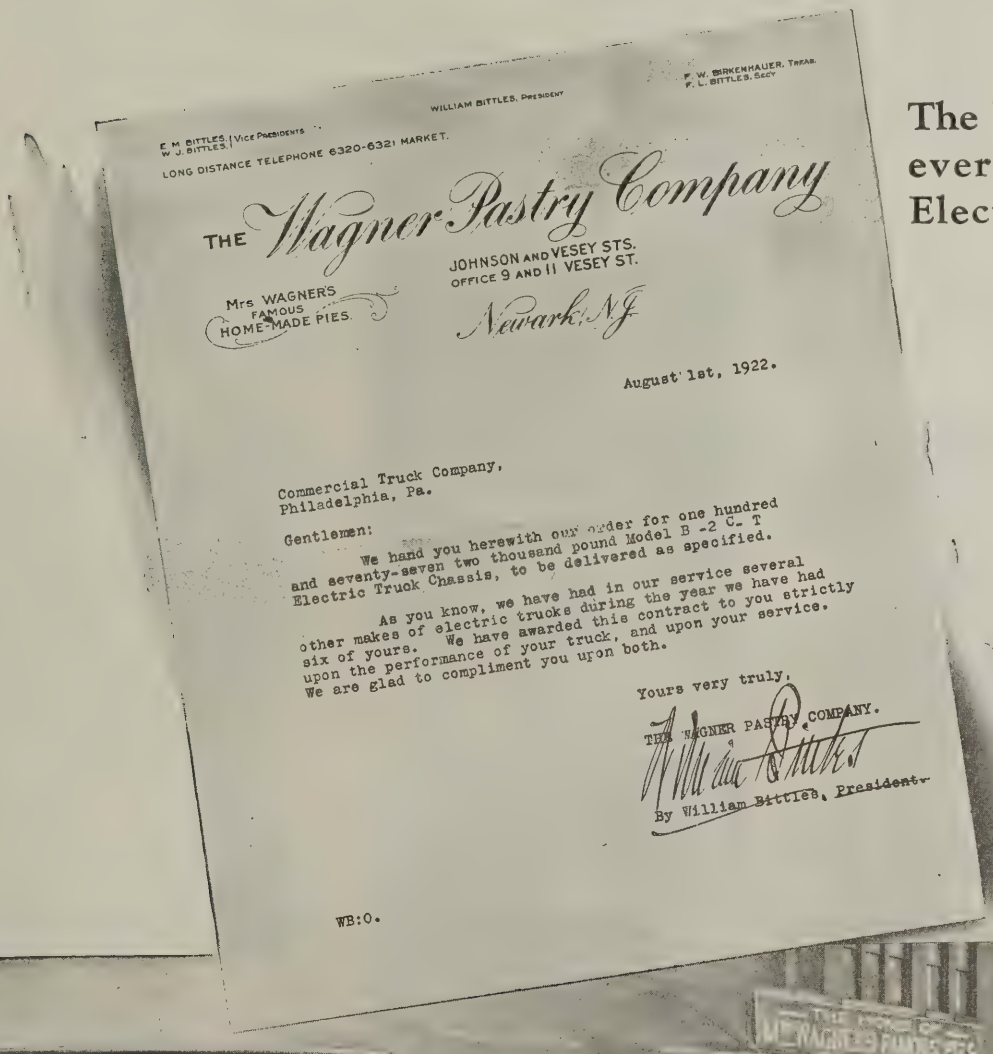
Sterilizer — Purifier — Deodorant
Cheap to Use—Efficient—Reliable
AT ALL SUPPLY HOUSES

GENERAL LABORATORIES
MADISON, WISCONSIN
Sole Manufacturers B-K

PLEASE MENTION THE ICE CREAM REVIEW WHEN WRITING TO ADVERTISERS

177 ELECTRIC TRUCKS

on a Single Order—all C-T's



WILLIAM BITTLES, PRESIDENT
E. M. BITTLES, VICE PRESIDENTS
W. J. BITTLES, VICE PRESIDENTS
F. W. BIRKENHAUER, TREAS.
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LONG DISTANCE TELEPHONE 6320-6321 MARKET.

THE *Wagner Pastry Company*

JOHNSON AND VESEY STS.
OFFICE 9 AND 11 VESEY ST.

Mrs WAGNER'S FAMOUS HOME-MADE PIES.

Newark, N.J.

August 1st, 1922.

Commercial Truck Company,
Philadelphia, Pa.

Gentlemen:

We hand you herewith our order for one hundred and seventy-seven two thousand pound Model B -2 C- T Electric Truck Chassis, to be delivered as specified.

As you know, we have had in our service several other makes of electric trucks during the year we have had six of yours. We have awarded this contract to you strictly upon the performance of your truck, and upon your service. We are glad to compliment you upon both.

Yours very truly,
THE WAGNER PASTRY COMPANY.
By William Bittles, President.

WB:O.

The Largest order ever placed for Electric Trucks



The performance of these C-T Electric Trucks together with C-T service won the order for 177 additional trucks. Read Mr. Bittles' letter reproduced above.

Commercial Truck Company *Philadelphia*

Grand Rapids Firm Important to Progress of Dairy Industry

A business re-organization worthy of attention took place in Grand Rapids last spring, when B. A. Yarrington and H. V. Walsh, proprietors of the Grand Rapids Manufacturing Company, joined forces with W. G. Finch of the W. G. Finch Company, Inc., making the company a $250,000 organization. The trustees of this new company are Mr. Yarrington, president; Mr. Walsh, vice-president, and Mr. Finch, sales manager.

When the Grand Rapids Manufacturing Company was first organized, they built special machinery for every purpose imaginable, not concentrating on any one line. Later they began specializing in devoloping and perfecting pneumatic water systems. Their special machinery brought them more or less in contact with the dairy industry to which they are now a valued addition.

Mr. Yarrington has held several important executive positions with various manufacturing concerns. About four years ago he resigned as chief designer of the Oliver Machinery Company of Grand Rapids to go into partnership with Mr. Walsh for the manufacture of special machinery.



H. V. WALSH.

They were very successful in this, and were able to develop and perfect several new machines. They hold valuable patent rights on a visible gasoline meter for measuring of gas at filling stations, patent rights of the filing machine for die and tool work, and the Artesian Pure Water System.

It has taken several years to develop and perfect this water system pump, but at the present time its performance is nothing short of wonderful. It was originally intended to supply farm homes with a convenient and reliable water supply, but demands for larger capacity pumps have made it necessary for them to build pumps large enough to satisfactorily take care of dairies, milk plants, condensaries, etc.

Mr. Walsh has a record of being a very efficient production manager, and has held several important positions in various parts of the United States. Just previous to his going into partnership with Mr. Yarrington, he resigned as superintendent of the Oliver Machinery Company, after being associated with that organization for about five years.

Mr. Finch has been interested in dairy machinery ever since he has been in business. His most recent invention is a new fluid scale, which is filling a long felt want in dairies, creameries, ice cream factories and condensaries. It gives such plants a reliable check on the pounds of milk, condensed milk, cream or mix with which they supply the various departments. It is inexpensive, and very efficient.

When Mr. Finch had perfected this scale and began making plans for a factory to produce it, it was discovered that it would be mutually advantageous to effect a consolidation with the Grand Rapids Manufacturing Company. The outcome is the present organization.



B. A. YARRINGTON.



C. A. BEIGLE.



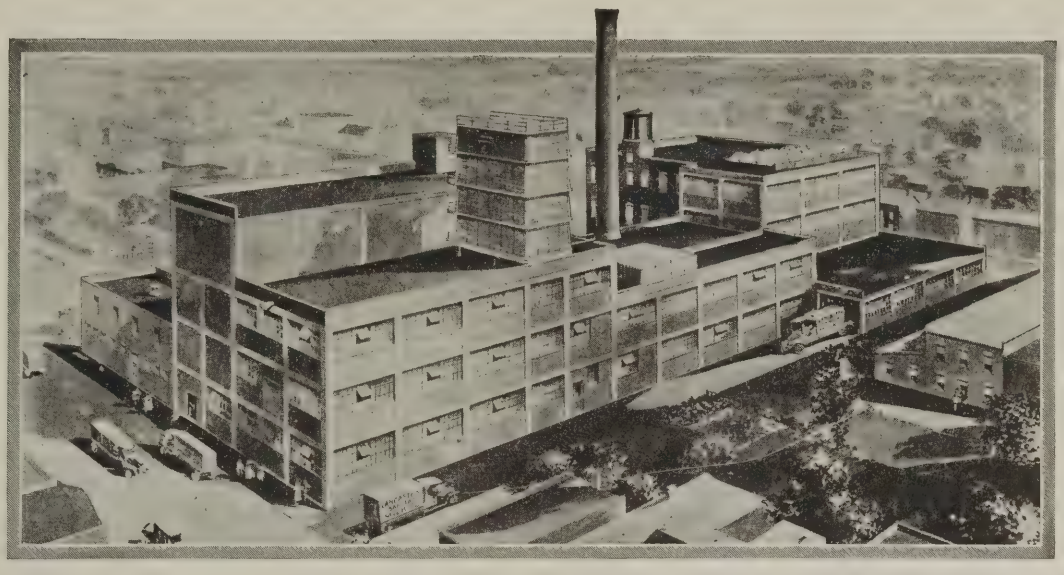
WM. G. FINCH.

This company now manufactures tubular coolers, ice cream mixers, pasteurizers and bottle washers, liquid weighing devices and artesian pumps.

The dairy industry is to be congratulated in having men of this caliber interested in designing and building dairy machines. They are progressive and foresighted, and make it their aim to anticipate requirements, hence are frequently a step in advance of the general market in supplying dairymen's needs.

One of the important sales representatives affiliated with this company is C. A. Beigle. His territory covers the rich dairying state of Wisconsin.

This company promises a few minor and one major surprise in the way of dairy equipment to be exhibited at the National Dairy Exposition in October. The nature of this machinery is not divulged, but it is sure to be something ingenious and practical, therefore it would be to the interest of dairymen to visit this exhibit.



Lancaster Sanitary Milk Company, Lancaster, Pa.

Irregular Properties

Are Often Satisfactorily Utilized Without Acquiring Additional Space

AN owner may have a very peculiarly-shaped property in a good location—perhaps adjoining his present plant—and it may be limited in size for the extra capacity desired. He may have a certain location in mind which he thinks is necessary for his purpose but is waiting for its cost to go down—meantime jeopardizing his business growth.

In many cases McCORMICK engineers have pointed out the utility and possibilties of their present space, thus permitting of immediate expansion at a material saving in cost.

We have been confronted with numerous irregular-property problems and have never failed to answer them satisfactorily. Our many years in the ice cream and dairy field provides a wealth of experience and engineering skill for plant owners to draw upon.

Our business is to co-operate with you to the fullest extent in the solving of your construction problems. We will be glad to have you confer with us and you will be placing yourself under no obligation by so doing.

The building pictured above is the extension made to their old building at the extreme right of the picture. The building we designed contains a complete ice making plant with an exceptionally large ice storage, mixing room, hardening rooms and an excellent shipping platform and truck yard.

With all of our contracts we invariably give an estimate of cost, and the estimate submitted for this building worked out in exact accordance with the competitive estimate they later received.

THE McCORMICK COMPANY
· INCORPORATED ·
Dairy and Ice Cream Plant
ARCHITECTS & ENGINEERS

Reliable contractors in your own locality submit competitive bids from complete plans and specifications prepared by us for your individual requirements. When contract is let, successful bidder binds himself to execute them under the direction of our well trained superintendent assigned to your job.

PITTSBURGH, Century Building NEW YORK, 41 Park Row

BACTERIA CONTROL.

(Continued from page 45)

Those which live in contact with the air only are called aerobic bacteria; those which live only out of contact with air and derive their oxygen through decomposition of some substance containing combined oxygen on which they feed, are called anaerobic bacteria and are usually spore formers, and often produce gas; the third class are called faculative, since they can adapt themselves to either condition.

The filth and manural contamination of milk is indicated by the anaerobic spore bacteria, producing gas. Routine examinations for gas forming bacteria are generally considered a good index of the past history of the milk sample. The unclean practice known as "wet milking," and the manural contamination of milk in numerous ways, makes the statement possible that a bacterial test sensitive to filth contamination equal to a teaspoonful of manure to a 10-gallon can of milk, which would easily be considered excessively contaminated, would bar from 20 to 25 per cent of all market milk.

A very excellent test of this character has been worked out by Dr. John Weinzirl of the University of Washington. It is known as the "Anaerobic spore test" and is directed against manural contamination. This test has a decided advantage over many other methods which aim at one thing or another, calculated to indicate purity or extent of contamination. The bacterial count might be very high in milk and still be of fair quality, free from filth contamination. It happens that the average bacterial content of the sewerage of 10 cities of the United States, was only half the bacterial count of the average for the market milk supplied to the city of Washington in the summer of 1906. The Weinzirl test is much superior to the visible dirt disc test, since that merely indicates the dirt that the dairyman's strainer allowed to slip through. Milk might be strained or clarified until a white disc is shown by the spores in the soluble portion of manure cannot be filtered out nor clarified by any means now known. As the Weinzirl test has the merit of simplicity, requires no special training for its mastery, and is applicable to all kinds of milk, there is no valid excuse for one failing to test milk for pollution, thereby going a long way toward bacterial control in the ice cream factory.

Here is a description of the test. "One-half to one cubic centimeters of melted paraffine is placed in a 15mm. test-tube which is plugged with cotton and sterilized either by dry or moist heat. By means of a sterile pipette, 5cc of the milk under test is placed in each of five tubes containing paraffine. The tubes containing the milk and paraffine are then placed in the Arnold sterilizer and heated to 80 degrees C for 10 to 15 minutes. This treatment melts the paraffine, which rises to the surface, where it hardens on cooling and forms the anaerobic seal. The heat also expels oxygen absorbed by the milk, thus rendering anaerobosis more complete. All the vegetative bacteria present in the milk are killed by the heat, only the spore forms remaining. The tubes are then incubated at blood heat. If anaerobes are present, gas will be formed, which lifts the paraffine plug in the tube. Two positive out of five tubes condemns the milk as showing excessive pollution.

Now, when we consider that the ripening of ice cream mix is caused by bacteria and we have so many present in our milk supply which tend to create off flavors, it becomes a problem as to the best method of accomplishing the purpose. Mix improvers gain time and create a proper condition for freezing by stepping in ahead of the result of bacterial activity. A pure lactic culture, introduced after pasteurizing, and holding the mix at about 55 degrees until the acidity reaches 0.25 per cent makes a very nice mix and inexpensive. Edible acids may be introduced directly into the mix up to a total acidity of 0.3 per cent for immediate freezing after pasteurizing and homogenizing and where it may be desired to store the mix in a cold room at say 40 degrees or lower, this per cent of acidity directly introduced retards the development of undesirable bacteria, to some extent, for a short time.

When a substance is pasteurized, all active bacteria are killed but their spores are not, as has already been shown.

The hay Bacillus is one of the chief offenders in milk. This is a spore former and the spores will survive pasteurization. The spores will germinate, after pasteurization, decomposing proteins of the milk, under aerobic conditions, frequently without the development of disagreeable odors which makes it very undesirable, for the milk or mix may be partly decomposed without its being suspected. A companion of the hay bacillus is the root bacillus, the one usually producing the odors, and digesting the casein in milk. There are, of course, many more having similar characteristics but the above named, together with one more usually found on potatoes, constitute the most important group of decay producing organisms.

In closing allow me to call attention to the fact that cleanliness is indeed next to godliness, as well as profit, in ice cream factory management, and that the wise and plentiful use of our old friend Wyandotte, associated with plenty of head work, water and steam will prevent many losses and heartaches. A plant does not have to be white and shiney to produce the best sanitary effect and low count of undesirable bacteria in the finished product.



WRITE FOR PRICES NOW

Buy from the Originator

We are the originators and patentees of this quality ice cream tub cover. No royalties to pay—no infringements to guard against. All good reasons why

Schott Brothers Quality Tub Covers Are Lower in Price

The fact that after six years as users, original buyers of **Quality Tub Covers** send in repeat orders each season for new tub covers, should be proof enough for you to investigate the quality, price and serviceability of Quality Tub Covers.

The Quality Tub Cover comes to you complete with staples, tie strings and your advertisement.

THE SCHOTT BROS. COMPANY

WEST SALEM "If Made from Canvas We Make It" OHIO

PLEASE MENTION THE ICE CREAM REVIEW WHEN WRITING TO ADVERTISERS

You, who have *not* been buying from Mathews—what is your reason?

Have you, on seeing the beauty and richness of our Ice Cream advertising material, jumped at the conclusion that it must be too costly for you to afford?

You would be surprised to learn that some of the hangers you have admired so much can be had for as little as 15 cents in small lots, and less in larger lots. Large quantity output and efficient production in our own plant (which has been running both day and night the past three years) keep costs down.

Have you supposed that because we serve the largest Ice Cream Companies in America, we do not solicit small accounts?

That some have thought so, we know from their first letters to us. It's a big mistake. We have hundreds of small accounts (1409 accounts in all, the day this was written) and we care so much for them that they get exactly the same painstaking attention in every little detail, that we give to the "big fellows." Try us and *see* how much we care for your business. Most of our small accounts have a way of growing larger.

And any other surmise that may have kept you from having the benefit of Mathews Service, is bound to be just as far from the truth. There is one easy and sure way to find out—*investigate.*

We believe that a food so delicious, useful and refreshing as Ice Cream is worthy of all the expert thought, artistic talent and business energy that can be devoted to increasing its sale. That is why Mathews Ice Cream Advertising Material stands *first* in every respect—and why you see it in every part of the United States and Canada.

Don't guess—*Ask* us about it.

Frederick C. Mathews Company

"Servants to the Dairy Industry"

P. O. BOX 834 DETROIT, MICH.



This insert was originated and produced complete in our own plant



ACTION—that's what you want. Mathews' hangers and cutouts make people long for and buy delicious Sundaes—made from *your* Ice Cream if its name is on the cards. Let's put the name there. Maybe you're in a big hurry—no matter, our day-and-night plant will take care of you. Write us—or wire—and again you'll see—*Action.*

MEMBER THE ASSOCIATION OF ICE CREAM SUPPLY MEN

Frederick C. Mathews Company

"Servants to the Dairy Industry"

P. O. BOX 834 DETROIT, MICH.

This insert was originated and produced complete in our own plant

LOOK FOR HUDSON'S!

Herewith illustration of Exhibit at Buffalo, last year, of the Hudson Mfg. Company, Chicago. At Cleveland, October 16-21, Ice Cream Week—The Association of Ice Cream Supply Men's Exhibition and the Annual Convention, National Association of Ice Cream Manufacturers,—Hudson will occupy Booths Nos. 131-132 with an attractive exhibit. Here you will receive that hearty,



cordial welcome—so characteristically Hudson. "Sally," "Gabe," "Chris," "Bulger," "Rector"—in fact, the whole Hudson family will be there to greet you. At every Supply Men's Exhibition and National Dairy Show, Hudson has been there with their comfortable, cheery exhibits, ready to extend the hand of good fellowship, and eager to make "the boys" feel at home. Hudson Exhibits are always popular. Meet the Hudson family at the Dairy Exhibition, Twin Cities, and at Cleveland. They will have exhibits at both places.

SCHOOL OF REFRIGERATION ENGINEERING.

The fall term of the Three Months' Course in Refrigeration Engineering at the Siebel Institute of Technology, Chicago, will start September 12, 1922. This course, which was temporarily suspended during the war, has been greatly augmented and is proving even more popular than in former years. The Siebel Institute is the only school in the United States that offers to those interested in the subject of Refrigeration Engineering an opportunity to obtain a thorough scientific training in so short a period of time. All of the numerous other studies taught by state universities and colleges, requiring two to four years to complete, have been eliminated and only the most essential subjects are given. In addition, the classes are limited in number, which makes it possible for the instructors to give individual attention to each class member.

For the benefit of our readers who may be interested in such a course of training, it is suggested that they write to the Siebel Institute for full particulars as to the September class.

We use one quart of water to each pound of gelatine, let it set until it congeals, then heat to one hundred and fifty, (150) degrees, then pour it into the mix. We have found this to be the best method of dissolving the gelatine, for if we mix it direct with the mix, or with cold water, there will be lumps in it.—Contributed.

Mr. F. M. Hosler *Says:*

"I use gelatine in my ice cream because it makes it more palatable, and it adds to the food value. It makes the ice cream easier to digest, and I have used "SX" Gelatine for years, because I have found that it never varies in strength. Its high quality does not change."

Mr. Hosler is President of the Hosler Ice Cream Company, Albany, N. Y. His product has a splendid reputation. He has made a success of his business. The "SX" brand of Gelatine carries its own standard of quality and purity. It is the result of twenty years of manufacturing experience. A shipment to you today will prove why it is used by leading ice cream manufacturers.

Essex Gelatine Company

Manufacturers

40 No. Market Street
Boston, Mass.

Shipments made from warehouses in

Boston, New York, Philadelphia, Chicago, St. Louis, San Francisco

MEMBER

Member of the Association of Ice Cream Supply Men

THE CONDENSATION PROCESS OF PREPARING AN ICE CREAM MIX.[1]

By R. W. Peterson and P. H. Tracy, Department of Dairy Husbandry, University of Illinois, Urbana, Ill.

THE general lack of uniformity in the use of materials and the methods of manufacture is responsible for the great variation in the standards and quality of ice cream found on the market. In the present method of manufacture of commercial ice cream, whole milk, sweet cream, plain (superheated) condensed milk, sugar, gelatine, and the desired flavoring usually form the ingredients. Evaporated milk, sweetened skim condensed milk, or milk powder and butter may be substituted for the above lacteal materials. A balanced supply of the different ingredients must be kept on hand at all times, and mixed together as needed. The mix is standardized to conform to a state requirement or a desired composition. In some cases the cream or the entire mix is pasteurized; and in a few plants the mix is homogenized. This must be followed by aging to insure the desired yield.

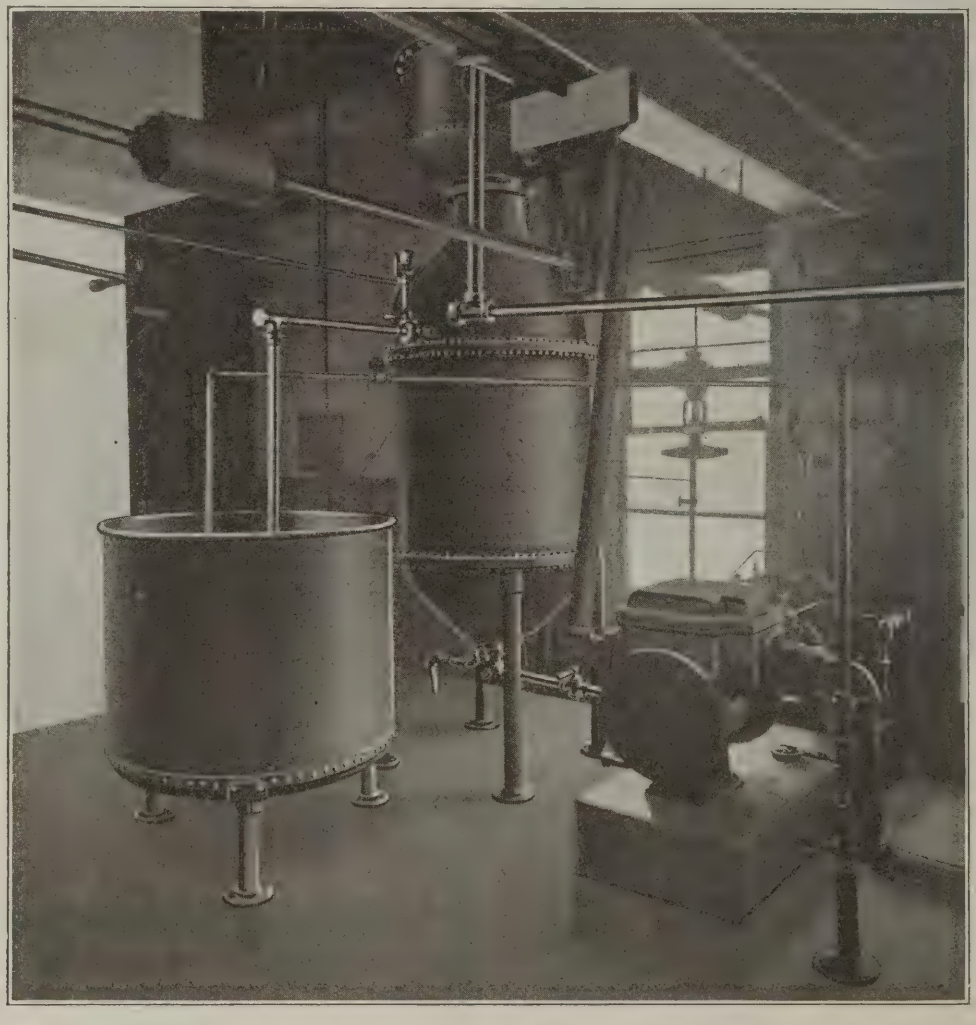
Within the last year the use of the condensation process of preparing an ice cream mix has greatly increased. This method consists essentially of combining sugar and the different lacteal substances in the proper proportions, evaporating to the desired composition, homogenizing, and cooling. The main purpose is to utilize merely milk and butter as the basis of the milk solids and butterfat. In the present methods of manufacture, however, it is impossible to use only milk and butter because the content of milk-solids-not-fat would be insufficient.

This paper is the report of a study which was made of the methods of preparation and standardization, and the bacteriological factors concerned in the condensation process. Part I deals with the preparation, and Part II takes up a study of the bacteria in the condensed mix.

I. Preparation of the Condensed Mix.

Apparatus Required.

In the preparation of the condensed mix the essential equipment is some form of concentrating apparatus. The ordinary "vacuum condensing pan" is the most efficient for this purpose. This consists of a copper retort with a steam-jacketed bottom, steam coils inside, and some form of condenser. A large, steam-driven, vacuum pump makes possible the evaporation of water under reduced pressure, at a temperature of about 130 degrees F., thus promoting rapidity and economy of evaporation.



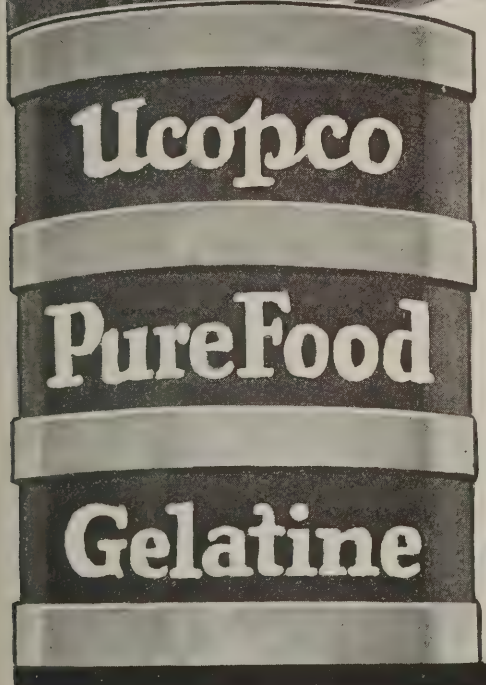
Mojonnier 3-ft. Vacuum Condensing Unit in Plant of Evansville, (Ind.) Pure Milk Co.

The ingredients are mixed in a large open kettle, commonly known as the "forewarmer." Any vat could be utilized for the purpose. Heat may be applied by means of coils, or by introducing live steam directly into the mixture. While the latter method introduces some water, it is more rapid and serves to agitate the milk while being heated.

A Baume hydrometer, or a Westphal balance, may be used to indicate the point of proper concentration.

[1]This work was carried on under the supervision of Dr. M. J. Prucha and Dr. O. R. Overman, and with the co-operation of Dr. H. A. Ruehe, Dairy Department, University of Illinois, Urbana, Illinois.





Popularity

and widespread demand is soon established for the Ice Cream made with UCOPCO Gelatine. It is smooth and velvety and immediately appeals to the public.

UCOPCO Gelatine embodies *all* the qualities necessary to a highly efficient stabilizer.

Make yours the most popular Ice Cream by starting now to use UCOPCO.

The United Chemical & Organic Products Co.

4200 S. Marshfield Ave. Chicago, Ill. — New Orleans, La. — 401 E. 45th Street New York City

"UCOPCO Comes Sealed in Red Drums"

Ucopco Pure Food Gelatine

IT'S OUR COUNTRY; LET'S WORK FOR IT—LET ADVERTISERS HELP YOU.

Either a homogenizer or a viscolizer must be utilized in order to thoroughly emulsify the fat in the mix. This prevents the rise of butterfat during storage, and increases the viscosity of the mix. An efficient means of cooling must be provided. The ordinary upright open-faced cooler answers the purpose. This type of cooler also permits the drawing off of the mix directly into clean, dry cans. The mix may be pumped into large, insulated storage tanks and held until needed.

Materials Used.

Fresh whole milk is the best and cheapest source of the milk-solids-not-fat. This provides a clean, fresh-milk flavor which is not destroyed in the process. Economy is obtained by contracting for milk directly from the producers. Even if milk is purchased from distributors, it is still the cheapest source of milk solids. Skim milk may be used to advantage, especially if an outlet for the sweet cream is available.

Unsalted butter is necessary to add to the mix in order to supply the proper amount of butterfat. Sweet cream may be used, but the use of it tends to increase the cost of the mix, unless there is no other outlet for the sweet cream. If sweet cream is used, advantage is taken of the solids-not-fat in the cream in the process of standardizing.

Either cane or beet sugar may be used for sweetening.

Process of Manufacture.

General Procedure. 1. Examine the milk to make sure that it is fresh, clean, and sweet. Test a representative sample of the milk and of the cream (if cream is to be used) for percentage of butterfat and total solids, calculating the solids-not-fat by difference. The percentage of butterfat in the butter should also be determined.

2. Calculate the quantity of each ingredient to use:

a. It is necessary to first decide upon the percentage composition desired in the finished mix. Butterfat, milk-solids-not-fat, sugar, gelatine, and total solids must be taken into consideration.

b. Such amounts of the different ingredients are used as will give the desired proportion of butterfat, milk-solids-not-fat, sugar, and gelatine in the finished mix. No further standardizing will then be required unless the batch is overcondensed, in which case pure water only is needed.

c. When a definite quantity of mix is desired, the amount of milk required is ascertained by multiplying the percentage of milk-solids-not-fat in the mix by the pounds of mix, and dividing by the percentage of solids-not-fat in the milk. The amount of butter required is found by multiplying the percentage of fat in the mix by the pounds of mix desired, subtracting the product of the percentage of fat in the milk, times the pounds of milk, and dividing by the percentage of fat in the butter.

d. When a given quantity of milk is used, the yield of mix is found by multiplying the percentage of solids-not-fat in the milk by the pounds of milk, and dividing by the percentage of milk-solids-not-fat in the desired mix. The butter is then calculated as in (**c**) above.

e. If cream is used, the ratio method of standardizing may be conveniently applied, advantage being taken of the solids-not-fat in the cream. Special tables have been prepared for a mix of a definite composition, which greatly simplify these calculations.

3. Weigh, or carefully measure, the required quantities of each ingredient into the forewarmer. The gelatine is added after condensing, either before homogenizing, or before freezing.

4. Heat the mixture in the forewarmer to 160-170 degrees F. This pasteurizes the mix, facilitates the melting of the butter and the solution of the sugar, and increases the rapidity of evaporation in the condensing apparatus.

5. Remove the excess water by evaporating under a vacuum of about 24 inches, at a temperature of 130 degrees F. The batch is "struck" when the proper reading is obtained on the Baume hydrometer, or Westphal balance.

6. Transfer the condensed mix to a vat with an efficient agitator. If this vat is mounted on scales, the mix may be weighed. Otherwise the full yield is obtained by measuring the volume and adding the necessary water to secure the proper yield.

7. Homogenize or viscolize the warm condensed mix, under a pressure of about 2000 pounds per square inch.

8. Cool the mix as rapidly as possible to a low temperature, preferably from 40 to 45 degrees F.

9. Store the prepared mix at as low a temperature as possible, without freezing.

10. Retest the finished condensed mix, and restandardize if necessary.

Composition of a Representative Mix Before and After Condensing (100 Gallons).

Materials,	Test of Mixture Before Condensing,	Test of the Condensed Mix,
Pounds	Per Cent	Per Cent
Milk, 3.5 per cent fat; 8.7 per cent solids-not-fat 1242.0	Butterfat 6.38	Butterfat 10.0
Butter, 83 per cent fat ... 56.0	Milk-solids-not-fat 7.66	Milk-solids-not-fat 12.0
Sugar 108.0	Sugar 7.66	Sugar 12.0
Gelatine 4.5	Gelatine 0.32	Gelatine 0.5
Total mixture 1410.5	Total solids.22.02	Total solids..34.5
Water removed .....–510.5		
Finished condensed mix (100 gallons) 900.0		

FORTUNE SWEET MILK CHOCOLATE COATING

Especially prepared for Eskimo Pies
Ready for use - - - - nothing to add

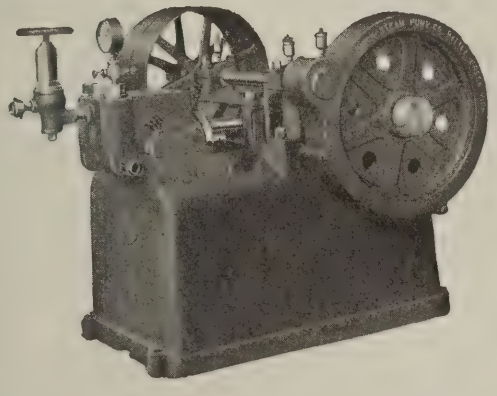
DIAMOND XX NORTH POLE SOUTH POLE

FORTUNE PRODUCTS TRADE MARK

FORTUNE PRODUCTS CO. 416-422 S. Desplaines St. CHICAGO, ILL.

The Viscolizer

IS NOW READY IN 3 STYLES OF DRIVES



STANDARD BELT DRIVE

Size	Gallons Capacity Per Hour	Horse Power Required	Pulley R. P. M.	Price
100	100	5	480	$ 850.00
200	200	7½	500	1000.00
300	300	10	500–600	1250.00
450	450	15	500–600	1500.00
800	800	25	450	2000.00

Standard machine can be furnished with back gearing or with tight and loose pulleys.

(Cut shown is No. 300 Machine.)

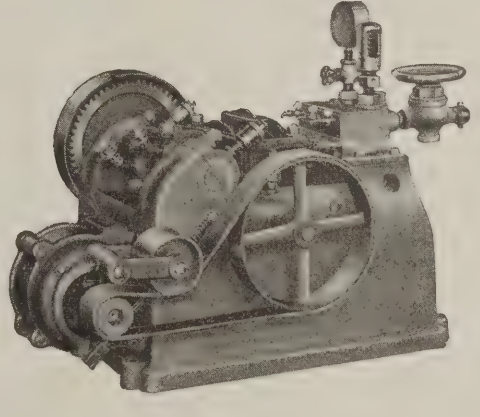
MOTOR BELT IDLER DRIVE

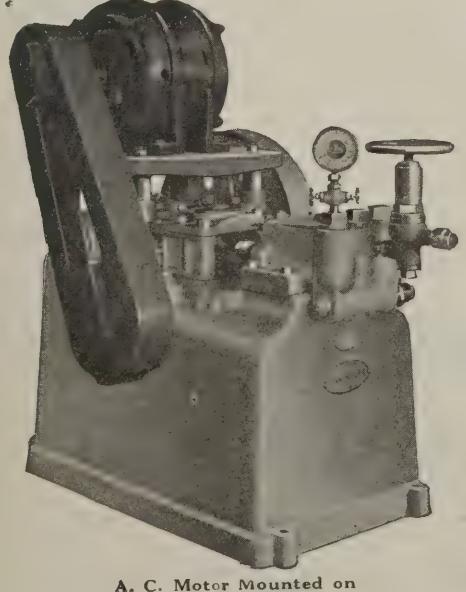
For Two or Three Phase—60 Cycle—220 Volt Only

Size	Gallons Capacity Per Hour	Horse Power Required	Motor R. P. M.	Price
100	100	5	1200	$1125.00
200	200	7½	1200	1400.00*
300	300	10	1200	1700.00*
450	450	15	1200	2100.00*
800	800	25	....	.....

*Includes Compensator.

(Cut shown is No. 100 Machine.)





A. C. Motor Mounted on No. 300 Machine

SILENT CHAIN DRIVE

Size	Gallons Capacity Per Hour	Horse Power Required	Motor R. P. M.	Howell Motor 3 PH- 60 Cycle 220 Volt	Motor Mounted Direct Current 115-230-V.
100	100	5	1200	$1150.00	$1270.00
200	200	7½	1200	1500.00*	1510.00
300	300	10	1200	1875.00*	1910.00
450	450	15	1200	2180.00*	2260.00
800	800	25	900	2950.00*	3340.00

*Includes Compensator.

One Strainer Furnished with Each Machine.

Factory is running to full capacity and orders are being promptly filled.

John W. Ladd Company

DETROIT CLEVELAND

Cherry-Bassett-Winner Company

BALTIMORE PHILADELPHIA PITTSBURG

The ingredients named under "materials" are placed in the forewarmer, resulting in a mixture having the composition shown in the second column. The excess water (510.5 pounds) is removed by condensing. When the desired composition is reached, the Baume reading will be 10.3 degrees at a temperature of 130 degrees F. The final test is shown in the third column.

The mixture may be condensed slightly heavier than necessary, and made up to exactly 100 gallons by adding pure water. With the addition of flavoring, and gelatine if it has not been added previously, the mix is ready for freezing at any time.

Conclusions.

1. A uniformly prepared ice cream mix may be made by the condensation process, using milk, butter or cream, sugar and gelatine.

2. The condensed mix is easily standardized to a uniform composition by having the butterfat, milk-solids-not-fat, sugar and gelatine in the proper proportion before condensing. A definite yield is thus obtained.

II. A Bacteriological Study of the Condensation Process.

Since bacteria in ice cream are of importance from a sanitary as well as an economic point of view, a bacteriological study was made of the mix prepared by the condensation process.

Counts were made by the plate method, using standard lactose agar as media. An incubation period of four days at 30 degrees C. was used. In all cases the counts given are the averages of the two plates made for each sample.

Source of Bacteria.

The lacteal substances used are the chief source of bacteria in the ice cream mix. Since milk and cream are ideal media for the growth and development of bacteria, it is to be expected that such products will greatly increase the bacterial count of the finished product. The sugar and gelatine are usually of minor importance, but utensils are a very prolific source of contamination.

The number of bacteria in the mix will vary according to the care that the milk products have received prior to their use, and according to the plant procedure. At the Iowa Experiment Station the number of bacteria in thirteen samples of ice cream was found to range from 130,000 to 40,850,000 per cubic centimeter (1). The United States Department of Agriculture found the average number of bacteria in 94 samples to be 37,859,907 per cubic centimeter. The maximum was 510,000,000, and the minimum 120,000 (2). The extremely high counts in ice cream are no doubt due to the fact that many manufacturers do not pasteurize their mix, nor take the proper precautions to avoid recontamination.

Efficiency of Pasteurization of the Condensing Process.

In order that ice cream may be a safe product for human consumption, and in order that the danger of souring may be reduced to a minimum, the mix should be subjected to some form of pasteurization. In the condensing process the mix is heated to 160-170 degrees F., in the forewarmer, and then condensed at a temperature around 130 degrees F. The efficiency of pasteurization of this process is shown by the following tabulation:

Batch No.	Mix Before Heating in Forewarmer	Direct From Pan Actual Count	Direct From Pan Comparative Count*	Destruction Per Cent
1	9,600,000	800	480	99.98
2	2,260,000	20,000	12,000	99.47
3	21,600,000	2,400	1,440	99.96
4	7,600,000	7,200	4,320	99.94
5	51,000,000	27,200	16,320	99.97
6	12,250,000	3,560	2,136	99.98
7	3,660,000	3,750	2,250	99.94

* The comparative count represents the number of bacteria per cubic centimeter that would be in the mix if the original volume had been retained, allowance being made for the decrease in volume, due to condensing. It is obtained by multiplying the actual count by 0.6.

These data show the completeness of pasteurization brought about by the heat in the forewarmer and condenser. In most cases the count of the condensed mix was quite low, the minimum being 800 and the maximum 27,200. Five of the seven batches run had a count of less than 7,500 per cubic centimeter.

The tendency of the unpasteurized mix to have extremely high counts is indicated by the number of bacteria per cubic centimeter found before heating it in the forewarmer. If ice cream is to be safely and economically produced, the mix must be subjected to some process that will greatly decrease the bacteria.

Number of Bacteria at Different Stages of Manufacture.

To determine the relative importance of each step in the manufacture of the mix, counts were made of two batches after the completion of each step in the process. Care was taken to clean each utensil before it was used, by rinsing it with scalding water.

Before Heating in Forewarmer	Direct From Pan	Direct From Homogenizer	After Addition of Gelatine	Frozen Ice Cream
9,600,000	800	1,400	1,450	2,600
2,260,000	20,000	26,200	26,250	31,000

These results indicate that after the mix is drawn from the pan the subsequent steps in the operation will result in the addition of only a very small number of bacteria if ordinary precautions are taken against recontamination. The increase after homogenizing and freezing is probably due, for the most part, to the breaking up of the bacterial clusters, which results in a higher count by the plate method.

The number of bacteria added by the gelatine will depend upon the grade of gelatine and the temperature

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Different to Giant but equally strong.

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Moderately priced. Hundreds of ice-cream makers swear by it.

STRAIGHT VANILLA BEAN EXTRACTS
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Contain 1 lb. of beans in a gallon of extract.

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Prices for 1922 are materially reduced. Our pure certified colors excell in strength and brilliancy.
Powder, Liquid or Paste.

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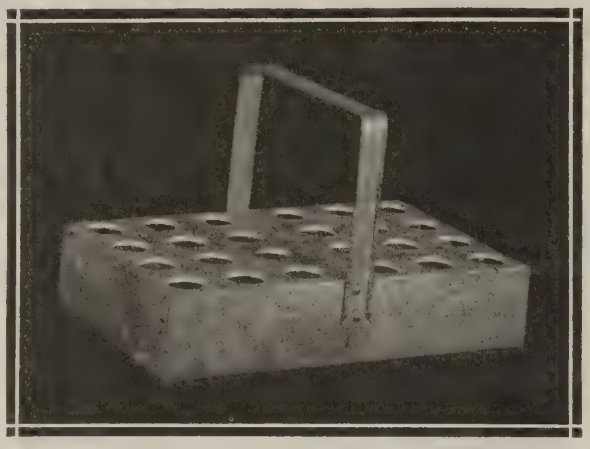
Helps age the mix. Improves your ice-cream.

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CHERRY-BASSETT-WINNER CO. TRADE MARK BESTOV MILK PRODUCTS EQUIPMENT

THE C-B-W Calendar

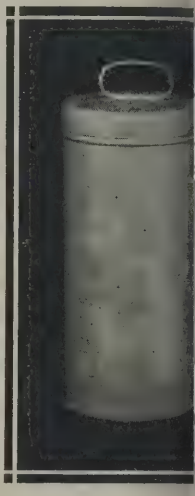
BESTOV Specialties for the



Ice Cream Cone Dispensing Tray.



Superware Brick Mold.



Superware Carr



Superware Brick Tank.



Thomas Batch Measure.



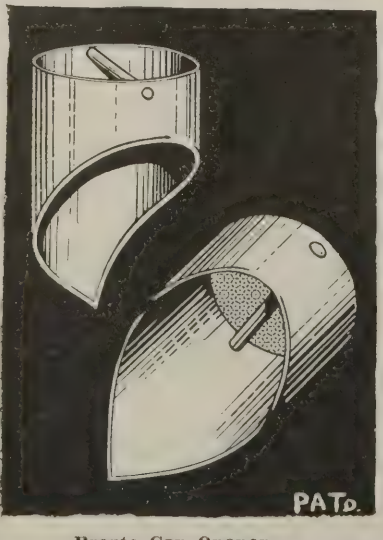
Superware Galvanized Ice Cream Can Covers.



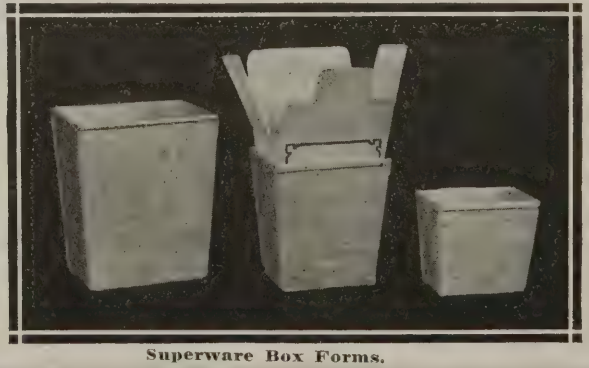




View on First Floor of Our Factory W
These Bestov Specialties Are Ma



Presto Can Opener.



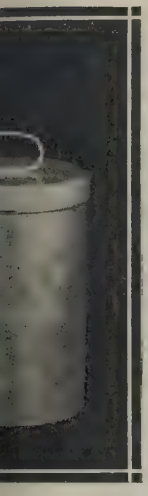
Superware Box Forms.

Cherry-Bassett-Winner Compa

Ice Cream Industry

THE C-B-W Calendar

CHERRY-BASSETT-WINNER CO. TRADE MARK BESTOV MILK PRODUCTS EQUIPMENT



Out Cans.

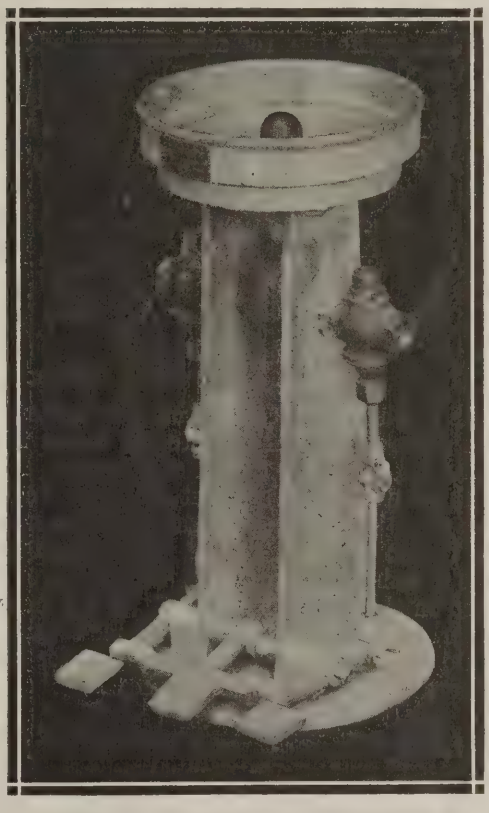


Superware Brick Slab.

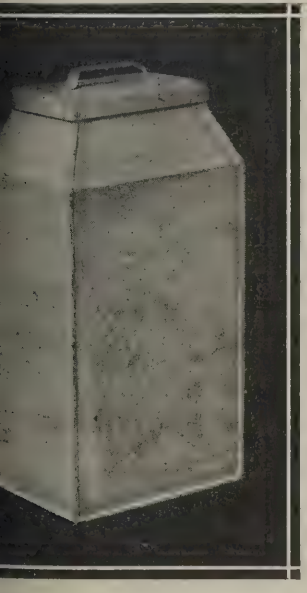
Corner of the Machine Shop



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Bestov Can Rinser and Sterilizer.



rware Brick Cabinet Tank.



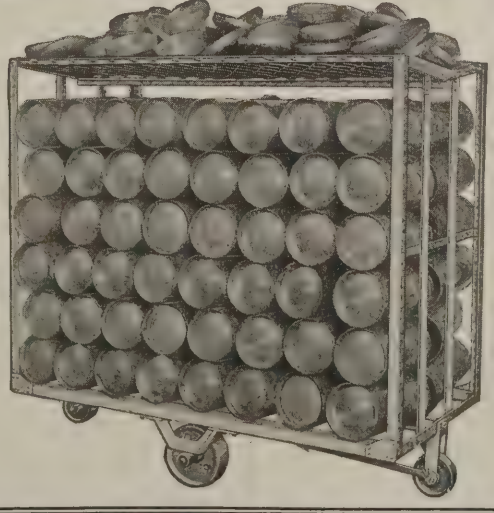
Superware Cabinet Cylinders.

You'll understand

why these specialties have such an excellent reputation when you inspect them at the National Ice Cream Exposition at Cleveland

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Hendler Can Truck.

to which it is heated. The temperature used in this experiment was 160 degrees F., which was sufficient to kill most of the bacteria without injuring the jelling qualities of the gelatine. It may therefore be seen that with proper care there will be only a slight increase in the bacteria in the frozen ice cream over the number in the mix as it comes from the pan.

Keeping Qualities of the Mix.

It often becomes necessary to store either the milk products or the mix for several days before freezing. It was found that condensed mix could be kept in a very good condition at a temperature of 32-35 degrees F. for a period of two weeks. Some was kept a month and then frozen into ice cream which contained no noticeable off-flavors.

Mix Stored in 10-Gallon Can at 32-35 Degrees F.

Days	Bacteria Per Cubic Centimeter	Condition
0	1,400	Very good
5	1,700	Very good
14	762,000	Good
23	42,210,000	Fair
32	188,500,000	Fair (frozen into ice cream)

As might be expected from the bacterial count, very little difference could be detected in the taste of the mix during the first two weeks of storage. It was not until the third week that a slight off-flavor began to develop. Thirty-two days after it was put into storage, the mix was frozen into ice cream, and although it contained large numbers of bacteria, no off-flavor could be detected in the finished product. If the condensed mix is properly made and handled, the ice cream manufacturer should have no trouble in storing it for two weeks at a temperature of about 32 degrees F.

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STRENGTH-PURITY UNIFORMITY

We Specialize in

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Did You Get Your Copy?

We will gladly send any ice cream manufacturer a copy of our **Overrun Testing Schedule**. It's mighty handy and useful printed on strong card-board and eyeleted. We'll send you one gratis.

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Conclusions.

1. From this experiment it may be concluded that it is possible to prepare an ice cream mix by the condensation process that contains a very small number of bacteria.

2. The number of bacteria in the mix as it comes from the pan approximately represents the number that will be in the frozen product, providing ordinary care is taken.

3. The mix will keep for two or three weeks when stored at a temperature of 32-35 degrees F.

REFERENCES.

(1) Hammer, B. W., and Goss, E. F.: Iowa Agr. Exper. Stat. Bul. 174.

(2) Ayers, S. H., and Johnson, W. T.: Bul. 303, U. S. Dept. Agr.

DAIRY BOOSTERS FETED IN TWIN CITIES.

Dairy farming in the Northwest not only means the elevation of farms to newer planes of prosperity, but is a force that will create wider markets for manufactured goods, and develop new lines of progress for business of every character.

This was the message given to advertising directors of the leading manufacturing, wholesale and retail firms of Minneapolis and St. Paul on August 5th by a quartette described in The Minneapolis Tribune as "four of the country's leading apostles of dairying."

Attending as guests of F. E. Murphy, publisher of The Minneapolis Tribune, at a luncheon in Minneapolis, sixty advertising men heard G. L. Busian, advertising manager of the DeLaval Separator Company; N. C. Tompkins, advertising manager of the Creamery Package Manufacturing Company and R. C. Chase, publisher of The Dairy World, all of Chicago, who constitute the Publicity Committee of the National Dairy Association. Other speakers were Col. W. E. Skinner, General Manager of the National Dairy Exposition to be held at the Twin Cities, October 7-14, and E. C. Hillweg, assistant publisher of the Minneapolis Tribune.

Later at a dinner given by the Towncriers' Club of St. Paul at the St. Paul Athletic Club, the speakers were Messrs. Busian, Tompkins and Chase, W. A. Gordon, editor of The Dairy Record and J. M. Hannaford, Jr., chairman of the St. Paul committee on promotion of the Exposition.

Advertising men of the Twin Cities, it was declared, can do no greater thing for their respective businesses than to promote the dairy movement and thereby put money into farmers' pockets.

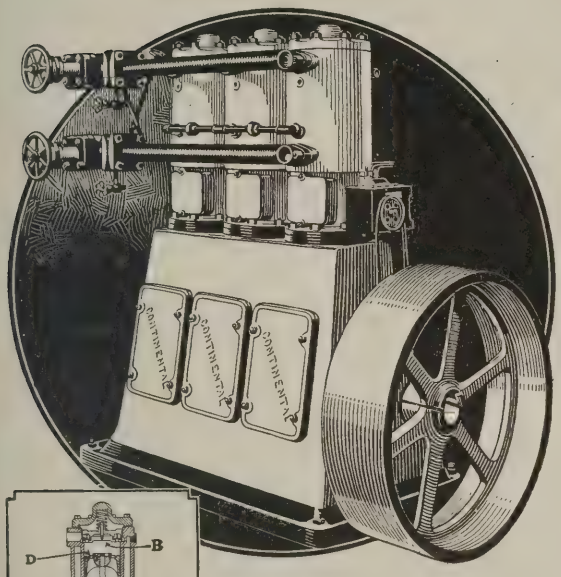
At the noon meeting Mr. Hillweg warned Northwest men not to consider all their problems solved with the marketing of a single good grain crop in 1922. "We all have waited five years for this crop—let us not wait five years for another one but insure a steady income from all kinds of farm products each year," he said.

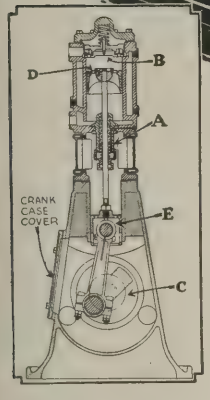
Members of the National Publicity Committee were the guests one afternoon of Colonel Skinner and Edward Barr, director of publicity and promotion, on an automobile trip from St. Paul to Chisago City, Taylors Falls and Marine Mills.

A NEW CONE.

Something new in the confection line has been discovered by L. E. Fickel and Dr. R. S. Graves, both of Columbus, Ohio. It is an ice cream cone, constructed out of solid chocolate. The cone may be filled at soda fountains just like the ordinary cone, and have the advantage of combining ice cream and chocolate candy. The inventors claim that their cone can be filled with other things than ice cream, such as whipped cream whipped cream and fruits.

CONTINENTAL





A—Continental Stuffing Box with patented spring tension — correct design and length, a prime factor in securing intensive ammonia control. It prevents ammonia from entering the crank case.

B—Minimum clearance constantly maintained to keep compressor at fullest efficiency during entire life of machine.

C—Accessible crank case—adjustments quickly, easily made, without danger of ammonia because no ammonia can enter a Continental crank case.

D—Continental Vanadium Steel ribbon suction valve — no springs to clog with oil, retard valve action, or cause other trouble. Automatically adjusts itself to any speed at which machine operates—a feature that guarantees a wide range of speeds and capacity with perfect safety.

E—The Continental Cross Head confines the piston travel to a precise vertical movement thereby preventing side thrust of piston on cylinder wall. A Continental cylinder cannot wear oval thereby preventing gas leakage past piston. The adjustment of piston rod in cross head permits minimum clearance between piston head and discharge valve seat to be maintained at all times which means continuous maximum efficiency.

Co-operative Service

Our Service Bureau and Refrigerating Engineers will gladly study your particular problem and offer recommendations for your consideration without any obligation whatever. This department is maintained to co-operate with our customers and as an authoritative source of practical, helpful information for those interested in efficient refrigerating equipment. Put your problem up to us; if you like we'll send you a data sheet for this purpose.

Greater Economy

Now Possible in

REFRIGERATION

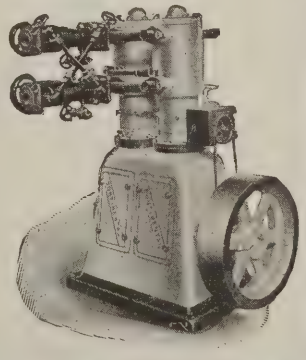
and Ice Cream Making

—by means of the CONTINENTAL which cuts power and operating cost, occupies a minimum of space and lasts longer because of perfect balance and absence of vibration as well as a better than ordinary construction. A big step forward.

You are sure of absolute ammonia and temperature controls by the use of a CONTINENTAL Compressor. The CONTINENTAL stands alone in this respect and every user has a big advantage over old methods of ice cream production. No ammonia in crank case. No oil contamination in cooling coils.

Please remember also that when you add a CONTINENTAL Ice Cream Freezer to your equipment, you have an asset in your business which will make a big increase in your ice cream production. Operates quicker. Lasts a lifetime — saves power — saves time — *saves* money — *makes* money — speeds business. *Let us prove it to you.* You will profit.

Write to us for full and interesting particulars today about CONTINENTAL Compressor and Ice Cream Freezer.



Continental Machinery Co

Builders of Quality Refrigerating Equipment

111 W. Monroe St. Chicago, Illinois

PROTECT YOUR TUBS IN ROUGH HANDLING BY SUBSTANTIAL METAL RIMS.

Standardization of Equipment

Chairman's Report of "Standardization of Equipment" Committee of the International Milk Dealers Association

THE history of the STANDARDIZATION COMMITTEE dates back to October, 1920, when it was suggested by Mr. Flood, of Spokane, Washington, that there were various types of equipment which dairymen used, which could be standardized, or at least simplified. Accordingly, at the October Convention in 1920, a committee was formed, known as the "STANDARDIZATION OF EQUIPMENT COMMITTEE." This Committee at once began the study of dairy equipment which might be standardized or simplified. The equipment which was considered most in need of standardization, was, sanitary pipe and fittings, cans, bottles, cases, and milk wagons. The work of this Committee from October 1920 to October 1921, was confined to a review of the field of labor, and the finding out by means of questionnaires, which, accompanied by letters, were sent out through the Secretary's office, to all members of the International Milk Dealers Association, for the purpose of finding out direct from the members, what equipment they considered most in need of standardization. Ninety per cent of our members requested that sanitary pipe and fittings be first dealt with. The Committee then consulted with the manufacturers of sanitary pipe and fittings, as to the possibility of standardizing this type of equipment. The manufacturers advised our Committee that they realized it was a desirable change, but that they would not care to make any change except on a crystalized demand from the dealers themselves. The work thus far, was reported at the Convention in October 1921.

With this information before the present Committee, they decided that this year's work from October 1921 to October 1922, should be an endeavor to evolve a standard sanitary fitting. As a guide, we requested the experience of our members through a questionnaire, as to the type of fitting they had found most serviceable. The great bulk of the replies had found Acme or Square thread fittings, and O. D. pipe, to have given the best satisfaction and best wear.

With this information before our Committee, we called a joint committee meeting of the National Ice Cream Manufacturers Association, National Butter Manufacturers Association, together with our Committee, to confer with the machinery manufacturers, to consider the matter, and see if the manufacturers would be willing to change their patterns, and make a new standard fitting.

I should have explained that prior to this meeting, the International Milk Dealers Association had communicated with the Butter Manufacturers Association, and the National Ice-Cream Manufacturers Association, as to their view on standardization of dairy equipment. They had both approved of it, and both of these Associations had appointed committees to go into the question of Standardization of Equipment with our Committee, and all of these Associations jointly discussed the question of standardization of sanitary fittings with the machinery manufacturers.

At this meeting, the whole question of Standardization of Equipment was thoroughly discussed. The difficulties were fully considered, and we realized that it would mean a big sacrifice to many of the manufacturers, to change their patterns and machinery, to manufacture a standard sanitary fitting. We also realized that these manufacturers would have to carry some of the old fittings, to take care of repairs in plants which were equipped with their original fitting, and who might not wish to immediately adopt the new standard fitting, but it was felt that at the end of probably five (5) years, that most of the old fittings would become more or less obsolete, and that at the end of that period, they would be able to discontinue altogether, the manufacture of any fitting, except the standard fitting. In the meantime, all new machinery would be equipped with the standard fitting, by practically every firm in the country, and no matter whose machine you bought, a dairy machinery user could go to his nearest dairy supply house, and get standard sanitary fittings to fit his new machine, without sending across the continent to the original manufacturer of his machine, to get some particular fitting.

The manufacturers present at this conference, unanimously agreed to make whatever standard fitting our Committee decided upon.

We then called into conference, the engineers of most of the largest manufacturers, with the idea of designing the best possible sanitary fitting, scientifically proportioned, which could be drafted from the combined knowledge of all the firms represented. These engineers have now nearly completed their work, and we expect to have the specifications of the new fitting ready shortly, and the International Milk Dealers Association, the Ice Cream Manufacturers Association, and the Butter Manufacturers Association, will bring before their Conventions this fall, a report, recommending a standard fitting, and they expect to have samples made by different firms, to show that this fitting is interchangeable. It will then be up to the memberships of the various

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Equipment, tools, and accessories for every ice handling, storing, and harvesting need.

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Ice tools, equipment, and accessories; ice and salt elevators and conveyors; ice crushers; crushed ice carts; conveying machinery for all purposes; wagon loaders; portable belt conveyors; buckets; chain; chutes; etc. 227R

Gifford-Wood Co. WORKS HUDSON N Y
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De Raef Weight Standardizer

Registered U. S. Patent Office

PHONE MAIN 2720

Purity Ice Cream Co. Ltd.

St. John, N.B. ---- 192-

N. A. Kennedy Supply Company,

Kansas City, Mo.

Gentlemen:

This is to certify that we have one of your De-Raef Standardizers in use, and find this machine perfectly satisfactory in every way. Although we have not been using any other make of machine of this type, we have seen a number of other makes in use in other plants. We believe that your machine is far ahead of anything in the work that it does, standardizing by weight instead of overrun, and would be glad to cheerfully recommend your machine to any other ice cream manufacturer.

We might mention in passing that we paid a duty of thirty-five percent on this machine, which is the regular duty on machines of this type coming into Canada and we feel that we have been more than repaid for this extra expenditure.

Mr. De-Raef's stay with us has been a most pleasant one as well as instructive to us, inasmuch as the reports and checking systems which he has adopted are invaluable.

It is our intention to open up two new freezing stations this fall or winter, and you can rest assured that one of the primary installations in these plants will be the De-Raef Standardizer.

Very truly yours,

PURITY ICE CREAM CO. LTD.

A. L. Stone Mgr.

"The Cream of Quality"

National Distributor

N. A. KENNEDY SUPPLY CO.

KANSAS CITY - MISSOURI

organizations to adopt or reject this fitting, as they see fit.

If it is adopted by the memberships of these various organizations, then the manufacturers of dairy machinery and sanitary pipe and fittings are willing to manufacture it and equip all new machines with it. Then it will also be up to the members of these organizations to be true to their convictions, and buy the new standard fitting for all new machinery, and as far as possible, to use them for all renewals and repairs.

We realize that it means a complete revolution for many plants, who are not using the same size pipe and the same type of thread, as the standard pipe and fitting would be, but this fitting has been designed to suit the needs of seventy-five per cent (75%) of our membership, and if we hope to accomplish standardization of sanitary fittings, we must be prepared to put up with a little confusion for a short time, until all of our fittings that are not standard, are obsolete. In five (5) years' time, we feel that most of the old sanitary pipe and fittings will be out of use, and that the new standard sanitary fittings will be used all over the United States and Canada, and that they will be procurable from your local dairy supply house. For repairs and extensions, adapters will be furnished, so that you can fit the new O. D. standard fittings to your old I. D. pipe. Thus it will not be necessary to immediately scrap your old equipment, as you can do this by easy stages from time to time, as you remodel your plant or put in new machinery.

With the growth of the dairy business, and the increased use of sanitary pipe and fittings in most of the creameries, and smaller plants of the country, it would seem folly to continue to manufacture a dozen different types of sanitary fittings. One member reported that he had seven (7) different types in his factory. The great majority of the larger firms have at least three (3), and with these conditions before us, it is evident that it is time to stop and consider the welfare of the future dairymen of this country, and it seems up to us at this time, to simplify and standardize sanitary pipe and fittings, and make them as simple to procure and use, as standard iron pipe and fittings are today.

The Committee felt that if they undertook this one thing as their year's work, and accomplished what they aimed at, that they had done a splendid service for the dairy interests of North America, the benefit of which, would be very difficult to measure in dollars and cents, as we confidently believe it will eventually result in great economy.

We want all our members to fully consider and weigh this matter, so that when they come to their Convention this fall, they will be fully prepared to discuss this matter intelligently, and to give a final decision. If the decision is for a standardized fitting, then stick to the decision of the Convention, and buy nothing for new equipment other than **Standardized Fittings,** irrespective of the fact that your plant may be equipped with some other type. If this fitting is adopted, a start will have to be made sometime, so "LET US DO IT NOW."

If a standard fitting is adopted, we will confer with the manufacturers as to a date when this fitting will be available, so that we may know when to expect it on the market, and govern our purchases accordingly.

The question of standardization of cans, bottles, cases, wagons, etc., will not be dealt with, until sanitary fittings are disposed of. Possibly time may be found on the Convention program, to discuss them briefly, after the question of fittings has received your attention.

W. H. FORSTER,
Chairman of the Committee on
"STANDARDIZATION OF EQUIPMENT."

Warning - To Manufacturers, Jobbers and Brokers of Ice Cream Cones



Patent No. 1,326,520
Issued Dec. 30, 1919

The general design of McLaren's "Real Cake" Double Ring Cone is patented.

Patent No. 54,440
Issued Feb. 10, 1920

ARE YOU ENCOURAGING UNFAIR COMPETITION?

THE McLAREN PRODUCTS CO.
DAYTON, OHIO KANSAS CITY, MO.

DAIRY COURSES AT AMES.

Those who are contemplating entering some dairy school should begin to make definite plans as it will soon be time when the various dairy schools will open. The Dairy Department of Iowa State College is offering two dairy courses, beginning September 25th, a four year course and a six months course.

The four year course is open to graduates of high schools who present the proper amount of work. Persons completing this course receive the degree of Bachelor of Science.

The training acquired in the six months course, together with practical experience, enables the students to fit themselves to manage and operate dairy establishments. Butter, ice cream and market milk plants all draw upon the six months course for men. A student entering the six months course must be at least seventeen years of age, and must have satisfactorily completed the eighth grade of the public schools or its equivalent.

The ten day course for experienced creamery operators will be offered in February.

For further information address Dairy Department, Iowa State College, Ames, Iowa.

"What are you cutting out of the paper?"

"An item about a California man securing a divorce because his wife went through his pockets."

"What are you going to do with it?"

"Put it in my pocket."—Laughing Gas.

DUNN'S CELEBRATED
Ice Cream Gelatines

GUARANTEED TO COMPLY WITH ALL STATE AND FEDERAL FOOD LAWS

IN 1883 the great advantages of Gelatine in the production of Ice Cream were apparent to us and we personally demonstrated these facts to the manufacturers at that time.

Today it is a pleasure to realize that many millions of pounds of Gelatine are being used annually in the Ice Cream industry as a result of the introductory work done by this company.

Because of our long and close affiliation with the Ice Cream industry we feel we are best qualified to supply Ice Cream Gelatine of standard uniform quality, which gives the best results *economically*.

Thomas W. Dunn Company

546 Greenwich Street **New York, N. Y.**

Canadian Office and Warehouse: **55 Cote Street, Montreal, Canada**

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Ice Cream Can Truck



Durable!

THIS rugged ice cream can truck will give you **years of service.** The frame is built like a steel bridge, of structural angle steel, strongly riveted and specially braced at the corners to withstand shocks. And it is rust-proof—entirely galvanized.

Easy Rolling. Ball bearing, swivel casters. Main wheels 8¼ inches high, with wide, smoothly machined flat face to save floors. Cold rolled steel axle, heavy axle boxes and collars.

The top can't sag. Rail around top, optional, holds all covers and keeps them with cans. Four wooden bars at the bottom fully protect cans from denting.

Keep your cans on wheels with these strong, light-running, durable Nutting Trucks. You can now buy them at the following

Reduced Prices

30 inch size, without top rail...$46.00
30 inch size, with rail.....$52.00
36 inch size, without top rail...$52.00
36 inch size, with rail.....$59.00

All prices F. O. B. Faribault

Ask your Jobber or order direct from this ad

See Our Trucks at the
NATIONAL DAIRY EXPOSITION ST. PAUL
Oct. 7-14. Booth "Three Thirteen."

NUTTING TRUCK CO.

1143 Division St. FARIBAULT, MINN.

Floor Truck Specialists since 1891

Jobbers—Sell our complete line of dairy trucks. We can make you an interesting offer. Write today.

MORE INFORMATION ON ICE CREAM STANDARDS.

In an article in the August issue of The Ice Cream Review, a reference to the Georgia milk fat standards stated that the sale of homogenized milk products in the state of Georgia would not be permitted, but in a recent letter from the Georgia State Dairy Inspector, he says, "We still have the rules, or rather regulations, in regard to ice cream made out of homogenized products, but, as I interpret the law, this refers to homogenized frozen milk products which carry less than eight per cent of butterfat."

In the state of Massachusettes, there are no regulations for ice cream except a seven per cent butterfat standard for all ice creams and that clean, matured, and non-rancid nuts and fruit should be used.

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MISSISSIPPI ICE CREAM MANUFACTURERS' ASSOCIATION WINS VICTORY.

Meridian, Miss., Aug. 15, 1922.

Editor: Ice Cream Review:

It is with pleasure that I advise you that under date of August 3rd the Mississippi Railroad Commission issued an order denying the application of the express companies for placing into effect the increased billing weights on shipments of ice cream intra-state.

The Mississippi Association has consistently opposed the increased billing weights since the first application of the express companies which went into effect on interstate shipments February 4, 1921. The Mississippi Commission held in suspension the weights Measure until a hearing was held on July 24, 1922, when a committee of W. D. Seale, Chas. McNair, V. N. Vail, S. N. Sutton, N. D. Brookshire, C. W. Hayward, Attorney, appeared in behalf of the ice cream manufacturers of this state, placing before the Commission evidence showing the injustice and many discriminating features in connection with the application of the express companies, with the result that the Commission decided as noted above.

Thanks to the National Association which assisted us very materially by supplying data which was of much value.

Very truly yours,
N. D. BROOKSHIRE,
Secretary-Treasurer.

⚜

McWHORTERS' BUY ICE CREAM PLANT OF PURITY FIRM.

A business deal was consummated a few days ago whereby the McWhorter Ice Cream Company at 430 North Stone Avenue purchased the entire ice cream equipment of the Tucson Purity Ice Cream Company in the Heidel Hotel building, Tucson, Ariz.

The McWhorter brothers, who hail from Bisbee, where they have been in the same business for the past ten years, come from a family who have spent their lives in the ice cream and candy manufacturing business and are considered experts in their line.

Aside from the equipment purchased from the Purity Company, they have a complete equipment at their plant on North Stone Avenue, where construction engineers of the Davis-Watkins Dairymen's Manufacturing Company of Los Angeles are installing one of the finest refrigerating rooms in the state, in which the temperature can be lowered to 15 degrees below zero.

The new factory, when completed, will be the finest ice cream factory in the state of Arizona.


MENASHA PRINTING & CARTON CO.
MENASHA, WIS.


Let Menasha furnish the package
Menasha designed cartons for brick cream and color printed pails for bulk cream are a real asset to your business.
See our display at Cleveland
ICE CREAM
A NATIONAL INDUSTRY
Come to Cleveland
October 16th to 21st Inclusive
MENASHA PRINTING & CARTON CO.
CHICAGO, 1006 Conway Bldg.
NEW YORK, 200 Fifth Ave
LOS ANGELES, 400 I. W. Hellman Bldg.
MENASHA WISCONSIN
CLEVELAND, 735 Hippodrome Bldg. Annex
KANSAS CITY, 309 Scarritt Arcade Bldg.
MENASHA PRINTING & CARTON CO.
MENASHA, WIS.

ESKIMOS A LA MODE.

The adventures of Cook, Peary and other Arctic explorers, had absolutely nothing on the frigid experiences of three men who were visiting the Mount Union ice cream plant of the Pure Milk Products Company, Mount Union, Pa. These three men were J. E. Braun of Granville, Pa., Lloyd Vaughn and J. Sellers of Mount Union. The superintendent of the plant was showing them around the building, and took them into the hardening room, where the temperature was slightly below zero. "In this room," he was saying, "the ice cream is placed while in a semi-soft state, and after being in here for a certain period, is taken out, frozen perfectly solid." At this moment he was called to the office, and left his guests, expecting to be gone only a moment.

While the explorers were looking about with chattering teeth and shivering bodies, the heavy door swung shut, and a bolt dropped out of the automatic fastener. They screamed, pounded, and made every possible noise, but the 12-inch thickness of the walls deadened any sound they could make, and they had horrible visions of themselves being carried out eventually, 'frozen perfectly solid.' The superintendent was detained for about twenty minutes, and not until he returned were the prisoners rescued from their chilly predicament. All three are willing to go on record as stating that those were the longest twenty minutes they ever spent in their life, or ever hope to. It is hoped that they recovered from their experience without even a chilblain to remind them of their frigid adventure.

⚜

YAKIMA FOLK HEAVY CONSUMERS OF ICE CREAM.

Six hundred gallons of ice cream or enough to supply each Yakima man, woman and child with a large dish are sold by the Yakima creameries and confectionery stores on an average summer day, a survey shows. This would make about 30,000 ice cream ones.

On the average Sunday between 700 and 800 gallons of ice cream are sold or nearly enough to give every Yakima person two dishes. On a Sunday in real hot weather Yakimans consume about 1,000 gallons of ice cream. On the Fourth of July, always the biggest ice cream day of the year, approximately 3,000 gallons of ice cream were sold in Yakimo. This would make 150,000 ice cream cones or about 8 for each Yakima resident.

The brick ice cream trade is steady throughout the year, nearly as much being made in the winter as in the summer. The heavy trade in carton ice cream is on Saturday and Sunday. During the summer months the sale of cones has cut the sale of the ice cream bars considerably.

An ice cream maker at a creamery has to be a weather forcaster if he is to make the right amount of ice cream mix and have a sufficient supply of mix and ice cream on hand all of the time. A stretch of a few hot days will clean a creamery out of mix and ice cream and run the ice cream makers and drivers ragged, so they all begin to pray for cool weather. After it has been cool for a time and the men have caught up again they want warm weather. So goes the life of the ice cream maker through the hot summer months.—Yakima (Wash.) Republic.

⚜

People drink their coffee and tea just as hot in summer as they do in winter, and they can eat their ice cream just as cold in winter as they can in summer. Seasonal? Bosh!

FLAVOR

WITH B.B.B. VANILLA

Store in your Refrigerating Room. Weeks later you will find Ice Cream with the same pleasing Vanilla Flavor.

SMOOTH—MELLOW

Always the Same and yet

ONE OUNCE

BBB VANILLA EXTRACT

(ARTIFICIAL)

Flavors 10 Gallons

ICE CREAM

at a cost of

Less Than 4/10c Per Gallon

Do You Want To Improve on Your Present Flavoring?

Do You Want To Cut Down on Flavoring Costs? Then Try

——B. B. B.——

STRICTLY ONE OUNCE GOODS

Genuine Mexican Vanilla Bean scientifically fortified so as to impart to your Ice Cream that refined subtle flavor and aroma of Genuine Aged-in-Wood Vanilla Extract and give desired strength.

JUST WHAT YOU WANT ISN'T IT?

Give B. B. B. a trial and learn why so many are using it exclusively

Blanke-Baer Extract & Preserving Co.

3224-34 South Kings Highway

ST. LOUIS, MO.

Blanke-Baer Extract & Preserving Co.
St. Louis, Mo.

Ship at once....Gals. B. B. B. Vanilla Extract. We have been looking for just such a Vanilla Extract as here described.

PRICES.

	Per Gallon
In Barrels	$5.00
Half Barrels	5.25
10 Gallons	5.50
Single Gallons	6.00

Name .....

Address .....

Date .....

Ice Cream Improvers — Do They Improve?

By W. P. ABEL Before Pacific Association of Ice Cream Manufacturers

IT HAS been my pleasure to be with you on various occasions. In fact, my visits have been so pleasant that I almost look forward to it as coming back home. The friends I hvae made and the receptions that have been extended and the entertainment that has been offered certainly do place me under obligations to all of you.

Now, that I have had the opportunity of presenting to you a short and brief paper on ice cream improvers, something I have been interested in for the past year, I will present it at this time.

Much has been written and said about the composition of the first ice cream mix. We are told that cream and a thickener, sugar and flavor were only use. Eggs were later introduced as a semi-stabilizer, and also to impart richness of flavor. Development of French custard ice cream with eggs in greater quantities followed soon thereafter. Special ice creams are still prepared with the aid of fresh eggs. As one of the very first improvers of an ice cream mix, gelatine stands out preeminently. It retards or prevents crystillization, and will always remain as an improver of ice cream.

The advent of commercial ice cream brought us improved factory conditions, perfect sanitation, better equipment, improved freezers, larger mix storage tanks, and more efficient hardening rooms. All of these are in the truest sense improvers of ice cream.

The progress of the ice cream industry was astonishing and attracted the masters of finance. The rapid strides made and the increased demand for that cooling and nourishing dish encouraged the employment of larger capital. Competition became keener and attention was then directed to the milk or serum mix. "It's all in the mix," became a slogan which awakened interest in the basic ingredients of an ice cream mix. Master minds soon directed attention to the solid content and suggestions were made that a more viscous and homogeneous mix would improve the texture and eating qualities of a resulting ice cream. Here the knowledge of experience was brought into a blend with theory and suggestions of practical value became a contribution towards real progress. Competition awakened more interest in quality. It was admitted that the quality of ice cream should be impressive. The flavor and texture should incite favorable comment on the part of the consumer.

A review of the improvement made since the time ice cream became a commercial product, leading up to conditions which encouraged the introduction of a soluble compound, to further improve and fortify the work of mechanical devices will be of interest. We will therefore ask, What are further Improvers of Ice Cream, and what Progress have they made?

Methods of compounding, appliances or added ingredients, which produce a better texture, and flavors also enhance the character of ice cream are improvers. Every machine in use today may be correctly termed an improver. The pasteurizer, emulser, homogenizer and viscolizer are mechanical devices now employed in the larger plants because of the efficient service they render.

The breaking up of the fat particles and distributing them throughout the mix is credited as being an improvement of great magnitude. This process also suggested a way whereby powdered milk and sweet butter with water or skimmed milk could be re-assembled into a cream emulsion. The resulting re-constituted cream became a splendid basis for an ice cream mix.

Pasteurization and passing the mix, under pressure, through a mechanical device are essential to produce good ice cream. I do not belittle or discredit these mechanical improvers or the processes involved. In fact the described method produces a very good commercial ice cream.

Further consideration, however, developed that a marked improvement might be worked out. It was found that milk and cream possess a slight amount of milk acid, which co-operate with the heat of pasteurization to render the casein hard, tending toward the insoluble. Homogenization gives the entire batch of milk compounds a severe breaking up. The threads, shreds, and filaments of casein are broken into tiny snips, scattered promiscuously and left unattached. Powdered improvers on sale that act upon these particles of milk solids, soften them and binds them into longer threads, thus producing a mix of dependable viscosity and consistency.

Aging of an ice cream mix in holding tanks and the addition of ripeners are also improvements over the quick mixing and immediate freezing methods.

Thus far I have directed your attention to mechanical improvers, methods that improve and added substances which soften the solids of milk.

The softened milk solids, the pasteurized mix, the homogeneous mass, as produced by mechanical devices, did in more or less degree impair or entirely cover up the cream flavor. Minds again became active, research unfaltering and untiring, developed a product in semi-paste form which made a further improvement in the

PURE VANILLA EXTRACT

ATLANTIC IMPORTING CO.
617-623 Eleventh Ave., New York City
B4

A New Model Ice Cream Pasteurizer

New Features

1. One of the important improvements in the new model pasteurizer is the **removable flush bottom outlet valve.** It has the following advantages:

(a) Removable from the outside.

(b) More easily cleaned.

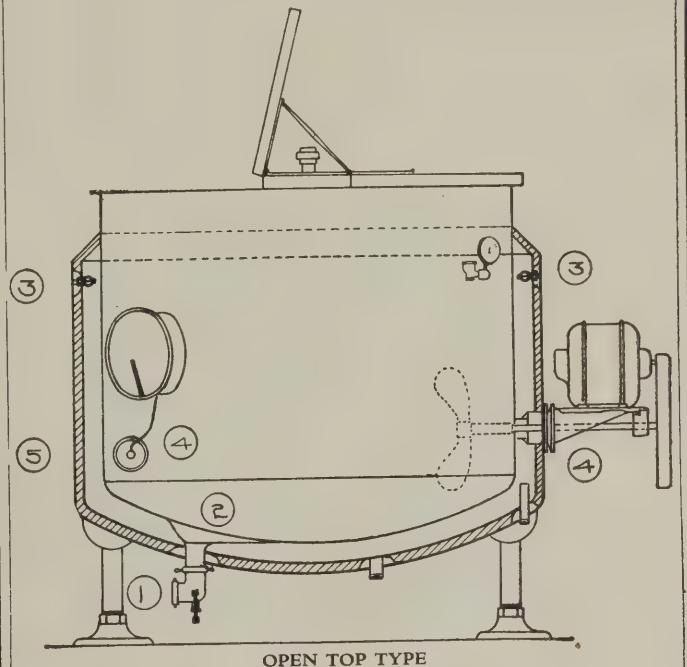
(c) May be cleaned without entering tank.

(d) Pressure from the weight of the mix is exerted above valve, thus danger of moving valve from seat is eliminated.

2. **The bumped out construction** not only eliminates the long operating handle, but brings the valve and pipe connection to a more convenient position. This new construction drains perfectly and more rapidly, as it prevents swirling of the contents.

3. **The new inside spray coil,** designed so that the pasteurizer might be insulated, has the advantages listed at top of column at right.

Open or Closed Top in Sizes From 200 to 1000 Gallons



OPEN TOP TYPE

RECENT changes in design introduce the Elyria Pasteurizing Unit in a new light. The glass enamel and the sturdy steel body are of standard construction and call for no further explanation. Five important improvements in design are worthy of inspection. The Elyria Ice Cream Pasteurizer, which has been recognized as a big success for five years, has been raised to a still higher plane as a result of these improvements *which are all exclusive Elyria features.*

New Features

(a) Leaks cannot develop and stain tank.

(b) Water cannot get beneath the insulation.

(c) A true nozzle spray, not a jet with small holes.

(d) Easily cleaned because plug is removable.

4. **The flexible copper diaphram ferrule** is a simple device which solves the problem brought about by movement of jacket due to rapid temperature changes.

5. **The new model pasteurizer is insulated** with 2 inch cork board covered with galvanized iron (providing insulation is desired). The advantages of the insulated pasteurizer are:

(a) Better operating conditions because of lower room temperature.

(b) Economy in heating because radiation is reduced to a minimum.

(c) Improved appearance because paint will not blister or scale off.

See this and other

ELYRIA EQUIPMENT AT THE ICE CREAM CONVENTION

BOOTHS No. 9, 10 & 11

The Elyria Enameled Products Co.

ELYRIA, OHIO

New York Chicago San Francisco Pittsburgh
Boston Los Angeles Minneapolis St. Louis
Indianapolis Canadian Milk Products, Ltd., Toronto, Ont.

ELYRIA ENAMELED PRODUCTS CO.,
ELYRIA, OHIO

Gentlemen:—Please send me your new pasteurization bulletin.

.....

I. C. R. .....

THE TROUBLE WITH SOME BUSINESS MEN IS THEY ARE NOT SET TO GO.

pasteurized mix referred to. This product incites, impels and brings out the full cream flavor of every mix. It further dispels all trace of butter flavor in a reconstituted cream or butter emulsion, and also neutralizes condensed or milk powder flavors. It imparts to every mix that delicate and pleasing finish, always found in a fresh egg mix. Its effective blend of every added flavor into the richer tasting cream flavor has gained for this improver an expression of greatest satisfaction by manufacturers of ice cream. It is being said by many, that it imparts a taste of cream richness to a degree of intellectual relish. By inciting or bringing out a richer cream flavor and neutralizing all forms of milk flavors it has unfolded to the manufacturers of ice cream an opportunity of producing the best products possible.

This cream impellant contains 5 per cent of solids and may be added to a mix while being pasteurized. It is quickly and completely soluble and becomes active immediately and does bring out the improvements named. It may be safely said that it is active goodness imparting a richer cream flavor and clarifying a mix of all unpleasant after-tastes. To all who desire an ice cream of a distinctive quality, or to those who are seeking a product that is competition proof, I suggest that they consider the addition of ice cream improvers.

The days of better ice cream, of richer flavors and better texture as produced by these improvers are here.

They do improve and are entitled to your consideration.



FULTON, BARTEL, INC.

D. L. Fulton, V. A. Bartel announce their withdrawal from McKee-Fulton-Bartel Corporation, and the organization of Fulton-Bartel, incorporated with offices at 53 Pork Place, Corner West Broadway, New York City. Telephone Barclay 3098-3099.

On high quality food products we act as direct representatives of manufacturers.



Don't be without a position, when at a small cost you can locate one through the Want Department in The Ice Cream Review.

"HOW THE DEUCE can they give me something for nothing" is the question some fellows unconsciously propound. It's explained fully when you write for "Goody-Good" Plan to

Sani-Dairy Products Corporation

45th and Evans Avenue CHICAGO



CONDENSED MILK MACHINERY

The Better Kind

We teach you to make condensed milk

C. E. ROGERS

Builders of Better Condensing Equipment

8731 Witt St. Detroit, Mich.

SMALL REFRIGERATING MACHINERY AND ITS APPLICATION TO THE ICE CREAM INDUSTRY.

(Continued from page 38)

operating expense and more or less consequent dissatisfaction.

The concern that attempts to refrigerate old style fountains will quickly come to grief. It would be comparable to placing a stationary gas engine on a two horse truck and call it a motor truck. The results in either case would be bound to be unsatisfactory, both to yourselves and your customers.

The Delivery Truck.

Many of you Manufacturers have trucks of from one to six tons in capacity and I wonder if you realize the number of hours these trucks are standing still while the driver is carrying ice and salt into your customers store? One Manufacturer gave me actual figures a short time ago obtained by service recording instruments, which showed that the average time in transit of their thirty or more trucks was not more than 90 minutes out of the working day. The large trucks handled roughly 450 gallons of cream per day and carried three tons of ice and a half ton of salt. Practically three times as much salt and ice by weight as the product which you sell. With an average of thirty five stops per truck, this makes an average of thirteen minutes to the stop and two and one half minutes between stops.

How much of this time was consumed in carrying in the ice and salt and in taking care of the muss caused by it. If the average stop were cut to less than four minutes, how much more cream could be delivered by the same truck, or how many trucks and drivers could you dispense with, and how much more ice cream could you make and handle with the same refrigerating machine equipment if you could use all of your equipment, or practically all of it, for making and hardening ice cream instead of ice making? Can you figure roughly what a saving this would mean to your business if you could cut the present cost of service from forty to sixty per cent, and these figures should be conservative, and what a source of unceasing annoyance would be eliminated if these things could come to pass.

The so called iceless trucks as used today are splendid in their way, but a truck can be built to hold 8 to 12 hundred gallons of ice cream and the temperature kept from 3 to 6 degrees above zero with a minimum use of ice and salt to refrigerate the truck itself.

There are none who will disagree with my statements today and all are entitled to their honest opinion, but none can reasonably dispute facts which can be demonstrated.

We are not merely laying plans for you to spend more money in an endless chain without adequate return. A refrigerating machine equipment must pay its own way and show a profit or there is no place for it in the economic scheme of distribution,—it must bring a practical solution of the vexing problems of servicing your product. You must not only get more customers but you must get better ones,—or make the old customers more productive.

The Refrigerating Machine.

If we approach you with a proposition that merely increases the cost of your service, we will have a difficult road ahead of us, but if we can show you that even with the initial outlay there is a splendid profit to be made not only in the saving in cost of your service but that the machine will permit the handling of ice cream in ways and by men or organizations that previously could not be induced to handle it, then in the interest of self-preservation, you must be interested.

The small refrigerating machine is an accomplished

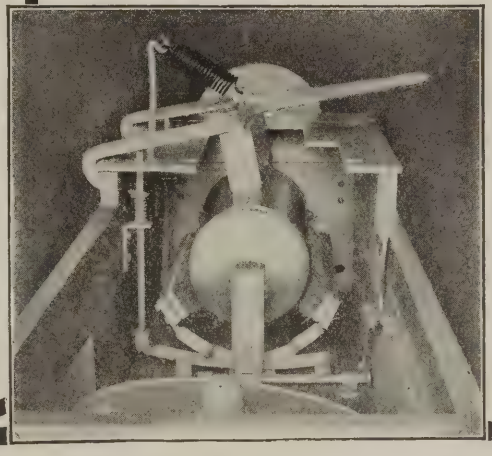
MANNING Can Washers

PRACTICALLY every Manning User becomes a Manning booster just as soon as the machine has had a chance to prove its worth. The longer the can washer is in use the more completely is the user convinced that the Manning is a paying investment. The evidence is in the fact that 90 per cent of the brush can washers sold today are Manning!

THE Beiler Ice Cream Company, Conshohocken, Penna. have this to say about the Manning:—

"We have used the Manning Can Washer for four years with excellent results. The motor driven machine appeals to us both for economy and efficiency. We know of no better can washer and would be glad to recommend it to our friends."

GRIP THE CAN



Manning Manufacturing Company
Rutland, Vermont.

MANNING EQUIPMENT

FOR OVER 20 YEARS

We have ***specialized*** on
Vanilla Extracts
and **Vanilla Compounds.**

We guarantee to improve your Flavor with a saving in cost

Proprietors of "VANOLEUM." The *Original Concentrated Vanilla Flavor.* We warn the trade against worthless imitations having similar sounding names claiming to be "the same as *Vanoleum.*"

MEMBER THE ASSOCIATION OF ICE CREAM SUPPLY MEN

Corrizo Extract Company

211-215 West 20th Street NEW YORK, N. Y.

fact,—I do not here refer to the so called household, or domestic machine, but the small commercial machine of one-sixth and one-fourth ton capacity and up. It has not been until the past year or two that this has been a fact, but the development of the automatic expansion valve and its refinement have made possible the use of these small machines especially in work as we are discussing today. The automatic expansion valve is the heart of the system and without it there could **not** be successful operation,—it is an impossibility for an amateur to regulate a hand operated expansion valve on a machine of only 3 to five cubic inches of cylinder capacity on low temperature work. This automatic valve is really the missing link which prohibited an earlier use of these small machines in connection with ice cream cabinet work.

The capacity of the machine to be used depends, of course, on the work to be done, but if you have a well insulated cabinet, the work consists chiefly in removing the heat that has leaked through the walls and the additional heat which flows in while leaving the lids off in serving from the cabinet.

The temperature to be carried influences the size of the machine as a low temperature necessitates a corresponding low suction pressure and therefore a machine with larger volumetric cylinder capacity. In general, a machine using a half horse power motor, say a single cylinder affair with approximately 4 and one-half cubic inches of cylinder capacity per revolution, will have sufficient capacity to hold a well insulated cabinet at 12 to 15 degrees in eight hours daily operation. This same machine will handle anything from a three can cabinet to one of six or eight holes or one or even more cabinets holding a total of from three to twelve cans. A smaller machine would cost as much to build and to operate and there is no economy in buying toys when you have a real job to do. The machines are constructed to operate automatically. The water for the condenser turns on and off automatically with a governor and the automatic expansion valve regulates the pressure each time the machine is put in operation. The sales clerk is supposed to let the machine alone, other than to start and stop it as required by the temperature of the ice cream.

Some Manufacturers will require two temperatures, —one for the serving cabinet and the other and lower temperature for the ices and bricks or cartons. Both temperatures are possible now with a single cylinder machine.

The cost of operating these small machines will vary with the cost of electrical current but the monthly total cost will vary from three dollars to fifteen dollars depending on the size and insulation on the cabinet.

These machines must be serviced regularly, at least once a month to see that the motors are oiled, the belts in good condition and the pressures at the right point. It might be possible in the larger cities for you to combine forces for the purpose of installing and servicing these machines. This is the plan that is being talked over in one of our largest cities. This scheme will avoid useless duplication of mechanics and service men. The compressors can be sent out to the retail store completely charged and the coils in the cabinet can also be sent out charged so that it is a short process to connect up the water and electricity to the machine and get it in operation.

The cabinets may be connected to the soda fountains but this should not be done unless the fountains have at least as much cork as your holding cabinets and designed for mechanical refrigeration. You should not willingly have your machine blamed for lack of efficiency when the fault is due to poor or insufficient insulation. The fountains should be piped up for direct expansion, but one method is to use a small brine cooler in your holding cabinet and pump the brine to the fountain and let it flow back to your cabinet by gravity to be chilled down again. With good insulation it will not be necessary to replenish the brine in the fountain more than three or four times per twenty four hours.

Ownership of Machines.

This phase of the topic is one that deserves more than passing consideration. Many plans have been proposed and considered. Some manufacturers cannot stand the burden of initial investment to say nothing of retaining ownership while the machines are out in actual service. Other manufacturers will consider nothing but the retention of ownership.

Assuming that the Ice Cream Manufacturer is financially able to buy machines for all of his customers, there is no question but that he should be able to tie up his customers over long periods of time and at the same time make a splendid profit on his investment. The machines should be amortized over a period of five years and even considering the cost of ownership and servicing, the machines should pay for themselves by economies over present servicing methods in from one to three or four years at the outside.

In any event, it would be physically impossible for any manufacturer to equip one hundred per cent with mechanical refrigeration within a period of several years because of the fact that almost all of the fountains now in service will necessarily have to be replaced or rebuilt especially for machine service and this will mean a gradual replacement rather than a rapid movement, therefore the investment will be spread over a period of years and not in one lump.



The Texas Barrel Company

is still manufacturing the best Ice Cream Tub on the market. Our increased sales assure us of that fact.

We were the pioneer makers of the TALL TUB and all other makes are imitations. While we are improving this TUB all the time, our imitators are content to stand still and hang on.

Specially prepared bottom so constructed as to withstand extremely rough treatment.

Can make immediate delivery. Write for prices.

Texas Barrel Company

HOUSTON *Box 665* TEXAS



WHETHER your wants are large or small—a number ten can, a keg, a barrel or a carload — they will receive prompt, efficient attention. That's Reyam Rule. Furthermore, our products in your hands are guaranteed to the last drop. Let's get acquainted.



Fall Ushers In the Fancy Ice Cream and Catering Season

and Reyam Brand — timely always — presents the cream of supplies for your selection.

Chopped Walnuts In Maple
For Maple Walnut Ice Cream, in all size containers = "all meat—no waste."

Broken Assorted Glace Fruits
Packed in 25-pound pails. A complete assortment of various fruits in various colors.

Crushed Peach and Crushed Apricot
Solid Pack—Cold Process, for making Fresh Fruit Cream.

Cold Process Red Raspberries
Make the finest Red Raspberry Ice possible to obtain.

"Whole and Broken" Maraschino Cherries
Red, White or Green; all firm, bright colored fruit.

The Cincinnati Extract Works

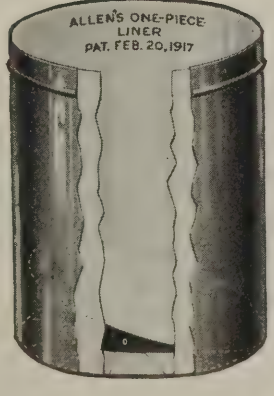
422-424 W. FOURTH ST. CINCINNATI, OHIO

A Letter recently received reads in part:

"The effect of **ALLEN'S ONE PIECE SANITARY CAN LINERS** in our Ice Cream Cans is magical.

Suggestive of Health, Purity and Prosperity, which combined with our own Sanitary Methods of Manufacture insure our product to be Superior to all others.

Our Slogan hereafter will be **A LINER IN EVERY CAN.**"



What an Advertising possibility. Can you afford to miss it?

ORDER FROM YOUR JOBBER OR WRITE TO

The Allen Candy Company

PONTIAC, ILLINOIS

Manufacturers



DON'T TRY TO SAVE MONEY BY USING CHEAP LUBRICANTS.

Merchandizing Policy.

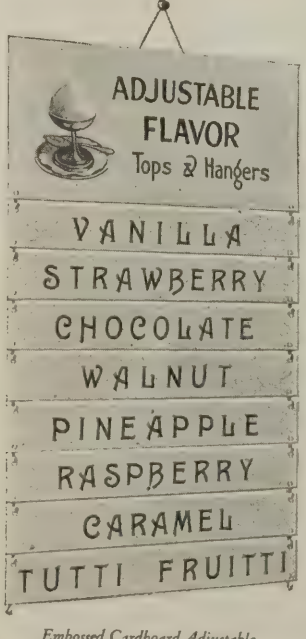
We now come to a discussion of how a refrigerating machine can help in the merchandizing of your product Every red blooded firm desires to grow,—they must grow, or begin slipping, however it is not necessary to kill your competitor in order that you may live. If you have reached the limit of per capita consumption of ice cream, you can only increase your business at the expense of your competitor or vice versa. I cannot look, however, at that splendid slogan of your industry and make myself believe that you have reached the ultimate limit of human consumption of ice cream. "Eat a Plate of Ice Cream Every Day,"—what a wonderful, direct, forceful command that is,—yet if the average man cannot get it conveniently, you might as well tell him to eat a piece of whale meat every day. When or where do you want him to eat this plate of ice cream? In the home? As a vital part of his daily diet, or at the soda fountain? You may reasonably expect to increase the consumption per capita at the fountain but the great increase **must** and should come from the daily consumption of ice cream in the home, along with other food products and not merely as a palate tickler,—What a boost it would be for your sales if it were convenient for the kids to have it for their noon day luncheon, or after the evening meal, or when you come in from that auto ride in the evening or from the movies. If your product could be obtained conveniently close at hand and always fresh and in an attractive brick or carton and at a temperature that would permit it to be eaten an hour and a half or two hours after buying it, is there any doubt in your minds that the sale of ice cream could be greatly increased? Low initial temperature is the key to this question.

There is just one reason why your slogan doesn't mean all that it could and should mean to your business. Human nature will not permit itself to be inconvenienced even for so delicious a food or confection as ice cream, unless it can be kept a reasonable length of time after buying it in a single service package or carton. People will not bother with the iced up package, they do not want to be bothered to return containers. They will not long be satisfied to rush to the corner and buy a pail of mushy cream if they know that it is possible to obtain it in a more convenient form in a package and the cream will hold its temperature long enough to enable them to eat after their meal, instead of eating it as cold condensed milk before the other food is partaken of.

You must educate your organization in the new methods, just as you have educated yourselves and your organizations in the use of other modern methods and equipment.

I sincerely believe that if you all go out after more per capita consumption in the home, winter and summer and make it possible for the great mass of people to get their cream regularly, conveniently and in a clean sanitary package you will have enough to think about without worrying about competition. You have the answer to the insistent cry for greater gallonage in your own hands.

John H. Mulholland Co.
145-47 N. TWELFTH STREET
Philadelphia, Pa.



Embossed Cardboard Adjustable Flavor Signs.

Sanitary Lined and Printed Plates.

Plain Square and Round Plates.

"Bentwood" Spoons.

Sidewalk Signs mounted complete.

Lithographed Metal Signs.

Flavor Signs.

Single Service Tin Can and Fibre Tub.

COURSES IN ICE CREAM MAKING GIVEN AT PENN STATE COLLEGE.

Two courses in ice cream making are among those to be given at the Pennsylvania State College this year. The principles involved in the manufacture of commercial ice cream and ices will be taught by the Department of Dairy Husbandry in the School of Agriculture.

The dairy department of the college supplies much of the ice cream used in the college eating halls as well as that sold by shops in the borough of State College, and the ice cream counter on "Ag Hill" at the college is the most popular spot on the 1,000-acre campus.

In order that the Dairy Husbandry Department, in common with other divisions of the college, may be able to accommodate a larger number of students than at the present time, a plan is now under way to develop the college into a state university capable eventually of providing for 10,000 students. A building fund campaign for $2,000,000 is being carried on.

KIND WORDS FROM MICHIGAN.

Owosso, Mich., Aug. 16, 1922.

I appreciate the Ice Cream Review very much and I think you are publishing one of the best journals offered to the ice cream trade.

Yours very truly,
J. J. McDONALD.

Editor's Note—Mr. McDonald is president of the C. A. Connor Ice Cream Co., Inc., and is one of the leading spirits among the men who are advancing the industry in his state.

PUMPS

We firmly believe that we can be of real service to you.

Blackmer Rotary Pump Company 314 SHERIDAN ST. PETOSKEY, MICH.

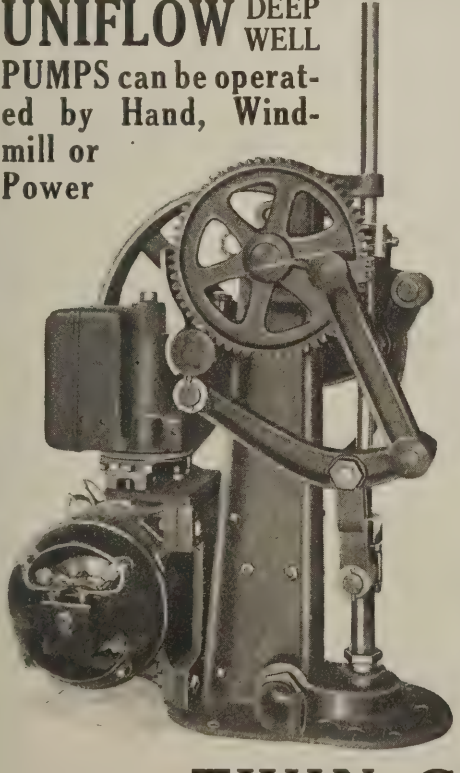
Meet Us at Booths 57 and 58

National Exposition,
CLEVELAND
Oct. 16th to Oct 21st Incl.

BOSTON
CRYSTAL GELATINE COMPANY
General Offices: BOSTON, MASS.

NEW YORK 14 Ferry St. | PHILADELPHIA 418 Arch St. | CHICAGO 3630 Iron St. | ST. LOUIS 408 Elm St. | SAN FRANCISCO Fairfax Ave. and Rankin St.

UNIFLOW DEEP WELL PUMPS can be operated by Hand, Windmill or Power



Cut Your Water Pumping Cost in Half

A UNIFLOW Pump will deliver at high pressure, a continuous stream of fresh, clean water direct from the well at all times, thus eliminating standpipes and storage tanks, at a cost of

1 Cent per 1000 Gallons

(Depending on depth to water)

This is half the usual cost, with other types of pumps.

Dairy interests need a dependable, efficient pump of this character for cooling cream in the vats, and for washing down and sprinkling with a hose. A UNIFLOW pump reduces your **Fire Hazard.**

UNIFLOW Pumps give long, continuous service and with the **Saving** in **Ice, Power** and **Labor, Pay for Themselves** in a very short time.

TWIN CITY PUMP CO., Inc.
126-D No. Fourth St. Minneapolis, Minn.

ICE CREAM FROM AN ADVERTISING STANDPOINT.

Extracts from Publication of Parker-Brawner Co., Washington, D. C.

It is probably safe to say that not one ice cream manufacturer out of twenty is realizing anything like the possibilities in ice cream advertising. To make it definite, probably nineteen out of twenty could increase business from 25 to 50 per cent with very light additional expenditure. Any number could double or treble their ice cream sales.

By no means is this a matter of simply buying advertising material. It is not even a matter of buying one particular kind of material, although that may be a big factor.

It is not a matter of size of the company, for there are plenty of concerns that are large as a matter of capitalization and yet have been going backward constantly.

Several months ago a leading periodical published an article by the president of a very large corporation which had developed in a few years from a small concern, on "Why We Put Selling First." The outstanding feature of their experience was the great number of years during which they had a product that was one of the best, with no success in a big way until they made selling the most important part of their work.

Practically all ice cream manufacturers in the country are buying advertising material, yet hardly one-tenth have a real, definite advertising policy, with the purpose of making big development in business.

Success on a big scale means that all the advertising must be built around one real idea—that it must have effect as a whole.

Big success is simply a matter of creating the impression that one particular ice cream is unusually good. There is a product which the writer sees advertised every day by rather dingy-looking signs which are shown at a great many different places, and yet there has never been anything about the advertising to give the slightest inclination to buy it. Nearly everyone is familiar with such advertising. Old rusty signs make one feel that the product must be out of business. On the other hand, the use of flaring, screaming red-lettered signs for general advertising is declining. Advertising by wild stunts that mean nothing has been discarded by good advertisers.

In other words, big success is not simply a matter of attracting the attention and directing it to a product. It is that but more. It is the impression conveyed. Most people would undoubtedly be astonished if they realized how many of their actions are governed by impressions that they have received almost unconsciously through advertising—passing by a window with a good display or seeing such a display in a store, which takes only a few seconds and yet leaves its share of the impression.

But it is not a matter of the impression given by one piece of advertising. It is the impression given by all the advertising as a whole. That is why it pays, if any advertising is done at all, to have a definite advertising policy carried out continuously. Advertising that jumps from one thing to another, which follows out one idea for a time and then another, can never have the fullest effect.

A real advertising policy means that it is absolutely necessary to give at least some amount of effort to make the dealers get the most out of it—to see that the displays go up and that they stay up or are moved from store to store so that the fullest returns are gotten from them.

It is probably true that a great majority of dealers do not realize the possibilities in selling ice cream, many of them are strongly pushing other things. They have been sold on the convenience of package goods which come to them all ready to be handed over the counter with little or no effort. They have seen these goods advertised attractively in magazines and take it as a matter of course that they should go on advertising them, without thinking of what could be done in pushing ice cream.

They have been stocked up with toilet articles, cigars, cigarettes, candies—from none of which they make the profits they can make from ice cream—and they look upon the ice cream as something that is renewed every day no matter how much they sell, without a thought of the increased business that is possible.

It has not occurred to them that, besides getting greater profits from it, the ice cream they buy is turned into money immediately instead of having to be carried in stock for weeks or months.

Some dealers feel that the soda fountain in a store is enough to let the public know they have ice cream for sale. Their idea is simply to show what they have on hand, and carrying out that idea with other articles they fill their windows with miscellaneous junk of all kinds.

SHOOTING THE WORKS

You don't Gamble a cent on the Goody-Good Plan. You will understand why it *must* make money for *you*—its easy to grasp and easy to follow the simple instructions. Tomorrow never comes—Write to-day

SANI-DAIRY PRODUCTS CORP'N. 45th and Evans Ave., CHICAGO

Hardening Rooms

NO matter how good your mix or how modern your freezer, you cannot successfully market ice cream unless it is properly hardened.

It requires a well built, CORK insulated Hardening Room to maintain the necessary temperatures.

Its our business to build Hardening Rooms ***right.***

Write us before contracting, we can save you money.

We carry ***Pure Cork Board,*** ***Granulated Cork,*** ***Refrigerator Doors,*** *and* ***Asphalt*** *in stock at Minneapolis.*

Insulation Sales Company

300 BUILDERS EXCHANGE

Minneapolis Minnesota

"Sterling" equipment is very essential to the Ice Cream Industry, as your product is one that must be held to a certain temperature after it has been made ready for market. We can give you an installation that will first of all keep your raw products at the proper temperature, properly freeze your cream, hold temperature in your hardening room as you require it, and at the same time make any amount of ice you may need for packing and shipping your product.

¶ We have so many users of "STERLING" equipment, in your particular line of business to whom we would like to refer you. Advise with us and our engineering department will gladly work out your details on an efficient and economic basis.

UNITED IRON WORKS, Inc.

Ridge Arcade Building **Kansas City, Missouri**

ESTABLISHED 1879

Gelatine is the most efficient of all stabilizers for Ice Cream

WHITTEN'S GELATINES Are Standard

Guaranteed to Comply with all National and State Pure Food Laws

STRENGTH, PURITY AND UNIFORMITY GUARANTEED

MANUFACTURED BY

J. O. WHITTEN COMPANY

Main Office and Works

Winchester, Mass.

Woolworth Bldg.
NEW YORK CITY

20 E. Jackson Boulevard
CHICAGO, ILL.

A window may be made to represent an idea. It may convey one definite impression—just as a magazine page does. And a good display, not simply made to show various packages and other things in fancy arrangements but which is devoted to advertising one thing, and in which every part of it means something, is one of the biggest factors in influencing the sale of anything.

By no means, however, are all ice cream dealers poor business men. There is a city in the Middle West where the ice cream manufacturers themselves do not believe in advertising, in which one of the dealers, the owner of a chain of drug stores, spent his own money this year for ice cream display material. Such a dealer will get big results from advertising. And efforts by the manufacturers to see that other dealers show displays to best advantage and get the fullest value out of them may easily mean double the results from the advertising. In some cases it may mean five or six times the results.

Of course to some extent this is a matter of educating the dealer. To a greater extent it is salesmanship and ordinary routine work on the part of the outside man. Some manufacturers whose appropriations are very small, so that they can only afford a very small quantity of displays, feel displeased when those displays stay up in the windows only a week or ten days. Yet it is easy to arrange for the outside man to move the larger displays from store to store, which at least doubles their value. Of course the particular problem is different with every manufacturer. But it is a matter of advertising policy.

From the dealer's own standpoint it means much for the manufacturer to have a real advertising policy. One good window display not only sells more ice cream but makes people form the impression almost unconsciously that he sells the best ice cream. And just as he helps to build up the impression that that ice cream is unusually good, he creates the impression that he sells the best and builds for his own store.

This increased ice cream business will mean big increases in a store's business in all lines, by bringing more people into the store, making more customers who are really good customers. And the dealers need to know that their interests and the ice cream manufacturer's interests are inseparable.

Good displays can practically always be gotten up in the windows and inside the stores. It sometimes takes salesmanship to see that they stay up to best advantage so that both dealers and manufacturers get the most out of them.

But with a real idea and such a policy it is certainly possible to create a real impression and make it widespread, and in doing so, beyond doubt, lie the big possibilities for the individual company today.

Our Pledge

That each lot of Standard Gelatine we ship you, will be of a uniform, high-grade quality. That this well-known characteristic will, at all times, be so dependable as to further enhance your confidence in us. We regard this confidence too valuable a trade asset to jeopardize at any time.

That we hold true to this pledge is best known by our many satisfied customers who order, "same as last."

Standard Gelatine Co.
130 N. Wells Street CHICAGO

GETTING THE BUSINESS IN YOUR OWN HOME TOWN.

(Continued from page 34)

Ice cream was first manufactured in that town some fifteen or eighteen years ago. None has ever been shipped in. The owner of the plant has a bakery shop in connection with his ice cream business and has competition in the bakery line, but none, whatever, in the ice cream department. I think that more can be gained by working closely with each dealer than in any other manner, and help through the Commercial Organizations is the next step to take, if necessary.

* * *

Sell Them on Quality.

My impression is that there is either something wrong with the people of that city, or with the manufacturer himself.

If this were my case, the first thing I would do, would be to see that my plant was equipped with the most modern and up-to-date machinery, and pay special attention to sanitation.

I would visit each dealer personally, and would then invite them all to a dinner, either at my plant, or at a hotel, and try and find out what the trouble might be. My next step would be to send a letter to every address in town, soliciting their business, and inviting them to visit and inspect my plant.

My last and best bet would be to make just a little bit better Ice Cream than the other fellow, and if this failed to get the business, I would be convinced that the dealers are buying cream at a lower price elsewhere.

* * *

Try to Cash In on Free Advertising.

If the manufacturer whose troubles have been so ably discussed, would talk "shop" as did the supply man who wrote the letter below, he might wake up some fine September morn and find a hammer in his horn.

More than likely your local ice cream manufacturer in the small town failed to realize that it was not enough to just simply make a fair brand of ice cream for the good folks who came to him for it, but that he needed to advertise his products extensively, doing it under his own name, not only to increase his trade but to hold his old patronage as well.

Without a doubt he failed to secure attractively printed KVP Genuine Vegetable Parchment wrappers for his brick ice cream. Likewise he overlooked the attractive printing up of his bulk packages, which publicity would work for him while others slept. All this, coupled with a good product, would make him so well and favorably known that there would be no room for at least so many newcomers in the business.

Undoubtedly the above information is just what you want so far as we are concerned and now, we shall be on the lookout for your letter asking why in thunder we don't tell your readers about "that good KVP Genuine Vegetable Parchment" in the Ice Cream Review.

Quality Building Plans

A building is the product of the plans and specifications just as ice cream is the product of the ingredients and process of manufacture.

If you desire to market QUALITY PRODUCT ice cream you know it is necessary to use good materials, skilled workmanship and a properly planned and equipped plant to produce it.

As your plans are so will your building be—but don't overlook the fact that your plant has to stand a long time—mistakes in the plans are permanently fixed, while a mistake in compounding your ice cream mix one day may be corrected the next and so entail no permanent loss.

Plans poorly designed, half made and indefinite are expensive.

SPECIALIST IN DESIGNS FOR ICE CREAM, MILK, BUTTER AND PRODUCE PLANTS

M. R. CARPENTER, *Architect and Refrigerating Engineer*
72 W. Washington St., CHICAGO, ILL.

MEMBER OF AMERICAN SOCIETY REFRIGERATING ENGINEERS—LICENSED ARCHITECT



Sethness Company,

Western Branch
DENVER, COLORADO
2910 Huron Street

Cosco

Pittsburgh Office
511 First Avenue
PITTSBURGH, PA.



659 HOBBIE ST., CHICAGO
Operating 75,000 Square Feet for Quality and Service

COSCO BRAND

FRUITS

ICE CREAM CRUSHED FRUITS (BULK)
SOLID PACK FRUITS IN NO. 10 TINS
COLD PACK STRAWBERRIES
C. P. CRUSHED FRUITS IN BULK PKGS.

EXTRACTS

FLAVORING EXTRACTS, ARTIFICIAL
TRUE EXTRACTS
ORANGEADE EXTRACT (FOR ICES, SHERBETS AND PUNCHES)
CONCORD GRAPE EXTRACT (FOR ICES, SHERBETS AND PUNCHES)
VANILLA COMPOUNDS
VANILLA EXTRACTS, PURE
MARVEL PURE VANILLA BEAN EXTRACT
VANILONG
WALNUT FLAVOR
MAPLE COSCO CONCENTRATED
PINEAPPLE JUICE
QUINTOLS
EMULSIONS

COLORS

LIQUID CERTIFIED COLORS
CERTIFIED DRY COLORS
CARAMEL SUGAR COLORING
BUTTER COLOR ANILINE
NEW YORK ICE CREAM COLOR

TRUE FRUIT PASTES
CERTIFIED PASTE COLORS
MARSHMALLOW TOPPING
COCOA
BUTTERSCOTCH SUNDAE
CARAMEL SUNDAE
GELATINE
CITRIC ACID
GUM, PURE INDIA, POWDERED
ICE CREAM POWDER
SOLUBLE SKIM MILK POWDER SPRAY
KREMOLIN R. ICE CREAM RIPENER AND BINDER
VANILLA BEANS
VANILLIN
COUMARIN
GLYCERINE
TARTARIC ACID

SODA FOUNTAIN FRUITS AND PRIVATE LABEL MARSHMALLOW TOPPING FOR JOBBING PURPOSES

Should you so write, you will find us wishing you every success and still doing business at the old stand.

* * *

More Super-Service.

In order to get this local business I would have an opening day, invite the public giving them some ice cream to eat.

After this I would cater to the retail trade deliver ½ gallon and gallon lots to their homes. Also sell brick ice cream at the plant. Advertise in my daily paper, and put a slide in the moving picture show. And in making deliveries would make them promptly and have ice cream well packed and delivered in good condition. After the public gets your ice cream and calls for it your dealer will have to handle it. You earn your money here spend it with your home merchant which will help to build a larger and better city. Call on your local dealers be friendly and in this way I am sure you can win them over.

* * *

Not All Dead Ones.

There simply is no positive answer to the question asked, except to say that it all depends upon circumstances. However, the same general rule applies at least to a certain extent to any manufacturer who is making a big success in selling ice cream.

In other words, it is not probable that all the dealers in this manufacturers particular town are dead ones. And as soon as they see that it is to their advantage to buy their ice cream from this manufacturer—see that they can get ice cream of the best quality from him, or especially that people believe it must be of the best quality—they will come over to his side.

The problem is basically that of building the impression that his ice cream is exceptionally good, just as it is with any manufacturer, although the details may be slightly different.

* * *

"A Prophet is Not Without Honor Except in His Own Country."

This seems to apply quite fully to the ice cream manufacturer who does not enjoy the local business of his home town. Fortunately this manufacturer is not alone in his sad plight and we will almost every day find manufacturers in various lines of industry who are in the same predicament. The condition is accounted for by the fact that it is human nature to feel that distant fields are more appetizing but as we draw nearer to them we find the same old stubbles as there are at home. Competitive conditions are just as hard to overcome and the same sales methods being used as they have elsewhere.

The one remedy would be to put forth the same intelligent effort at home that we do abroad coupled with plenty of local advertising and an appeal to patronize home industry. With quality, price and service being equal there is no good reason why the local manufacturer of ice cream should not enjoy the greatest percentage of local business. Outside manufacturers must surely make some absorption or sacrifice and loyal townspeople can be made to appreciate the many advantages of patronizing home industry, providing it is presented in a proper and acceptable manner. The important factor, however, is LOCAL ADVERTISING.....

* * *

Advertise! !

A great majority of the ice cream plants located in the smaller cities, think that it is unnecessary to advertise, hence, when outside manufacturers try to ship into the home towns of the local manufacturers, they come in with some kind of selling and advertising campaign that creates a demand.

Unquestionably there is some price cutting on shipping business but should not exist. This, however, will not be eradicated until such time as the State Associations are 100 per cent strong in membership and then some sort of concerted action can be, and undoubtedly will be taken in this matter.

* * *

Sell The Home Folks First.

The first thing I would do, would be to strike up a personal acquaintance with all the dealers and treat them with all the courtesy that I could and then I would give them prompt service and sell them ice cream at the same price I was selling the outside trade, providing it was a small town and they didn't require packing service. The ice cream being equal, I would give the dealer such service that he couldn't possibly pass up buying my ice cream. Too many small ice cream plants want to hold up their local trade and meet competition on the outside. We always take the stand to take care of our own family first.

* * *

Join Their Fraternities.

In my opinion if he makes as good a cream as his competitor as you state and still can't get the business—he attend all the Rotary meetings and Lyons club meetings and be such a good fellow and in a nice way let them know he is in their city to help promote and upbuild the city and in this way they would certainly favor local manufacturers in preference to outside manufacturers—unless the retailer surely wants to buy specials and buys outside regardless. Many, many reasons can be given for those retailers buying outside and many, many ideas can be advanced as to how to meet this condition so here is one of my ideas.

* * *

Something Wrong With His Methods.

It is the writer's opinion that the reported condition is due entirely to some local cause, probably within the ice cream manufacturer's own organization.

Frankly, we believe it is an unusual situation when local distributors practically boycott a local manufacturer who offers them equal quality and equal price in competition with outside concerns. On the face of it, it would seem that there is something about his business methods that they do not like which he surely should be able to discover.

* * *

Exclusive Sale The Cause.

This condition is the result of numerous manufacturers starting dealers on the exclusive sale to get their cream introduced.

Many manufacturers still practice the old fashion idea of only one dealer in each town.

In my opinion all manufacturers should be open to sell to any or every dealer that sells ice cream at retail, when this day comes our local factories will get the patronage which they are entitled to.

Either competitors are coming in his territory with a discount of some kind or something that is a benefit or inducement. A whole lot of business men think by having a different brand they can get more trade or that the out of town man does picture show advertising, newspaper, etc.,

The "RICHMOND"

CEDAR PACKING TUBS



NEW STANDARD PKG TUB (VA. CEDAR)

Quality and Workmanship Count. In the "RICHMOND" Tubs—we have both. Made of Selected Virginia White Cedar. Heavy galvanized iron hoops—thick staves and stout bottoms. Prices gladly given on all sizes. Historical Catalog upon request.

RICHMOND CEDAR WORKS

RICHMOND, VA.



"MASTER METAL"

WRAPPERS

and "MASTER METAL" CARTONS

"THE PREDOMINATING PACKAGES"

A new display package that wins instantly favorable attention.....

A product of our Creative Department which can develop and work out original ideas for your own packaged confections.

Dainty, bright-as-silver boxes, "Master Metal" Cartons predominate wherever displayed.

Sparkling embossed foil covers the outside of the folding carton—mounted by a water-proof, leather-like cement, which gives double protection to the contents.

The beautiful foil surface is a wonderful background for rich color-printing—colors that seem almost alive.

All Sizes - - Attractive Prices

WRITE FOR SAMPLES AND PRICES

UNITED STATES FOIL COMPANY

INCORPORATED

LOUISVILLE - KENTUCKY

DO YOU SELL

CARAMALA ICE CREAM

The Favor Compelling Flavor

PRICES Per Gal.	
1 gallon	$7.00
5 gallons	6.75
10 gallons	6.50
25 gallons	6.25
50 gallons	6.00

Use 4 oz. to 10 Gallon Freezer

Use 3 oz. with Nut Meat to 10 Gallon Freezer

CARAMALA ICE CREAM is always the smoothest and most firm, in comparison with any other made from the same stock mix and handled under identical conditions.

THE ASSOCIATION OF ICE CREAM SUPPLY MEN MEMBER

Sample cheerfully sent on request

REX EXTRACT COMPANY

257 Pacific Street Brooklyn, New York

Order direct or through any of the following well-known firms:

J. G. CHERRY CO.	Cedar Rapids, Ia.
MEYER DAIRY EQUIPMENT CO.	St. Louis, Mo.
BEATRICE CREAMERY CO.	Denver, Colo.
ENTERPRISE DAIRY & CRY. SUP. CO.	Cincinnati, O.
CENTRAL OHIO SUPPLY CO.	Columbus, O.
DAIRYMEN'S MFG. & SUP. CO.	St. Louis, Mo.
BLANKE MFG. & SUP. CO.	St. Louis, Mo.
E. B. GALLAGHER & CO.	Detroit, Mich.
HAZELWOOD CO., LTD.	Spokane, Wash.
RICHARDSON & HOLLAND, Inc.	Seattle, Wash.
MANNING MFG. CO.	Rutland, Vt.
W. L. KNORR CO.	Pittsburgh, Pa.
CHERRY-BASSETT-WINNER CO.	Baltimore, Md.
CHERRY-BASSETT-WINNER CO.	Philadelphia, Pa.
FERRIS-NOETH-STERN CO.	Baltimore, Md.
N. A. KENNEDY SUPPLY CO.	Kansas City, Mo.
CHERRY-BASSETT-WINNER CO.	Pittsburgh, Pa.

"NO MAN IS HAPPY WHO DOES NOT THINK HIMSELF SO."—PUBLILIUS SYRUS.

free of charge. Did you ever know that when a man buys your cream from another town he immediately asks for exclusive rights? For what reason we do not know. Naturally everyone thinks his own ice cream is the best, but at the same time there is other ice cream sold so why do they demand exclusive rights.

* * *

A Darwinian Doctrine.

The fact that this place is called a town and not a city seems to indicate that it is not large. If so, and with six brands selling, it is a wonderfully good town, and the local manufacturer has been very lax in previous handling of his local trade or has fallen down on quality, or price cutting or icing competition is on.

If the former condition is responsible, it is up to the local manufacturer to change his methods quick. Talk local production on equal or better quality and service—and hustle. If the latter condition exists, I'll say he is up against a hard proposition and one that is not by any means confined to this manufacturer.

"Sit tight" on price cutting. Let the other fellow slash and take his loss. Put out quality and give service and the trade will learn to appreciate this and be willing to concede a fair profit and stand by you. Above all, advertise wisely, hustle every minute and give service—that's what counts in any business and to meet any competition.

There is plenty of competition among ice cream manufacturers in Michigan and some of it not based on business ethics. I have been in small towns and found small retail stores with three cabinets and selling three different brands, all made elsewhere—and the local manufacturer trying hard to struggle through. Some unidentified "germ" seems to have gotten into the ice cream manufacturer's system this year that has not been so noticeable heretofore. Perhaps time will eliminate this, but more likely it will be as it always has been, "A survival of the fittest."

* * *

Get at the Real Cause.

Before being able to answer this question one should know more about the local conditions. However, I think tnat this ice cream man should find out the real reason why all the retailers, with the exception of one, prefer to deal with a concern that theoretically cannot give them as good service, or a better cream than he could.

If this is not true it is up to this ice cream man to meet competitve conditions and if necessary go them one better during a period long enough to get that which should be his from a geographical point of view, as well as sectional loyalty.

He might have to do considerable personal work among his trade as well, but if he secures his retailers he should be justified in the end.

Anything worth while can be sold if enough effort is put forth to do it, and if it is worth while, the effort should be made.

* * *

Give Them What They Want to Pay For.

The condition which you mention evidently rests with the MAN. He possibly does not cater to the wants of the local people. He wants to give them what he has to sell and not what they want to pay for. He probably is not liked personally. His out of town customers do not get a change to see him often and he gives them more attention to their wants. In other words he is "in wrong" in his city. To get the business I would suggest to him two things—personality and courteous service.

* * *

Just such conditions exist in several towns in my territory. I hear the same cry and usually offer the same solution, "to-wit." Forget the local user, increase your outside business to your utmost capacity, be independent, show the local one cylinder brain you can exist without him.

As he notices your increased business, naturally an increased bank account, they will cater to you instead of you at present crawling to them.

* * *

He is lacking in personality. If his product is as good as the other, make the advantage in service. Sell the public and not the dealer. Put the majority of his advertising in the product itself. Don't offer something cheaper, but get more money for it.

* * *

While I never had this experience, I would advertise my brand very judiciously, I would get the people to visit my plant, I would appeal to the home people to buy a home product, I would meet the outside competition and give the dealers a packing service and make the best goods obtainable. In short I would get the business some way and would keep on until I did. It can be done.

* * *

If conditions are as stated I would advise the man himself to gain the popularity of dealers and people. If his product is better than others the fault must lie with the manufacurer.

* * *

Must be a matter of salesmanship or there is something wrong about the man himself. Maybe he is too well known in his own "Home Town."

* * *

I would suggest this man getting a good Hickory Club and go out and use it.

Quality

always has been and always will be the world's best investment.

ELPAM

(*Imitation Maple Flavor*)

A quality flavor for Maple Nut ice cream.

A trial quart Three Dollars; or Free Sample to flavor ten gallons frozen cream sent on request.

G. W. Wardrop Company, Inc.

450 BROADWAY BOSTON, MASS.

MOSINEE FIRM DOES GOOD BUSINESS.

Warren Heimstra, ice cream maker at Emmerich's Ice Cream Factory, Mosinee, Wisconsin, gives a very cheerful report of the season's business. "I have been pretty busy the year and a half that I have been here," he writes, "and I feel that I have been well rewarded, as this year we expect to run well over 30,000 gallons of ice cream, even though the weather might have been more favorable. Quality goods and instructive advertising have made us a factor to be considered in this territory."

Mr. Heimstra is an enthusiastic Review booster, and says he would consider it a real misfortune to miss a number.

You can find the person who will be glad to buy what you wish to sell, by letting your desires be known through an advertisement in The Ice Cream Review.

A Unanimous Declaration from Hundreds of Ice Cream Manufacturers

"Just The Thing We Need!"

MATOT EVER-KEEP PACKAGE CREAM FREEZER

Why?

Because—

Packaged cream of any selected flavor is instantly dispensed right from the coldest part of the freezer —no fumbling around for the flavor wanted.

The oldest cream is always dispensed first.

Zero temperature—no soft cream.

Keeps cream in perfect condition —a valuable asset for increasing the carry home trade.

Freezer accommodates packaged cream in any form—bricks, eskimo pies, cylindrical packages in quarts, pints, etc. Where necessary special size containers are made.

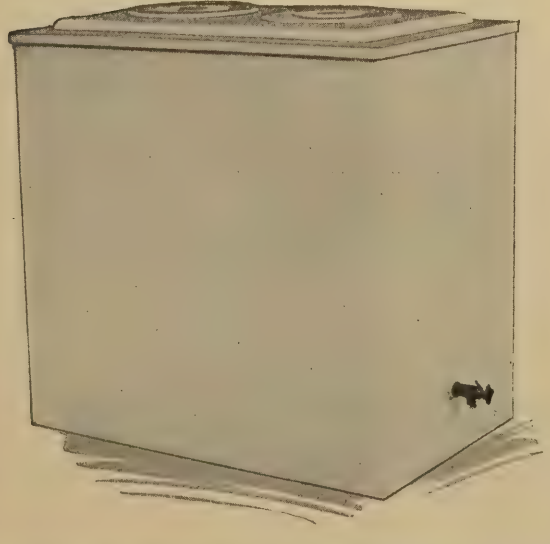
Cream container proper consists of a centrally located receptacle surrounded by ice on all four sides, top and bottom, and is arranged to provide individual compartments for cream of various flavors.

We guarantee these Ever-Keep Freezers if iced properly once in 24 to 36 hours to keep cream in most perfect shape.

Ever-Keep Freezers are carried in stock in 32, 40, 48, 56, 60 and 70 quart capacity.



Patented Jan. 24, 1922



A full line of non-equaled ice cream cabinets, corkboard insulation, metal lined, Everlasting Redwood exteriors carried in stock in all sizes. Stock finish is golden oak. Can be furnished in mahogany, white enameled or any other finish desired.

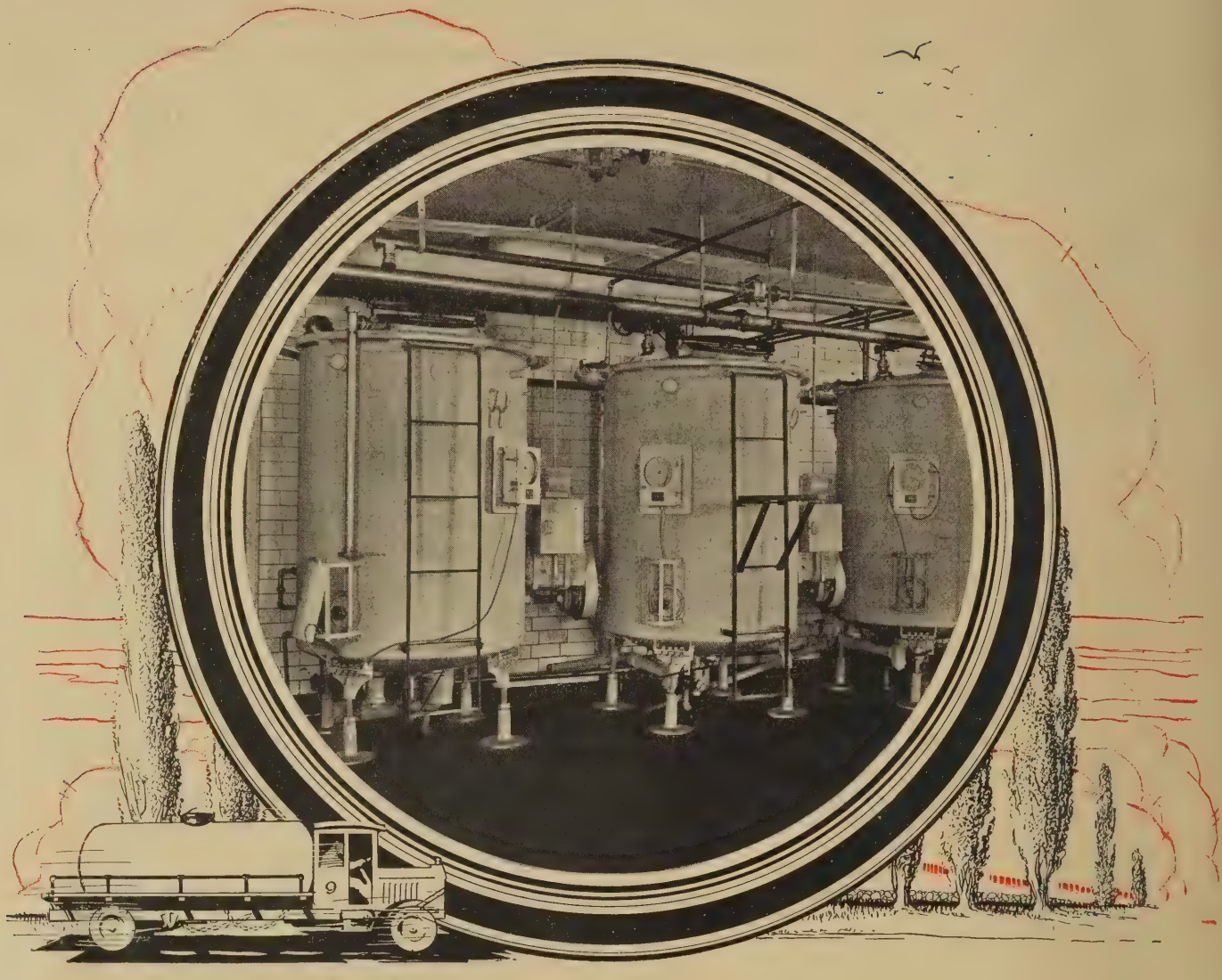
Write for our catalogue and net prices.

D. A. MATOT

Manufacturer

MAIN OFFICE and FACTORY:
1538-1546 MONTANA ST.

Chicago, Ill.



Battery of Pfaudler Glass Lined Sweet Cream Pasteurizers — part of the up-to-date equipment of the Gridley Dairy Co., Milwaukee, Wisconsin. They are satisfied as their letter indicates:—

"We have installed three of your 500 gallon glass lined tanks which we are using as sweet cream pasteurizers and find them to be entirely satisfactory. The impeller type of agitators appear to give the proper agitation without injury to the cream. ***We are heating these tanks with exhaust steam at 2 to 4 pounds gauge pressure which shows a decided saving in fuel consumption."***

SEE PFAUDLER AT THE SHOW!

There will be much at the Pfaudler booths this year to interest the dairyman or ice cream maker. The Pfaudlerette will be on hand for your inspection; and will be exhibited also

at the Cleveland Ice Cream Show.

Pfaudler

PASTEURIZATION & TRANSPORTATION—

PASTEURIZATION and Transportation—these are the two fields of operation in the dairy industry, which, today, are the subject of the most discussion and concern;—they are the two which usually cost the dairyman most;—and the two into which Pfaudler has penetrated most deeply.

As far as pasteurization is concerned, the net result of Pfaudler's work with glass lined equipment has been:—

1. **Reduction in time, labor and cost of operation, as involved in heating, holding, cleaning and general routine.**
2. **Improvement in the flavor of the pasteurized product.**
3. **Greater sanitation as reflected in lower bacterial counts.**

In the field of transportation:—

1. **Elimination of waste labor formerly expended in can handling.**
2. **Saving of much milk formerly lost in spillage and adherence.**
3. **Cleaner and purer milk through the elimination of "en route" contamination and temperature rise.**

Glass lined equipment in these two fields has been the boon of the modern dairyman. It has been instrumental in keeping his costs down and the quality of his product up;—it has given him a real chance to make money, and meet the demand for lower-priced milk without a loss.

Let us tell you what Pfaudler has done in these fields. Send for our booklet, "The Story of the Pfaudlerette", describing our new, small-unit pasteurizer, and our booklet, "A New Era in Milk Transportation", giving the complete story of bulk handling.

The PFAUDLER CO., Rochester, N. Y.

Branches in main centers available for all parts of United States and Canada

---

Fleet of 13 Pfaudler Glass Lined Truck Tanks, operating for the Detroit Creamery Co., Detroit, Michigan—part of the complete fleet of 16. As this advertisement goes to press, we are in receipt of an additional order for two 1500 gal. and three 1000 gal. tanks, making in all ***twenty-one*** *—the largest single fleet of milk truck tanks in operation.*





The Value of Good Vanilla Flavor

It produces that delicate, delightful, pleasing taste peculiarly characteristic of only Hudson's Vanilla flavored ice cream. Through all the seasons it is the most generally desired. It stimulates sales, stabilizes demand and is, in reality, the one flavor which makes for greater consumption of ice cream. Around this primary flavor the ice cream industry has grown and prospered, and will continue to do so.

Its universal popularity, however, incurs a responsibility. The flavor must, necessarily, be of uniform, high-grade quality all the time. Scientific research, endless laboratory analysis and tests, practical demonstrations, and experience have thoroughly established this fact—Good, dependable, quality Vanilla Flavor can only be obtained by the utmost care in the selection of raw materials, and the correct laboratory proportioning, blending and balancing in the manufacturing process, combined with expert knowledge and skilled workmanship. There are no short cuts, no half-ways.

"Give me a Lick"



Hudson's Vanilla Flavors *for thirty-four years*

"Ever since I began this business of nine, I have always purchased my vanillas from the Hudson Company. In all these twenty-five years they have never failed me." These remarks made by an ice cream manufacturer strikingly portray the position we hold in the industry. Such constant association of quality and satisfaction with a house for so many years can only be based on this fundamental fact—that Hudson has stood for the best in Vanilla Flavors. Certainly, our thirty-four years of specialization in the manufacture of Vanilla Flavors has qualified us to produce good flavors. And, naturally, this explains, also, why so many ice cream manufacturers say "Hudson" when they think of Vanilla Flavors.

Hudson's Vanilla Products are sold unreservedly on a Guarantee of Satisfaction. There are two reasons why we can make this guarantee: (1) From laboratory and practical tests we know what the quality is. (1) Users of Hudson's Flavors always are satisfied.

HUDSON'S FAMOUS ICE CREAM FLAVOR VANILLA, TONKA AND BLENDS No. 52 SPECIAL.

$5.00 per Gallon in Barrels $5.50 per Gallon in Kegs

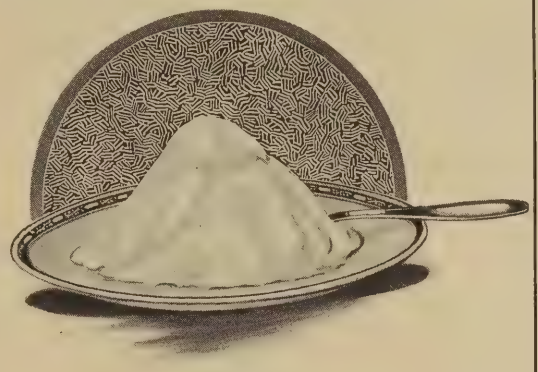
HUDSON'S CONCENTRATED VANILLA, TONKA AND BLENDS No. 52 SPECIAL.

Six times stronger than extract.....$25.00 per Gallon
Special prices in quantities.

Send for sample keg of the Extract, or sample gallon of the Concentrated. If you are not satisfied, return same at our expense.

Always Popular

is Vanilla flavored ice cream in the home. Keep it so—remembering that here your product is judged, as to its goodness, chiefly by "the taste." And only good, high-grade Vanilla flavor will produce in ice cream the taste that keeps and pleases.



A Cordial Welcome Awaits You

National Dairy Exposition
St. Paul—October 7-14—Minneapolis
Booths Nos. 144-145

The Association Ice Cream Supply Men
Ice Cream Week Cleveland—October 16-21
Booths Nos. 131-132

We will have exhibits at both the National Dairy Exposition and at The Association of Ice Cream Supply Men's Exhibition. These are important events. Arrange to attend both. You will be well repaid. **Ice Cream Week,** Cleveland, October 16-21, is of special interest. The National Association of Ice Cream Manufacturers will hold their annual convention during the week. This coupled with the largest and most complete Exhibition by The Association of Ice Cream Supply Men warrants your attendance. Come to Cleveland. We will welcome the opportunity to see our old friends again, to renew acquaintances, to meet new friends and to extend the hand of good-fellowship to all. Make our booths at both Expositions your headquarters. The latch string is out. Our representatives to whom you have so generously extended many favors will be there to greet you. Above all, we want you to know that you are welcome and that we are eager to see you again.

There's a genuine satisfaction in knowing that Hudson's Vanilla Flavors have been so highly regarded for a long period of years. Naturally we prize the reputation we have earned. Obviously we can not afford to jeopardize this reputation. Therefore, Hudson's Famous Vanilla Ice Cream Flavors, Tonka and Blends No. 52 Special (Extract and Concentrated) shall always be of High Quality, backed up by our Guarantee of Satisfaction.

MEMBER

The Hudson Manufacturing Company

INCORPORATED

GABE S. WEGENER, Pres. & Gen. Mgr. ESTABLISHED 1888

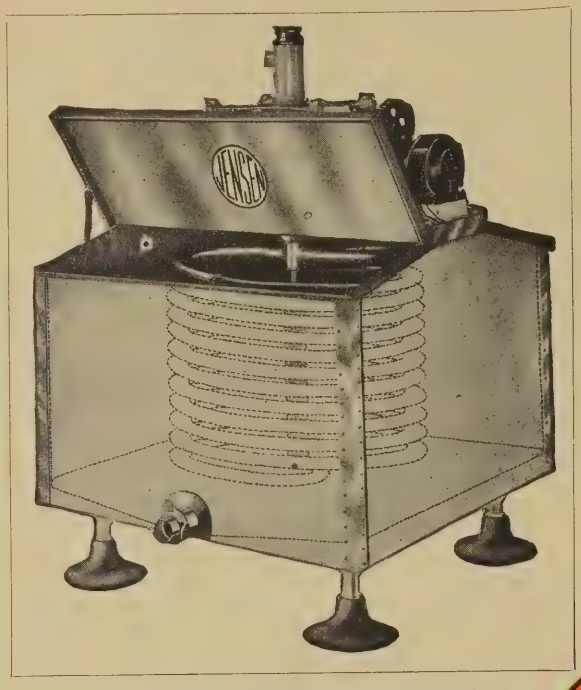
MEMBER

VANILLA PRODUCTS

119-121 North Union Ave. CHICAGO, U. S. A.

Branches at Dallas, Texas—Los Angeles, California

The Mark of Merit



Phantom View Showing Suspended Coil.

The Vertical Pasteurizer and Condensed Milk Cooler

With Vertical Twin Helical Coil suspended in glass lined vat.
Rotates from the bottom upwards.
Eliminates air and gases.
Prevents foam formation.
No wearing metal surfaces in liquid area.
No pockets, seams or crevices to hold contaminating substances.
Stuffing boxes entirely eliminated.

BE SURE and VISIT the JENSEN DAIRY SHOW EXHIBIT

All products of *Jensen manufacture* bear the hallmark of experienced and skilled craftsmen, reproducing from maximum quality materials equipment of the highest operating efficiency. The evidence of successful operation is to be found in many of the leading plants in this country and abroad.

We can supply the equipment you need. If you visit the Dairy Show be sure and see our exhibit. Our engineers and representatives are prepared to assist you in solving any problem pertaining to the selection and installation of dairy equipment most suitable for your requirements.

If you are not a visitor at the show and contemplate any changes in your plant construction or installation write to us. Your inquiry will involve no obligation and we shall be very glad to render you every possible assistance in the solution of your problems.

Jensen Creamery Machinery Company

Builders of "Equipment of Practical Efficiency"

Bloomfield, N. J. **Oakland, Calif.**

Southern Representatives: BLANKE MFG. & SUPPLY CO., St. Louis, Mo.

WHAT OTHERS SAY

of the

JENSEN

Vertical Pasteurizer and Condensed Milk Cooler

EDWARD MARTIN
COMMISSIONER
JOHN D McLEAN
DEPUTY COMMISSIONER

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF HEALTH
ENGINEERING DIVISION

C. A. EMERSON JR.
CHIEF ENGINEER
W. L. STEVENSON
ASST. CHIEF ENGINEER

SUBJECT:

22 SOUTH THIRD STREET
HARRISBURG

August 16, 1923.

The Jensen Creamery Machinery Co.,
Nelson Street & Locust Avenue,
Bloomfield, N. J.

Attention of Mr. C. L. Patterson, Sales Mgr.

Gentlemen:-

The two Jensen Square Vertical Pasteurizing Machines installed by you in 1920 for use at our Mont Alto Sanatorium, have proven very satisfactory. Both circulating units and both pasteurizing machines are in daily use.

We are pasteurizing at a minimum temperature of 145° Fahrenheit for 30 minutes without affecting the flavor of the milk.

Each patient is now using over one and one-half quarts of milk daily.

Very truly yours,

Edward e Martin

D17j

Commissioner of Health.

SUPPLEE-WILLS-JONES MILK CO.

PHILADELPHIA

EXECUTIVE OFFICES
1523 N. 20TH STREET

August 16, 1923

The Jensen Creamery Machinery Co.,
Nelson Street & Locust Avenue,
Bloomfield, N. J.

Gentlemen:-

Answering further with special reference to the Vertical Pasteurizer and Condensed Milk Coolers which you installed for us, we find them not only efficient in operation, but they have enabled us to turn out a superior product which of course is gratifying to us and should be correspondingly creditable to you.

Wishing you a full measure of success, we remain

very respectfully yours,

SUPPLEE-WILLS-JONES MILK COMPANY.

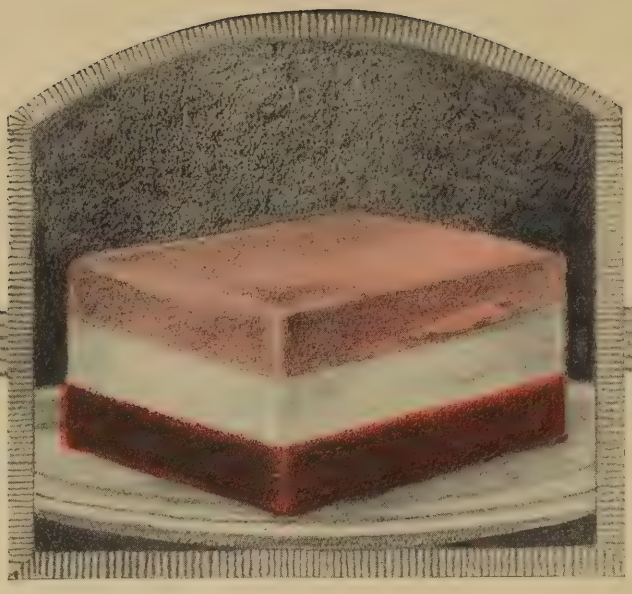
Per P. R. Wells

FAW:HM.

In Justice to Yourself
See The
JENSEN EXHIBIT
At The
DAIRY SHOW
See the
EQUIPMENT
which is used in the

Principal Creameries, Condensaries, Milk Plants, Ice Cream and Milk Powder Plants in the United States.

Jensen Creamery Machinery Company
Builders of "Equipment of Practical Efficiency"
BLOOMFIELD, N. J. OAKLAND, CALIF



"Down the street

a block and just around the corner you'll find the place where you can get that ice cream." . . . . . .

B-F Vanilla Flavor used in "that" ice cream regularly had left its tell-tale impression. Folks remembered "that" ice cream as something delightfully pleasing and enjoyable. They wanted it and sought it. Hence, the street urchin's answer, as quoted above, to the party inquiring where they could get "that" ice cream.

Your ice cream, B-F vanilla flavored, will likewise induce folks to desire it and to seek it. B-F Vanilla Flavor is a high-grade, reasonably priced flavor which produces that delicate and delicious aroma in ice cream which establishes a preference for your particular ice cream. And you can depend on B-F Vanilla Flavor to do this —its quality is always uniform.

The Boerner-Fry Company

Manufacturers of High Grade Extracts

Iowa City, Iowa

FREEZING THE MIX.

(Concluded from page 28)

freezer in a sloppy condition, which when hardened would be coarse and snowy. Mix that has been naturally aged and ripened makes ice cream of the very best quality, the overrun of which can be easily controlled. We have found that the best method is to highly pasteurize the mix, homogenize, and cool to a temperature below 40 degrees F., then store in sterile vats or cans held at low temperatures, for a period of from 2 to 5 days or longer, if possible. When it is not possible to age it naturally this way, we have used artificial improvers to hasten the time of ripening with fair results.

* * *

We wish to say that we cannot notice any difference in the quality of the ice cream when frozen at zero brine or when frozen with 5 or 6 degree brine. We freeze our ice cream until the desired temperature is reached whereupon the brine is shut off and the cream whipped until the desired overrun is obtained. We do find, however, that where a very low temperature brine is used the cream may be cooled down to the proper temperature but will warm up much faster, due, we presume, to the fact that the fat is not thoroughly chilled in the short time it requires to incorporate the fat with the low temperature brine. Therefore, there is not the actual saving in time with the low brine which one would naturally expect inasmuch as we have to freeze to a lower temperature when using the zero brine than we do when we use brine at a temperature of five or six degrees.

We have never frozen a mix the same day that the mix was made. We use a ripener and hold the mix over night or in other words, mix made one day is frozen into ice cream the next day. We find that by using ripener and holding it over night, we can make a better quality of ice cream than we can make without the use of ripener even though the mix is held from forty-eight to seventy-two hours.

* * *

We find that the use of a low brine on the freezer is advantageous from the standpoint of a slight saving in time on each run.

We have tried both a high and low brine temperature, and as far as we have been able to notice there is no appreciable difference in the quality of the ice cream produced, and since we find the low brine shows a tendency to save time we have adopted that method as standard.

In regard to your second question, the verdict is undoubtedly in favor of the aged mix. We find that the best results are obtainable from a mix which has been held at from 38 to 42 degrees for about 24 hours. Forty-eight hours ageing shows a slight increase in overrun, but longer ageing; that is, 60 to 72 hours, shows no additional increase in yield, and a tendency to develop old flavors unless the mix is watched carefully. The best method is to produce mik with low acidity (not neutralized) then to age for approximately 24 hours at from 38 to 40 degrees. Such a mix, providing the formula is correctly proportioned to begin with, will give no trouble with overrun.

* * *

It has been the writer's experience that low temperature brine on the freezer and reducing the cream to a temperature and then turning off the brine and whipping to the desired overrun, can be done in a shorter space of time and I believe the overrun can be secured with less difficulty than is ordinarily required with a temperature brine. If one has a homogenized product to start with the results are much better and a firmer quality can be secured.

In answer to question No. 2, the former will not give the overrun that the latter will by at least 15 per cent. This fact, however, cannot always be helped in the rush season. There are certain ripeners which can be used to give the same viscosity that the longer time will naturally give.

* * *

Relative to your first question concerning the temperature of brine in freezing, it has been our experience that when using a low temperature brine, approximately from 6 to 8 degrees Fahrenheit in freezing ice cream for about 10 minutes and then turning off the brine, and letting it beat up, we obtain more satisfactory results than we do by using the brine of about 14 degrees temperature, and freezing until the batch is ready to draw. We find that we can control our overrun a little more satisfactorily by using cooler brine, and at the same time we save quite a little time in the freezing operation. It takes just about 15 minutes to load, freeze and draw a 40 quart freezer of ice cream.

Concerning question number two in your letter, relative to the freezing of freshly homogenized mix, compared to that of freezing a mix aged 24 to 72 hours, will say that there

"BEST MEDIUM of ADVERTISING"

said the Frozenpure Ice Cream Co., of Louisville, in their letter dated June 14th, 1922.

No wonder they said this and other things about the

"SURVITOR"

Think of reaching 50,000 ice cream eaters with a *very effective* "ad" for less than 1-6c each.

Think of pleasing many dealers. Think of some new and added ice cream sales.

THEN get free data on the Survitor and be able to put these thoughts into a larger bank account.

The DAIGGER CORPORATION

(Mfrs. of Washburn's Ice Cream Improver)

CHICAGO U. S. A.

is a very noticeable difference in freezing a mix which has been aged, and a mix which has been freshly pasteurized and viscolized. It is the belief of the writer that the pasteurization retards the swell more than the viscolization in a freshly frozen batch. There are some concerns who control their batch by acid, therefore, obtaining a uniform overrun by knowing just what acid the cream contains. Of course, if this method is pursued, you can freeze cream directly after pasteurization, if your acid was up to where you wanted it. Of course the lactic acid makes for viscosity. That is the thing which you have to have in cream to obtain yield easily.

* * *

Ice cream frozen at a brine temperature from six or lower degrees, then turning off the brine to whip to 100 per cent overrun does not give the proper result. In this case the cream will be sandy and after eighteen hours will form small flakes of ice all through the frozen product. We find we can get good results freezing at this low temperature by whipping the mix about four minutes after first putting it into the freezer, before turning on the brine; then whipping it about five minutes after the cream has finished freezing.

We also find that a freshly homogenized mix will not give the smoothness and overrun as an aged mix without using more than the required amount of fresh solids and gelatine.

* * *

In regard to temperature, we find that we get the best results with a temperature of from 4 to 5 above zero and by partly freezing the batch and then shutting off the brine and whipping up to the desired volume, and then finish freezing, we are able to get a better and more uniform product.

We are able to get a much better overrun on a mix that is held for 24 hours than we are if the mix is frozen in 12 hours, if able to hold 48 hours the yield is better and the finished product has a better body.

* * *

Our experience has been that we get much better results in freezing ice cream when the brine temperature is low, turning it on and reducing the temperature of the mix to about 26 degrees F., then turning off the brine and whipping the mix to the desired per cent of overrun.

We find it much more difficult to secure the desired overrun when it is necessary to use a mix which is less than 12 hours old. We find it much better to age the mix at least 24 hours before freezing.

* * *

We have found by practical experience, the best method for us to pursue in freezing cream is to have the temperature of the brine around eight degrees, and allow it to flow freely while the batch is being frozen.

In answer to your second question, there is no comparison between freezing freshly homogenized or viscolized mix, as compared with one that has at least twenty-four hours age. We must give the mix time enough to recover its viscosity. There have been times when we of necessity froze fresh made mix, but our results were around 20 to 40 per cent less in swell.

* * *

In answer to question No. 1: In freezing the ice cream with a low temperature brine until the proper temperature in the cream is obtained, and then turning off the brine and whipping to the desired overrun, my experience has been that this can be done with good results but I do not believe that very much time is gained this way.

Question No. 2: Freezing cream from a freshly homogenized or viscolized mix can be done with the very best results if the mix has the desired acidity, but if the mix is made up from entirely fresh ingredients it will always be difficult to get the overrun and flavor. When using either milk or cream not perfectly sweet I always freeze the mix directly from the homogenizer and get very good results, but when all ingredients used are sweet I prefer to have it aged for twenty-four hours at least.

* * *

We think we get better results by employing a low temperature brine, reducing the mix to the desired temperature, shutting off the brine and finishing the freezing process, thereby getting a more satisfactory overrun and a better texture.

We seldom use freshly made mix; when we do, we find the texture of poor quality and overrun difficult to secure.

* * *

We find in using a low temperature brine, shutting off the brine, whipping the cream to the desired overrun, gives us a better grade of cream in a shorter length of time than using low temperature brine.

In freezing a freshly homozenized batch there is considerable loss of overrun, while if the batch has been aged from 24 to 72 hours we are always absolutely sure of getting the required amount of overrun.

* * *

Replying to question No. 1, we would say that from our experience ice cream that is frozen with a very low temperature brine, the brine being then turned off allowing the cream to whip up to the desired overrun, produces a product that is not as smooth as the cream that is allowed to take a longer time for freezing and we would say that the same condition would be experienced when freezing a fresh mix in preference to the one that had been allowed to age for the proper time.

* * *

In answer to question No. 1, we find we get the best results by freezing ice cream at zero temperature and bring it to the desired consistency and then turning off the brine and whipping it up to the desired overrun.

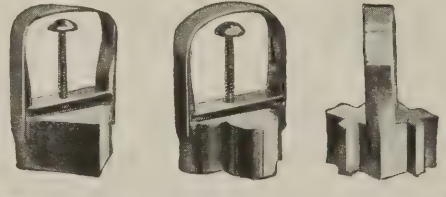
In answer to question No. 2, we find from five to ten per cent gain in overrun by ageing the homogenized mix from twenty-four to thirty-six hours.

* * *

In reply to your letter of the 10th inst., making inquiry in reference to experience we might have had in the freezing of ice cream, will advise that when hurrying a freezing, with a low temperature brine, our principal complaint has been to the effect that our yield is very vitally affected, and our cream seems to get sort of grainy. This latter, however, may be imagination on our part.

In reference to freezing cream from a freshly homogen-

Evans Speed-O-Stamps





For Your Individual Ice Cream Flavors

SOMETHING NEW, STAMPING INDIVIDUAL ICE CREAM SERVINGS FOR CLUBS, LODGES, BANQUETS PARTIES, HOLIDAYS, ETC.

"Just Like Mother Stamping Cookies"

SOLD ONLY IN SETS OF SIX DESIGNS — HEART — SHAMROCK — MASONIC — SHRINE — K I W A N I S — S P A D E.

Complete Set—

$27.50











John W. Ladd Company

"National Approved *Distributors Specialists"*

DETROIT **CLEVELAND**

BY JEHOPAH!!!

"I sure like the **"Goody-Good"** Plan— it helped me wonderfully". This is an every day expression from those who have written the

SANI-DAIRY PRODUCTS CORPORATION

45th and Evans Ave. CHICAGO

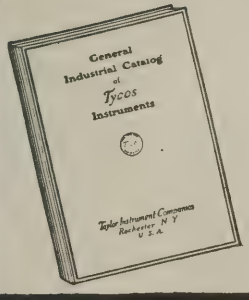


Tycos temperature instruments

Tycos Straight Stem Thermometer for Ice Cream Makers

Rugged case affords protection for tube and scale; insulated to prevent frosting over scale, so readings are easily made at a distance, or in poor light. Strong wrench head to withstand strain. Seven inch scale; range, runs 20 degrees below to plus 120 degrees. Stem, including threading, 1¾". Fits ½" or ¾" pipe.

Ask for catalog describing all Tycos Instruments for the Ice Cream Trade. Specify your needs.



Taylor Instrument Companies
Rochester, N.Y., U.S.A.

Theres a *Tycos* and *Taylor* temperature instrument for every purpose

Your request for literature, taking advantage of Tycos assistance through our advisory service is respectfully solicited.

311

"Atlas" Century Color

will give your Ice Cream that beautiful New York Shade

which cannot be otherwise obtained.

BBLS. per Gal.	KEGS per Gal.	6 GALS. per Gal.	1 Gal.
$2.00	$2.50	$2.75	$3.00

Before placing your next order, let us send you a trial quantity

Manufactured by

H. KOHNSTAMM & CO., Inc.

Established 1851

NEW YORK
83-93 Park Place

CHICAGO
11-13 E. Illinois St.

"DIFFICULTIES ARE THINGS THAT SHOW WHAT MEN ARE."—EPICTETUS.

ized mix, as compared with an aged mix, will advise that we have been quite successful in obtaining satisfactory results with fresh mix, if we use artificial improvers or ripeners. However, we prefer an aged mix, not only because of the ease with which a yield is obtained, but also because of improved texture.

* * *

In relation to the first paragraph of this last letter we requested several men who are intimately connected with the ice cream business to give us their technical reasons for these conditions, and these are printed below.

Many ice cream makers seem to think that using a low temperature of brine in the freezer and freezing the batch quickly, then shutting off the brine and continuing whipping to get the overrun gives them better results than freezing at a little higher temperature and running the batch continuously until the batch is frozen. My personal experience has been that the former method is not quite as satisfactory as the method used by the majority of ice cream factories, who run the brine continuously instead of shutting it off.

A batch of ice cream mix when turned into the freezer will not begin to whip until the temperature is down to 31 or 30 degrees, and it would appear that bringing it down quickly to that temperature and then whipping it should produce the overrun. However, when the brine is shut off and the whipping continued the temperature of the mixture is liable to go up and consequently the mix may not be in the right physical condition to hold the air.

The grainy condition of the ice cream mentioned by the Iowa man referred to in your letter is undoubtedly due to drawing the ice cream from the freezer when too soft. This is every apt to occur where the brine is shut off and the whipping continued. Another result would be a lower overrun.

I had a personal experience with a condition of this kind just a week ago in an Oklahoma factory. In this particular factory the ice cream maker was not shutting off the brine, but he was drawing the freezer before the freezing was completed. He also had trouble with grainy ice cream. I demonstrated to him that he could make from 10 to 15 per cent more overrun by freezing just a little longer so the ice cream had the right consistency when drawn and also assured him that he would not have the grainy condition in the finished ice cream.

I asked him to watch that carefully and then write to me, but I have not heard from him. I am sure, however, that his trouble is solved or I would have heard from him.

If the brine is to be shut off during the freezing process it should only be during the short interval of time necessary to draw the batch from the freezer so that the last coming out of the freezer will not be too stiff and difficult to draw from the freezer.

I believe that this explanation will be received by the majority of ice cream makers as being correct.

* * *

My best results have been secured with zero brine. The advantages are two-fold: saving of time and smoother ice cream. The first would be of no advantage if it were done at a loss of yield, but that is not necessary.

If your machine is in good condition, blades true, blades laying well against the cylinder, no turned-over scraping edge—and with zero brine and your mix at about 40 degrees F., you should freeze in about five minutes. Cream, to be the right consistency when drawn from the freezer should ribbon or fold as it falls into the can. Cream drawn before it will do this is not ready to draw and will be grainy when frozen. Much of the grainy ice cream you find is due more to this than any other single cause. If you were to pull your batch at, say, five or six minutes with zero brine, you would not get any yield.

Here, then, enters the question, "How long shall a batch be in the freezer?" There is no fixed time. It depends entirely on the temperature of your brine and the yield you desire to get. To revert again to the batch frozen with zero brine in five or six minutes. Allow it to run, say, one minute longer or, in other words, freeze your batch slightly stiffer than you desire to draw it. Then shut off your brine and allow your batch to run without the brine on. Open your peep-hole in the head of your freezer and watch it start to come up. If you allow your batch to run this way for, say, two or three minutes, or even longer, you can draw any yield within reason that you desire.

* * *

Although the writer is not an experienced ice cream manufacturer he has always understood that freezing quickly with low temperature brine secured better results than the older method of using low temperature brine and freezing longer. The thing which should be watched most closely, in using low temperature brine, is to avoid over freezing the product and in the writer's opinion this is exactly what has happened at this manufacturer's plant that has caused him to complain of reduced overrun and a grainy product. Possibly he fails to take into consideration the fact that with a brine chamber well filled with exceptionally cold brine the freezing process continues for at least one minute, and on some freezers almost two minutes, after the brine has been turned off, hence, he goes below the required temperature in his mix before the whipping operation begins. We find that this frequently happens.

* * *

Our experience has been very much like that of the Iowa manufacturer, namely, that in hurrying a batch of ice cream you lose both in overrun and in quality of the finished product.

However, a number of manufacturers have recently been experimenting in the use of low temperature brine, say at zero or up to 5 below and have been getting very fine results. The method, which they employ in freezing, however, is that instead of turning on the full amount of brine, as soon as the mixture is in the freezer they split the valve and allow a small volume of the low temperature brine to circulate through the freezer. In other words, only approximately, half as much brine goes through the freezer until the point in the freezing point is reached where the required amount of overrun is shown by their tester.

It is my impression, however, that it is a very difficult matter to hurry the freezing of a batch of ice cream, as it is a well-known fact that if an ice cream is frozen too quickly large ice particles develop, which would not happen if the freezing process was more gradual.

* * *

Regarding the speeding up of production by increasing the capacity of the ice cream freezer, wish to advise that a large percentage of the ice cream manufacturers overload their freezers at present. They use too large a quantity of mix, with the result that they do not have sufficient air space left so as to permit quickly beating the cream up to the desired overrun, and, of course, to a finished state. A slightly smaller quantity of mix placed in the freezer per-

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for

COLD TEMPERATURES

MINERAL WOOL

The best insulation is not always the most expensive; in fact, the high-priced kind may not fit your requirements at all.

MINERAL WOOL is highly efficient — low in price and can be handled by unskilled labor. Use it around your tanks, in your service boxes, on your wagon boxes, or any place where a loose form of insulation can be packed.

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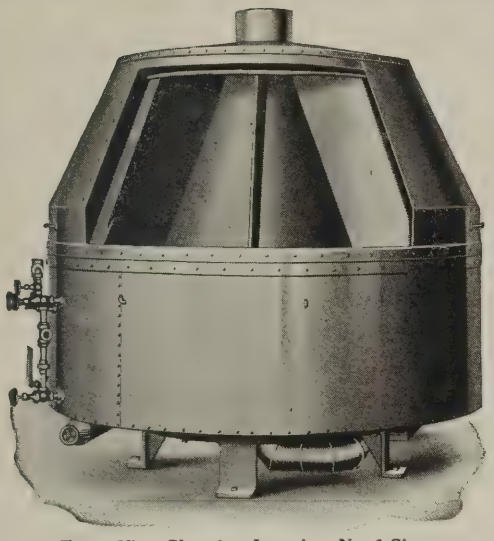
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UNION FIBRE CO., INC.

WINONA, MINN.

A Profitable Team—

One Man and a *CP* Rotary Can Washer



Front View Showing Interior, No. 1 Size

No four men in your plant can complete as much work in the same time as one man with a ***CP*** Rotary Ice Cream, Milk and Cream Can Washer.

Washing, rinsing, sterilizing and drying takes a lot of time when done by hand. A ***CP*** Rotary Can Washer however performs these operations at the rate of **three or six cans per minute**, according to size of machine, and does the work much more efficiently than is possible with hand methods. The operator simply feeds in the dirty cans and removes the clean cans, without moving from the spot.

Made in two sizes. The No. 1 machine cleans six cans a minute; the No. 2, three cans a minute.

Quantity production has enabled us to quote an exceptionally low price on this washer in both sizes. It will be decidedly to your advantage to learn more about it.

Large colored broadside illustrating and describing the ***CP*** Rotary Can Washer will be sent you on request.

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PAINT YOUR PERSONALITY ON YOUR PACKAGES

is a brilliant elastic colored enamel made especially for Dairy and Ice Cream service

Handling or transportation will not cause it to chip or crack. Hot or cold water, salt, ice, brine, washing powders, etc., will not dim its lustre or impair its protective qualities. Made in 24 colors, as well as black and white or in your standard shade if our regular colors don't suit. Write for our color card and ask for a sample.

THE ASSOCIATION OF ICE CREAM SUPPLY MEN
MEMBER

Labor Day Month—*Lets Go!*

Let's get tubs and cans "perked up" for another season of success.

Let's send them forth, here, there and everywhere, chiming out our standard color and shouting sanitation from Dan to Beersheba!

In other words—**Let's Derycote them!**

Derycote gives that distinctive touch to a tub or can that paints the personality of your brand upon the public mind.

An unpainted can or tub soon looks as rusty and delapidated as a travel stained hobo.

A poorly painted can looks like a "hand me down."

A Derycoted tub or can proclaims the aristocrat and no business ever lost a nickel by "keeping up appearances."

That's where Derycote shines—"Keeping up the appearances" of tubs and cans in close companionship with the high quality of your product.

Order enough of your standard color of Derycote to enamel sufficient tubs and cans to make a comparison with any tub and can enamel you have been using.

Compare results in **economy** and **service** and convince yourself.

THE NATIONAL PAINT and VARNISH COMPANY
CLEVELAND, OHIO, U. S. A.

PROSPERITY FOLLOWS THE DAIRY COW. Be sure you attend the National Dairy Exposition—St. Paul-Minneapolis, Oct. 7-14.

mits drawing the cream quicker than would be the case where a freezer is crammed full.

In numerous tests that have been made on reducing the brine temperature, we have seen it demonstrated clearly that it does not affect the quality of the ice cream provided scrapers are perfectly smooth and scrape even. A great many factories neglect to keep their scrapers sharp and even, with the result that particles of mix freeze on to the walls of the cylinder and naturally act as an insulator; hence preventing the operation being completed as quickly as otherwise would be the case.

Ice cream can be frozen with zero brine just as well as with a higher brine; as a matter of fact, better. However, it then would be necessary for the operator to correctly control his brine flow by turning the brine on and off as would be necessary, governing his actions by the peculiarities of the particular mix that he happens to be freezing.

* * *

In regard to freezing on low temperature brine, will say that we have always recommended freezing on as high temperature brine as could consistently be used. The higher the freezing temperature, the better it is for the ice cream, both in texture and yield. Ice cream freezing is a good deal like baking. Bread baked too suddenly would have a burst crust and doughy inside. Applying an extreme cold temperature to cream too quickly will make a terrific change in the cream and the drop is so great that it has a tendency to more or less deteriorate or roughen the finished ice cream. Plainly, the less the cream is disturbed from changing temperature, the better the finished results will be in the ice cream production.

* * *

We freeze our cream at a low temperature of brine, generally about ten minutes, when it is at the proper thickness; then turn off brine and whip until our overrun is about 100 per cent. If the cream is of the proper viscosity and contains the proper amount of milk solids, you will get your overrun as well as a soft, velvety ice cream.

* * *

We have not known of any manufacturer having trouble with grainy ice cream, even though they were freezing with a low temperature brine and shutting off when frozen to the desired consistency and whipping up to get the overrun. We believe that grainy ice cream would develop when the mix did not contain the proper ingredients or have been properly treated before freezing.

Mapleine

One of the Best Selling Flavors

Mapleine Ice Cream is having a remarkable sale this season.

A Brooklyn plant has produced in a few months 96,000 gallons of Mapleine Ice Cream. A Massachusetts manufacturer has bought enough Mapleine this year to make 44,800 gallons, while reports have come from Iowa, Wisconsin, Washington, Pennsylvania—from all parts of the country that Mapleine Ice Cream is one of the best selling flavors.



Mapleine Ice Cream has good demand because Mapleine is known and liked as a household flavor. And customers who enjoy Mapleine flavored home desserts have a corresponding liking for Mapleine Ice Cream.

Your customers will take just as readily to Mapleine Ice Cream. Send us $3 for a quart trial and convince yourself.

Crescent Manufacturing Co.
316 Occidental Ave.
SEATTLE WASH.

PETALUMA WOMAN TO MAKE ICE CREAM TO SUPPORT FAMILY.

Mrs. A. M. Simms of Petaluma, California, whose husband and son were killed in an auto accident in June, and who herself was injured so as to make it necessary for her to remain in the hospital several weeks, has returned to her home and is going to resume the manufacture of ice cream for the purpose of supporting herself and her three children.

NEW ICE CREAM MACHINE PATENTED.

A process to mould fancy designs in ice cream bricks has been patented. The inventors are F. R. Carter, O. A. Otten and John Willard, all of Fairbury, Nebraska. The process is in use now by the Robinson Ice Cream Co., of Fairbury, and appears to be working out very nicely. The inventors have not yet decided whether they will manufacture the process machine, sell the patent, or lease the process.

CONSUMPTION OF ICE CREAM CONES HEAVY.

A short time ago an ice cream dealer in Centerville, Iowa, a city of 8,486 inhabitants, made a statement to a layman that he believed 50,000 ice cream cones had been consumed in that city since the warm weather started. This number sounded so impossibly large to the man that he said he didn't believe the statement could be so.

That started an argument, which was settled by the results of an investigation. This showed that approximately 70,000 ice cream cones had been eaten by the people of Centerville since spring. One firm alone said that on hot days they had sold as many as 500 cones. At that rate it is easy to understand how this total mounted up. That's going some for Centerville. Who'd a thought it?

VOLSTEAD ACT BOOSTS ICE CREAM SALES.

Statistics compiled by the United States Department of Agriculture show that if the people of this nation are mourning the demise of John Barleycorn, they are saying it with ice cream. Sales of this healthful delicacy have mounted astonishingly since that thirsty first of July, 1918.

Figures given out by the department show that only 80,000,000 gallons of ice cream were manufactured during the entire year of 1909. In 1920 more than 260,000,000 gallons were placed on the market, an increase of more than 225 per cent. No detail figures of later date are available, but it is known that the 1920 figures were exceeded in 1921, and that the current year will break all records.

If you want a manager, superintendent, expert, chemist, bacteriologist, operator, pasteurizer man, or help of any kind, "The Ice Cream Review" can help you find the best available man. If you want a position, "The Ice Cream Review" can help you as it has helped hundreds of others to secure a good position.

COAT ESKIMO PIE

WITH

ALASKA CHOCOLATE COATING

A High Grade Milk Chocolate READY TO USE

Prepared especially for Coating Eskimo Pie and any other Ice Cream Delicacies

If you want to build up a lasting trade use ***this*** Chocolate Coating.

It eats right, Looks Better, Dips Easy, ***Coats*** more Bricks, costs less when quality is considered.—Contains ***more*** milk Solids, and more ***Pure Cocoa Butter.***

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331-333-335-337 Fifth Street - - MILWAUKEE, WIS.

Write or Wire for a SAMPLE CASE of 110 Lbs.

FRANKLIN GRANULATED SUGAR

AN UNBEATABLE FORMULA

To what you know about making ice cream, add what we know about sugar and

MIX

Extensive experimenting, covering a period of many years, has shown us the effect of different kinds of sugar in making ice cream. If you will tell us what kind of ice cream you want to make, we will tell you the kind of sugar to use.

***The* Franklin Sugar Refining Company**

PHILADELPHIA

"A Franklin Cane Sugar for every use"

FRANKLIN GRANULATED SUGAR

FACTS ABOUT HEATHIZATION (Carbonation).

Chicago, Ill., Aug. 15, 1922.

Editor: Ice Cream Review:

In a recent issue of The Ice Cream Review there was published a circular issued by the University of Illinois which dealt with the effect of carbon dioxide upon bacteria under certain laboratory conditions. This circular bore the following foot note:

"The terms **carbonated ice cream, carbonated milk,** etc., as used in this circular, refer to laboratory products made by laboratory methods, and not to products made by commercial processes patented or otherwise."

As first published, however, this circular contained no foot note. I took the matter up with Dr. David Kinley, President of the University, and Dr. Davenport, Dean of Agriculture. I pointed out that the University's work had no bearing upon the commercial patented method of Heathization (carbonation), because the method differed, the results differed, and the words "carbonated ice cream" had a distinct trade meaning referring to product made under the Heath patents.

Admitting that a possible injustice might be done if the circular fell into unscrupulous hands, the University's authorities sent the circulars back to the printer for the purpose of adding the foot note quoted above. This foot note plainly calls attention to the fact that such commercial methods as Heathization were not referred to in the circular.

Having read the results of laboratory experiments, readers of The Ice Cream Review will be interested in reading authoritative results where the Heath methods are employed in commercial plants. Although a great deal of investigational work had proven from the start the merits of Heathization, I wanted the ice cream industry to have actual results, impartially arrived at, by scientists of unimpeachable reputation—results obtained not in laboratories, but rather in commercial plants where men trained in the new method were continuously Heathizing food products.

Among these investigations I sought one whose past work for the dairy industry I knew to be such that it would commend him to manufacturers. Some years ago when the ice cream industry faced a serious crisis, it enlisted the services of Dr. Herbert Pease, then in charge of the Lederle Laboratories of New York, now known as the Pease Laboratories, Inc. I knew that Dr. Pease would be glad again to serve the ice cream industry by accurately determining the value of Heathization bacteriologically.

Dr. Pease conducted his tests upon Heathized and ordinary ice cream, samples from the same mix in one of our licensee's plants. The results show that the ordinary ice cream had on an average over 100 per cent more bacteria; four times as many molds; and ten times as many B. coli. In butter there was nearly 400 per cent more bacteria in the ordinary butter made from the same cream, and this ordinary butter had deteriorated after two weeks in the ice box, so that it had a decidedly bad flavor, while the Heathized butter was still fresh and sweet, of excellent flavor and aroma. This shows the results obtained with correct application in a plant licensed to Heathize.

Dr. Weinzirl, of the University of Washington, reported an average of from 30 per cent to 100 per cent more bacteria in the ordinary over Heathized ice cream made from the same mix; the degree of reduction depending upon the intensity of the application of the Heathization principle.

Doctors G. W. Lougheed and Gordon Cameron of the Department of Pathology, Toronto General Hospital (affiliated with Toronto University, the largest in the Dominion) also investigated the bacteriological value of Heathization in a Canadian licensee's plant. Their findings showed several hundred per cent more bacteria in both ordinary ice cream and ordinary butter made from the same materials.

There are no greater authorities in America upon flour, bread and baking than Doctors Wesener and Teller of the Columbus Laboratories, Chicago. After investigating a month in their baking department the value of Heathization in the making of bread, their findings conclude with this paragraph:

"In conclusion, we find as to results of our experiments and the careful consideration of this subject, that Heathization tends to promote cleanliness and purity of product in the making of bread, and that it does produce an appreciable improvement in the flavor of the finished product."

In 1921 Dr. Victor K. La Mer, Ph. D., of Columbia University, wrote a series of articles for the American Food Journal upon Vitamines. This instructor in Research Chemistry at Columbia University had done much original work in connection with vitamines upon oxidation and reduction potentials. He is the author of "The Effect of Temperature and Hydrogen on Concentration upon the Rate of Destruction of the Antiscorbutic Vitamine." Dr. La Mer has made a more complete investigation of Heathization than any other scientist and his findings are so startling and conclu-



The Mayborn Food Products Co.

SCIENTIFIC MANUFACTURERS OF

VANILLA EXTRACTS

PHONE CHERRY 196

CLEVELAND AND WE WELCOME YOU BECOME ACQUAINTED

GREAT GUNS! How can an Ice Cream man help but enthuse over the **"Goody-Good Plan"?** He just can't—if he *thinks* just a wee bit.

It's especially good for "Kids 2 years to 60". Ask

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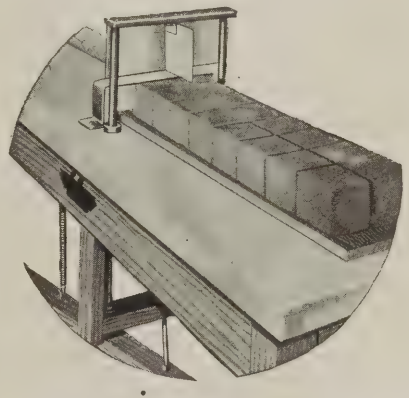
Jiffy Ice Cream Cutter

Will cut any shape that can now be cut with the most expensive ice cream cutter. It will do it just as fast and with only a little practice.

It cuts Eskimo Pies uniformly and the quantity is only gauged by the speed of the operator.

Pints or Quarts require only the omission or insertion of the projecting knife shown in illustration to the right.

Non-rustable table of substantial construction.



Two Weeks Free Trial Offer

To any responsible ice cream manufacturer we will ship one of these cutters on two weeks free trial. Put it to any test. Make any comparison you desire. If not satisfactory all you have to do is to write for shipping instructions and we will pay freight both ways.

Illustrated circular sent on request.

DAMROW BROTHERS CO.

MANUFACTURERS

Fond du Lac Wisconsin



A Milk Shortage is about due

THIS is the time of year when milk may be scarce. But you needn't worry if you use Merrell-Soule Powdered Skimmed Milk.

You can lay in just as big a supply of Powdered Skimmed Milk as you can possibly need, or you can depend on getting more just when you need it. And you can laugh at shortages and strikes.

Powdered Skimmed Milk before water is added will keep for months and months. You add water and have just as much milk as you need anytime.

Its the clean way, "the economical way" to buy milk. No half empty bottles or cans are sitting around drawing flies, wasting profits. No one handles the milk except the manufacturers, whose cleanly care is scientific.

Order from your supply house salesman today.

The Genuine

MERRELL-SOULE Powdered Skimmed Milk

MERRELL-SOULE SALES CORP.
SYRACUSE, N. Y.

sive, that readers of The Ice Cream Review will be interested in reading his report which I quote:

"The first test which I made was the determination of the relative amount of expansion energy released during hardening. I leveled off twenty quart cans of both products, each can containing exactly 25 pounds of ice cream. The Heathized can developed over ten times as much weight lifting energy.

"I next conducted a test upon flavor. I had fifteen people try both kinds of ice cream to see which was to them the more pleasing. I gave the samples secret markings known only to myself. The selections were made and twelve out of the fifteen selected the Heathized as preferable, the consensus of opinion being that it was a richer, smoother product, with better flavor. One of the judges was not sure which was preferable. Two selected the ordinary ice cream as their preference.

"Attached hereto you will find the names of the judges with their selections and comments. There is no room for doubt that Heathization improves the flavor of both ice cream and butter when good raw materials are used. I believe the reverse would be true if bad flavored raw materials were used. The stimulating effect of carbon dioxide upon the nerves of smell and taste has long been known to cause the more apparent flavor in carbonated than uncarbonated drinks.

"In my vitamine feeding experiments, I proved my basal diet free from vitamine A, and adequate in other respects, by feeding two rats upon it without any addition of butter. Both rats died upon the forty-ninth day, with marked loss in weight and with typical cases of eropthalmia due to deficiency in Vitamine A. Previous experiments, (fourteen in number) on this same diet have shown that such rats die on the average on the fifty-first day.

"I then fed ten pairs of rats this basal diet plus a supplement of butter, varying between .025 and .600 grams. At the end of three weeks the ten rats receiving the supplement of ordinary air-churned butter gained an aggregate of 466 grams while the ten receiving the Heathized butter, (made from the same cream) gained 534 grams, or an advantage of 15 per cent.

"Since there were two more males on the Heathized butter and two more females on the ordinary butter, I should make a correction for the greater growth in the males. Allowing fourteen grams per cage per three weeks, or 0.7 gram per day per rat, the data still shows that all of the rats gained 8.6 per cent more on the Heathized than on the ordinary, (on the average) as might be expected from other work on the vitamine destructive action of the oxygen of air.

"Only one pair of the ten pairs received a bare weight maintenance requirements **from the start of the butter additions,** so that the results of this test are of especial interest. These two, and an extra available rat, were of the same sex and litter, and of the same condition and size (within one seventh of an ounce). At the end of the two weeks feeding with a butter supplement of only .025 grams daily, the rat fed ordinary butter had gained 0.214 grams per day; one rat fed Heathized butter gained 1.78 grams per day (25 grams in 14 days), and the other rat fed Heathized butter gained 1.43 grams per day (20 grams in 14 days). The average daily gain for the two rats fed Heathized butter was therefore 1.60 grams against 0.21 for the air-churned or nearly a ratio of eight to one, but the rat fed the air-churned butter showed unmistakable signs of sickness, so have just switched him on to the Heathized butter supplement to make certain of the cause. He has made a gain of fifteen grams in the last 11 days on Heathized butter (see accompanying curve). I am now going to switch him back on to ordinary butter to confirm the result.

"Such well known vitamine experts as Profs. Hopkins, Drummond, Hess, and Dutcher are agreed that oxidation (by air) will destroy the A and C vitamines. The writer has shown previously in connection with other work that the C vitamine was completely destroyed by boiling with pure oxygen. Zilva's experiments show that carbon dioxide instead of oxygen prevented this destruction. McClendon's work gave similar results.

"My bacteriological examination is not yet started. However, I have received from Dr. G. W. Lougheed, of the Department of Pathology, Toronto General Hospital, his counts upon five ordinary and five Heathized samples of butter made from split batches of cream. His report showed a reduction in every instance in favor of the Heathized butter—the average bacterial contents of Heathized butter being less than one third as much as in the ordinary butter made from the same cream.

"Prucha, one of the authors of Circular 256, University of Illinois, shows clearly under Experiment 3 how valuable carbon dioxide is from a bacteriological standpoint. Of twenty different cultures (two being pathogenic) that could grow in air, only two could grow in carbon dioxide, due to its inhibiting action. Seventeen were not killed, but the three that were killed included the two pathogenic types (disease germs). However, this circular while it refers to the bacterial clusters breaking up (experiment 2) due to agitation in the freezer, it does not show the further breaking up of bacterial clusters that might be due to the carbon dioxide itself.

"My investigation, while not yet completed, shows that Heathization is scientifically sound and a decided step forward in the sanitary handling of food. Air contains impurities (dust particles, fungoids, bacteria) making it undesirable in food from the standpoints of cleanliness and purity. In fact in many states there are laws prohibiting the direct exposure of foodstuffs to air for this reason. Besides this the presence of air sets up oxidative reactions that are destructive to flavor and vitamines, a point that is just beginning to be appreciated.

"Carbon dioxide, being of greater purity and cleanliness than air, should result in cleaner food products. Containing no free oxygen, it does not contribute to deterioration of flavor, and the diminishing of the vitamine content as air has been shown to do.

"Furthermore, while air fosters bacterial growth in general carbon dioxide is often an inhibitor; the B. Typhosus being especially sensitive to its destructive action, as stated by Rideal in his book on Disinfection and Disinfectants (The Sanitary Publishing Company, London).

"I am not interested in the commercial value of your process of Heathization, but certainly from a scientific standpoint it has a great deal to recommend it, and as far as I can see it would be difficult to conceive of any valid objection to its use."

Here we have five impartial investigations from institutions of the highest standing, all proving the practical and scientific value of Heathization. There are no other authoritative investigations upon the Heathization of ice cream, past or present, conducted in any plant licensed to Heathize; no other investigations can



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Plain Square and Round Plates
Sidewalk Signs Mounted Complete
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Single Service Tin Can
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"Bentwood"
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High Grade Concentrate

A Compound Bean Vanilla, Vanillin, Coumarin and Tonka Flavor

FOR ICE CREAM AND CONFECTIONS

Impossible to freeze out its true flavor
Forever dependable

Use ¼ oz. (or dessertspoonful) to flavor 10-gallon batch ice Cream.

Use ¼ oz. (or dessertspoonful) to flavor 100 pound batch candy.

Sample cheerfully sent on request

PRICES
Per Pint

1 pint	$7.00
5 pints	6.75
10 pints	6.50
25 pints	6.25
50 pints	6.00

TERMS: 2% 10 days, 30 days net.

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Order direct or through any of the following well-known firms:

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ENTERPRISE DAIRY & CRY. SUP. CO..Cincinnati, O.
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BALSA is the only heat insulating material possessing real structural strength.

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305 Vernon Ave.
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N. Y.

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be accepted as authoritative. Miscellaneous reports similar to the University of Illinois circular may appear from time to time showing certain results under varying conditions, but such findings are not indicative of the value of Heathization as employed in licensees' plants. The proof lies in the difference in the results obtained under the Heath method and the chance method of the inexperienced.

The well known beneficial properties of carbon dioxide have prompted many scientists to experiment with it in laboratories. The intention and sincerity of these investigators may be unassailable; their motives may be beyond suspicion, yet you could not judge Heathization by their findings any more than you would expect to judge the merits of a homogenizer by examining dairy products that had been put through an emulsifier. You might say both distribute the fat globules, yet the two products are very different.

Because Heathization applies to food products so colossal in their scope, food products for which the American people spend annually two thousand million dollars, this inovation has inspired commendatory articles and editorials in numerous periodicals of serious purpose. The Literary Digest regarded this new science of such importance as to devote a whole page to the description of its claims. The New York Tribune featured it in their editorial page. Woman's and home magazines have endorsed Heathization; and it has been generously written up in a great number of the leading American and Canadian hospital, medical and health magazines.

The scientific reasons why Heathization is desirable are so apparent that leading scientists unhesitatingly endorse it. From a large number of them I will submit only one in conclusion. There is perhaps no greater authority upon air and its dangers than Dr. Jacques W. Redway, F.R.G.S., of the Meteorological Laboratories, Mount Vernon, New York. He is the author of the United States Department of Interior Bulletin entitled "The Dust Problem in School Buildings," also of "City Street Dust and Infectious Diseases" (January 1922 Ecology), and articles in the Medical Times.

Dr. Redway states:

'The flying dust at the earth's surface is a menace to health that musa be ranked with noxious insects and contaminated water—Clean air, which mortals never breathe, rarely contains fewer than three thousand visible dust particles per cubic inch.

"Health finds that an atmosphere of carbon dioxide is effective in preventing oxidation. The investigations of the Department of Agriculture leave no doubt about the value of a process which excludes free oxygen. Carbon dioxide is a pleasant stomachic stimulant and its consumption in aerated beverages is increasing. Indeed, humanity drinks millions and millions of gallons of aerated waters daily during the summer months, not "for the sirups but for the refreshing effects of the carbon dioxide. It therefore should be as acceptable in butter and ice cream as in the so-called soda water.

"Butter fat is by far the most important of the food fats, and its importance is due to its vitamine content. If the presence of carbon dioxide will preserve the vitamines, that fact alone is sufficient reason for its employment."

"There is neither chemical nor medicinal action in its use; it merely expels the air which contains the causes of deterioration; and no matter what the economical features of the process may be, **one thing is certain: It is in the interest of public health."**

Yours truly,
W. P. HEATH.

KOKOREKA

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VEGETABLE
BUTTER

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SAN FRANCISCO
203 California Street

PENNSYLVANIA STATE ICE CREAM MANUFACTURERS TO HOLD ANNUAL CONVENTION.

These are busy days for the officers and committee members of the Association of Ice Cream Manufacturers of Pennsylvania. They are getting ready for their sixteenth annual convention, which will be held at Harrisburg, Pa., October 9th, 10th and 11th, with headquarters at the Penn-Harris hotel. Mr. J. W. Neuman is secretary of this association. It looks as if there is going to be some heavy stuff pulled in the way of furnishing business stimulation to members—and leave it to Neuman not to forget that conventions aren't all work and no play! Not being a dull boy himself, he doesn't want anybody else to get that way, therefore the prospect for interesting amusement looks pretty good. Members had better turn to their calendars and put a ring around those three dates now, also to play safe on hotel accommodations by making reservations now.

TWO SUGAR MEN CALL.

Two hustling representatives of The Franklin Sugar Refining Company, Philadelphia, graced the Ice Cream Review sanctum one afternoon recently, and we are indebted to them for an interesting dissertation on the production and manufacture of that which satisfies the world's sweet tooth. Mr. C. W. Nordland, of Philadelphia, and Mr. Karl Pierson, Milwaukee, were the gentlemen in question and what they know about sugar would make a big book. It is indeed gratifying to note the special interest that sugar manufacturers are taking in ice cream manufacture. Special sugars for the industry are the result.

If you are tired of your business, don't worry over it. Advertise it for sale in The Ice Cream Review Want Department.

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Raspberry Pineapple **Lemon Pineapple**
Maraschino Pineapple (Red) **Natural Pineapple**

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Meyer Dairy Equipment Company

ST. LOUIS, U. S. A.

Designers *Engineers*

MANUFACTURERS AND DEALERS IN
Creamery, Dairy, Ice Cream Machinery



PROF. BAER'S INQUIRY DEPARTMENT

Reply to Z. R. T.: I have your recent letter in which you stated that you have trouble with sandy and gritty texture in your ice cream.

I have analyzed your mix and you will find the calculations given in table one.

Table No. 1.

Ingredients	Fat	Serum Sol.	Total Sol.
160 gal or 1328.0 pounds, 22 per cent cream	292.16	92.21	384.37
80 gal or 792.0 lbs. 8 % condensed	63.36	142.56	205.92
50 gal or 430.0 lbs. 3.5% milk	15.05	36.94	51.99
12 gal or 99.6 lbs. water	....	....	....
12.0 lbs. gelatine	....	....	11.40
300.0 lbs. sugar	....	....	285.00
2961.6 lbs	370.57	271.71	938.68
Per cent	12.5	9.18	31.7
Per cent sugar 10 per cent			

You will notice that while you have 12 per cent fat and 9 per cent serum solids your total solids are very low due mainly to the fact that your mix contains only 10 per cent sugar. I have taken for granted that your condensed milk is an unsweetened product as you did not state whether or not this contained any sugar.

It appears to me that the sandy or gritty condition of your cream must be due to the large amount of condensed milk. It is also possible that your condensed milk is held for quite a while at a very low temperature which is the cause of the candy product.

If you will give me a little more detail relative to your condensed milk, I can possibly find your trouble a little better.

I can not understand why after pasteurizing and viscolizing you should find lumps of gelatine in your mix unless you add your gelatine after pasteurizing instead of before. I suggest that you try adding your gelatine with the sugar into your hot mix while pasteurizing and thus eliminating the cooking of the gelatine in the same cooker.

* * *

Dear Sir:—Received your valued reply and am very much pleased with the results I am getting.

I would also desire a formula for making unsweetened condensed milk, from butter, skim milk powder and water having about 8 per cent fat.

To what temperature would you heat these ingredients, and how long would you hold at said temperature before running it through the homogenizer. G. M.

Reply: I am glad to suggest that you could make up an unsweetened condensed milk using the following ingredients:

9.5 pounds butter; 27.0 pounds skim powder; 63.5 pounds water; 100.0 pounds condensed—8 per cent fat 26 per cent serum solids—34 per cent total solids.

I suggest that the entire mix be heated at least to the pasteurizing temperature of 145 degrees and held at least 30 minutes before running it through the homogenizer.

* * *

Dear Sir:—We are planning to install a Manton-Gaulin Homogenizer, are also going to change our formula. We wish to have one formula:

For 100 pound mix, 15 per cent cream, skimmilk powder, gelatine, sugar, vanilla, 4 dozen eggs.

Please tell us the quantities of these ingredients that will give the best results. We intend to pasteurize the entire mix, at a temperature of 145 degrees homogenize, cool to 40 degrees and age. We would like to have the finished product to test at least 14½ per cent butterfat.

Please figure a second formula using 3¼ per cent milk, 85% sweet butter in place of 15 per cent cream. O. B. S.

Reply: You will find calculations made below in table 1 and table 2. You will notice however that in table 1 it has included 4 pounds of butter in order to make up the amount of butterfat which could not be furnished by the 15 per cent cream alone.

Table No. 1.

Ingredients	Fat	Serum Sol.	Total Sol.
14.0 lbs. sugar	....	....	13.30
.3 lbs. gelatine	....	....	.28
2.0 lbs. Skim powder	....	1.9	1.90
6.0 lbs. eggs	....	....	1.20
4.0 lbs 85% butter	3.4	....	3.40
73.7 lbs 15% cream	11.05	5.58	16.63
100.0 lbs.	14.45	7.48	36.71

Table No. 2.

Ingredients	Fat	Serum Sol.	Total Sol.
14.0 lbs sugar	....	....	13.30
.3 lbs. gelatine	....	....	.28
2.0 lbs skim powder	....	1.9	1.90
6.0 lbs eggs	....	....	1.20
15.0 lbs. 85% butter	12.7	....	12.70
62.7 lbs 3.25% milk	2.03	5.4	7.43
100.0 lbs.	14.73	7.3	36.81

* * *

Dear Sir:—Will you please give me a formula, for a 10 per cent ice cream mix, with 35 per cent solids.

I want to use, 20 per cent sweet cream, 3.5 per cent milk, and skim condensed, I use nothing but pure cane sugar for sweetening, and no filler of any kind, only the best gelatine I can buy, for flavoring I use 4 oz. vanilla.

I am really trying to give the people a real ice cream and do not believe in a lot of dope, so give me the best formula you can.

Will you also advise me how many pounds of butter you would have to add to 3.5 per cent milk to make a 20 per cent cream. R. D. P. Co.

Reply I am glad to suggest below in Table 1 an ice cream formula with 10 per cent butterfat and 3 per cent total solids, made up from the ingredients mentioned in your letter.

Replying to the matter of making up 20 per cent cream from butter and 3.5 per cent milk. You would use 16½ pounds with 64 pounds of 3.5 milk. Those figures are arrived at by substracting 3.5 from 20, getting 16½, or the amount of butter you use in subtracting 20 from 84, which is the per cent of fat in unsalted butter, giving 64 pounds or the amount of milk with 16½ pounds of butter. This would make a total of 80½

A 4,000,000 GALLON ICE CREAM PLANT
AND A
25,000 GALLON PLANT
Can be immeasurably benefitted. The simple plan requiring *no* new equipment—no extra expense. Ask
SANI-DAIRY PRODUCTS CORPORATION, 45th and Evans Ave., CHICAGO



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for the Ice Cream Industry
Cleveland
Oct. 17th-21st, Incl.

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Let us tell you personally of the merits of the M. & H. brands of Gelatine, in the production of which we take pride.
We invite our friends new and old, to meet us and to make themselves at home in our booths.

Milligan & Higgins Gelatine Co.
ESTABLISHED 1868
222-224 Front Street NEW YORK

PAPER VESSELS ARE POPULAR FOR SANITARY CONTAINERS.

pounds or just about a 10 gallon can full of 20 per cent cream.

Table No. 1.

Ingredients	Fat	Serum Sol.	Total Sol.
14.0 lbs. Sugar	....	....	13.30
.5 lbs. Gelatine	....	....	.47
.5 lbs Vanilla	....	....	.07
16.0 lbs. skim condensed	....	4.3	4.30
40.0 lbs. 20% cream	9.2	3.27	12.47
23.0 lbs 3.5% milk	.8	1.97	2.77
100.0 lbs.	10.0	9.54	33.38

* * *

Dear Sir:—We are sending you two of our mixes and would like to have your comment on them, also any suggestions you might offer to improve our mix. Would like to know the total solids of each mix and the changes necessary to give us the proper solids. Also the amount of ice cream we should get from each one.

We have not been getting the proper overrun and thought it might be caused from lack of solids.

We are making a 14 per cent cream and assure you that any information you give us will be greatly appreciated.

Mix no. 1—320 lbs. 30 per cent emulsified cream; 320 pounds 35 per cent milk; 112 pounds sugar; 20 pounds gelatine and water; 3 pounds vanilla. total 775.

Mix No. 2—Butter 84 per cent fat 101.4; milk 3.5 per cent fat, 548.6; sugar, 112.0; gelatine, 5.0; vanilla, 3.0. Total 770.0. G. R.

Reply: You will find the analysis of your 2 tables given below in Table 1 and 2. I do not know whether you have ever tried the use of skim milk powder for the purpose of increasing the milk serum solids, but I believe you could improve your cream consistency if you would use just a little less sugar, possibly 13½ per cent and increase the serum solids by 2 per cent.

I shall be very glad to assist you further in these if you desire to use skimmilk powder and are not sure about the mixes.

Table No. 1.

Ingredients	Fat	Serum Sol.	Total Sol.
320.0 lbs. 30% cream	96.0	19.94	115.94
320.0 3½% milk	11.2	27.50	38.70
112.0 lbs. sugar	....	....	106.40
5.0 lbs. gelatine	....	....	4.75
3.0 lbs vanilla	....	....	.45
15.0 lbs. water	....	....	....
775.0 lbs.	107.2	47.44	266.24
Per cent	13.8	....	....
Per cent sugar	14.45	....	....

Table No. 2.

Ingredients	Fat	Serum Sol.	Total Sol.
101.4 lbs. butter 84%	85.17	....	85.17
548.6 lbs 3.5% milk	19.20	47.09	66.29
112.0 lbs. sugar	.....	....	106.40
5.0 lbs. gelatine	....	....	4.75
3.0 lbs. vanilla	....	....	.45
770.0 lbs.	104.37	47.09	263.06
Per cent	13.54	6.12	34.1

* * *

Dear Sir:—A friend of mine, superintendent of an ice cream plant, and subscriber to the Ice Cream Review, has asked me to write you for suggestions regarding his mix. He believes he should have more solids in the cream and would appreciate your criticism of the formula, with suggestions for its improvement.

Following is the mix:

250 quarts or 3.5 per cent milk; 100 quarts or 38 per cent to 40 per cent cream; 50 quarts condensed whole milk 3.5 per cent—2 to 1 "Ruff" machine; 3½ pounds gelatine; 125 pounds of sugar. P. L.

Reply: You will find in Table number 1 the analysis of the present formula and I am also suggesting in Table number 2 how you could have double the amount of condensed milk, improving your mixes by increasing the serum solids and total solids.

If you have any further conversation relative to my suggestions or if you should desire, I shall be glad to have you write.

Table No. 1.

Ingredients	Fat	Serum Sol.	Total Sol.
250 qts. or 537.5 lbs 3.5% milk.	18.81	46.23	65.04
100 qts. or 200.0 lbs. 4.0% cream	80.00	10.68	90.68
50 qts. 110.0 lbs. 3.5 cond.	3.85	17.60	21.45
125.0 lbs. sugar	.....	.....	118.75
3.5 lbs. gelatine	....	....	3.32
976 lbs.	102.66	74.51	299.24
Per cent	10.5	7.63	30.04
Per cent sugar	12.8	....	....

Table No. 2.

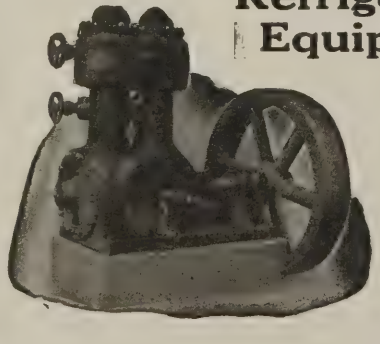
Ingredients	Fat	Serum Sol.	Total Sol.
200 qts. or 425.5 lbs. 3½% milk	14.88	36.50	51.38
100 qts or 220.0 lbs. 3.5% cream	80.00	10.68	90.68
100 qts or 20.0 lbs. 3.5% condensed	7.70	35.20	42.90
125.0 lbs. sugar	....	....	118.75
3.5 lbs. gelatine	....	....	3.32
976.0 lbs.	102.58	82.38	307.03
Per cent	10.5	....	....
Per cent sugar	12.8	....	....

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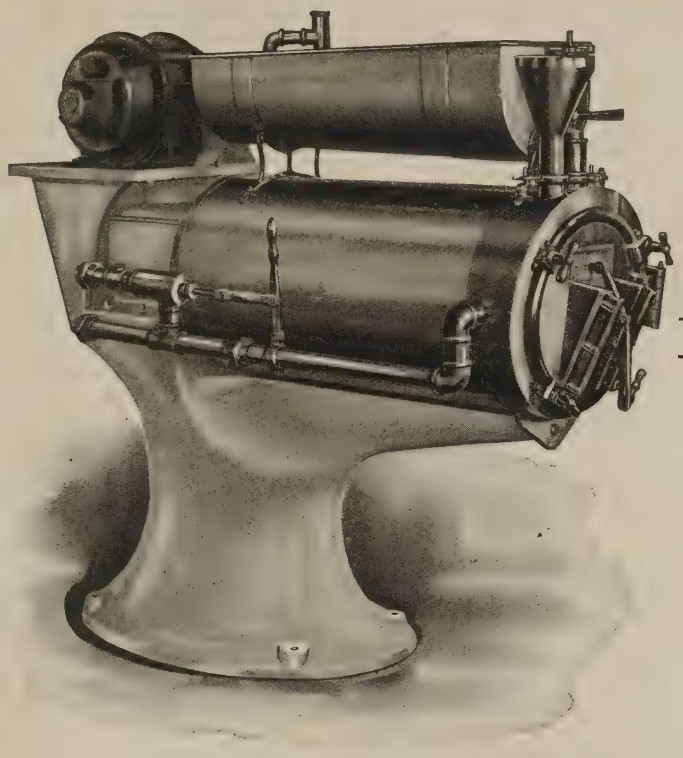
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NATIONAL EXPOSITION
of the Association of Ice Cream Suppy Men
OCT. 17-21st. CLEVELAND, O.

WE INVITE YOUR INSPECTION

Emery Thompson Machine & Supply Company

271-275 RIDER AVE. (6-8 Canal Place, Bronx) **NEW YORK**

Dear Sir:—Will you advise us the proper ingredients to use to give us a 12 per cent butterfat finished product using sugar, 40 per cent cream, gelatine, plain condensed skim, sweetened condensed skim and water.

2. Using sugar, 40 per cent cream, gelatine 8 per cent whole condensed and water. Please use gallons instead of pounds in your reply. W. F. M.

Reply to W. F. M: I am suggesting below in Tables number 1 and 2, the two ice cream mixes which you wanted worked out. If this is not exactly the information you want, I shall be glad to hear from you again.

Table No. 1.

Ingredients	Fat	Serum Sol.	Total Sol.
9.6 lbs sugar	....	9.12	9.60
.5 lbs. Gelatine	....	....	.47
1 gal. or 11.0 sweet condensed.	2.97	7.37	4.40
3¾ gal. or 30.0 lbs. 40% cream	12.0	1.61	13.61
2 gal or 18.0 lbs plain cond..	5.40	5.40	....
100.0 lbs	12.0	9.98	35.97

Table No. 2.

Ingredients	Fat	Serum Sol.	Total Sol.
14.0 lbs. Sugar	....	....	13.30
.5 lbs. Gelatine	....	....	.47
50.0 lbs 8% condensed	4.0	9.0	13.00
20.0 lbs 40% cream	8.0	....	9.06
15.5 lbs water	....	1.06	....
100.0 lbs.	12.0	10.06	35.83

* * *

Dear Sir:—Will you please send me a formula for 100 gallons raw material or 200 gallons finished ice cream of 10 per cent butter fat, 34 per cent total solids using 3½ per cent milk, 84 per cent butter and skim milk powder also a formula for 100 gallons raw material or 200 gallons finished ice cream of 14 per cent butter fat, 36 per cent total solids, using same ingredients as above. P. A. M.

Reply I am suggesting a 10 per cent and a 14 per cent ice cream mix with the ingredients suggested in your letter.

You will notice that both of these mixes are for 900 pounds so that if your ice cream weighs 4½ pounds to the gallon having overrun and 100 per cent, that it should yield 200 gallons of ice cream.

Table No. 1.

Ingredients	Fat	Serum Sol.	Total Sol.
126.0 lbs. sugar	....	....	119.70
4.5 lbs. gelatine	....	....	4.27
36.0 lbs skim powder	....	34.2	34.20
80.0 lbs 84% butter	67.2	....	67.20
653.5 lbs. 3.5% milk	22.83	56.2	79.03
900.0 lbs.	90.03	90.4	304.40
Per cent	10.0	10.0	33.80
Per cent sugar	14.0	....	....

Table No. 2.

Ingredients	Fat	Serum Sol.	Total Sol.
126.0 lbs. sugar	....	....	119.70
4.5 lbs. gelatine	....	....	4.27
28.0 lbs skim powder	....	26.6	26.60
124.0 lbs 84% butter	104.16	....	104.16
617.5 lbs. 3½% milk	21.60	53.05	74.65
900.0 lbs.	125.76	79.65	329.38
Per cent	13.97	8.85	36.59

Who Said It?

EVERYBODY'S SAYING THE

"Goody Good" Plan is helping their Ice Cream business. No new equipment — No royalties.

Ask **SANI-DAIRY PRODUCTS CORPORATION**

45th and Evans Ave. Chicago

Dear Sir:—I would be pleased if you would let me know my serum solids, butterfat and total solids. At present we are using 90 gallons 3.5 per cent milk, 30 gallon 8 per cent bulk condensed, 124 pounds butter 84 per cent, 150 pounds sugar, 7 pounds gelatine, 10 ounces meloine, 6 ounces concentrated vanilla, and 4 ounces color.

If you could suggest any changes would like to have you do so. I viscolize my whole mix and obtain about 240 gallons of finished cream.

I am enclosing a stamped envelope and would very much appreciate a letter in reply. F. H. S. & S

Reply: Replying to your letter of March 29, I am glad to figure your fat, serum solids and total solids. You will notice that you have a total milk solid of just about 20 per cent which is as low as a good ice cream should have. You could improve this formula by using just a little more serum solids. You could easily do this by using a little skimmilk powder. You will also notice that you have only 31½ per cent solids. This is due to the small amount of sugar. Most ice cream factories now use 13 to 14 per cent sugar while you notice that you only have 11.3 per cent.

I believe with these suggestions you will be able to modify your mix and get better results. You should be able to get more than 240 gallons of ice cream from this mix. If you will increase the total solids to 35 per cent you should have no difficulty in getting close to 300 gallons from your mix.

Ingredients	Fat	Serum Sol.	Total Sol.
90 gal. or 774.0 lbs. 3.5% milk	27.09	66.49	93.58
30 gal. or 264.0 lbs. 8% cond...	21.12	47.52	68.64
124.0 lbs. 8.4% butter	104.16	....	104.16
150.0 lbs sugar	....	....	142.50
7.0 lbs gelatine	....	....	6.65
1.25 lbs. van and color	....	....	.19
1320 lbs.	152.37	114.01	415.72
Per cent	11.53	8.69	31.5
Per cent sugar	11.3	....	....

* * *

Dear Sir:—We are anxious to have you figure a thousand pound mix for us with 38 per cent solids, 12 per cent butterfat. We use skimmilk, unsalted butter and skimmilk powder but our results are not satisfactory, the ice cream being too rough.

If possible we would like to use skimmilk powder with condensed skimmilk to obtain the correct amount of solids. S. F.

Reply: I am glad to suggest the ingredients for the 1000 pound mix as suggested in your letter.

1000 lb. Mix, 12% fat, 38% Total Solids

Ingredients	Fat	Serum Sol.	Total Sol.
140.0 lbs sugar	....	....	133.00
5.0 lbs. gelatine	....	....	4.75
143.0 lbs 84% butter	120.12	....	120.12
100.0 lbs skim condensed	....	30.	30.00
44.0 lbs skim powder	....	41.8	41.80
568.0 lbs. skim milk	....	50.56	50.56
1000.0 lbs.	120.12	122.36	380.23
Per cent	12.01	12.22	38.02

You do not state in your letter the per cent of sugar that you desired, but I am assuming that if you want 38 per cent solids that you would want to use at least 14 per cent sugar.



You can't afford to miss a single copy of "The Ice Cream Review." Did you send in your renewal?

No New Equipment

is required, no royalties, practically no expense is involved—yet a "Plan" to make small customers into large and profitable ones has been successfully inaugurated in many large, as well as small ice cream plants.

The manufacturer who deliberately closes his eyes to the enormous possibilities with the new "no cost" merchandising, selling and advertising campaign that is included with the **"Goody-Good" Plan** is doing himself serious injury.

There is no chance of loss with this plan — you risk nothing.

Experts who have specialized in, and studied ice cream sales, marvel at the rapidity of results and the quick accumulation of profits thru the **"Goody-Good" Plan.**

This in no way interferes with your regular advertising, selling or manufacturing.

The progressive, wide-awake manufacturers will be quick to take advantage of this "Plan."

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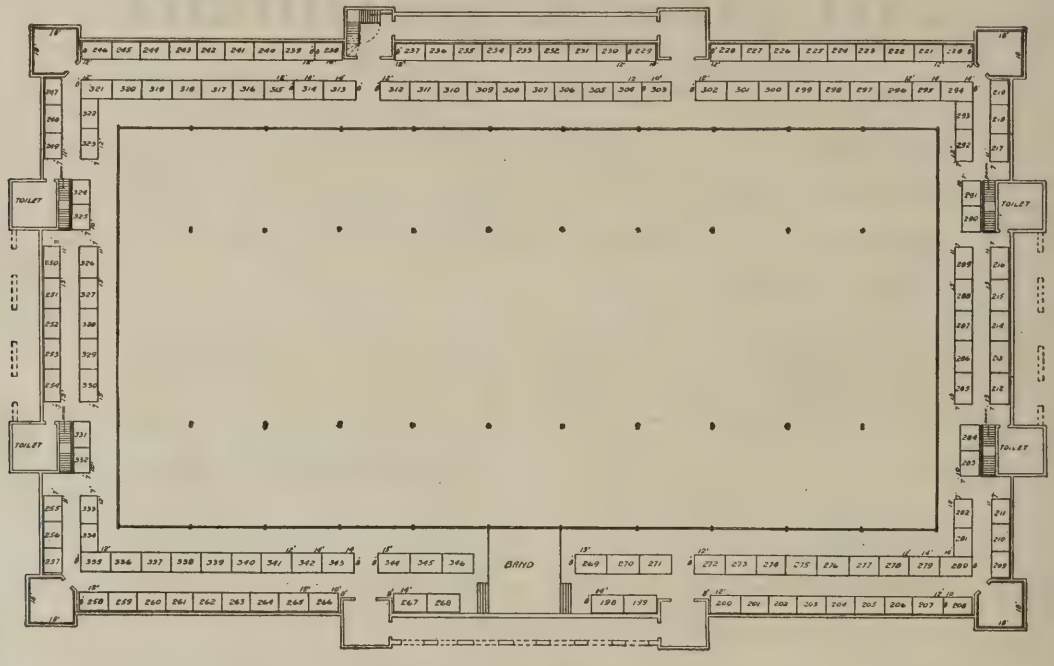
and

MIX CONTROL

LIST OF EXHIBITORS NATIONAL DAIRY EXPOSITION.

(Continued from page 26)

Foxboro Co., Inc., The	Foxboro, Mass	181—
General Laboratories	Madison, Wis.	96—
General Motors Truck Co	Pontiac, Mich.	14–A
Glacifer Co., The	Cambridge, Mass.	315—
Greenhalgh, J. H. & Co., 4403 Sheridan Road	Chicago, Ill.	328—
Hansen's Laboratory, Chr., Inc	Little Falls, N. Y.	189—
Hinman Milking Machine Co., by J. C. Marlow Distributor	Mankato, Minn.	341—342
Hoard, W. D. & Sons Co	Fort Atkinson, Wis.	60—95
Hohmann-Nelson Co.	Eau Claire, Wis.	300—
The Hudson Manufacturing Co., 119 N. Union St	Chicago, Ill.	144—145
Hudson Manufacturing Co	Minneapolis, Minn.	22—49
Imperial Electrical Co	Union City, Ind.	14—C
International Harvester Co. of America, 606 S. Michigan Ave	Chicago, Ill.	212—216 & 285—289



MEZZANINE FLOOR PLAN

Jalco Motor Co	Union City, Ind.	303—
James Manufacturing Co	Fort Atkinson, Wis.	57—58 & 97—98
Jensen Creamery Machinery Co	Bloomfield, N. J.	26—45
Jensen, P. W. & Son	Princeton, Minn.	247—
Keiner-Williams Stamping Co	Richmond, Hill, N. Y.	176—
Kennedy & Parsons Co	Omaha, Nebr.	175
Kimball, Fred L. Co	Waterloo, Ia.	192—
Kimble Glass Co., 402 W. Randolph St	Chicago, Ill.	197—
King Ventilating Co	Owatonna, Minn.	16—55
Kraft, J. L. & Bros. Co., 402 Rush St	Chicago, Ill.	243—
Kwick Manufacturing Co	Owatonna, Minn.	189—A
Ladd, John W. Company	Detroit, Mich.	115—124
Lathrop - Paulson Co., 2459 W. 48th St	Chicago, Ill.	197—A & 197—B
Leffel, The, James & Co	Springfield, Ohio.	102—
Levering & Co., Inc	St. Louis, Mo.	298—
Liberty Glass Co	Sapulpa, Okla.	31—
Loew, The, Manufacturing Co., 9000 Madison Ave	Cleveland, Ohio.	4—5
Louden Machinery Co	Fairfield, Iowa.	93—
McCormick Co., The, Inc., Century Bldg	Pittsburgh, Pa.	334—
Manning Manufacturing Co	Rutland, Vermont.	36—38 & 40—42
Mathews, Frederick C., Co	Detroit, Mich.	225—228
Menasha Printing & Carton Co	Menasha, Wis.	193—195
Menasha Wooden Ware Co	Menasha, Wis.	245—246
Merit Paint & Varnish Co., The, 3748 E 91st St	Cleveland, Ohio.	301—
Merrell-Soule Sales Corp	Syracuse, N. Y.	147—
Meyer, Geo. J. Manufacturing Co	Milwaukee, Wis.	18—19 & 52—53
Midwest Engineering & Equipment Co., 617 Fulton St	Chicago, Ill.	248—249
Miller, H. H. Industries Co	Canton, Ohio.	7—
Milwaukee Dairy Supply Manufacturing Co	Milwaukee, Wis.	8—
Mojonnier Brothers Co., 739 W. Jackson Blvd	Chicago, Ill.	34—35
Molasses Feeds Co	St. Paul, Minn.	331—332
Nafis Louis, F. Inc., 544 Washington Blvd	Chicago, Ill.	½ of 123
National Paint & Varnish Co., 8707 Kinsman Road	Cleveland, Ohio.	312—
Northrup, King & Co	Minneapolis, Minn.	293—
Northwest Farmstead	Minneapolis, Minn.	337—
N. W. Collapsible Carrier Co	St. Paul, Minn.	⅓ of 136 & ⅔ of 135
Nutting Truck Co	Faribault, Minn.	313—
New Era Company	Oshkosh, Wis.	339
Olsen Publishing Co	Milwaukee, Wis.	6—
Perfection Manufacturing Co	Minneapolis, Minn.	20—21 & 50—51

(Concluded on page 126)

VANILLA CONTROL

STANDARD VANILLA AND BLENDS

IN every highly specialized industry the laboratory plays an important part. The laboratory makes possible exact buying and manufacturing, without which the highly specialized business does not prosper.

Just consider the importance of the laboratory in the ice cream industry. Crude materials are bought on comparative tests, milk components are bought on a definite fat-and-solids basis and the finished product has a fixed overrun and fat-and-solids composition. Nothing is left to chance. And only by such methods as this is it possible to strike a favorable balance at the close of the year.

Our business, just as highly specialized, if not more so, demands the same control. Crude materials are bought, subject to laboratory approval, processes are checked, and finally, the finished product is analyzed for constancy of composition. And just as the ice cream manufacturer by such methods gives fair value to the public so do we guarantee our products to the manufacturer at all times.

STANDARD VANILLA AND BLENDS

G. R. Ryan Manufacturing Company
INCORPORATED
Rochester, New York

ACCURACY PLUS QUALITY — Nafis TRADE MARK — SAVES YOU MONEY

ARE YOU UP-TO-DATE?

Do you maintain uniformity of your ice cream by using the

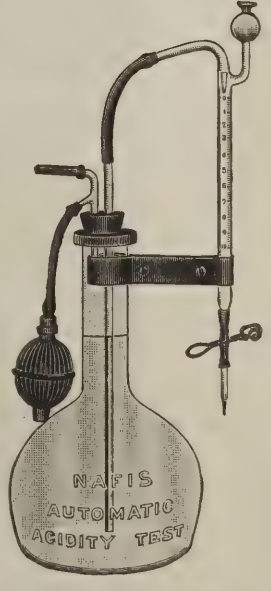
Nafis Automatic Acidity Test?

The most successful ice cream manufacturers have learned by experience that this test soon pays for itself in improved quality of their product.

NAFIS INDICATOR and CONCENTRATED NEUTRALIZER, furnished with each test, are prepared in our laboratory with the same care as to Accuracy that is used in making NAFIS GLASSWARE.

NAFIS FAULTLESS STIRRING ROD, containing the correct color to match in neutralizing the acidity, is included with each test.

If your dealer does not stock NAFIS GLASSWARE write for our illustrated circular of this test and the name of our distributor in your territory.



LOUIS F. NAFIS, INC.

MANUFACTURERS OF

Scientific Glassware for Testing Milk and its Products

542-548 Washington Blvd. CHICAGO, U. S. A.

Ask the Men Who Use It.

Performance Counts

ZERO

GUARANTEED

Ask the Drivers



Repeat orders for GROTHE PATENTED REFRIGERATOR BODIES after being tried out and compared with other systems speak more than anything we can say.

The Light Weight, Low Temperature and Rugged Construction of Grothe Patented Refrigerator Body is Making Ice Cream History

This body saved 25% of initial cost in one day.

BUTTER SHIPPED PROMPTLY IN PRINTS, ROLLS OR TUBS

ICE CREAM IN ANY QUANTITY AT SHORT NOTICE

THE PLEASANT VALLEY CREAMERY CO.
MAKERS OF
HIGH GRADE BUTTER AND ICE CREAM
SHIPPERS OF CREAM, MILK AND EGGS
MILTON, PENNA.

John J. Grothe Co., Aug., 21st.
Woburn, Mass.

Gentlemen:

Just a little Booster letter—We are operating two Grothe Body trucks and we want two more in the very near future and possibly two in the spring. Why?—Saturday, Aug. 19, our 200 gallon Body loaded to capacity was forced over an embankment thirty miles from plant, and in the turn over about half the ice from the refrigerating compartment was lost and body landed on door side. Twelve hours later truck and body was brought back to the road, AND 200 GALLONS OF ICE CREAM was found to be in the same condition as it left the plant. Lying 12 hours in the hottest sun we have had this summer (108 Temp.), with half the amount of ice, we believe is as hard a test as a body can be put to. The truck, a Kearns and body, carried on with only a few scratches to show. Both showed a splendid work of efficiency and sturdiness.

Kindly send us your new folder, as we desire to place with the Kearns Motor Co. our order for two more Grothe Body trucks.

With our very best regards and appreciation,

Very truly,
PLEASANT VALLEY CREAMERY CO.,
Per Sec. and Mgr.,
(Signed) Windsor.

Manufactured and sold under supervision of

JOHN J. GROTHE COMPANY, Inc.
WOBURN, MASSACHUSETTS

Canadian Branch
JOHN MITCHELL, Guelph, Ontario, Canada

THE ASSOCIATION OF ICE CREAM SUPPLY MEN MEMBER

Middle States
FRANK L. RUZICKA, 7th and Cass Ave., St. Louis, Missouri

See You at Cleveland Booths 87-88-89-90

"IF YOU WISH TO BE GOOD, FIRST BELIEVE THAT YOU ARE BAD."—EPICTETUS.

LIST OF EXHIBITORS NATIONAL DAIRY EXPOSITION.

(Concluded from page 70)

Pfaudler Co., The	Rochester, N. Y.	99—101
Perkins Corporation	Mishawaka, Ind.	299—
Quaker Oats Co., The, 1600 Ry Exchange Bldg	Chicago, Ill.	59—
Rapid Bottle Washer Co., The	Delphos, Ohio.	62—
Reid, A. H. Creamery & Dairy Sup. Co., 69th & Haverford Av.	Philadelphia, Pa.	139—140
Rice & Adams Corporation	Buffalo, N. Y.	117—122
Rogers, C. E., 8731 Witt St	Detroit, Mich.	196—
Schaefer Manufacturing Co	Berlin, Wis.	238—
Schonek, G. F. Inc	Minneapolis, Minn.	234—
Sealright Co., Inc	Fulton, N. Y.	190—
Skinner Bros. Manufacturing Co., Inc	Kansas City, Mo.	304—
Smith Lee Co., The	Oneida, N. Y.	178—179
Solar-Sturges Manufacturing Co., Congress & Green Sts	Chicago, Ill.	149—150 & 173—174
Specialty Brass Co	Kenosha, Wis.	183—C
Standard Cap & Seal Corp., 1200 Fullerton Ave	Chicago, Ill.	29—
Standard Conveyor Co	North St. Paul, Minn.	324—325
State of South Dakota, Dept of Immigration	Pierre, S. D.	290—291
Tagliabue, C. J. Mfg. Co., 18-33rd St	Brooklyn, N. Y.	310—
Taylor Instrument Companies	Rochester, N. Y.	43—
Thatcher Manufacturing Co., 30 N. La Salle St	Chicago, Ill.	116—
Thompson, Emery, Machine & Supply Co., 271 Ryder Ave	New York, N. Y.	1A—1B
Toledo Bottle Cap Co	Toledo, Ohio.	141—182
Torsion Balance Co., 92 Reade St	New York, N. Y.	½ of 123
Tri-Clover Machine Co	Kenosha, Wis.	14—B
Universal Milking Machine Co	Columbus, Ohio.	1—
Uhlmann-Kinsey Co., Inc., 1935 Ranstead St	Philadelphia, Pa.	142—
Union Brass & Metal Mfg Co	St. Paul, Minn.	242
Union Fibre Co., Inc	Winona, Minn.	318—
Union Steam Pump Co	Battle Creek, Mich.	148—
U. S. Dept. of Agriculture	Washington, D. C.	198—211 & 269—284
U. S. Freezer & Machine Co., Union Ave., & Frost St	Brooklyn, N. Y.	103—136
Vilter Manufacturing Co	Milwaukee, Wis.	1—
Wacho Can Straightener Co	Manitowoc, Wis.	338—
Ward Motor Vehicle Co	Mount Vernon, N. Y.	191——
Wells & Richardson Co., Inc	Burlington, Vt.	333—
Wildberg Box Co	Cincinnati, Ohio.	48—
Willhelm Oil Co	St. Paul, Minn.	307—
Wood, John, Manufacturing Co	Conshohocken, Pa.	143—180
York Manufacturing Co., 1332 Monadnock Bldg	Chicago, Ill.	146—177
York Milk Machinery Co	York, Pa.	32—33

GREAT BUFFALO SHOW OUTMATCHED.

(Continued from page 10)

of such new types and varieties of equipment and machinery as have been developed in the past year.

More Booths.

At Buffalo there were a little more than 20,000 square feet of space in the exposition building, the attractive Elmwood Music Hall. In the Cleveland Public Hall the exposition space to be occupied by the National Exposition exceeds 30,000 square feet.

There will be a corespondingly greater number of booths than there were at Buffalo, and therefore a wider variety of equipment, machinery, supplies and special services as well as a greater number of examples of each variety, on display.

Ice cream manufacturers traveling from any distance were able to meet nearly a thousand of their fellow manufacturers from other cities and states at Buffalo.

At Cleveland they will be able to meet more nearly 2,000 than 1,000 fellow manufacturers.

At Buffalo the exposition building was about ten minutes' distance from the principal hotels.

In Cleveland the Exposition will be two minutes' leisurely walk, only, from the hotel headquarters of ice cream manufacturers.

Some Displays.

Freezers, tanks, mixers, homogenizers, ice making machinery, breakers, condensers, and other pieces of machinery were among the displays at Buffalo.

More than fifty varieties of essential supplies ranging all the way from colors to milk, from flavors to cartons, from salt to improvers, were also on display.

Delivery, packaging, refrigeration, interior and exterior plant equipment—in fact every general or special type of equipment, used in connection with an ice cream business, was also represented on the floor.

Some of the special services employed by ice cream manufacturers to advantage that were displayed or demonstrated were merchandising, engineering, laboratory, accounting, advertising and repairing services.

Leaders There.

The various companies making displays included the leaders in every line of industry serving the ice cream business in its supply end. Many of the displays were valued at tens of thousands of dollars. Many of the goods shown were made up specially for the exposition and represented months of special effort and expense.

The visitors came from Colorado, Connecticut, District of Columbia, Illinois, Indiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New York, New Jersey, Ohio, Pennsylvania, Rhode Island, Vermont, West Virginia, Wisconsin and from the following Canadian provinces: New Brunswick, Nova Scotia, Ontario and Quebec.

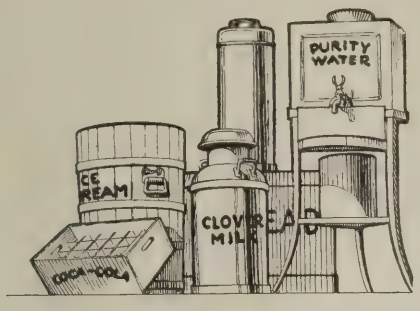
The details of the exposition were carefully worked on for months by The Association of Ice Cream Supply Men.—Exposition Extra.

If you want a manager, superintendent, expert, chemist, bacteriologist, operator, pasteurizer man, or help of any kind, "The Ice Cream Review" can help you find the best available man. If you want a position, "The Ice Cream Review" can help you as it has helped hundreds of others to secure a good position.

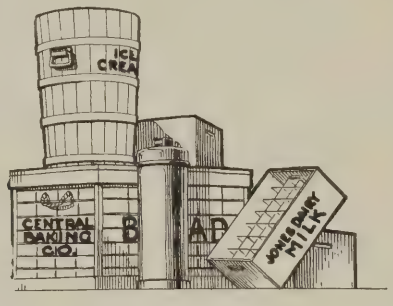
Make Your Package Advertize Your Product

ENAMELAD
THE EVER READY ENAMEL
for Tubs-Cans-Cases

Easily Applied Looks Better Lasts Longer



YOUR BEST AD



Your best ad is a clean, bright, snappy package; one that is easily identified and has that peppy look which reflects the spirit of a live concern.

Enamelad, the wonder package enamel used on your containers will brighten them up and produce that effect you have always tried to get.

Easily cleaned, easily applied, dries over night and priced right.

SEE YOU AT THE EXPOSITION

THE MERIT PAINT & VARNISH CO.

CLEVELAND, OHIO

Crown Fruit Products

ARE USED

In The Largest Ice Cream Factories From Coast to Coast

BECAUSE

THEY ARE OF SUPERIOR QUALITY

CROWN FRUIT & EXTRACT CO., Inc.

420 WEST BROADWAY

New York

Industrial Philadelphia—Philadelphia Ice Cream

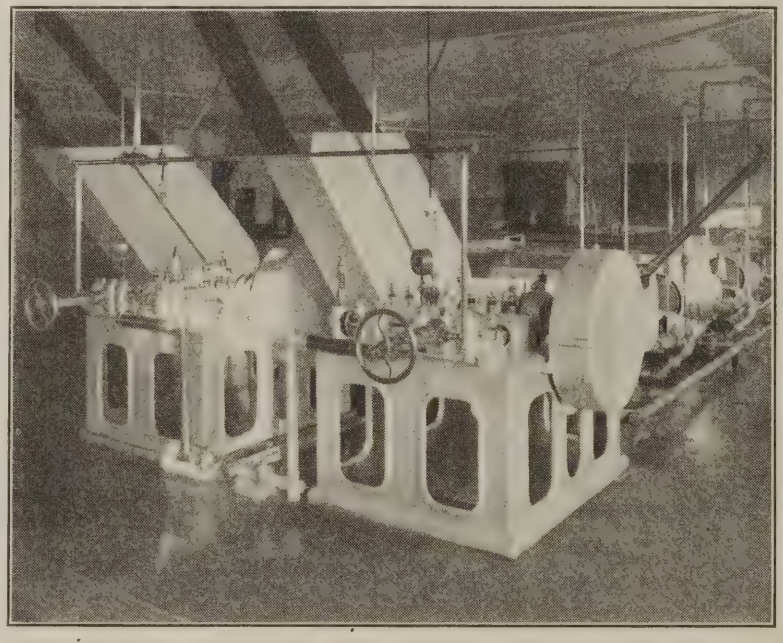
THE Girard Trust Company, Philadelphia, issues an interesting monthly house organ entitled "The Girard Letter." In the July issue there appeared an article devoted to "Industrial Philadelphia," and which featured the ice cream business of the city. We are privileged to reproduce this splendid article as follows:

America's national holiday was fixed for all time in Independence Hall, Philadelphia, on the Fourth of July, 1776. From the modest home of Betsy Ross in Arch Street, Philadelphia, came the country's national emblem, the Stars and Stripes.

We have our national song, and baseball is labeled the American national sport. The eagle is the national bird, while the turkey is undoubtedly the typically American fowl and corn the great cereal peculiar to our country.

Ice cream is distinctly a United States product, and Philadelphia ice cream is a recognized standard for the rest of the world. Ice cream is unquestionably the premier dessert or confection on this continent. Tens of thousands of immigrants annually come to our shores who never before landing had heard of ice cream.

There have been many guesses about who invented ice cream. Centuries ago in India they had learned how to freeze ice in a temperature of nearly 100 degrees above zero by a crude process of evaporation. Perhaps the servant of some Indian Rajah, aspiring to serve his royal master with a new and delectable treat, froze the first ice cream from goat's milk.



The Homogenizer Through Which the Cream Passes on its Way to the Freezers.

James Watson, that indefatigable antiquarian, whose records of early Philadelphia deal with so many important as well as trivial things of past centuries, leaves the inference that a Mr. Segur sold the first ice cream in this city at his shop in Market Street, between Third and Fourth Streets. That was early in the last century.

Until long after the Revolution there was not even a central ice plant, but each citizen who wanted ice in summer had to store it for himself. The first ice dealer was Henry Moliere, and he was regarded as a reckless business adventurer.

But whether the first ice cream, as some have contended, was served to an old English King, or whether it was an ingenious American who invented it is of no concern here when compared with the outstanding facts about ice cream today which are these:

Philadelphia has the largest manufacturer and distributor of ice cream in the world.

Philadelphia ice cream is far more widely sold than that from any other city.

Philadelphia ice cream is less expensive than in other comes along with the Fourth of July, but one day in great cities but is is everywhere held up as the standard of excellence.

* * *

The making and selling of ice cream has grown into a big industry in this city. There are five large firms which manufacture what may be styled the ice cream of commerce.

The Breyer Ice Cream Company, of which Henry W. Breyer is President and virtually owner, is not only the largest in Philadelphia but in the world. It was that company's plant which was selected for the purposes of this article to typify this ever-growing enterprise so peculiarly connected with Philadelphia.

The amount of ice cream made in Philadelphia is almost unbelieveably great. Right now the average produced by the five commercial plants — Breyer, Abbott, Supplee, Colonial and Crane—is close to 350,000 quarts a day, of which Breyer makes about one-third.

The peak for ice cream output and consumption June Breyer sent out 162,000 quarts.

Good as the Philadelphia brand of ice cream is Philadelphians do not eat all that is made in this city.

Swift auto-trucks every day carry to New York alone from 20,000 to 40,000 quarts of Breyer's ice cream.

More than 500 other towns scattered between Bridgeport, Connecticut, on the North, Cape Charles, Virginia, on the South, and as far inland as Chambersburg, Pennsylvania, and Atlantic City and Asbury Park on the East, are regular customers of this firm.

Of every 100 quarts of ice cream made by Breyers, 60 are eaten in Philadelphia and 40 by persons in other places—a sound tribute to the excellence of this Quaker City product.

* * *

So far as known, nobody from any other city sells ice cream to Philadelphia. But in scores of restaurants, drug stores and hotels scattered along the Atlantic Coast for three hundred miles, Philadelphia ice cream is regularly served, although not always labeled as such.

Breyer will not serve less than 100 quarts of ice cream a week to any dealer, thereby guaranteeing fresh cream to the public.

Upon the walls of the office of the Company's sales manager hangs a detailed map of this city. It is thickly dotted like a war-map with different colored pins, each color denoting a particular thing.

A pin represents one of the 2000 customers, who must each day be visited by a Breyer ice cream truck, whether or not a new supply is needed.

(Continued on page 132)

ICE CREAM MEN STIMULATE YOUR TRADE THIS FALL AND WINTER

Push the sale of Eskimo Pie, Brick Ice Cream Slices, Miniature Bricks and Chocolate Coated Ice Cream Novelties

These trade stimulaters are doubly effective when put out in

JOHNSTONS' GUARANTEED

PURE TINFOIL WRAPPERS

MANUFACTURED AND PRINTED BY

THE JOHNSTON TIN FOIL & METAL CO.

TINFOIL WRAPPERS OF CHARACTER

MANUFACTURERS OF TIN FOIL
6106 SOUTH BROADWAY
ST. LOUIS, MO.

BRILLIANT
FLEXIBLE
MOISTURE-PROOF

33 YEARS EXPERIENCE AS TINFOIL LABEL PRINTERS

Get Your Order in Early and Tell Us When to Ship.

DELFT

The World's Best Food Gelatine

HAROLD A. SINCLAIR 160 Broadway NEW YORK

DISTRIBUTORS:

W. G. AHERN
40 Court St., Boston, Mass.

H. A. JOHNSON CO.
221 State St., Boston, Mass.

C. E. RIDDLE
Emerson Tower, Baltimore, Md.

CHICAGO BRANCH
Frank Z. Woods, Manager
180 N. Market St.

BLANKE MFG. & SUPPLY CO.
214 Washington St., St. Louis, Mo.

NOYES BROS. & CUTLER
Park Square, St. Paul, Minn.

LEE-GREEFKENS CO.
570 Folsom St., San Francisco, Cal.

CALIFORNIA FOOD PRODUCTS COMPANY
949 E. Second St.,
Los Angeles, Cal.

W. P. DOWNEY
88 Grey Nun St., Montreal, Can.

"Price is a relative term—quality always a concrete fact."

ASK ANY FOOD CONTROL OFFICIAL ABOUT DELFT

Delft standards of purity, uniformity and strength are recognized and praised by Food Control Officials.

Before Delft entered the field, who ever heard of gelatine supplied in quantity lots, free from liquefying and harmful bacteria when delivered? Gelatine that is free from liquefying and harmful bacteria is a highly sanitary product.

Get your friendly competitor to tell you about the splendid results obtained from Delft.

Delft is strictly a TOP QUALITY gelatine, sold at reasonable figures, that represent exceptional value. Because of its purity and strength, it goes further than cheap gelatines, and actually costs you less.

You can get the same price from our distributors as from us.

MEMBER

Harold A. Sinclair

A GOOD BEGINNING IS HALF THE BUSINESS.

(Continued from page 130)

The Breyer Company supplies all the ice which the individual dealer requires to preserve his cream.

The amount of ice is so vast that the Breyer Company has installed a mechanical method of packing ice cream cans in the vehicles for delivery. The cracked ice and salt are shot down upon the tops of the filled cans after they have been placed upon the trucks.

To meet the immense demand for ice the Breyer Company every day manufactures over 300 tons.

Salt is another factor which runs into heavy figures, the amount used being about 100 tons daily. And none of this ice and salt goes into the manufacture of ice cream but only in its delivery or sale.

Ice cream is not frozen with ice but with a brine just as ice itself is frozen.

* * *

Henry W. Breyer's father began to make ice cream up in Kensington just after the Civil War. At first he sold what he made in one small shop.

Afterwards the father branched out a bit and established other ice cream stores, but it was not until after 1907 when the Breyer Ice Cream Company was incorporated with the son, Henry W. Breyer, virtually the sole owner and President, that this plant began to enter largely into the ice cream trade of Philadelphia.

Mrs. Breyer is Vice-President of the Company and Wilbur S. Scott is Secretary and Treasurer. The company's buildings at Cumberland and Ninth streets occupy an entire block and new additions go up with great regularity.



A Row of Ice Cream Freezers, Each with a Capacity of 100 Quarts.

But after all the things which most interests the public is not the size of the plant, not the distribution of its immense product, but the actual making of ice cream on this tremendous scale.

Cream is the first essential and Breyer owns four creameries in Juniata and one in Berks County, and purchases the complete output of several others. One of the creameries in Juniata is probably the largest in the state. From these there come steadily to the Philadelphia plant the carloads of carefully inspected cream.

And the Philadelphia ice cream of commerce which has now such wide fame, must be made of real cream. The cream is not only rich, it is also clean and is kept so through the entire process.

The cream which is chemically tested in a laboratory must have from 11 to 12 per cent of butterfat after it is pasteurized and cooled by falling over a series of artificially cooled rolls.

* * *

To manufacture from 100,000 to 150,000 quarts of ice cream daily, requires a steady flood of cream, but it also requires some 400 barrels of sugar every week, 450 pounds of vanilla bean, 2200 bushels of peaches, 500 boxes of oranges, 9400 pounds of chocolate, 60,000 pounds of strawberries per week.

All the fruit used is carefully sorted and the defective is discarded. A score of men and women at the present time work constantly at Breyer's to prepare the peaches needed for that brand of ice cream, the peach season having now succeeded the strawberry.

Orange juice alone is used in flavoring water ice, the rind, pulp and seeds of the orange being removed mechanically.

The cream is standardized on an upper floor and then run through the Homogenizer, which is a curious machine for the breaking up of all particles of fat by placing the cream under tremendous pressure, thus making it thoroughly homogeneous, hence the name of the machine. It then runs by gravity through sanitary piping to large tanks, holding one thousand gallons each. Sugar is mixed in at this point, and the cream again flows by gravity to ice cream machines on the first floor where the flavoring is added.

The actual freezing of the ice cream at Breyer's is a quick process. There are 30 machines each holding 100 quarts for the bulk and 8 of 40 quarts each for the manufacture of brick ice cream.

Around the can in which the cream is securely locked, is a layer of brine. The paddles are rapidly revolved, while the cream is thoroughly stirred. It takes but fifteen minutes to finish the freezing.

But the ice cream is not yet ready for the consumer. When taken from the freezer it is still soft enough to be poured.

It is then put in cans, and stood in a cooler which is a real cold storage plant, because the temperature is kept at from zero to five degrees below. The cans remain in storage a day and are then ready to yield their contents to the waiting public.

* * *

The Breyer plant employs about 500 persons. Instead of tea in mid-afternoon, as the English custom is, the Breyer force stop to eat ice cream.

Fifteen men are needed at the Company's telephone exchange all night every night to take orders. The sales force in that plant is a live outfit but it is hardly more competent than the purchasing department upon which after all depends the quality of the finished product.

A visitor to this unique factory, from which flows so much human joy, comes away with several definite and deep impressions.

First, Breyer's ice cream is clean. Second, it is wholesome. Third, it is made of nothing but excellent materials and no substitutes. Fourth, it has things done to better it, which no home-made article can possibly get.

The lowness of the wholesale price is rather astonishing when it is also remembered that these ice cream producers of Philadelphia have made it so well that it long ago gained, and has ever since held, the coveted brand of standard.

Reprint from the July number of the Girard Letter, issued by Girard Trust Co., Philadelphia, Pa.

Quality

Quality in ice cream is beneath the surface—where the eye can't see it and where only use can prove it.

Efficiency in a cleaner likewise is not a visible quality, but is the product of its use.

The shrewdest buyers among ice cream manufacturers have for many years standardized the use of

Wyandotte Sanitary Cleaner and Cleanser

for all cleaning in their plants because they have always found the sweet, wholesome, sanitary cleanliness it provides efficient, profitable and economical.

Indian in Circle



In Every Package.

Wyandotte Sanitary Cleaner and Cleanser insures such safe, sanitary protection to quality ice cream that increased demand means larger profits.

PROSPERITY FOLLOWS THE DAIRY COW
Be sure you attend the
National Dairy Exposition
St. Paul - Oct. 7-14 - Minneapolis

THE J. B. FORD COMPANY *Sole Manufacturers* Wyandotte, Mich.

Standard *of* Quality *for* 27 Years



A Concentrate of Extraordinary Quality and Uniformity

⅜ to ½ ounce to 10 gallons of finished Ice Cream.

Gives that wonderful fresh smack to your Ice Cream at a cost of 1 cent a gallon Ice Cream.

Pints $4.00 Gallons $30.00

Try a Sample Package
Guaranteed to Please

SEND FOR OUR FRUIT, FLAVOR AND COLOR CATALOG

New $80,000.00 Factory for Manufacture of Dairy Machinery

Large Addition to North Chicago Factory of Davis-Watkins Dairymen's Manufacturing Company.
Has Unique Water Sealed Roof.

Rapid expansion in the business of the Davis-Watkins Dairymen's Manufacturing Company, well known dairy equipment manufacturers, has made necessary a large addition to their North Chicago factory.

This new addition is to be 160 feet long by 120 feet in width adjoining the main plant on the south. It will be of concrete and glass and will be the last word in modern factory construction.

Work on the new structure is being done by the Rolff Construction Company of Milwaukee. Under the terms of the contract, the new addition is to be completed inside of sixty days. Its cost will be approximately eighty thousand dollars.

Since spring, the North Chicago factory has been badly congested and the additional 75 to 100 per cent floor space which the new addition makes available will greatly facilitate the work of the various departments under the supervision of I. R. Hippenmeyer, plant superintendent.

At the present time, the North Chicago factory of the company has about two hundred employees. As soon as the new addition is completed, seventy-five to one hundred additional employees will be added.

A water sealed roof for cooling of the plant is a unique feature of the new addition. The roof is so constructed that it will carry a 4-inch sheet of water during the summer months. Experience has shown that a water protected roof keeps a plant very much cooler in the summer. It absorbs the direct heat from the sun's rays and thereby maintains a comfortable temperature with-



in the plant for the workman. The water sealed feature also makes the construction more fireproof.

When completed, the new structure will help to speed up manufacturing facilities and enable the company to give quicker deliveries on milk plant, ice cream plant and creamery plant machinery from its various sales branches. In addition to their North Chicago factory illustrated here the company has three other factories, one at Jersey City, ont at Derby, Connecticut, and one at Owatonna, Minnesota.

NEW FIRM TO SELL DAIRY EQUIPMENT IN ENGLAND.

A new firm, to be known as Storer, Rodgers and Hughes, has been formed to do a business in England and nearby territory in importing and selling dairy machinery. The firm will not only handle a complete line of dairy equipment, but will design plants for every branch of the dairy business. The headquarters and main show room of the company will be in London. The firm will feature a complete line of Cherry equipment.

The Personnel of this firm assures the success of the enterprise.

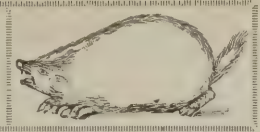
R. D. Hughes, general manager of the Farmers' Dairy Company, Limited, Toronto, Canada, is chairman of the organization. Mr. Hughes, however, will continue in his present position and will act in the capacity of authoritative adviser to the new firm, for which his long experience and close association with the dairy industry especially fits him.

The managing director of the business is Wm. Storer. Mr. Storer will have charge of the sales and all matters pertaining to the technical side of the business. Having had twenty years experience in the dairy business, he is admirably fitted to handle his work. Mr. Storer started out with five years actual practice in handling milk and manufacturing milk products, and for the past ten years he has acted in the capacity of special representative of the J. G. Cherry Company. It has been his duty while in his former position to introduce new equipment to the dairy industries, but his work also involved a great deal of designing and erecting of plants for these industries. While engaged in this work, Mr. Storer also had some experience in designing and equipping plants in England, and he is now well known to the English dairy trade.

The third member of the firm, Frederick Rodgers, has for the past six years, been employed by the Cherry Company as export manager. Mr. Rodgers is thoroughly familiar with the dairy industry in all parts of the world and the numerous practices followed in different countries. His knowledge of the exporting and importing of dairy machinery and wide acquaintance with the dairy trade of England particularly fit him to handle his work with the new organization—that of handling the buying, importing, banking and general detail end of the business.

BADGER FLYERS

H. HAGEN, President
216 Grand Ave.
Eau Claire, Wisconsin
O. E. HARWOOD
Secretary - Treasurer
300 W. Austin Ave.
Chicago, Ill.



Do the rest of you Flyers recognize your fellow member on the right of this picture? It's none other than Hugh J. Krampe, or rather, Captain Hugh J. Krampe, who took charge of the Milwaukee office of the Armstrong Cork and Insulation Company last spring. Looks good in that outfit, doesn't he? That picture nearly caused a riot in this office when the stenog force got hold of it. It was all the editorial department could do to rescue it so we could have a cut made for publication, and give the rest of you folks a look too.

This picture was taken last July at Camp Custer, Battle Creek, Michigan. Captain Krampe is a member



of the Engineers O. R. C., and served his country with the 308th Engineers in France. He is a graduate of the College of Engineering of the University of Cincinnati.

The other two are World War veterans also. The man in the center is Captain Samuel G. Schwartz, Medical O. R. C., a veteran of the Mexican Invasion in 1916. The other is Captain Dorian G. Moon, Engineers O. R. C., a graduate of the London, England, College of Engineering and a veteran of the Boer War in South Africa in 1900. He saw service in France with the 122nd Engineers. Some bunch! It certainly can never be said that Captain Krampe doesn't travel in good company.

HOW TO GET TO CLEVELAND.

Cleveland is an easy city to reach.

It is, almost literally, in the center of things. One-half the population of the United States and Canada is within a radius of 500 miles.

In fact, Cleveland can be reached overnight from either the Atlantic seaboard or the Mississippi River.

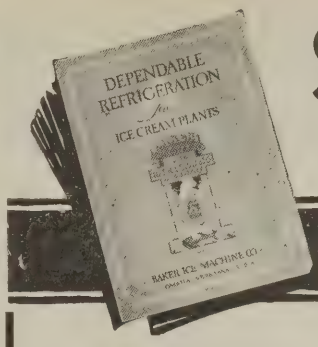
There are, for example, eighty three passenger trains—through trains, not local accommodation trains—arriving in Cleveland every day.

Moreover, passenger boats from Detroit and Buffalo and other Great Lake ports arrive daily during the season of navigation at magnificant new piers on the lake front. Combination rail and steamship tickets may be purchased by travelers to Cleveland.

Interurban traction lines radiate from Cleveland in all directions, to Toledo on the West, to Akron, Canton, Columbus and Youngstown on the South and Ashtabula n the East.

Excursions may be made to many interesting and famous resorts in a few hours—to Niagara Falls, Cedar Point, historic Put-in-Bay, Port Stanley, Geneva-on-the-Lake, and the scores of inland lakes near Akron.

Through trains, with finest Pullman standard sleeping cars, are operated daily into Cleveland from Detroit, Chicago, St. Louis, Cincinnati, Pittsburgh, Washington, Baltimore, Philadelphia, New York, Boston, Buffalo, Toronto and many intermediate points, while through sleeping car service is also available during winter months from Atlanta, Birmingham, Chattanooga and Jacksonville.—Exposition Extra.



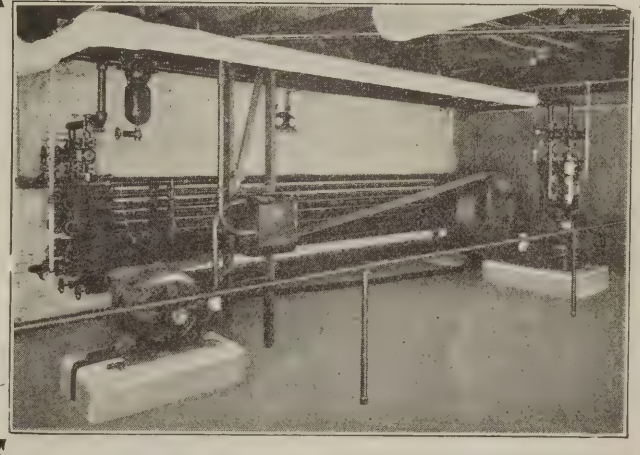
SENT FREE

IF YOU WILL FILL OUT THE COUPON

Refrigeration Facts

To any ice cream manufacturer we will gladly send this booklet. It contains some useful information that you will want to keep, besides showing how the Baker Ice Machine is especially adapted to meet every refrigerating problem of the ice cream manufacturer.

The Baker is a slow speed type, which is a positive guarantee of economical operation. Any man knows that if he races a horse at top speed all the time the horse soon wears out—so it is with an ice machine. Some of the first machines built 17 years ago are still in daily service.



Baker Plants are Cheaper Now Than Before the War

Any manufacturer who does not use mechanical refrigeration absolutely loses money every day in cost of operation.

With the new low prices of the Baker Plants there is no need for any company suffering such loss, especially when a Baker will cut manufacturing costs from 50% to 75% over ice and salt.

We will gladly estimate the cost of installing a Baker in your plant without obligation to you.

Baker Ice Machine Co., Inc., Omaha, Nebr.

Gentlemen: Please send us your free bulletin No. 65D.

Name .....

Street .....

City..... State.....

Baker Ice Machine Company Inc.

Omaha, Neb.

IT IS EASIER TO GIVE ADVICE THAN TO LEND A HAND.



MICHIGAN
ALLIED
DAIRY ASS'N.

Dairy Booster Officers:
Pres., C. J. YUNKER
1112 Radcliffe Drive,
Toledo, Ohio.
Secy., C. J. W. SMITH
c/o Creamery Package
Mfg. Co., Detroit.

The sad news of the death of Mrs. Howard W. Black, wife of our Vice President Howard W. Black, was received by us and we all extend him our sympathy.

* * *

The Michigan Dairy Boosters is a live organization, it now has over 50 paid members of wide awake firms, who have live wire salesmen. We extend invitations to others to join us. Dues are $10.00 per year.

* * *

Michigan Dairy Boosters will attend the Ice Cream Supply Men's Convention held in Cleveland in October. Everyone should go to it for we are sure it will be a success.

* * *

Well, Booster Olsen, we will soon have to make use of The Ice Cream Review in behalf of Michigan Convention for when we get ready to advertise it, we can use columns of it—we have not forgot your invitation to us to do so. So get ready for it.

* * *

A. B. Carlisle, Port Huron, Mich., is said to be the oldest man in the manufacture of ice cream in the state and by the way he has completed his new plant, and it is said to be the most modern in the state.

* * *

"Hoop" "Hoop" "Horray," let's all watch out for the next Convention to be held in Michigan for it is going to be as good as the last one or much better. For we are going to make it a dandy one as we expect to invite the manufacturers from Ohio, Indiana and Illinois to come to see it. We trust they will be with us, and get acquainted, for that is the way for harmony in business ways—we will show them a dandy show of exhibits, as Michigan Convention is noted for that and Boosters Smoker will be a good one, and you will not regret your trip to our Convention.

* * *

Franklin Creamery Co., Toledo, Ohio, is building a new plant. They are doing a very nice business.

* * *

Field Meyers Ice Cream Company, Battle Creek, Mich., says they are doing fine since they engaged in the business.

* * *

The Sanitary Tinning and Manufacturing Co. of 3753 E. 93rd St., Cleveland, Ohio, is making extensive improvements also installing all new improved machinery to meet the increase of the business coming their way. They are doing business with the largest creameries and Ice Cream Manufacturers as well as smaller firms, they have the reputation of doing good work in retinning cans. They employ 30 men in the factory and will soon increase to 50 men. A. J. Miller, Manager is a hustler and has lots of friends among the trade. He attends the Conventions and his host of friends are always looking for him and his exhibits. Sure we all will enjoy his hospitality while at the Cleveland Convention for he wants the boys to see his Beach on the lake, it is a fine one. When Miller gets his billiard table out there, he surely will enjoy it, at the water breeze. He can play some game especially if he stops laughing for a while. He will spend several thousand dollars in improvements for his tinning plant.

* * *

Frazzell Ice Cream Company, Cleveland, Ohio, reports they are doing a nice business for the short time they have been running.

* * *

All committees and officers of the Michigan Allied Dairy Boosters are getting busy for the next February Convention and it will be a good one, larger and better than ever.

C. J. YUNKER

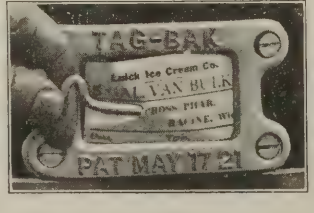
Having Trouble Getting Tubs Back?

Let us tell you why it is that
"TAG-BAKS"
have brought tubs back thru all seasons

TAG-BAKS are little tub appliances that avoid a lot of grief and extra expense for Ice Cream Manufacturers.

Our circular tells why

TAG-BAK
182 Ogden Ave.
MILWAUKEE WIS.



PURE
STRONG
CONSUMERS GELATINE CO.
ST. LOUIS, MO.
PEERLESS
Gelatines
Pure White India Gum
PERFECTION Ice Cream Powder
ODORLESS
UNIFORM

Shoe String Stores Corner grocery stores who usually use more *ice* and *salt* than ice cream, have been selling 5 to 10 gallons of Goody-Good per day—even on cold days. If you have any small stores on your list,
Better write for "PLAN"—it sure is simple
SANI-DAIRY PRODUCTS CORPORATION
45th and Evans Avenue CHICAGO

NATIONAL DAIRY COUNCIL TO HAVE WONDERFUL EXHIBIT.

Definite relationships between health and the consumption of milk and milk products will be proved in a $10,000 exhibit staged by the National Dairy Exposition under the direction of the National Dairy Council, occupying one of the large show buildings at the Minnesota State Fair grounds October 7 to 14. The exhibit is described as the first of its kind ever shown west of New York. To carry the message of health to the public is its mission.

Fourteen child health organizations and government bureaus are co-operating in the exhibit, which comprises an acre of buildings especially constructed for it in New York under expert direction, together with a miniature railroad with fourteen different stops or stations. Visitors to Healthland, as the exhibit is called, will (if they are children) walk up to the "ticket office" and after registering name, age and weight will get a ticket over the railroad line.

Each stop will illustrate, with scenery, action, life, color and attractive features, one factor in the health of the child, emphasizing it in a manner he never will forget. The Child Health Railroad, "to give free rides to boys and girls knowing their 'number'," is being built by the Child Health Organization of America. Healthland Bank, "a profit-sharing institution which pays big interest," will be constructed by the National Child Labor committee.

At each stop made by the Healthland train the exhibit will be in the form of a house. Ye Healthland Book Shop, "which will beat any million dollar library," will have a separate miniature building of modern architecture to be built by the National Organization of Public Health Nursing.

From the top of Ye Health Crusaders' Castle visitors will get a bird's-eys view of Healthland lying many feet below them. This exhibit will be put up by the National Tuberculosis Association. The University of Minnesota will conduct a Fortune Teller's Headquarters, "where you will learn how much weight you have in this world."

The Milk Bar will be arranged by the Parent Teachers' Associations of St. Paul and Minneapolis. The National Dairy Council will stage the Healthland Zoo. The U. S. Bureau of Education will erect a radio station. Healthland Surprise, "the best place to get the best babies" is being arranged by the U. S. Children's Bureau. Ye Keepwell Tavern will furnish samples of the best foods to keep up proper health. A health movie will be running in Healthland Theatre, prepared by the National Child Health Council.

At the Baby Garage, owned and operated by the American Child Hygiene Association, visitors will see "a service station which demonstrates how to keep a baby in running order." The American Red Cross will arrange the Healthland Art Gallery, "picturing the beauty of service and good health."

"Healthland" will arrive in special cars at St. Paul early in September, and workmen will begin installing it at once.

"Tom," said the boy.
"No, it isn't Tom, it's Thomas."
"And your name?" she asked of the next boy.
"Jackass," said the boy.—Laughing Gas.

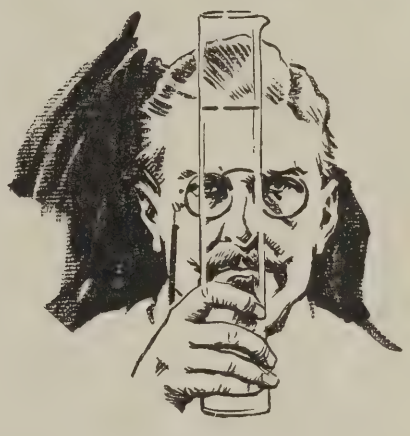
* * *

You can get somebody to sell you anything you want if you use "The Ice Cream Review" Want Department.

Best of All ATLANTIC

—a super-clarified—

GELATINE



"Purest and Best It Stands the Test"

Atlantic costs more to make—the clarifying process takes longer; but it is so pure and so clear that a single glance of Atlantic in the solution will show why it is more economical and actually costs less than corresponding grades of ordinary gelatine. Atlantic passes the pure food requirements of any state in the Union.

Test Atlantic Risk-Free

Send today for a barrel of Atlantic. Use five, ten or even fifteen pounds. If, after a fair test, you decide that Atlantic is not your gelatine, rehead the barrel, return the unused gelatine, and we'll pay the freight both ways. Begin today to place your reliance for uniform quality gelatine on Atlantic. It wins every time.

ATLANTIC GELATINE COMPANY
Woburn, Massachusetts

WRITE HOME OFFICE
Or one of the following branches, if nearer to you

BRANCHES

NEW YORK CITY	BALTIMORE	CHICAGO
Room 1081	1012	Suite 510
Woolworth Bldg.	Union Trust Bldg.	118 N. LaSalle St.

SAN FRANCISCO
Room 420 Hansford Block, 268 Market St.

As Others See Us

What Our Good Friends Are Saying About The Ice Cream Review.

It has never been the policy of The Ice Cream Review to use space to blow its horn, and we are often accused by our friends of being too modest—too modest for our good. In order to please these good friends we are going to depart from this policy to let you read four letters which are taken from our files and which represent four different view-points of the service rendered our patrons. Here they are:

From a Subscriber.

St. Joseph, Mo., July 13, 1922.

Editor The Ice Cream Review:

The last several issues of The Ice Cream Review have certainly been fine, and very helpful in solving some of the problems confronting the ice cream manufacturer. We firmly believe that under the new policy of real articles, rather than personals, you have the best trade paper published in the country.

Yours very truly,
THOMSEN ICE CREAM CO.
By F. L. Thomsen.

* * *

From An Advertiser.

Chicago, Ill., Aug. 7, 1922.

Editor The Ice Cream Review:

The July issue of The Ice Cream Review is a dandy. Here of late, we noticed particularly that you are running items that, in many cases, are worth the price of an annual subscription to any ice cream manufacturer.

The ice cream manufacturer who carefully goes through his Ice Cream Review will undoubtedly be benefited considerable, regardless of whether he has a milliom gallon plant or a twenty-five thousand gallon plant.

A publication like The Ice Cream Review might be favorably compared with a National Association, only that it is more national in scope than an Association can be, by reason of the fact that they have not had an opportunity of carefully going into the matter of just what benefits are gotten through your publication.

If an ice cream manufacturer would take the trouble of looking over the July issue of the Review, he would find several articles that warrant re-reading several times, and then apply them to his own method of doing business.

If there is any way that we could help to increase the subscription list of the Review we would certainly like to do so, because we honestly feel that we would be doing the ice cream industry a favor. The Review hits the mark on a number of items, particularly that which applies to broadening the ice cream manufacturers who would have the view of cutting prices, with considerable pleasure (not knowing the bad effects), it straightens out the fellow who is inclined to be slip-shod in his method of sanitation, and it certainly does give technical facts in a clear manner.

You have made such strides in handling your publication in a businesslike manner, it is only a question of time when all of the associations will recognize your magazine as being legitimately entitled to their recognition as the official organ.

Judging from the results that we get from our advertising in The Review, we would say that a great many of your subscribers read the publication carefully.

The kind of service that you are rendering should be appreciated most by the ice cream manufacturers and the supplymen as a whole, and we are going to do our little bit to help the good cause along.

With kindest personal regards from the writer, we are,
Very cordially yours,
THE DAIGGER CORPORATION.
Henry W., Manager.

From the Counsel for Several Advertisers.

Milwaukee, Wis., July 18, 1921.

Editor The Ice Cream Review:

The only regret I have concerning your excellent publication is, I never have time enough to read each issue as thoroughly as I would like and, ought to.

Before me now, are your last four issues—each one full of practical, useful information; specific, general and covering every conceivable angle of the ice cream industry. Aside from the pertinent subjects, there is present in each issue, a breezy, cheerful, good-fellowship atmosphere relating to the 'boys" which keeps one in touch with them. Acquaintances made at conventions are thus further continued and enlivened thru the columns of your paper. I feel that The Ice Cream Review has been a decided factor in establishing that fraternity of good-fellowship so characteristic of the ice cream industry.

In each succeeding issue I have noted a conscientious, sincere effort to disseminate worth while knowledge. I can apreciate how you must spare neither time, money nor personal effort to secure this information. Certainly, you are deserving of the highest regard from your subscribers, your advertisers and their representatives.

I should dislike to see you lessen your efforts or lose enthusiasm. On the other hand, I can readily understand that unless the industry gives you both moral and financial support, such endeavor will, of necessity, grow weary and weaken for lack of encouragement.

The industry needs so "national a publication" as The Ice Cream Review. And I hope you will never lose sight of the fact, that in a measure it falls upon you to do two things, (1) continue to maintain your high publication standard; (2) thoroughly impress the industry with the fact that you are doing so.

In my estimation, you have been too modest in this regard. I am sure equipment and supply house executives will welcome a presentation of the merits of The Ice Cream Review. It is decidedly to their interest that such a publication exists, affording them an advertising medium unsurpassed in its particular field.

Very truly yours,
FRED E. ERIKSEN.

* * *

From a Patron of Our Job Department.

Milwaukee, Wis., July 18, 1922.

The Olsen Publishing Company.

Gentlemen:—The following letter, which I received this morning, will undoubtedly prove of interest to you:

558 4th Ave., Milwaukee, Wis., July 16, 1922.

Milwaukee Typographical Union, No. 23,
68 Wisconsin St., Milwaukee, Wis.

Gentlemen:—In compiling a Review of the Pythian Order of Milwaukee County, my biggest worry was to get same placed in the hands of reliable printers.

The Olsen Publishing Co. has set my troubles at rest by printing same to my entire satisfaction, and I therefore wish to thank your members who worked on this book, and also those members who helped boost this project when it was on the verge of collapse.

Wishing you all success, I am,
Yours very truly,
(Signed) C. H. WENZEL.

This office is indeed pleased to see that the harmony and co-operation which exists in your mechanical department fosters working conditions which guarantee the ultimate goal of every printing establishment—satisfied customers.

Respectfully yours,
RAYMOND T. MOORE,
President Milwaukee Typographical Union, No. 23.

We get many such expressions of approval and good will from all parts of the country, and we want our friends to know that they are appreciated. Even though our policy forbids filling up several pages of each issue with these letters we like to get them just the same.

WHOOPEE!! AND AWAY YOU GO

to new and larger profits on a selling campaign that's a "peach". The large and small Ice Cream men are lining up in the ranks. The very simple "GOODY-GOOD PLAN" is yours for the asking

SANI-DAIRY PRODUCTS CORPORATION
45th and Evans Avenue CHICAGO

Custards *Flavors*

Maraschino Cherry Custard
Mothers Egg Custard

"Acme" Custards	An exact reproduction of the EGG or CHERRY.
Egg or Cherry	Contains all of Nature's delicate FLAVORS and BLENDED COLORS. A delicious Ice Cream of quality distinction. Working sample for 40-qt. freeze, 36 cents.
Bisque Ice Cream	An imitation of the real Walnut or Shelbark with a nutty flavor. Served to social and banquets as a special. Working sample for 40-qt. freeze, 60 cents.
Perfecto *(Trade-Mark)*	A tested smoother of special value in the making of smoothe and tough Ice Cream. Never fails to give satisfaction.
Concretes	Orange and Lemon Concretes are made from the finest fruits that grow in Northern Sicily.
Extracts *(Non-Alcoholic)*	36 different kinds of fruit extracts. Special blends of Vanilla.
Colors	Certified colors of all shades, highly concentrated.

ACME EXTRACT & CHEMICAL WORKS

Extracts HANOVER, PENNA. *Colors*

Is your package easy to remember?

"Putting the name across" is never an easy job. People do not make it a point to remember your name when they see it. But if the package is so designed that it will arrest their attention, if it is striking—"different"—they will begin to remember it after seeing it the second or third time. And they will associate your name with your product.

Then, too, your package must deliver its contents in good condition. And only a house that has learned, through long experience how to build the best boxes can do both jobs well.

We have designed and made boxes for exacting organizations in every branch of business. For more than 20 years we have been improving the packing methods of business houses thruout the country.

Our service department will be glad to send samples and quote prices.

The Peerless Paper Box Mfg. Co.
1137 West 6th Street : Cleveland, Ohio

Any kind of folding box for every kind of business



PAPER VESSELS ARE POPULAR FOR SANITARY CONTAINERS.

How Does Aging Increase the Viscosity of the Mix

Opinions of Cause of Thickening of the Ice Cream Mix During The Aging Process

THERE is no doubt that ageing of the ice cream mix increases its viscosity, thereby producing a smoother product and greater overrun, but nobody seams to know just why, how, or what is the scientific reason for the increased viscosity.

A very prominent man in the ice cream industry recently asked The Ice Cream Review to settle the question by putting it to the trade. It is indeed surprising to note how few of even the largest ice cream manufacturers in the country have any opinion at all on this subject, and that, of those who have opinions, a fine percentage of such opinions are just cracking good guesses. But the fact that should interest everybody connected with the ice cream industry is that many manufacturers and state experiment stations are right now trying to determine the scientific reason, and some of them have already obtained results that are beyond the theory stage.

The information available on this subject at present follows:

The question, which you bring up regarding the viscosity of the ice cream mix is one this institution has been working upon for the last year and a half and expects to continue working upon throughout this next year. We have secured a great amount of data which we feel at this time is not sufficient for publication. I might state that there are a great many factors which seem to increase viscosity after pasteurizing and homogenizing. Close study of the viscosity will show you that there is a very slight decrease in viscosity immediately after pasteurizing and a material increase immediately after homogenizing and after forty-eight hours, cream that has been homogenized is possibly eight times more viscous than cream which has not been homogenized.

We attribute the increased viscosity to the fact that the ice cream mix is of a collodial nature, and it possibly contains gelatine or some gum and considerable casein. The casein is of the same quality as gelatine, and will absorb a great quantity of water in proportion to its weight. Upon absorbing moisture our mix begins to thicken, strange to say however, this viscosity which seems to be due to the collodial nature of casein can almost be completely destroyed by extreme agitation, yet it is practically necessary in the manufacture of a smooth, velvety ice cream.

* * *

We have investigated this phenomenon at this station and have come to the conclusion that it is due entirely to the effect of the low temperature on increasing the hydration of the protein material in the ice cream mix. An increase in the viscosity or relative solidity of the fat with the low temperature, also plays some part in giving the additional thickness. The phenomenon of hydration with increased thickness and viscosity is common to practically all proteins. One sees a similar change occurring when gelatine solutions are cooled to a low temperature; as you know, the lower the temperature at which a gelatine solution is allowed to jell the stiffer will be the resulting jelly. It is something of this character that occurs at low temperature in the ice cream mix only in this case it is the protein materials in the cream and condensed milk which undergo the change. Pasteurization causes the opposite effect and thus makes the mix appear very fluid, or, as we say, very thin. Homogenization restores the original viscosity somewhat, but this is not a protein change but is caused by the breaking up of the fat globules in the cream.

* * *

We believe this change to be due to two separate and distinct agents working at different times, by this we mean 1st. The mechanical change due to homogenization of the mix; and 2nd, The chemical change or development of acidity in the mix after being held twelve to twenty-four hours.

The efficiency of the mechanical action is due directly to the pressure and temperature. As every one knows the fat is found in milk products as minute globules or balls, suspended in the milk serum. Upon being homogenized these globules are broken and smoothed out to form a perfect emulsion with the serum in which they were suspended. The content of these globules is very viscous and when released has a tendency to unite the entire mass and form a more viscous body.

The second agent might be termed the chemical factor and its action takes place after the mix is in the storage vat. Even though the mix is held at a safe storage temperature there will be a slow and persistent development of bacteria, the one with which we are chiefly concerned in this connection is the one which produces lactic acid; this form of acidity up to a certain point is highly desirable. This period is known as ripening. The chief action of the acidity seems to be a partial coagulation of the albumen. Certain agents may be put into the mix, which will materially aid or hasten natures' method of ripening, and under some conditions some claim these may be used to good advantage.

We may have the wrong idea on this matter but practical experience seems to bear us out, however we shall wait with a good deal of interest the ideas and discussions which will no doubt appear in your magazine.

* * *

I feel satisfied that this thickening is caused by a change of the mon-casein lactate to the di-casein lactate. The di-casein lactate being less soluble than the mon-casein lactate results in larger collodial particles with a consequent thickening of the mix. The increase in the acidity which brings about this change is very slight and cannot be tested by the ordinary Mann's acid test. The truth of this theory is partially proven by the fact that the addition of a small amount of hydrochloride acid to a finished mix materially increases its viscosity.

* * *

The thickening of ice cream mix after being held for a period of twenty-four to forty eight hours following pasteurization and homogenization may be due to either one or both of the following reasons:

First, the process of homogenization does thicken the ice cream mix and this is more apparent after the mix has been cooled for some time. In other words, a difference in temperature will have an effect upon the apparent viscosity. As the mix becomes cooler, the viscosity becomes greater.

Secondly, if gelatine has been added previous to pasteurization and homogenization, after standing for some time the gelatine tends to jell, and for that reason may cause this thickening of the ice cream mix.

* * *

It is our belief that the increase in viscosity is due primarily to two things. In the first place, there are five known enzymes present in milk. Four of these act upon the milk solids, not fat, and the one remaining acts on the butter fat alone. The lactic acid present, of course, acts upon the milk solids but will not account to a marked degree unless the enzimes are present. Pasteurization to too high a degree or too prolonged will have a tendency to kill these enzymes. Homogenization has a tendency to increase the action of these enzymes by tearing apart the structural elements of the mix, i. e. a pound of dried apples thrown into water to soak and a pound of dried applies which have been chopped very fine, thrown into the same quantity of water—the chopped apples will absorb the water more readily. This is a simile of homogenization.

* * *

I suppose you know that one way in which molasses candy is made to change in its consistency is to expose it to the air, and by pulling the candy the texture of it gradually changes until it becomes thicker and thicker. Whether or not the same theoretical change takes place in molasses candy and ice cream I think no one knows, but it has been demonstrated over and over again that by aging cream of any kind, the texture and consistency changes and becomes thicker, provided the cream is held at such a temperature or under such conditions, that bacterial will not grow in it and the souring process gets started.

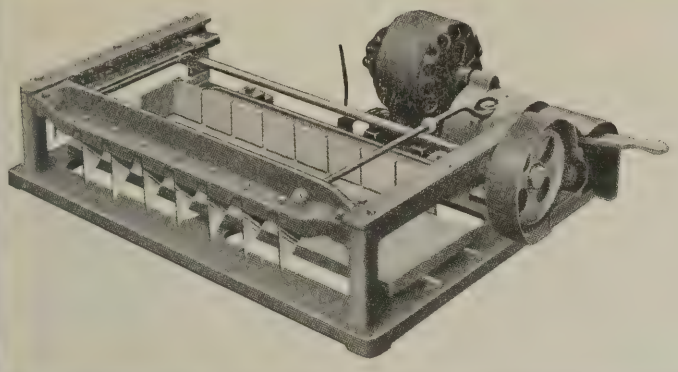
Possibly you know that parties who have been in the ice cream business for many years prefer aged, sweet cream to

John Barleycorn and His Grand-daughter

Would both eat **"Goody Good"** and ask for more. Did YOU see the advertising you get "free of charge" on this plan. Names of real live-wire ice cream men being added daily to our already long list.

Costs You Nothing to ask the

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REICHEL & DREWS

452-4-6 N. Ashland Ave. CHICAGO

in cold storage during the summer months and using this cream in the winter. Such cream always has a much better body than fresh cream, but the theoretical explanation for the physical change which takes place in the casein by this process of ageing, I think, has never yet been satisfactorily given.

* * *

The main reasons for an ice cream mix becoming thicker after being held for a period of 24 to 48 hours, following pasteurization and homogenization are: 1. The action of bacterial flora as indicated by the rise in acidity during aging. For instance 10 gms. of ice cream mix when tested for acidity before aging required 1.7cc of N-10 NaOH while the same amount of ice cream mix after 48 hours of aging required 3.6 cc of N-10 NaOH. In other words, aging is ripening and hence thickens the ice cream mix or makes it more viscous.

2. Homogenization thickens the mix because it breaks up the particles very fine thus giving rise to more surface within the ice cream mix. In comparing the effects of homogenization and emulsification we find that homogenization increases the viscosity before and after aging more rapidly than emulsification or when the mix is neither homogenized or emulsified.

* * *

We homogenize our whole mix wherein we pasteurize up to a temperature ranging from 160 to 180 degrees. This naturally destroys the viscosity of the dairy products in the mix, which in simple words, brings them back to youth and it requires three or four days aging for the mix to recover from this pasteurizing process, and to undertake to freeze out this mix would result in the operator being unable to get the overrun. This mixture must be held to a temperature of 40 degrees during the aging process, during which time, it regains its viscosity, ages and thickens because it is a difficult matter to get the proper overrun unless the mixture is properly aged and viscolized.

Now, a great many ice cream makers pasteurize the mix up to 160 degrees but before homogenizing it, cool it back to 110 degrees; in that event, the mixture can be frozen with a very satisfactory overrun within 24 or 48 hours and manufacturers who are not thoroughly equipped with holding tanks for aging, usually follow the latter process. Homogenized cream is thicker than the separator cream for the reason that the machine breaks up the fat globules and liberates the oil which gives it a heavier consistency which sometimes deceives the unexperienced because a 30 per cent homogenized product has the appearance to the naked eye as being a fat content as heavy in appearance as 40 or 50 per cent separator product.

* * *

Pasteurization and subsequent homogenization causes the ice cream mix including ingredients to become thin in appearance. This is due to the heat applied in these processes and gives a disarrangement of the butterfat globules in the milk and cream thus causing it to become thin. After the mix is again cooled down it immediately becomes thicker regaining it's viscosity. Within certain limits the longer mix is held out and the lower the temperature the more viscous it becomes. This is merely a physical change not a chemical change. Both the overrun obtained by the ice cream maker and the smoothness of his product is largely dependent on the viscosity of the mix.

* * *

Pasteurizing and heating the mix before homogenization knocks down the viscosity of the mix and it takes from 24

(Concluded on page 142, second column)

FANCY ICE CREAM FORMS

(Imported and Domestic)

Featuring

Hallowe'en and Thanksgiving

Leaves, W/Stem, Lace Papers
Imported Fruits and Pulps

SCHALL & CO.

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NEW YORK



Boost Your Sales
The Sanisco Way

Are You Prepared

for the big extra business that awaits the man with a Sanisco Ice Cream Sandwich Machine at Beaches-Fairs-Parks-Carnivals and like occasions?

We can make prompt deliveries

Write at once for circular and prices

SANISCO CO. MILWAUKEE WISCONSIN

Steel Tanks Not Easily Broken

Some folks entertain the notion that glass enameled tanks are not sturdy. They take the word "glass" to mean easily broken. The accompanying cut proves the contrary to be the case.

eter was broken; otherwise the fire and fall did no damage to the tank.

A few days ago an Elyria truck tank fell over on its side. The truck was finally righted, and continued on its way without damage, and no loss of milk.



This picture shows the fire in which an Elyria glass enameled tank fell four stories and was in the worst of the fire. The gasket was burned off and the thermom-

These two instances help prove the strength of an enameled steel tank.

CONDENSED MILK

WE CAN FURNISH YOU QUICKLY DAY OR NIGHT ANY QUANTITY OF FRESH MADE PLAIN OR SWEETENED CONDENSED MILK.

IMMEDIATE DELIVERY BY EXPRESS OR BAGGAGE IN TEN GALLON CANS.

PERRY MILK PRODUCTS CO.

PERRY, IOWA

(Concluded from page 141)

any other. In fact I know of one large ice cream company which has practiced placing sweet cream in ten gallon cans to 48 hours to get the viscosity back, unless a ripener of some kind is used. When it is necessary to use the mix before the 24 hours age is up some manufacturers use double the amount of ripeners. Making ice cream without having some viscosity is very unprofitable for the ice cream manufacturers.

* * *

We are at a loss to know just why this happens. We have tried to study this out, but do not seem to fall upon any theory. We have at times found that in using condensed skimmed milk, and then changing over and using dry skimmed milk powder that the mix will thicken up when we use the skimmed milk powder.

I do not know whether this has any particular bearing on what information you are after or not, but this has happened repeatedly in our factory. The skimmed milk powder has made the mix so heavy that it will not run out the vats in two inch sanitary pipes.

WASHINGTON—MAINE

News From Far and Near

CALIFORNIA—FLORIDA

Jonesboro, Ark.—The Jonesboro Ice Cream Company are going to overhaul their entire plant and put in new machinery during the winter season.

Little Rock, Ark.—The Package Ice Cream Company is now opened under new management.

Porterville, Cal.—Porterville's old creamery has been purchased by the Acme Ice Cream company. The company will use the place for a local ice cream factory and will make extensive improvements here, the total of the investment to be according to the amount of support received from the district—one estimate made being $30,000.

The deal is the result of a personal investigation of this district made by C. O. Swanberg of San Francisco, president of the Acme company and interested in numerous other large business organizations of the coast

William Dreyer of Visalia, will have the local plant under his supervision, and W. I. Ridgway will be local manager.

Trucks for the Porterville plant, have been purchased and the creamery will be ready for use as a distributing point soon.

Galesburg, Ill.—I. V. and J. W. Highlander have opened a new ice cream plant here.

Mascoutah, Ill.—The Eureka Beverage and Ice Cream Corporation has been organized here recently, with capital stock of $25,000. They will manufacture ice cream, cereal foods and beverages.

Rensselaer, Ind.—Emmet Pullin has purchased a building here which will be occupied in the near future, it is understood. This will afford H. E. Randle, the proprietor, much more commodious quarters than he has at his present location.

The building will be equipped practically throughout with new machinery, which will increase the present output to a much greater extent. A new ice making system will also be installed in connection with the other equipment, which will manufacture ice for ice cream making purposes.

Seymour, Ind.—W. B. Gallemore, owner of the Seymour Ice Cream Company; Ernest Denk, superintendent, and A. R. Nielsen, of Palm Beach, Fla., have organized a company which will operate an ice cream plant at Palm Beach. The factory will be opened this fall.

Edgewood, Ia.—C. B. Madison, proprietor of the local ice cream factory, has been making extensive improvements in his plant and the work is now completed. The new addition is a freezing plant with a capacity of five tons of ice a day. The plant is in successful operation.

The plant is not making ice in cakes, but is freezing cream in a room where the temperature is kept at zero or below. There are two rooms, in the first the temperature is at freezing and in the other at zero. The plant has a capacity of twelve hundred gallons of ice cream a day if run full time.

Estherville, Iowa.—The Hutchinson Ice Cream company has purchased the branch factory of the Northwest Ice Cream company which was recently started on south Sixth street. This gives the Hutchinson people a clearer field in this part of the state.

Spencer, Iowa.—The Spencer Dairy Produce Company, formerly owned by Jensen and Christensen, has been purchased by M. W. Hensley of Lake Park. Mr. Hensley is an experienced creamery man and expects to run a strictly up-to-date ice cream and butter plant. He will also continue the distribution of market milk and cream in the city. Mr. Jensen has been retained by Mr. Hensley to assist him in remodeling the plant.

Colby, Kans.—The Golden Belt Creamery Company of Hays is planning a creamery here and has already secured a site for the plant. The company will handle all kinds of dairy products, and will manufacture ice cream.

Pikeville, Ky.—The Pikeville Ice Company have just completed an addition to their plant here and will engage in the manufacture of ice cream.

Scottsville, Ky.—The Sure Pure Ice Cream Co. have opened for business in the old Scottsville Bottling Works building.



Good Light Is an Indication of Cleanliness and Pure Products

Good lighting plays an important part in the appearance of any ice cream plant and office. Customers and the public in general instinctively avoid dark and gloomy interiors and prefer only those food products made in clean, well-lighted plants.

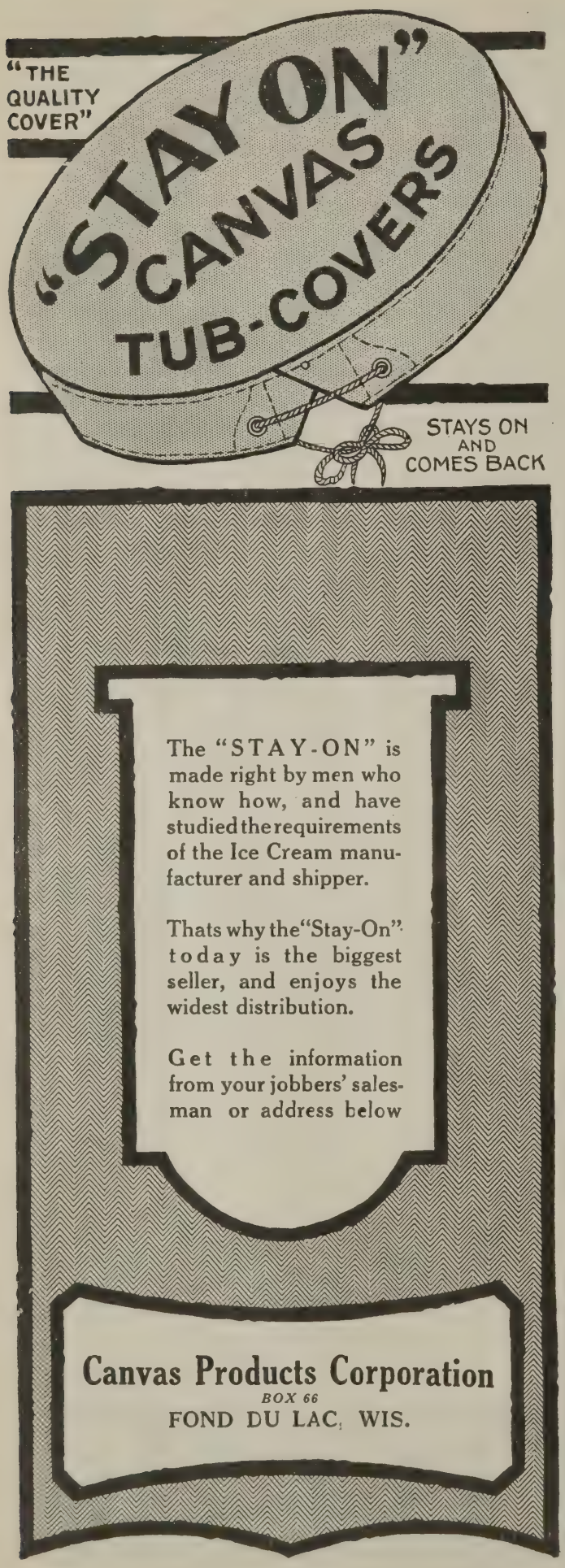
Denzar is the ideal light for the office and various work rooms of the ice cream plant. Smooth as a china dish, and requiring cleaning only at long intervals because of its dust-proof construction, it radiates light that is bright without being dazzling, and that is so uniformly distributed that desks, shelving, racks and work tables are profusely illuminated.

No doubt you realize the value of good lighting, but until you are familiar with the distinctive features of Denzar you will not know how little good lighting really costs.

Send us the ceiling height, dimensions, and color of walls of space to be lighted and we will suggest without obligation an economical but efficient installation that will give it added attractiveness.

BEARDSLEE CHANDELIER MFG. CO.
228 South Jefferson Street
CHICAGO

DENZAR



Baltimore, Md.—The Superior Ice Cream Co acquired a building which will be remodeled and equipped for ice cream manufacturing.

Ann Arbor, Mich.—The Wurster Electro Pure Company, owned by Fred Wurster, is constructing a dairy products plant here which will handle all kinds of dairy products, including the manufacture of ice cream. The plant is already nearing completion and it is hoped that it will be equipped ready to run by the last part of September, in order to accommodate the extra trade occasioned by the opening of the University of Michigan.

Leroy, Minn.—Chris. Brown will open an ice cream factory here.

Stillwater, Minn.—Starkel's Inc., confectionery, ice cream, etc., has been incorporated here with capital $50,000. The incorporators are: C. E. Sutton, John A. Sutton and Anna K. Sutton.

McCook, Neb.—The McCook Ice Cream Company was recently incorporated with capital stock of $25,000. C. B. Miller, A. H. Halbert and M. M. Halbert are the incorporators.

Syracuse, N. Y.—The new plant of the Cloverland Ice Cream Company was formally opened recently.

South Dayton, N. Y.—The Pure Gold Ice Cream Company has taken over the F. T. Bush ice cream and creamery plant at South Dayton as a branch factory.

Barberton, Ohio.—The Tawney Ice Cream Co. will put up several buildings, including a modern ice cream factory and dairy and an up-to-date garage.

The main building will cost approximately $12,000.

Machinery for the structure is already being received. The garage will cost $5000 and will be built on property adjoining the factory.

East Stroudsberg, Pa.—The Weeds Ice Cream Company, Allentown, will erect a branch plant here.

Erie, Pa.—The Lake Shore Ice Cream Company will undertake the construction of a $20,000 addition to its present plant at once. W. A. Dart is manager.

Charleroi, Pa.—One of the most enterprising business firms in Charleroi is that of P. Galistri & Sons, who conduct a wholesale ice cream business here. This firm is comprised of Peter Calistri, Jermia Calistri and Leo Celistri.

Williamsport, Pa.—John F. and Charles P. Morrison expect to make their future home here having purchased an ice cream, confectionery and bakery business establishment in this place.

Woonsocket, R. I.—The Oak Knoll Farm have added another Grothe refrigerator body to their delivery equipment.

Pawtucket, R. I.—What Cheer Ice Cream Co. have added another Grothe refrigerator body. This makes a fleet of eight bodies.

Woonsocket, R. I.—The Cronan Ice Cream Co., have added another Grothe refrigerator body to their delivery equipment.

Dublin, Tex.—A new ice cream plant has been opened for business here, and is located two doors south of the D. N. Bank. It is under the ownership of Cormany and Long.

Berlin, Wis.—Recent improvements made on the building of the Berlin Ice Cream and Dairy Products company, make it an outstanding structure in the town.

The entire building has been painted in white with a narrow strip of green around the lower part. Two concrete landings have been placed in front, flanked at either end by a concrete bed and small flower plots. Cement which slopes from the sidewalk to the pavement obviates the usual curbing.

Approximately 200 gallons of ice cream are made daily at the plant. Butter is also made, and sweet cream and skimmed milk are shipped out.

Racine, Wis.—The Fox Ice Cream Company have increased their capital stock to $100,000.

Ridgewood, Wis.—The Ridgeland Co-operative Creamery Co. has been incorporated with capital stock of $10,000. The incorporators are L. Handorf, E. Kahl and W. L. Knopton.



The Customer: Fifty-five cents for a haircut! How's that?

The Barber: The haircut was merely to illustrate my scientific lecture on the care and treatment of the scalp, for which I charge four bits. The nickel's for war tax.—Columbia State.



The Message Headed by 2000 Persons

That number have already made their plans to attend the National Exposition. Hotel reservations and reports from every section show this.

It is only the unprogressive manufacturer who is not making preparations to be there.

Ice Cream Manufacturers May Reserve Rooms Now At The Hollenden Hotel

THE National Exposition will be held in conjunction with the 22nd annual convention of the National Association of Ice Cream Manufacturers.

The convention opens Monday, October 16th. It ends Wednesday, October 18th.

The National Exposition opens Tuesday at noon, October 17th, in the new $6,000,000 Public Hall.

It is 1922's only exposition of ice cream machinery, equipment supplies and services.

It is for ice cream manufacturers exclusively.

It will be almost twice as large as any previous exposition.

It will include every display material, piece of equipment and proven service needed by ice cream men.

It is a market and educational exchange set up for an industry.

The Association of Ice Cream Supply Men

1328 BROADWAY **NEW YORK CITY**

Is China Discovering Its Sweet Tooth?

The First Modern Ice Cream Plant Installed at Hongkong by the On Lok Yuen Co. May Presage Sweetening Up of the Celestial Kingdom

Is John Chinaman beginning to discover that he possesses as sweet a tooth as his white brother of the western Hemisphere? Recent developments by the On Lok Yuen Co., say "Yes." Can it be that John's chop suey, rice and tea diet, stretching back centuries of time, is at last to be varied by an occasional dish of ice cream?

Cheung Kat Shing, Manager of the On Lok Yuen Co., emphatically answers in perfect English, "You bet my countrymen eat ice cream. They take to it like your Broadway flapper takes to bobbed hair. When one of them sticks his sweet tooth through an ice cream cone, he is just as big a booster for ice cream as any boy scout in the States."

That sounds as though John Chinaman would soon be tickling his palate with Eskimo Pies, enjoying seeds and all in Pickanninny Freeze or eating a Babe Ruth baseball. Well, John may be willing, but there are a lot



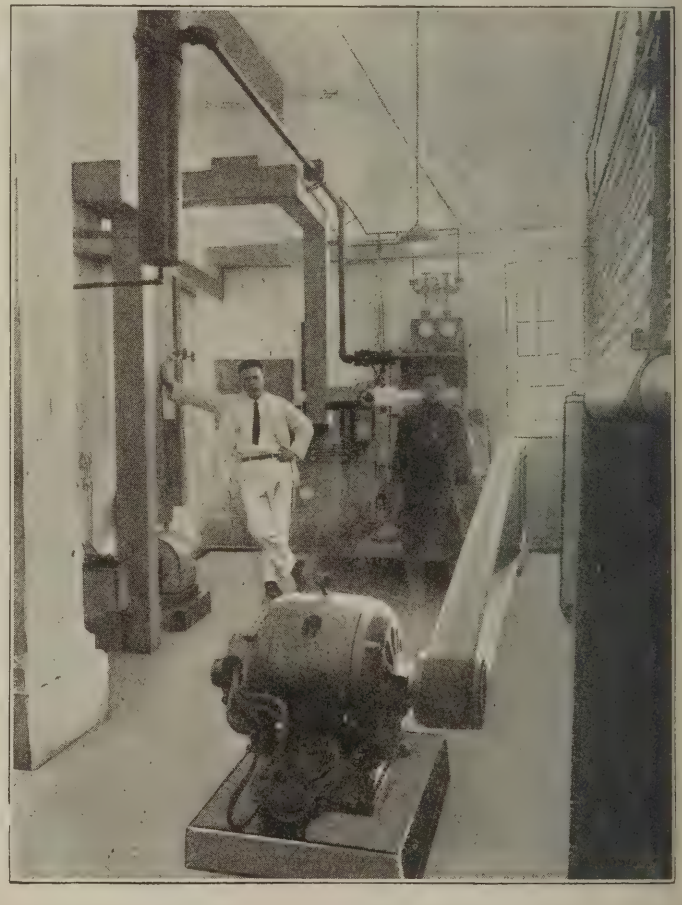
Cheung Kat Shing, wife, relative and 6 good reasons why China is discovering its sweet tooth.

of unfarvorable conditions to be overcome first, as the experience of the On Lok Yuen Company will bear out.

In the first place, there are no dairy cows in China. No cows, you ask? No. There are perhaps a few imported ones, but they are so scarce, that we might as well forget about them.

How then, can the On Lok Yuen Co. produce ice cream and butter with no cows in China? Answer, they import the raw materials in storage from the dairy herds of distant Australia. The On Lok Yuen Co. import skimmilk powder and canned butter. Powder, plus water, makes skimmilk. Skimmilk is mixed with the canned butter and then run through an American made homogenizer, is then mixed for ice cream in American Vats and finally frozen in American freezers so that John Chinaman and the British seaman in Hongkong may have their ice cream.

The entire equipment used in the On Lok Yuen Company plant is American made throughout. It was selected personally by Manager Cheung Kat Shing on a visit to the United States a year and a half ago and purchased from the Davis-Watkins Dairymen's Mfg. Co. Included in the machinery ordered, were two 200 gallon ice cream mixing and storage vats, a 400 gallon storage vat, two 50 quart brine freezers, a 90 gallon homogenizer a large churn, complete refrigeration system, cooler,



Corner of the On Lok Yuen Co. plant showing cooler and ice-making compressor.

milk pump, and all ice cream cans, tubs and brick cabinets and moulds.

Evidently the name Cheung, which is Kat Shing's family name, stands for "Show Me" for he made a thorough study of American ice cream factories and milk plants in San Francisco, Chicago and New York, during the course of which he became thoroughly familiar with the latest equipment and methods for the manufacture of ice cream.

As can be seen from Mr. Cheung Kat Shing's photograph, shown here with his family, he is a keen, alert Chinaman of the most progressive type. When the machine for a plant of the size ordered above is shipped, usually the manufacturer sends an erector to install the

equipment, but Cheung Kat Shing said it would not be necessary to send a man, as he and his men could do the installing themselves.

How well he succeeded and what results they have since achieved in merchandising ice cream and confections, you may judge from the accompanying illustration, and Mr. Cheung Kat Shing's letter to Mr. S. J. Davis, written July 4th, in which he states, "Candy and ice cream store is now doing a cash business of $400.00 a day, though it has only been open for business for a very short time."

If the success of the On Lok Yuen Company's plant can be taken as a criterion, John Chinaman is destined to be a coming world customer for ice cream, and incidentally for considerable ice cream, milk and creamery machinery and equipment.

Of course, Hongkong is a British possession, the population of which is largely British in customs and social life hence the patronage of the On Lok Yuen Company is doubtedlsss largely British, yet a growing share of the business is coming from the Chinese quarter. That share will very likely grow as John Chinaman's sweet tooth is developed.

Who will deny that this first ice cream plant foreshadows the time when the leading cities of the Celestial Kingdom will have ice cream parlors as well as chop suey shops, when Eskimo Pie is not an unknown term in Peking, and when Pickaninny Freeze and Shanghai Sundaes are frequent items on the yellow man's bill of fare.



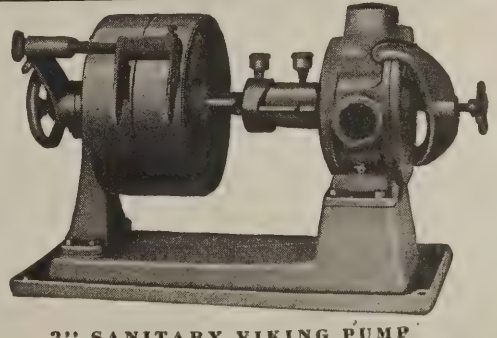
For cleanliness and completeness of equipment, this ice cream making department of the On Lok Yuen Co. is surpassed by few American plants of equal size.

JOHN J. GROTHE CO., INC. AT CLEVELAND SHOW.

The John J. Grothe Co., Inc., manufacturers of refrigerator bodies, will occupy booths 87, 88, 89 and 90 at the Cleveland show. They expect to have a number of our representatives present namely:

Mr. J. N. Gurdy, president; Mr. A. B. Mackay, vice-president and general manager; Mr. J. E. Burke, Jr., secretary and treasurer. Also Mr. Frank L. Ruzicka, general manager of the St. Louis branch, and Mr. John Mitchell, general manager of the Canadian branch.

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NEWS ABOUT SUGAR

Items of Interest for the Ice Cream Manufacturer

TRADE'S AMPLE SUPPLIES CHECK BUYING MOVEMENT.

Under pressure of a steady and strong demand from consumers throughout the earlier months of the year, combined with difficulties and delays in getting shipment from refiners, the jobbing trade placed orders rather more freely than was actually required to maintain supplies at this season of the year. This, at least, is the interpretation placed by most trade observers on the existing situation. The influence on consumption of the rapid rise in prices, the interruption of fruit shipments by strikes, and the disappearance of export demand have combined with the well-stocked condition of distributors to keep the market dull and quiet, with a further weakening in prices during the week.

Present Requirements Covered.

The amount of sugar that jobbers have coming to them, either on contracts in the hands of refiners or en route to destination, is said to be considerably larger at the present time than was generally supposed a few weeks ago would be the case. With free deliveries on these outstanding contracts, the trade is not in need of making further commitments for some time to come. In some quarters it is estimated that it will be the middle of September before buying will show much activity again.

To add further to the absence of activity, speculative buying of actual sugar by jobbers has altogether ceased. Until recent weeks the sugar market has shown a steadily advancing trend from the beginning of the year, with the result that jobbers have been making very good profits by anticipating their requirements to some extent, which has led as a matter of course to a considerable amount of speculative buying.

Europe Not a Present Buyer.

The trade having made its profit, it is pointed out, is not anxious to take on any further obligations in a market which has shown a reaction, and refuses to buy now except what is actually needed for immediate consumption.

This attitude does not appear alone to govern in this country, but New York brokers having foreign connections report that European buyers, particularly those of the United Kingdom, are not anxious to make purchases. Cables from Great Britain are to the effect that speculative buying has ceased there, at least for the time being, which would seem to indicate that not all of Europe's heavy purchases during the early summer were for immediate consumption.

The destruction of confidence in the market's position through the resale of export sugars a couple of weeks ago seems to have caused more damage than could have been anticipated at that time, and some apprehension is being shown as to the ultimate destination of sugars ordered for export during September.

* * *

Supply and Demand in 1922 and the Outlook for 1923.

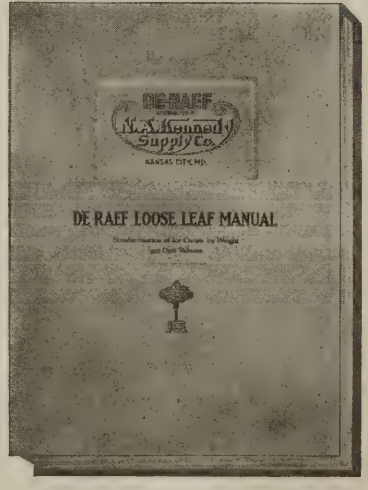
"The world's available supply of sugar for the year 1922, judging by the results of the campaigns that have been concluded and the present outlook for coming crops, will be about 1,400,000 long tons larger than the total supply for last year," says the editor of Facts About Sugar. "The difference is due almost entirely to the surplus carried over in Cuba from the previous year. Gains in production have been made in certain sections, but these for the most part have been offset by losses in other parts of the world.

"The most noteworthy feature in the movement of sugar during the year has been the distribution of Cuba's record breaking supply. Shipments from Cuba up to August 1 had amounted to nearly 4,250,000 long tons, a greater quantity than ever before was exported from the island in the course of a full year. Of this amount about 60 per cent was taken by the United States and 40 per cent by other parts of the world.

"The relationship between supply and demand during the year presents a striking contrast with the year before. While a considerable surplus remained at the and of 1921 from the smaller available supply, the indications are that the larger stock available this year will practically all be absorbed. This does not mean that the world will be denuded of sugar at the close of 1922 but that supplies will be limited to normal trade stocks and to the customary carry-overs in those countries in which the season of production overlaps the turn of the year or coincides with its final quarter.

"This situation merely illustrates anew the fact that normally the world's output of sugar is consumed in the course of the year and that prices are so adjusted in the world's markets by the interplay of supply and demand as to produce this result. There have been exceptions to this rule, as in 1918, when difficulties in transportation prevented equable distribution, and again in 1921 when the price of Cuban sugar was fixed by an official agency and did not respond directly to the action

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FOR THE PRACTICAL
ICE CREAM MANUFACTURER
The only manual of its kind published to date devoted exclusively for the Ice Cream Factory



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De Raef Loose Leaf Manual, circular sent on application to the Ice Cream Department.

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METROPOLITAN MILK CO. - - Minneapolis, Minn.
FLYNN DAIRY CO. - - - - - Des Moines, Iowa
WATERLOO CREAMERY CO. - - - Omaha, Nebr.

of supply and demand. This year the various governmental restrictions that had been continued from the war period were, with few exceptions, removed. Prices have been lower than for several years past and these lower prices have been reflected in an increase in consumption, which has been especially marked in the United States and to a less degree in Europe.

"Another factor that has contributed to a heavier consumption of sugar in 1922 has been the general improvement in industrial conditions. The year has been one of recovery from the depression that marked the latter part of 1920 and practically the whole of 1921. There has been far less unemployment this year than last and conditions among agricultural producers have been much better.

"These two conditions of lowered prices and improved purchasing power will bring the consumption of sugar in 1922 nearly up to the point it had reached before the outbreak of the world war, with a total of nearly 18,000,000 long tons. Production, however, has not kept pace with this increase in consumption, which has been made possibly only by the existence at the commencement of the year of the surplus stocks previously referred to. The outlook for 1923, therefore, if the world receives no industrial set-back such as cannot now be foreseen, is for a smaller total supply than has been available this year. The logical sequence of this condition will be the maintenance of a higher level of prices than prevailed during the first half of the present year as a check to consumption needed in order to prevent demand from outrunning supply."

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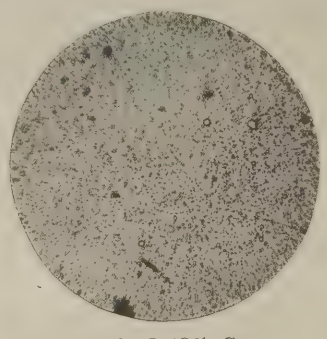
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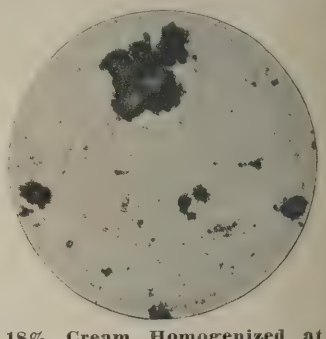
MORE ABOUT VISCOSITY OF MIX.

There are many things yet to be studied in reference to the viscosity of milk and cream and ice cream mixes. Below are shown micro-protographs which might be of some interest. You will note that No. 3 shows the cream immediately after pasteurization. The fat globules are separate. If this cream is allowed to remain at a low temperature for from 24 to 48 hours you will find that the fat globules are clumped together. There will be several single globules in the field but also many fairly good sized clumps. It is evidently due largely to the fact that the viscosity of the cream is increased by ageing. I also wish to call your attention to No. 2 which shows the cream after homogenization. You will note the large clumps of fat in the field and only comparatively few single fat globules.

Some years ago we had some little trouble with the plain cream which was sold as retail from the college creamery. We made a rule to sell 20 per cent cream at all times. During the spring of the year that cream would appear quite thin. There would be a thick layer of cream at the top of the bottle and milk at the bottom and the consumers would make complaints stating that there was milk in the cream. During the fall and winter months the cream was very satisfactory. The reason for this difficulty was mainly due to the character of milk produced during the spring of the year. Most of the cows came in fresh at that time and the fat globules produced in that milk were larger than the fat globules in the milk produced during the fall and winter months when the cows were further advanced in the period of lactation. We started our instructor in charge of the market milk department at that time to carry on experimental work on preparation of the cream that was sold at retail. We left it to him to determine to what pressure the cream might be exposed without giving the cream the feathery appearance when added to hot coffee. We worked on the theory that the large fat clumps as you note on the micro-photograph would rise to the surface after they reached a certain size and that they were responsible for that feathery appearing substance. We had already found that the fat clumps increased in size almost in direct proportion with the increase in homogenizing pressure. The work carried on along that line here for several months resulted in that we started to homogenize all of the cream used for retail at a pressure of fifty kilograms per square centimeter with a Gaulin Homogenizer. At that pressure a satisfactory result was obtained. The cream treated in that way was plainly labeled and a special letter was sent to all consumers informing them how it was treated and that even though the cream might appear to be a trifle richer than it used to be it only contained 20 per cent fat and that our object in homogenization was merely that of giving such a consistency to the cream so the last drop in the bottle would be exactly the same as the first.



Pasteurized 18% Cream.



18% Cream Homogenized at 300 Kilograms (661 lbs.) and 180° F. and Slowly Cooled.

It is true that the casein is possibly to some extent responsible for the increase in viscosity but the writer feels that the big factor responsible for the increase in viscosity is the breaking up and clumping together of the fat globules. By breaking up of the fat globules a greater amount of the milk serum will be fixed or held around the fat globules due to the surface tension. By the fat globules being clumped together an additional amount of serum will be fixed or held by the fat globules.

If the cream after homogenization stands, this clumping together of the fat globules becomes more pronounced and gradually the viscosity is increased. It is true that after the filler has also been added that the filler will naturally also play a big part in causing an increase in viscosity.

We have carried on considerable work during the past year on this subject and we find that as freezing of the mix progresses the fat clumps are again broken up and the viscosity of the mix reduces accordingly. It has been our experience that if the mix is aged for 24 hours we will obtain as good results in the final product as is obtained by ageing for a longer period. M. M.



"Don't knock the man above you. Don't try to pull him down. If you want his job, boost him into the next higher job and the chances are he will take you with him. If you try to knock him down he will know it and knock you down first. He has the advantage." This is good sense as well as good gospel.

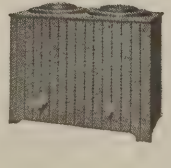


If you are tired of your business, don't worry over it. Advertise it for sale in The Ice Cream Review Want Department.

STOUT

Schroeder Perfection Cabinets

What do you prefer--metal-lined or tub-linedcabinets?



We Manufacture Both Kinds

"Insulation is the thing"

JOHN SCHROEDER LUMBER CO.

"A Dozen Cabinets or a Dozen Carloads"

WALNUT ST. MILWAUKEE, WIS.

MERIDALE POWDERED MILK



Jos. Middleby, Jr. Inc.
Established 1870
The Daylight Factory
327-347 Summer St. Boston, Mass.

Messrs. Ayer & McKinney June 3, 1922
39 S, Water St.,
Philadelphia, Pa.

Gentlemen:

It is now four years since we started handling your Meridale Brand Milk Powder, and in addition to the fact that our relations with your concern have been of a most satisfactory nature, we are glad to be able to add that during the period that we have handled your product, we have never had a complaint on the quality of the Meridale Milk Powder.

Yours very truly,
Jos. Middleby Jr. Inc.

39 South Water St. PHILADELPHIA **AYER & McKINNEY** 541-543 W. 22nd St. NEW YORK

Manufacturers of Whole and Skimmed Milk Powder of Quality

DISTRIBUTORS:—Jos. Middleby, Jr., 327-347 Summer St., Boston, Mass. Lee & Saddler Company, Atlanta, Ga. Haines-Carpenter Dairy Products Co. 716 N. 18th Street. St. Louis, Mo. SOUTHERN REPRESENTATIVE:—C. Gibson Ford, 1012 Union Trust Building, Baltimore, Md.

"PICANINNY FREEZE—EAT SEEDS 'N ALL."

(Concluded from Page 18)

very attractive store cards. These are prepared by the Picaninny Freeze Company of America and distributed through the manufacturer. A series of dealer folders, also prepared by the parent company, and sent out by the manufacturer, have secured new retail outlets for the new frozen dainty.

In some instances, consumer folders have been distributed in various ways, for instance, such as by dairies with their milk deliveries.

In practically every town where Picaninny Freeze has been introduced, the results from the first day of the sale have been even more gratifying than most optimistically expected. In Baltimore, Md., for instance, on the first day of the sales campaign, more than 3,000 dozen were sold by one licensed company. Results in other towns have been equally gratifying.

The Picaninny Freeze Company is a firm believer that it takes new ideas to sell a new product. In addition to the newspaper, poster, store and window advertising developed in this campaign, they have originated a clever patented carrier for the sale of Picaninny Freeze at resorts, ball parks, theaters and other places of public gathering. These carriers are shaped and painted to look like real watermelon. They are lined with cork insulation and have a tiny ice tray to keep the Picaninny Freeze hard.

Another novel selling aid developed by the parent company for the licensed manufacturers is a huge watermelon shaped patented push cart, attractively painted in the natural watermelon colors. In cities where these have been tried out, results have been surprisingly large and consistent.

A NEW MINNEAPOLIS ICE CREAM PLANT.

The Northwestern Ice Cream Company of Minneapolis, Minnesota, began operations the latter part of August with a daily capacity of 1500 to 2000 gallons of ice cream per day. The new plant is operated co-operatively under a plan directed by Mr. George A. Ball.

The new company is incorporated for $200,000, and $50,000 of this stock has already been paid in.

The company is operating in a building, part of which is being used by the Hygienic Ice Company, the close co-operation of which concern will be a big factor in the economical production of ice cream by the Northwestern Ice Cream Company. All damaged cakes of ice from the ice company will be used by the ice cream plant at the low rate of $3.50 per ton. Cheap power, at 2½c per kilowatt, now enjoyed by the ice company will also keep production cost down to the minimum for the ice cream company.

The equipment and layout of the plant is designed to manufacture only the very highest grade of ice cream for distribution to retail stores operated by the members in St. Paul and Minneapolis. A strong advertising campaign will be instituted to push the sale of ice cream in the Twin City territory. The freezers will be operated in connection with the 200-ton compressor owned by the Hygienic Ice Company. This will enable the Northwestern Ice Cream company to keep the manufacturing cost per gallon down to a very low figure, enabling the retail members of the combination to sell ice cream to the public at a very reasonable rate. The plant is equipped with ice cream machinery made by the Davis-Watkins Dairymen's Manufacturing Company.

KEEP AN EQUIPMENT CATALOGUE HANDY.

Ice Cream Men Stage Wonderful Exhibit

Interesting and Educational Methods Adopted to Advertise Ice Cream at Pageant of Progress Exhibition.

VISITORS to the Municipal Pier, where the Chicago Pageant of Progress was staged last month, were treated to a most interesting ice cream advertising display. The exhibit was the result of co-operation by members of the Chicago District Association of Ice Cream Manufacturers. A complete ice cream factory was in operation and each piece of machinery was placed so that everyone could see it function. Over three hundred gallons of ice cream were made daily and sold to visitors. The mix was brought to the pier where it was frozen and packaged for distribution. Each operation was carried on slowly so that the visitor could get the most out of it.

A representative of The Ice Cream Review experienced genuine pleasure, standing near by and listening to the various comments made by visitors. "Why they don't even touch it with their hands," "Everything looks so nice and clean," "That must be good ice cream," "Notice how they handle it," "Gee, that makes me want some right away," "That shows that ice cream nowadays is made good and clean" were some of the comments freely passed around.

Men who have had experience in advertising ice cream are liberal in praising the exhibit. They have marked it down as one of the most interesting and instructive exhibits ever put on to educate people to the fact that "ice cream is a food, not a fad." Each visitor was handed a neat little booklet from which we quote a few paragraphs as follows:

"Just as the people of Chicago have spent over $5,000,000 to make the Municipal Pier the peer of any similar undertaking in the world, so we ice cream manufacturers have used every new and scientific method in producing ice cream unequalled in purity and richness.

Both are products of unceasing thought and labor—and both in their way are bringing joy, happiness and health to millions.

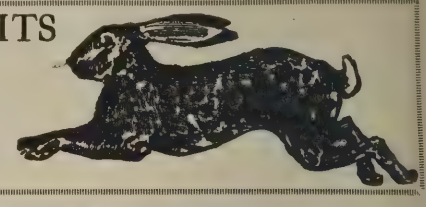
Pure ice cream used to be considered a luxury. Today it is the dessert of the American table—the refreshment of the day. Rich in food value, containing a wealth of vitamines—which are necessary to health and success. The most economical food—the dessert for every one.

We manufacturers are pledged to keep our ice cream pure—as pure as any food set upon your table."

Among the various items of equipment used in making the display were six Continental Freezers, a Mojonnier Overrun Tester, and a Mojonnier Brick Packaging Machine. A Mojonnier Cream Tester was also on exhibition. The United Cork Companies erected a complete refrigerator and insulated it with Cresent cork board. A York Compressor was furnished and installed by the Westerlin-Campbell Company.

Exhibits in connection with operating ice cream factory were made by the following firms—The Elite Chocolate Coated Baseball Company, Miss Alice Middleton substituting for Babe Ruth; Horine & Bowey Company with fruits and flavoring extracts; The United Chemical Company with pure food gelatine; The J. B. Ford Company maintained an attractive booth in charge of the "Big Chief of Wyandotte Fame;" The Morton Salt Company was on hand with its product "It Pours when it Rains;" The Davis-Watkins Dairymen's Manufacturing Company exhibited a line of Progress Ice Cream Freezers and their Ice Cream can washer.

The ice cream manufacturers of Chicago are to be congratulated on their splendid exhibit and their impressive style of advertising. We are told that much of the credit for the success of the undertaking is due Mr. Olin of the Lawrence Ice Cream Company, who was chairman of the Exhibit Committee of the Chicago District Association of Ice Cream Manufacturers.

JACK RABBITS
KARL R. ZIMMER, President, Menasha Printing & Carton Co., Kansas City, Mo.
ELWIN F. WEIL, Sec., 514 N. Y. Life Bldg., Kansas City, Mo.


TURNING THE TABLES.

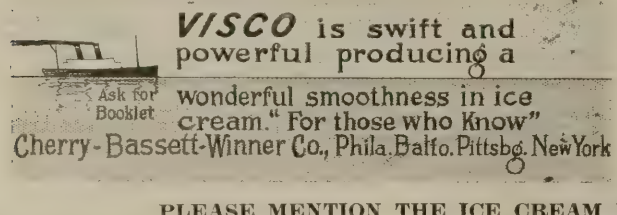
A story comes to us that Mr. F. R. Bennett, proprietor of the Bennett Creamery Company of Wichita Kansas, and known to his host of friends as "Ransom," turned a neat trick recently when a number of his local friends attempted to make life interesting for him. He returned from a honeymon to find a crowd ready to do things to him. He and his good wife disguised themselves and mingled with the multitude for several hours. Everybody wondered where the bride and groom had disappeared to. When the true situation was revealed everybody agreed that the joke was on the other fellows. It was a neat trick. Congratulations, "Ransom."

* * *

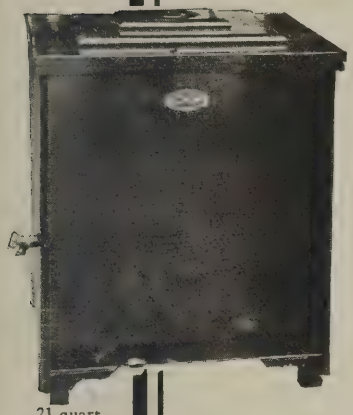
Weight of Ice Cream.

The greatest problem confronting the Ice Cream Manufacturers of today is a uniform weight per gallon on all ice cream, regardless of flavors. Having visited plants in Kansas, Oklahoma, Nebraska, North Dakota, Minnesota, Iowa, Missouri, Pennslyvania, New England, New Brunswick in 1922, I find conditions pretty much the same in all plants visited in these States, a variation of from one-half to 2 pounds per gallon; in fact I have seen 4.0 pounds per gallon ice cream and 6.0 pounds per gallon ice cream in plants located in the same city and selling for the same price per gallon; here we have an ice cream that varies in quality and food value, and yet the butter fat, milk solids, sugar contents would be standardized from day to day in the mix. Ninety per cent of all plants visited shows a greater variation on their specials, such as chocolate, fruits, nuts. When the Ice Cream Manufacturer realizes what an extra one-half pound per gallon means on his entire day's run, he will realize where his profits have been going especially in the New England States where ice cream is selling for $1.20 to $1.30 per gallon. Allowing five pounds per gallon, an extra one-fourth pound means a loss of 6 cents per gallon; one-half pound, 12 cents per gallon. Take an average small plant of fifty thousand gallons annual production and a one-fourth pound per gallon at $1.20, means a loss of 6 cents per gallon and a total loss of $3,000 annually.

I visited plants making over a hundred thousand gallons, having a loss of one-half pound per gallon, and



ECONOMY CABINETS



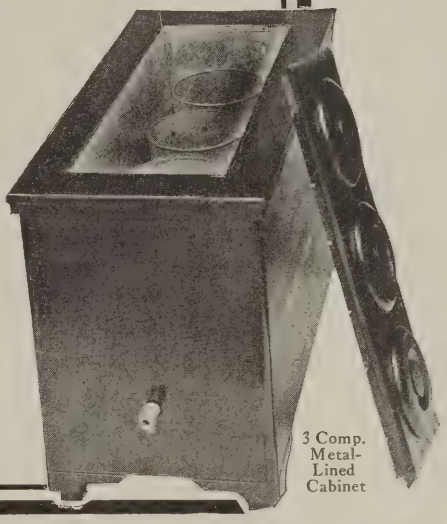
21-quart Brick Cabinet 32 dozen Eskimo Pies

Economy Brick Cabinets

The best keeper of Brick Ice Cream or Eskimo Pie. Very heavily insulated and icing space on all four sides of brick container, thus giving perfect refrigeration to each pie or brick. Liner and brick container made of Armco Iron.

Economy Metal-Lined Cabinets

Especially designed to keep bulk ice cream at its best quality with the least possible amount of ice. Strongly constructed, heavily insulated and lined with Armco Ingot Iron. Supplied with slip rings to keep can in place and convenient for re-icing. Finished in mahogany. *Send for catalog and prices.*



3 Comp. Metal-Lined Cabinet

HOMER MFG. CO.

HOMER CITY, - - PENNA.

several cases have noted a pound loss per gallon, and yet the ice cream manufacturers have never given this a thought. Is it any wonder why some of the Ice Cream Manufacturers are having a hard time, and complaining of the weather, price, poor business, etc. Take the Middle West, where ice cream is selling for $1.00 per gallon, a one-fourth pound on a gallon of ice cream over 4.75 pounds per gallon means a loss of 5 cents per gallon, and yet conditions are very much the same in the Middle West, East and New England States; very few plants can standardize to a uniform weight per gallon in specials, fruits, nuts, chocolate, as with these added ingredients to the freezer after mix has been entered, changes the weight of the mix. Results; an estimated overrun, variation in weight per gallon and quality, as this class of ice cream invariably runs greater weight per gallon than vanilla. Personally, I cannot understand why all ice cream should not be a uniform standard weight per gallon—Ice Cream being the only milk product that has no standard weight per gallon.

If time and space was permissible, no doubt more convincing facts could be given, but no doubt some Brother Ice Cream Manufacturer will follow this up with a more convincing article for your valuable magazine, and either undertake to dispute or agree on the merits of this article.

DE RAEF.



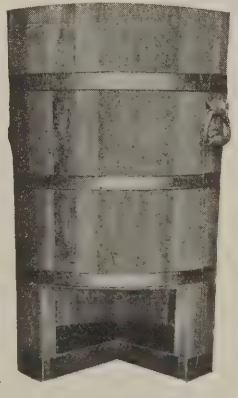
If you want a manager, superintendent, expert, chemist, bacteriologist, operator, pasteurizer man, or help of any kind, "The Ice Cream Review" can help you find the best available man. If you want a position, "The Ice Cream Review" can help you as it has helped hundreds of others to secure a good position.

MICHIGAN White Cedar

is famous for its strength, durability and toughness! We use this wood exclusively in the manufacture of our

LUMBER JACKS
White Cedar
Ice Cream Packing Tubs

Unexcelled material combined with infinite care and skilled craftsmanship.



Will not waterlog and are the nearest possible resistant acid and salt brine.

We are the originators of the Thermos Ice Cream Cabinet

Complete descriptive circulars and prices on request.

Archie J. Verville Company
MANUFACTURERS
Hancock **Michigan**

. . . . . IN THE

SUNNY SOUTH

Notes from Dixie Relative to the Ice Cream Industry by our Special Correspondent . . .

MR. CRADDOCK GOINS 34 Highland View ATLANTA, GA.



There is much to be said for the 1922 ice cream season in the South. While the summer months were marked by a falling off of about 10 per cent under the normal output for this period, results have been very satisfying in more than one way.

The fleeting summer, although leaving much disappointment for many whose optimism was based upon early favorable indications, can hardly be recorded as a period of pronounced trade weakness insofar as the ice cream industry is concerned; for a dispassionate review of the past few months impresses facts that leads close observers to take a most sanguine outlook for the future of the wholesale ice cream industry in Dixie.

Hampered by economic developments of a nature very obstructive to the trade, especially in what are generally regarded as the luxury line, the Southern industry has reflected a basic strength that leads many to see a much stronger ice cream market for the approaching fall and winter months than usually prevails below the Ohio River.

There no longer is any doubt that the ice cream situation in the South has resolved itself into a condition largely controlled by the general economic situation. This fact, more than anything else, denotes progress of a very pleasing nature.

In times past ice cream has been sold in the South in accordance with public demand, but some time after the bells startled the inhabitants of quiet retreats very early one morning last January, it was evident to lookers-on that ice cream manufacturers were beginning the year 1922 in the South with one of the most extensive programs for developing ice cream consumption than this section has ever witnessed.

The Southern ice cream industry has awaked to its possibilities. There was no room for doubting this after early preparation took shape in the spring.

Supported by more newspaper and bill board advertising than the Southern public has ever before seen, the season "got away" to a flying start, as the gentlemen around the race-tracks are wont to observe.

It was this momentum and the application upon the parts of the manufacturers of the most intelligent order of business methods that kept the sales of July and August up to the level maintained.

It is not to be understood that the falling off of ice cream sales in the summer necessarily means that 1922 will go down as a bad ice cream year in the South.

When it is reflected that the industry took every advantage of early favorable conditions and strongly held up in the face of a later agricultural depression that sharply restricted buying-power in this section, it can be understood that the efforts of the Dixie manufacturers are approaching more sound and constructive lines.

Agricultural depression in the South means industrial depression, for the business of these states revolves very largely around the farm pursuits.

A condition such as that prevailing in the past few months, with farmers struggling against fertilizer bills two years unpaid, added to the railroad strikes, a few years would have operated as a much more serious check to ice cream sales.

The happy outlook now is based not solely upon improvement in general conditions, but also upon the secure position of the ice cream industry itself. That is, the ice cream manufacturers are prepared to make the most of every favorable advantage that may develop.

The ice cream business is being taken more seriously in the South, both by the manufacturers and the public-at-large. The manufacturers are beginning to handle their business along the same kind of advanced lines as followed by other business men.

It is at this time that we are strongly reminded of the prediction at the last Southern convention of President W. M. Sidebottom, who upon retiring from office, expressed the opinion that the coming months would show Southern manufacturers "more closely following the approved business practices of the age than ever before has been the case."

Mr. Sidebottom, who is one of the most far-sighted members of the southern industry, may derive much satisfaction from the knowledge that many others of his predictions of constructive advancement have held good.

There has been more newspaper and billboard advertising by Dixie ice cream manufacturers in the past two years than in the previous ten years, the present time especially witnessing a great amount of advertising.

The value of dairy products is being appreciated by the public more than at any other time in history.

Perhaps the most pleasing thing of all in connection with the Southern market is the expansion of the ice cream period. Although the favorable climate makes it possible for ice cream to be refreshing in the winter months in this section, only recently has there been any progress in inducing the public to eat the frozen beverage to any considerable extent out of the summer months.

But with the situation so well in hand as it is now, it will not be at all surprising to many, if ice cream sales in September and October do not surpass the sales of July and August in the Southern states.

Steadily improving business conditions support this belief. In the last few months Southern farmers have disposed of different crops that brought much wealth.

The passing of cotton from its position as the money-crop is doing more to promote the prosperity of the Southern states than anything else, and all that remains for the South again to take its place as one of the most prosperous sections of the nation is a more proportionate distribution of the crops now being produced by the diversification program to which much interest is being given.

It has been with much impatience that business leaders of the nation have awaited the full carrying out of the diversification program, but when it is reflected that the purpose sought is the drastic curtailment of a crop that has been grown in this section since the earliest history of its white settlement—and at one time with very great profit,—it must be understood that this is something not to be expected overnight.

VISCO
Provides Scientific Control over the Ice Cream mix which is absolute. Read How—
Get Booklet & generous trial offer Cherry-Bassett-Winner Co. Phila.

VILTER

Ice and Refrigerating Machinery



Cold
Dry-Frigid
Mountain Atmosphere

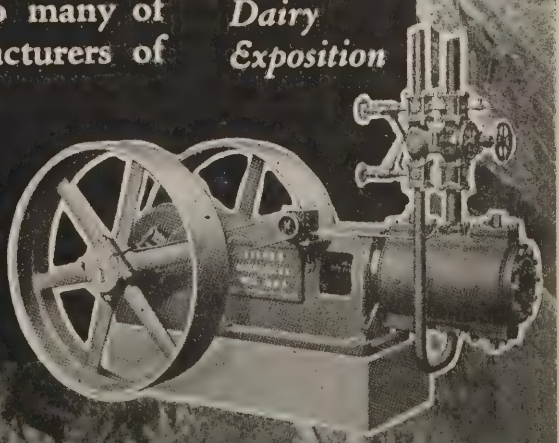
transplanted into your factory and made subject to your will by just the turn of a valve.

The fine regulations possible with VILTER refrigerating equipment make certain any degree of temperature for commercial purposes.

Rugged in construction like the mountains themselves, and wrought together to withstand the storms of commercial activity, VILTER ice and refrigerating machinery stands the test of time.

Practical, economical, serviceable, dependable — a size for every plant — all reasons why VILTER EQUIPMENT has been selected by so many of the most exacting and successful manufacturers of dairy products.

See the "Vilter" Exhibit at the National Dairy Exposition



Write for Illustrated Bulletin

The Vilter Manufacturing Co.

889 CLINTON ST. *Established 1867* MILWAUKEE, WIS.

Branch Offices in All Principal Cities.

COVER ICE CREAM BARS WITH GOOD CHOCOLATE.

However, there are many indications that diversification in all of its rich promises is near.

We will take, for example, one state that is typically Southern—Georgia. Twelve commercial crops were produced in this state this year. In the neighborhood of a million dollars worth of tobacco has been marketed in the past few weeks, from scattering little strips in the lower part of the state alone—and this product that just a few years ago was entirely unknown to Georgia.

Gazing from trains traversing what formerly has been regarded as the cotton belt, persons used to seeing in this territory veritable seas of white cotton balls are astonished now to see cotton taking up only scattering acres, among acre after acre of corn and other products.

The dairy industry is coming into its own. A few years ago pure-bred cattle were a strange sight on Southern farms. Later, when dairying was introduced about six years ago, the average went up to about one-half cow to the farm, against two, three or four for the northern and western states. Exact figures have not been available since the rapid progress that has been made in the last several months, but there is little doubt that the near future will find a dairy cow to virtually every farm.

Perhaps the most striking indication of immediate improvement of business conditions in the South is the recent report showing that Southern cotton mills are running three-fourths more "spindle-hours" than are are the mills of New England. This shows that the South is beginning to make the most of its every resource. Whereas, it formerly produced for northern industries, it now is feeding its own factories.

Advance preparations for the 1922 convention of the Southern Association of Ice Cream Manufacturers give every indication that this event will be a most noteworthy gathering.

Even at this early date the eyes of the Dixie industry are turned upon New Orleans, where the ice cream clans will assemble in December. Secretary J. W. Clopton is authority for the announcement that the 1922 program will be one of the most constructive and informative that a Southern body has heard.

Reports from New Orleans are that the manufacturers of the Crescent City are making extensive preparations for the entertainment of their visitors. It is assured that delegates will not find time heavily hanging upon their hands.

President W. W. Campbell, from his home at Shreveport, La., announces that he wants "the boy's" trip across the river to be the most pleasant they have ever taken.

The interest taken in the coming convention by many supply firms leads to the belief that the exhibition features this year will be of much more importance than at previous conventions in the South.

It has been suggested to officials that a regular committee be appointed to take over preparations for staging a regular exhibition in connection with the 1922 convention. No official action has been taken in this direction, however.

* * *

The first plant in the South to be fully equipped with glass-lined equipment is that of the Savannah Cooperative Creamery, which will be completed by the first of the year. It will produce ice cream and butter and will market milk and buttermilk.

This plant, which was designed and equipped by Bessire & Company, will have glass partitions to enable visitors to see different parts of it in operation at all times.

It will be the first plant in the United States to employ the use of the Angel container, a product that has been given the unqualified indorsement of health authorities.

This container is made of paraffine admitting view of the cream line. The paraffine is made into containers by a machine entirely automatic, which receives the paper already cut in forms to be shaped into containers.

Another plant of the same nature is planned for Jacksonville.

* * *

The Dixie Ice Cream Company is a new concern to take the field at Macon, Ga., under the direction of J. E. Chamdler, prominent Macon cotton broker; W. C. Ivey, formerly ice cream maker for the Kinnett-Odum Company, and Ben Fetner, formerly mechanician for the Kinnett-Odum Company.

It began operations in September and has a capacity of 1,000 gallons a day.

* * *

"Daddy" Williamson, head of the Williamson Ice Cream Company, of South Pittsburgh, Tenn., is looking forward to the coming convention of the Southern Association.

"Daddy" tells The Ice Cream Review's Southern correspondent that he anticipates the pleasure of comparing notes between the governor of Georgia and the governor of Louisiana, and he absolutely refuses to appear on a convention program unless it is understood that Louisiana's chief executive shall introduce him.

* * *

Joe Flowers, head of the Flowers Ice Cream Company, of Thomasville, Ga., recently was in Atlanta long enough to report a favorable outlook for his business.

* * *

Mrs. Jack Kearney, wife of the popular representative of the National Paint & Varnish Company, is rapidly regaining her health after an operation in an Atlanta hospital weeks ago. The Kearneys are among the most popular members of the Atlanta colony of ice cream supply men.

* * *

Roy Jennings, of Mojonnier Bros., is highly pleased with his Southeastern territory.

* * *

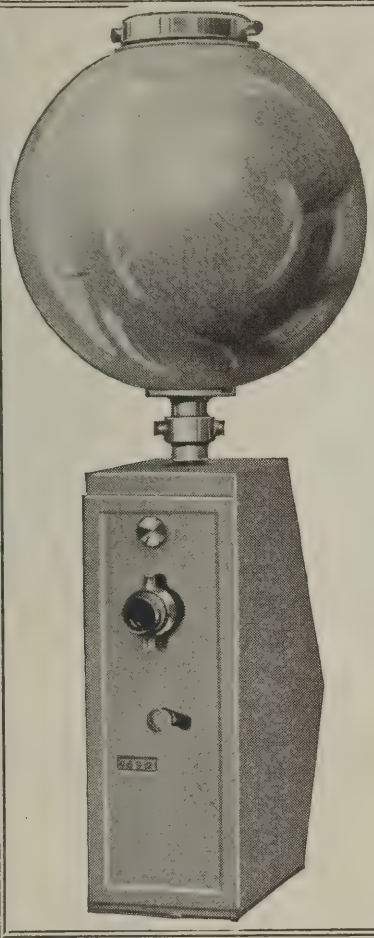
John Sancken, secretary of the Tri-States Association of Ice Cream Manufacturers, was on the high seas a few days ago, on a visit to Europe with Mrs. Sancken. He will be back in time for the Southern convention in December.

B. B. SCOTT,
President,
care Scott Mfg. Co.
Providence, R. I.



Address all communications to
P. N. MILLER, Jr.,
Secretary,
2913 11th Avenue,
Birmingham, Ala.

Mr. O. M. Parrish, 1437 Perkiomen Avenue, Reading, Pa., has just left the hospital at Louisville, Ky. Mr. Parrish has been in the Louisville hospital for the past three weeks, having undergone an operation. Mr. Parrish has a great many friends among the ice cream supplymen and ice cream manufactures who will be glad to know that he is rapidly recovering.



WE HAVE WORDS OF PRAISE FROM EVERY USER

OF

The Weibatch

(TRADE MARK)

WHY U SHOULD USE THE WEIBATCH

IT WEIGHS

Every ice cream manufacturer knows that the specific gravity of mix is constantly changing and that any measuring device, no matter how accurate it may be in volume, is very misleading when checking back against the mixing, freezer, and hardening rooms.

Our Weibatch gives you accuracy in every batch, resulting in a uniform standard of ice cream.

The desire of the up-to-date ice cream manufacturer for an accurate weight of mix to the freezer has resulted in the development and perfection of the Weibatch.

Let the Weibatch weigh your mix, and you will have a check for the office of ingredients used, a record on the hardening room, and a uniform standard of ice cream with every batch.

Eliminate guesswork, weigh the batch!

Manufactured and For Sale By

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..... Visit our display booth at the National Exposition at Cleveland, October 16 - 21. .....

Winter Ice Cream Sales

The way was opened last winter, through the success of Chocolate Coated Ice Cream Bars, to keep your organization and equipment busy, in what previously was a dull season.

This novelty has taken the Ice Cream business out of the seasonal class, and permits the making of greater yearly sales.

Avoid the chance of not being ready this fall, by ordering your Foil Wrappers NOW for delivery when you are ready.

The great attractiveness of Conley Foil Wrappers for Eskimo Pie, or when printed with your own design, aids greatly in the sale of this confection.

Will you get in touch with us at once?

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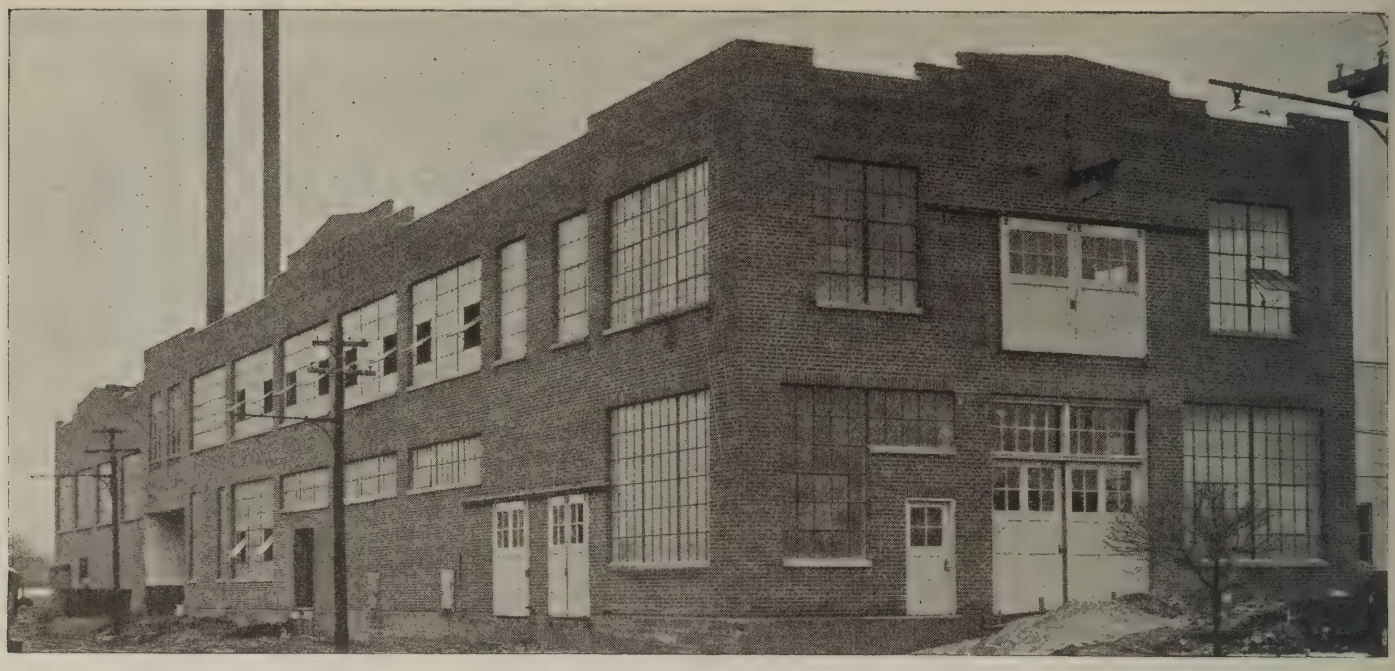
Distinctive dress for all products.

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541 West 25th Street ~ New York City



Austin-built Branch Plant of the Telling-Belle Vernon Company at Wellington, Ohio.
Designed, built and equipped by the Austin Company.



Telling-Belle Vernon Condensing Plant at Mason, Mich., built by the Austin Company.

Austin Builds New Branch Plants

Because of Austin ability to deliver with speed and economy —

Because of the efficiency of Austin branch plant service made possible through strategically located Austin branch offices —

Because Austin engineers completed one plant on time and within the original estimate —

The Austin Company was awarded the contract for a second branch plant for the Telling-Belle Vernon Company. The first operation was a Creamery and Milk Condensing plant at Mason, Mich. When the Telling-Belle Vernon plant at Wellington, Ohio, was destroyed by fire Austin engineers were again called upon for prompt building service.

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While in attendance at the National Convention at Cleveland, visit our headquarters offices, or call Eddy 4500. Austin engineers will gladly show you a number of Austin buildings, give you literature and any prices you may desire.

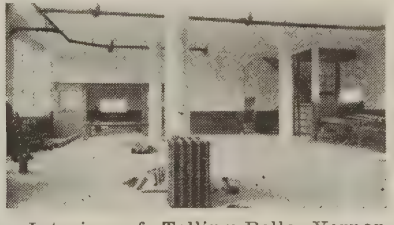
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STANDARD AND SPECIAL FACTORY-BUILDINGS

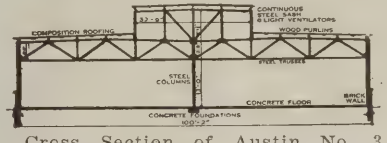


Well lighted and well ventilated interior of Telling-Belle Vernon Company's Creamery and Milk Condensing Plant shown opposite.

for the Telling-Belle Vernon Co.



Interior of Telling-Belle Vernon Condensing Plant at Mason, Mich.



Cross Section of Austin No. 3 Standard Building. Normal width 100 ft. Can be varied in multiples of 50 ft. Length, any multiple of 20 ft.

service for plant buildings, alterations, additions or complete branch plants regardless of the location. Your building investment will be fully protected and the result will represent the greatest value for every dollar expended.

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"IF YOU WISH TO BE GOOD, FIRST BELIEVE THAT YOU ARE BAD."—EPICTETUS.

THE "ELECTRIC WELD" PICNIC.

A most successful Sales Convention was held recently by the John Wood Manufacturing Company, Conshohocken, Pa., manufacturers of "Electric Weld" Range Boilers, Tank and Ice Cream Cans. Branch managers from the various offices throughout the United States attended this Convention which lasted one week.

On Wednesday night there was a dinner at the Manufacturers' Club, Philadelphia, followed by a theater party, and on Friday night a dinner at the Plymouth Country Club which was attended by the executives, heads of departments and foremen. More than fifty gathered at this Annual Dinner. The menu was made up of dishes named after products and operations in the factory. Those who attended included:

Frank Sutcliffe, President.
Victor Mauck, Chairman of the Board of Directors.
Herbert Mauck, Vice-President and Treasurer.
David M. Ramsey, Asst. Sec. and Treas.
Morris H. Feldman, General Manager of Sales.
John Wood, Founder of the Firm.
A. T. Sponar, Sales Manager of the Ice Cream Can Department.
George Hofstetter, Jr., Asst. Sales Mgr. of the Can Department.
Robert W. Simpson, Boston Manager.
Earl D. Freas, Philadelphia Manager.
Albert Jones, of the New York Office.
John J. Callahan, New York Branch Manager.
Joseph Montague, of the New York Office.
William Taylor, Chicago Branch Manager.
Elmer G. Boehm, of the Chicago Office.
E. L. Jenness, Cleveland Manager.
John H. Wood, of the Cleveland Office.
Wood Mfg. Co.
Frank Hamilton, Manager of the Canadian John Oels, of the Oakland, California, Office.
Joseph Henderson, Purchasing Agent.
Albert Crawford, Traffic Manager.
Raymond Moser, Chief Cost Clerk.
William Long, Accountant.
Joseph Weber, Accountant.
Walter S. Lacey, Paymaster.
Joseph Winter, Works Manager.
Arthur Marland, Superintendent.
H. Lee Koenig, Chief Inspector.
Barney Weber, Assistant to the Chief Inspector.
George Wright, Foreman of the Machine Shop.
George Dando, Supt. of the Tank Shop.



Top, left to right: David M. Ramsey, Asst. Sect. and Treas.; John Wood, Founder of the Firm; Victor Mauck, Chairman of the Board of Directors; Herbert Mauck, Vice-President and Treasurer; Frank Sutcliffe, President; H. Lee Koenig, Chief Inspector.

Center, left to right: George Hofstetter, Jr., Asst. Sales Mgr. of the Can Dept.; Joseph Montague of the New York Office; Robert W. Simpson, Boston Manager; John J. Callahan, New York Branch Manager.

Bottom, left to right: A. T. Sponar, Sales Mgr. of the Ice Cream Can Dept.; E. L. Jenness Cleveland Manager; Elmer G. Boehm of the Chicago Office; Morris H. Feldman, General Manager of Sales; William H. Taylor, Chicago Branch Manager; Albert Jones of the New York Office; Earl D. Freas, Philadelphia Manager.

Thomas Wesley, Foreman of the Tank Shop.
Elmer Leeper, Foreman of the Tank Shop.
Jack Holt, Foreman of the Ice Cream Can Dept.
Fred Hipple, Foreman of the Electrical Dept.
Matthew Robinson, Storekeeper.
Thomas Howarth, Foreman of the Laborers.
Walter Cummings, Foreman of the Galvanizing Shop.
Robert Dougherty, Head Draftsman.
Harry Smith, Draftsman.
Alfred Snow, Draftsman.

MENU.

Sand Blasted Cantaloupe
Dip Brazed Soup
Pickled Celery Galvanized Olives
Electric Weld Spring Chicken
Decalcomania Fricassee Gas Welded Brown Dressing
Spot Welded Lima Beans
Knife Edge Corn on Cob
Flanged Candied Sweet Potatoes
Dished Hot Rolls Spudded Tomato Salad
Hydraulically Driven Cheese
Flat Sheet Crackers
Solderless Peach Ice Cream
Final Inspected Home Made Cake. Rivetless Coffee
Tapping Machine Nuts

All Eyes on Cleveland

THE eyes of the ice cream world are now turned toward Cleveland.

The National Association of Ice Cream Manufacturers, The Association of Ice Cream Supply Men, and hundreds of individual ice cream manufacturers and manufacturers of supplies, equipment and machinery, have the combined National Convention-and-Exposition in Cleveland, October 16th to 21st inclusive, now foremost in their minds.

No such absorbing and widespread interest has been witnessed in the ice cream industry before.

According to The Association of Ice Cream Supply Men, which is promoting and will manage the National Exposition in the magnificent new $6,000,000 Public Hall in Cleveland, the outstanding feature of the week of October 16th will be the attendance at the 22nd annual convention of the National Association of Ice Cream Manufacturers, and at the Exposition, to be held two blocks away from the Hotel Hollenden, meeting place of the convention.

Cleveland hotels, according to the Association, have reported that more rooms have been reserved six weeks before the Exposition dates than has occurred in preparation for any other convention or exposition in Cleveland for years.

Recent exposition announcements by the Association have reproduced such reports from salesmen and executives who have been traveling extensively in the last month, as: "I know of only half a dozen ice cream plants that will not have some representatives at the convention-and-exposition in Cleveland."—"There will be at least 1,500 persons directly concerned in the ownership and operation of ice cream plants registered at the National Exposition."—"I know of four or five special cars that will be run into Cleveland from different directions for the special benefit of ice cream manufacturers. It may be that some of these groups will increase so that special trains will be made up."

At the same time that more than 100 manufacturers of supplies, equipment, machinery and special services for ice cream plants are making announcements to the industry in general that they will be represented in the National Exposition, ice cream manufacturers themselves continue to display the warmest appreciation and support of the National Exposition as well as of the National Convention of their own organization.

In releasing for publication recently a letter by the president of the New England Association of Ice Cream Manufacturers, carrying a strong endorsement of the National Exposition, the Association commented:

"Recent expressions of approval and urgent recommendations to their fellow ice cream manufacturers to attend the National Exposition and the annual convention of the National Association of Ice Cream Manufacturers have reached the industry recently from A. M. Le Messurier of the Syracuse Ice Cream Co., Syracuse, N. Y.; W. M. B. Sine of the Imperial Ice Cream Co., Clarksburg, W. Va.; Bert H. Walker of the Royal Ice Cream Co., Tacoma, Wash.; and L. M. Hendler of the Hendler Creamery Co., Baltimore, Md. The Association of Ice Cream Supply Men is proud to receive the communications it has from such representatively successful ice cream manufacturers as Messrs. Le Messurier, Sine, Walker and Hendler."

The letter of the president of the New England Association of Ice Cream Manufacturers, Mr. George W. Kenison, adds another to the communications to which the Association's statement referred. Mr. Kenison's letter says:

The Association of Ice Cream Supply Men,
1328 Broadway,
New York City.

Gentlemen:—The reasons why every ice cream manufacturer in the country, either large or small, ought to attend the convention of the National Association of Ice Cream Manufacturers at Cleveland this Fall are self evident. But the fact remains that there are still many manufacturers who do not appreciate the advantages which come from the national and sectional associations of ice cream men and who do not attend the conventions of the National Association or the Expositions of the Ice Cream Supply Men.

I do not know a large manufacturer of ice cream who does not keep in touch with the Expositions such as you contemplate in Cleveland this Fall and in my estimation that is one of the principal reasons why they are large manufacturers for if we had not kept in touch with what others are doing in the industry, had not learned of the new processes and equipment that are being made possible by invention, we certainly could never be anything more than small manufacturers.

The opportunity to "rub elbows" with ice cream manufacturers from other sections of the country who are not competitors and who, in most cases, are glad to give brother manufacturers the advantage of their own experience along many lines, is alone worth the cost of attending the convention; the opportunity to keep in touch with all of the new equipment and supplies that are continually coming on the market, and the opportunity to learn just what the other fellow is doing, much more than compensates for the time involved and the money expended.

Knowing the type of Exposition the Association of Ice Cream Supply Men has put on in Buffalo, Philadelphia, Atlantic City and other places, and knowing the efforts that they are making to have the coming Exposition excel all previous ones, I cannot wait to get out to Cleveland in October and am sure that every ice cream manufacturer will be more than well paid by attending your coming Exposition

Trusting you will succeed in your efforts to make the coming Exposition the best you have ever had, and with kindest personal regards, I am,

Yours truly,
(Signed) G. W. KENISON,
Pres. N. E. Association of Ice Cream Manufacturers

An entertainment program to out-feature any other ever held in connection with an Exposition for the ice cream industry is being completed by The Association of Ice Cream Supply Men. Particular recognition is being given in its preparing to shopping, theatrical and social diversion for ladies.

As to the make up and physical character of the Exposition itself, all display booths and fixtures, which are being made particularly for the National Exposition, are completed and ready to set up at the proper time for the installation of exhibits. The greatest demand for display space ever experienced by The Association of Ice Cream Supply Men now exists. More than 100 companies with displays occupying spaces ranging from 1,100 square feet to 100 square feet will participate in the Show.

The Association expects to issue a complete list of exhibitors and a definite entertainment program in the near future.

A CORRECTION.

The Elite Chocolate Coated Baseball Company of El Paso, Texas, was reported in The Ice Cream Review last month, through error, as being a member of The Association of Ice Cream Supply Men.

The Elite Chocolate Coated Baseball Company had not, at that time, applied for membership in The Association of Ice Cream Supply Men.

PROSPERITY FOLLOWS THE DAIRY COW. Be sure you attend the National Dairy Exposition—St. Paul-Minneapolis, Oct. 7-14.

What Is A Fair Standard For Ice Cream?

By R. M. WASHBURN, formerly Professor Dairy Husbandry University of Minnesota, and Chairman of Ice Cream Standards Committee American Dairy Science Association

WHAT IS A FAIR STANDARD FOR ICE CREAM?
By R. M. Washburn, formerly Professor Dairy Husbandry University of Minnesota, and Chairman of Ice Cream Standards Committee American Dairy Science Association.

Ice cream is very distinctively an American product, even though it was known in some form for several hundred years in Europe before it was introduced to this country. In Europe and during times past it bore slight resemblance to the mellow creamy uniform article of the present. Then, too, our people were the first to develop the wholesale manufacture of ice cream, to introduce ice cream parlors and in general to develop the ice cream habit. Before the world's disturbance ice cream might have been had in sea port towns in nearly every part of the world and on most ocean liners, and yet it was the American made product, taken chiefly from New York City. In other parts of the world ice cream is a kitchen product made where served, and varies in quality accordingly.



R. M. WASHBURN.

As a Confection.

Ice cream, until very recently, was classed as a confection along with candy and soft drinks and as such came close to being ruled out of business at the time of the greatest shortage of sugar, and it was fortunate indeed that food officials counseled with the ice cream manufacturers and others regarding the product, for then it was pointed out that, being made of cream, condensed milk and sugar chiefly, it possessed very definite food values.

As a Food.

Critical analysis of ice cream revealed the fact that it possessed much of the same food properties as butter or cheese, which are made from the same general source, though naturally differing in its nutritive relation. In the past, ice cream (so-called) has been made from probably thousands of combinations of milk, cream, eggs, sugar and condensed milk, so that when the article first entered commerce it varied greatly in its value, and after growing to considerable proportions seemed to demand a standard especially as to fat content. This was done to guarantee to the consumer that a proper amount of food nutriment might be obtained with a given purchase. The question was what the standard should be. One group of workers advised that the fat standard of ice cream should bear a definite relation to the fat standard in cream which was legal in the community in which the ice cream was made. This, however, seemed illogical to a few workers who believed that the fat content of ice cream should be governed by the product and its uses, rather than by the raw material from which it was made.

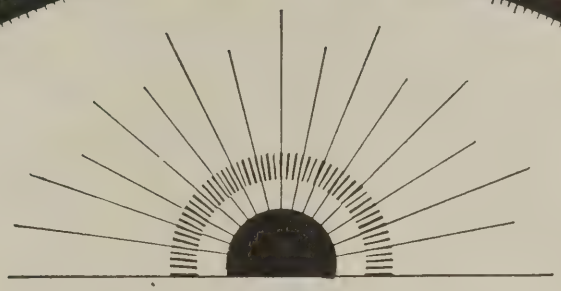
Based on Cream.

The first fat standard for ice cream to gain general recognition was that advocated by the national pure food law which fixed 18 per cent fat as the minimum. Using this as a basis and reasoning that since the introduction of sugar into the cream in sufficient amount to make it palatably sweet, would dilute or reduce the fat content to nearly 14 per cent; that 14 per cent should therefore be considered as the legal minimum of fat for ice cream.

It is now generally recognized and recently sustained that the various states have the right to establish and enforce standards in food commodities. It is likewise established that cities of the first class have this right where such does not conflict with the state. Therefore, the fat standards of ice cream would become as variable as the cream standards in the several states and cities if ice cream were to be based upon cream. For instance, the legal standard of cream in Minnesota is 20 per cent, Wisconsin 18, and Iowa 16. Consequently the ice cream fat content should be about 17, 15 and 13, respectively. Consequently, if a manufacturer located at, say Winona, La Crosse, or Decorah, shipped into the three states named, he would either have to make three grades, keep them separate in his storehouse and in the shipping which would be next to impossible, or he would have to put into all his cream enough fat to meet the highest requirement and be very much handicapped in meeting the competition in the states requiring less fat. As between cities, we notice that 20 per cent fat in cream is demanded in Los Angeles, Portland, Spokane, Memphis, Minneapolis, and Washington, D. C., while 18 per cent suffices to satisfy Toledo, Syracuse, Seattle, Philadelphia and New York, and 16 per cent is enough for Newark, N. J., Columbia, S. C., and Denver, colo., but again we note that the ordinances of Chicago, St. Louis and Boston require but 15 per cent fat, with Beaumont, Texas, requiring only 13 per cent. In this medley of requirements we find a variation of nearly 50 per cent and upon what fact of life or need are they based. Indeed, we must believe that these standards were established as compromises of judgment or as the opinion of the dominating member of the council. Not only in scattered cities do we find discrepancies in fat standards of cream, but in cities within the same state. Thus, Spokane demands 20, Seattle, 18; Boston, 15, Fall River, 16; Houston, 18; Beaumont, 13; Detroit, 18; Flint, 20; St. Louis, 15; Kansas City, 18. Again we can imagine the struggle any dealer would have trying to meet competition and at the same time live up to such a medley of requirements. Cities located in different states but close together offer an even more distressing possibility. Thus, Kansas City, Missouri, requires 18 per cent fat in cream, While Kansas City, Kansas, is satisfied with 16 per cent; St. Louis, Missouri, 15 per cent and East St. Louis, Illinois, 16 per cent.

Consistently carried out, therefore, the basing of the ice cream standard upon the cream standard for the state and city in question would introduce at best a useless confusion, unwarranted by any real need or good to be done.

*Reprinted from Journal of Dairy Science.



ESKIMO PIE

TRADE MARK REGISTERED

Won! The first flagrant infringer of the Eskimo Pie patents has been enjoined by a Federal Court—the honest right of the inventor has been upheld. And the way is clear for still greater successes with this phenomenal ice cream product. Eskimo Pie Corporation, 5 North Wabash Ave., Chicago.

10c

A PRETTY PACKAGE PROVIDES PLENTY OF PURCHASERS FOR YOUR PRODUCT.

Other Dairy Foods.

Other manufactured dairy foods are not dependent upon the composition of raw material for their standard, thus butter, whether churned from thin cream or thick cream, must not contain to exceed 16 per cent water, nor according to the United States Pure Food Law less than 82½ per cent fat. Likewise, cream whether extracted from Holstein milk testing 3.4 per cent, Shorthorn testing 4 per cent, or Jersey testing 6 per cent, must contain the quantity of fat specified in the ordinances of the city in which it is sold, and this we have noted, varies in general from 15 per cent to 20 per cent. In general, about 20 per cent of the volume of milk is extracted as cream, but if this simple proportion were maintained, we would have Holstein cream testing from 16 to 17 per cent fat, and Jersey cream testing from 26 to 30 per cent fat. In my judgment the fat content of cream should be based upon the needs of cream, not upon the fat content of the milk from which it was derived, just as the acid content of vinegar should be 4 per cent in order that it may preserve pickles rather than based upon the sugar content of the apples from which it was made, or in the case of white wine vinegar, the per cent strength of alcohol from which it was made.

Non- uniformity of requirements is one of the exasperating features of interstate commerce and few, if any, articles are already more tangled as to state requirements than ice cream. This is shown by the following list of states, with the fat standard of ice cream stated:

United States....No standard. All attempts to enforce circular 19, requiring, 14 per cent fat, have failed.
Alabama .....14 per cent by reference to United States.
Arizona .....10 per cent for vanilla—8 per cent fruit, nut and chocolate.
Arkansas .....No standard.
California .....10 per cent and 8 per cent.
Colorado .....14 per cent and 12 per cent.
Connecticut ..... 8 per cent and 6 per cent.
Florida .....12 per cent.
Georgia ..... 8 per cent.
Idaho .....14 per cent by reference to United States.
Illinois ..... 8 per cent.
Indiana ..... 8 per cent.
Iowa .....12 per cent.
Kansas .....14 per cent by reference to United States.
Kentucky .....10 per cent and 8 per cent.
Louisiana .....10 per cent and 8 per cent.
Maine .....14 per cent by reference to United States.
Maryland ..... 8 per cent and 6 per cent.
Massachusetts ... 7 per cent.
Michigan .....10 per cent.
Minnesota .....12 per cent.
Mississippi ..... 8 per cent.
Missouri ..... 8 per cent reduced in 1919 from 14.
Montana .....10 per cent reduced in 1919 from 14.
Nebraska .....14 per cent and 12 per cent bill now in legislature to reduce.
Nevada .....14 per cent and 12 per cent.
New Hampshire..14 per cent.
New Jersey.....No standard.
New Mexico.....No standard.
New York.....No standard.
North Carolina... 8 per cent.
North Dakota....10 per cent and 8 per cent.
Ohio .....No standard.
Oklahoma .....10 per cent and 8 per cent.
Oregon ..... 8 per cent and 6 per cent.
Pennsylvania .... 8 per cent and 6 per cent.
Rhode Island.... 8 per cent.
South Carolina...14 per cent by reference to United States.
South Dakota....14 per cent and 12 per cent.
Tennessee ..... 8 per cent.
Texas ..... 8 per cent.
Utah .....14 per cent by reference to United States.
Vermont .....14 per cent by reference to United States.
Virginia ..... 8 per cent.
Washington ..... 8 per cent.
West Virginia.... 8 per cent.
Wisconsin .....14 per cent by reference, 2 per cent tolerance allowed.
Wyoming .....10 per cent.

Average.....10.54 (the 42 States having standards considered.)
Canada .....10 per cent reduced from 14 about five years ago.

Ice Cream Based on Own Needs.

It is a fundamental law in the nutrition of animals of all species that three general classes of foods are needed, namely: ash for bone building, protein for muscle construction, and sugar cellulose or fat for heat formation. Natural milk, which is universally conceded to be the most nearly perfect food, contains these various substances approximately in the proportions shown in table 1. Ash is present in minor but useful quantities. Sugar is present to the amount of about 4.88 pounds to 100 pounds of milk. Sugar does the same work as fat in the body, namely: it furnishes energy for work and heat for warmth. Protein is the general name for casein, albumin, and the other minor similar substances. Its chief function is muscle building. Fat, about 3.69 pounds to the hundred, serves to produce heat, energy and fatness. The great difference between fat and sugar is that fat is 2¼ times more heating than sugar and is in general more difficult of digestion. Protein and sugar have heating powers practically identical. Therefore, by multiplying the fat content by 2¼ we have reduced it to the same terms as the other food nutrients, or, in other words, we have reduced the several substances to a common denominator and therefore can add them direct. Doing this, we find that the total starch value of 100 pounds of ordinary milk is about 16.43, or, in other

TABLE 1.

Composition of milk.	per cent		per cent
Water	87.17		
Solid	12.83		
		Ash	0.71
		Sugar	4.88
		Protein	3.55
		Fat	3.69
Total starch value			16.43 pounds
Total energy value			29,804 calories
Nutritive ratio			1:3.7

words, 16.43 pounds of dry starch or wheat flour would be required to equal 100 pounds of milk of this grade. The heat or energy value of foods is measured in calories of which the food contains about 29,804. The proportion, or ratio, between muscle producing and the heat producing foods is called the nutritive ratio and in average milk is about 1:3.7. For comparison we may study the composition and value of 20 per cent cream as shown in table 2, which we find has a starch value equal to 52 pounds, a total energy value of 94,328 calories, thus indicating a richer food; but, likewise, we must note that

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THE OLSEN PUBLISHING CO.
Fifth and Cherry Sts. Milwaukee

BORN ICE-LESS SYSTEM

for Markets, Dairies, Ice Cream Mfrs., Etc.

COLDER—CLEANER—CHEAPER THAN ICE

Write Today

BORN REF'G CO., 326 River St., CHICAGO

there are 16.3 times as much heating food as muscle making food in cream of this grade, or, in other words, the nutritive ratio is 1:16.3.

Evaporated milk furnishes an excellent comparison with cream since it contains so nearly the same amount of total solids, namely about 27 per cent, but differs from the cream chiefly in having a much higher protein content and lower fat content. This is shown in the starch value of 35.87 as against 52 and in the total energy of 65,068, as against 94,328. The proportion of muscle to heating properties in evaporated milk is shown to be about 1:3.8, practically identical with that of normal average milk. In this substance we have then high solids without high heating.

TABLE 2.

Composition of 20 per cer cent cream.

	per cent		per cent
Water	72.41		
Solids	27.59		
		Ash	0.59
		Sugar	4.00
		Protein	3.00
		Fat	20.00

Total starch value....52.00 pounds
Total energy value....94,328 calories
Nutritive ratio....1:16.3

TABLE 3.

Composition average evaporated milk.

	per cent		per cent
Water	73		
Solids	27		
		Ash	1.5
		Sugar	9.7
		Protein	7.5
		Fat	8.3

Total starch value....35.87 pounds
Total energy value....65,068 calories
Nutritive ratio....1:3.8

The composition of what we may term "old fashioned" ice cream, as shown in table 4 reveals a comparatively low ash, low protein, and high fat with an energy value of 98,718 calories, indicating a rich food, but with a ratio of nutrients indicating more than 17 times as much heating as muscle producing food. By comparing this with table 5, showing the composition of modern ice cream, we note that the ice cream which has been made up in part by the use of condensed or evaporated milk, and contains, therefore, higher proteins and a lower fat content has only about 85 per cent as much heat in it per pound as the old style compound, or in other words, the 14 per cent fat ice cream contains about 20 per cent more heat than does modern ice cream. While an examination of the ratio or proportion of nutrients in the modern indicates that there are only about six times as much heating as muscle producing food, or, in other words, the nutritive ratio of the modern ice cream is about 1:6.0 as compared to 1:17.1 in the old style.

TABLE 4.

Composition of "old fashioned" ice cream.

	per cent			per cent
Water	63.75			
Solids	36.25			
		Ash		0.55
		Milk sugar	4.00	18.20
		Cane sugar	14.20	18.20
				18.20
		Protein		3.00
		Fat		14.50

Total starch value....54.42 pounds
Total energy value....98,718 calories
Nutritive ratio....1:17.1

TABLE 5.

Composition of modern ice cream.

	per cent			per cent
Water	64.80			
Solids	35.20			
		Ash		0.91
		Milk sugar	6.07	20.27
		Cane sugar	14.20	20.27
				20.27
		Protein		4.65
		Fat		9.40

Total starch value....46.4 pounds
Total energy value....84,142 calories
Nutritive ratio....1:6.0

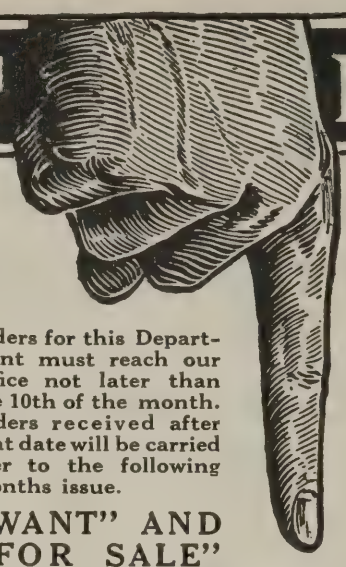
High fat ice cream is hot; that is, contains a large quantity of heat units compared with that containing less fat, and since it is a generally recognized principle that people in summer should consume less fats and more fruits and cooling foods, it is directly in line with the advice of the health bureaus, dietetic experiments and physicians to maintain that ice cream, which is consumed most largely in summer for its cooling effect, should be chemically cool while being physically cold. Therefore, the fat standard for ice cream, based upon the needs of the people eating the ice cream, would be comparatively low, say 8 to 10 per cent.

In conclusion, it seems clear that (1) a standard for composition is needed, (2) the composition should be based upon the needs of ice cream as a food and not upon some standard for cream and (3) a fat percentage of 10 per cent for plain vanilla ice cream and 8 per cent for fruit, nut and chocolate ice cream is sufficient for all useful purposes.



You can find the person who will be glad to buy what you wish to sell, by letting your desires be known through an advertisement in The Ice Cream Review.

WANT DEPARTMENT



HELP WANTED

If you want help for your factory, the quickest and cheapest way to locate same is through The Ice Cream Review Want Department.

EMPLOYERS!—Men, men, men—the crying need of the day! If you need any men in your business today, read the following ads and see if you can use any of these. The fact that these men are advertising here stamps them as unusually progressive. Write them and give them a chance to sell their services to you. "Ice Cream Review," Milwaukee, Wis. tf

WANTED—Thoroughly experienced ice cream maker. Must know how to make French and fancy ice creams of every description. Permanent position good salary, Midde west. Apply giving name, age, places employed, salary desired. Position open at once. Address: R-313, Ice Cream Review. 9-22

WANTED—Competent ice cream and butter maker for small new plant. Must thoroughly understand the making of fancy ice cream, sherbets, individual moulds and bricks, as well as commercial ice cream. Party must be able to take full charge of manufacturing end of ice cream and butter department. Splendid opportunity for right party. Give full details of experience and state age, whether married or single and salary expected. Raton Creamery Company, Raton, New Mexico. 11-22

WANTED SALESMAN — Colors and Flavors. Good, permanent position for the right man. Territory south and west. Headquarters to be in St. Louis or Kansas City. Give full particulars as to past experience. Address: R-320, Ice Cream Review. 9-22

WANTED—Energetic representatives to sell Extracts; those acquainted with the trade, ice cream trade preferred. A rare opportunity offered. The Mayborn Food Products Co., Cleveland, Ohio.. 9-22

WE WANT—25 Go-Getter salesmen calling on creameries. $20.00 per day will only be a moderate commission for a live salesman. Send $1.00 for sample and case. H. Kirk White, Oconomowoc, Wis. 9-1

WANTED — A first class ice cream maker for first class plant. Steady employment. Box 54, Bristow, Okla. 10-22

POSITION WANTED

POSITION WANTED—University graduate in dairy manufactures with several years experience in plant and department management desires position as manager or assistant manager of production with large ice cream firm. Familiar with modern methods and equipment. Available after September. Address: R-303, Ice Cream Review. 9-22

POSITION WANTED—By an ice cream maker who thoroughly knows the business in all its branches. Please state full particulars in first letter. Address: R-314, Ice Cream Review. 9-22

POSITION WANTED—By bacteriologist and chemist, with reliable firm. Married. Have had eight years experience in the Dairy Industry and can give best of references and qualifications.. Address: R-315. Ice Cream Review. 9-22

POSITION WANTED—As superintendent of ice cream plant or combination. Experienced in all phases of ice cream and market milk industry. University graduate.. Can handle men to advantage. No proposition too big. Eight years experience. Married. Good references. State salary and full particulars in first letter. Address: R-317, Ice Cream Review. 9-22

POSITION WANTED—By an ice cream maker who knows his business and not afraid to work. No proposition too big. Can give best of references of present and past employment. Address: R-319, Ice Cream Review. 9-22

Orders for this Department must reach our Office not later than the 10th of the month. Orders received after that date will be carried over to the following months issue.

"WANT" AND "FOR SALE"

Notices will be published at the rate of 2 cents per word, cash with order. For blind address 15 cents extra.

NOTE: Names and addresses of advertisers using blind addresses cannot be furnished direct from this office. The advertiser can be reached only by using the key number and addressing your reply care of "The Ice Cream Review."

NOTICE.

The Ice Cream Review disclaims any responsibility for the reliability of parties advertising in the Want and For Sale Department, nor for the truthfulness of statements made in such advertisements. In answering such ads, ask for references if parties are unknown personally, before sending money. Our subscribers are requested to assist us in keeping unreliable parties from advertising by reporting any suspicious dealings.

POSITION WANTED — If you have a position open as manager of ice cream plant in city of seventy-five thousand or over and desire services of one thoroughly experienced in the manufacture, selling and business ends, and can give recommendations verifying same, address below signed. Cannot take charge before November 1st, when my present contract expires. Address: J. O. Sharrard, 218 College Place, Greensboro, N. C. 9-22

FOR SALE BARGAINS

FOR SALE—Wholesale ice cream plant in city of 20,000 population, 4 railroads, large territory, located in heart of city, largest ice cream business in territory. Up-to-date plant. Also butter business locally and sub creamery within forty miles in dairy belt. Will sell both plants. Address: R-238, Ice Cream Review. 3-22tf

FOR SALE — Will sell my share in creamery and ice cream factory in one of the best towns in Minnesota, 5,000 population. Good shipping facilities. County seat. You will have privilege of buying the whole thing. Address: R-304, Ice Cream Review. 9-22

FOR SALE—Modern ice cream plants with 2 ton ice plant, in prosperous Illinois factory town of 20,000. Capacity 600 gallons daily. Owner wishes to retire. Very profitable business. Address: R-316, Ice Cream Review. 9-22

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OLSEN PUBLISHING COMPANY

Fifth and Cherry Sts. Milwaukee, Wis.

FOR SALE—Ice cream factory in good town, excellent shipping facilities over large territory, four railroads. This factory has a great future. Address: R-322, Ice Cream Review. 9-22

MACHINERY AND SUPPLIES AND BOILERS, NEW AND SECOND HAND—

Electric Motors, Engines, Pumps, Pipes and fittings, Valves, Belting, Shafting, Bearings and Pulleys. Money Saving prices. Harris Machinery Co., Minneapolis, Minn. 12-20tf

FOR SALE—Three new Cherry model "I" 60-quart freezers; motor driven. Rich Ice Cream Co., Buffalo, N. Y. 3-21tf

FOR SALE—Cottage cheese in one, two or five tub lots, shipped date of make. Rock Lake Creamery, Lake Mills, Wis. 1-21tf

FOR SALE—1 vertical open top, blue enamel tank, 47 in. O. D. x 50 in. high, 375 gal. $300.00 each. I horizontal blue enamel 6 ft. 9 in. O. D. x 6 ft. long, 2-30 inch rings, 1,342 gal., $350.00. 4 vertical closed top 6 ft. 0 in. O. D. x 7 ft. 6 in. high, 2-36 inch rings, 1,575 gallons capacity, $400.00 each. Chas. S. Jacobwitz, Buffalo, N. Y. 5-22tf.

FOR SALE—First grade unsalted butter. Get our prices. Golden Belt Cry. & Ice Co., Hays, Kansas. 9-22

FOR SALE—Meyer refrigerated body, 5 ton, used one month. Refrigeration works perfectly. $700.00. Rich Ice Cream Co., Buffalo, N. Y. 7-22tf

FOR SALE—New Era brick cutting machine, used about a year, in excellent condition. Reason for selling, installing Mojonnier packaging machine. Also viscolizer, 60 gallons per hour capacity, used less than six months, excellent condition. Surplus equipment, and priced for quick sale. Also 200 5-gallon shipping tubs, old, but with lots of service left in them. Priced right. Address: The Crowell Company, P. O. Box 556, Waterioo, Iowa. 9-22tf

FOR SALE—Size number 22 De Laval belt driven separator with supply tank and stand good condition $125.00. Size 1 Model B Simplex Sanitary milk pump belt driven slightly, used $125.00. Discontinued milk business reason for selling. Puritan Dairy Products Co., Indianapolis, Ind. 9-22

FOR SALE—One six ton Fisher ice machine. One Emery Thompson Vertical brine freezer, belt drive. One twenty gallon steam jacket kettle. One Cherry churn, 175 lbs. capacity. Brown County Creamery, Hiawatha Kansas. 9-22

FOR SALE—Manning steel body ice cream can washer, Cherry Perfection freezer, De Laval Emulsor, Model "B" Mojonnier overrun tester, all in good condition. The freezer and emulsor have each been used several months. The tester and can washer have been used very little. If interested in any of these machines address: Columbia Ice Cream Company, Mobile, Ala. . 9-22

FOR SALE — Emery Thompson forty quart vertical freezer with practically new brine tank and centrifugal pump. A big bargain at $200. Address: R-321, Ice Cream Review. 9-22

WHILE THEY LAST—800 Safe and Shur Fire Extinguishers, $12.00 per dozen. Contain same material as other extinguishers that cost $8.00 each. H. Kirk White, Oconomowoc, Wis. 9-1

FOR SALE—One 40-qt. ice cream freezer, belt driven, Cherry design, in good working order for $200.00 cash or terms. Phone Joliet 4520. Flint Sanitary Milk Co., 410 Collins St., Joliet, Ill. 9-22

WANTED

WANTED TO BUY—Modern ice cream plant, in city of 5,000 to 20,000 population. Good railroad center. Good up-town location. Write: R-318, Ice Cream Review. 11-22

Visit the Great CP Exhibit at the National Dairy Exposition

MINNEAPOLIS – ST PAUL



OCT - 7TH TO 14TH

1922

INSTRUCTIVE PLAN NOW

INTERESTING TO COME

VISITORS to the 1922 National Dairy Exposition are invited to make their headquarters at the spacious ***CP*** Exhibit. This is just inside the main entrance and is the largest display at the exposition. Guests will find a comfortable rest room, check rooms, telephones and every convenience for their comfort.

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Don't fail to see the Master Dual Churn and Worker—the largest churn ever built—the new four roll Victor Churn and Worker, the ***CP*** Rotary and ***CP*** Hydraulic Can Washers, the Ft. Atkinson 100 and 40 quart Freezers, the many applications of Wizard Vats, the new ***CP*** Brick and Eskimo Pie Cutter and many other marvelous machines.

Remember this exhibition is displayed for your inspection.

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Buffalo, N. Y., 133-137 E. Swan St.
Kansas City, Mo. 1408-10 W. 12th St.
Minneapolis, 318-320 Third St. N.
Omaha, 113-115-117 S. Tenth St.
Philadelphia, 1907 Market St.
Portland, Ore., 6-8 N. Front St.
San Francisco, 699 Battery St.
Toledo, Ohio, 119 St. Clair St.
Waterloo, 406-8 Sycamore St.

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Get ten different answers from ten different men THEN wonder why someone has not definitely settled this IMPORTANT question long ago.

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